



# EAST BRANDYWINE Township

## ACT 537 Sewage Facilities Plan Update

VOLUME II

March 2023

FINAL

Project No. EBMA11501



March 2023

## **APPENDICES**

- Appendix A - Soils Map Unit Names and Descriptions
- Appendix B - Applecross Regional Treatment Plant NPDES & WQM Permits
- Appendix C - Applecross Treatment Plant Capacity Management Plan
- Appendix D - Keats Glen Sewage Treatment Plant NPDES Permit
- Appendix E - Hillendale Sewage Treatment Plant Developers Sanitary Construction, Improvement, and Financial Security Agreement
- Appendix F - Hillendale Sewage Treatment Plant WQM Permit
- Appendix G - Little Washington Wastewater Treatment Plant NPDES & WQM Permits
- Appendix H - Hide-A-Way Farms LVOLDS WQM Permit
- Appendix I – Prohibitions and Restrictions on Food Service Establishments
- Appendix J – The Mile Marker
- Appendix K - Tier I Sewage Needs Survey Documents
- Appendix L - Tier II Sewage Needs Survey Documents
- Appendix M - EBT Code 213
- Appendix N - CCHD OLDS Permits 1997-2022
- Appendix O- Summary of OLDS Data: Zones 1, 2, 3
- Appendix P- Tier II Site Visit Notes

**Appendix - A**  
**Soils Map Unit Names and Descriptions**

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# Map Unit Description

Chester County, Pennsylvania

[Minor map unit components are excluded from this report]

Map unit: CaA - Califon loam, 0 to 3 percent slopes

Component: Califon (90%)

*The Califon component makes up 90 percent of the map unit. Slopes are 0 to 3 percent. This component is on uplands, hills. The parent material consists of colluvium derived from granite and gneiss. Depth to a root restrictive layer, fragipan, is 20 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2v. This soil does not meet hydric criteria.*

Map unit: CaB - Califon loam, 3 to 8 percent slopes

Component: Califon (82%)

*The Califon component makes up 82 percent of the map unit. Slopes are 3 to 8 percent. This component is on uplands, hills. The parent material consists of colluvium derived from granite and gneiss. Depth to a root restrictive layer, fragipan, is 20 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: CaC - Califon loam, 8 to 15 percent slopes

Component: Califon (85%)

*The Califon component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on uplands, hills. The parent material consists of colluvium derived from granite and gneiss. Depth to a root restrictive layer, fragipan, is 20 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.*

Map unit: Co - Codorus silt loam

Component: Codorus (85%)

*The Codorus component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on uplands, nearly level flood plains. The parent material consists of alluvium derived from gneiss and/or alluvium derived from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.*

Map unit: CpA - Cokesbury silt loam, 0 to 3 percent slopes

Component: Cokesbury (85%)

*The Cokesbury component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on uplands, depressions. The parent material consists of colluvium derived from granite and gneiss. Depth to a root restrictive layer, fragipan, is 20 to 30 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.*

# Map Unit Description

Chester County, Pennsylvania

Map unit: CpB - Cokesbury silt loam, 3 to 8 percent slopes

Component: Cokesbury (90%)

*The Cokesbury component makes up 90 percent of the map unit. Slopes are 3 to 8 percent. This component is on uplands, depressions. The parent material consists of colluvium derived from granite and gneiss. Depth to a root restrictive layer, fragipan, is 20 to 30 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.*

Map unit: Cs - Comus silt loam

Component: Comus (90%)

*The Comus component makes up 90 percent of the map unit. Slopes are 0 to 3 percent. This component is on uplands, flood plains. The parent material consists of alluvium derived from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 1. This soil does not meet hydric criteria.*

Map unit: EdB - Edgemont channery loam, 3 to 8 percent slopes

Component: Edgemont (93%)

*The Edgemont component makes up 93 percent of the map unit. Slopes are 3 to 8 percent. This component is on quartzite & shale ridges, mountains. The parent material consists of residuum weathered from quartzite and/or residuum weathered from orthoquartzite. Depth to a root restrictive layer, bedrock, lithic, is 42 to 84 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: EdC - Edgemont channery loam, 8 to 15 percent slopes

Component: Edgemont (93%)

*The Edgemont component makes up 93 percent of the map unit. Slopes are 8 to 15 percent. This component is on quartzite & shale ridges, mountains. The parent material consists of residuum weathered from quartzite and/or residuum weathered from orthoquartzite. Depth to a root restrictive layer, bedrock, lithic, is 42 to 84 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.*

Map unit: EdD - Edgemont channery loam, 15 to 25 percent slopes

Component: Edgemont (93%)

*The Edgemont component makes up 93 percent of the map unit. Slopes are 15 to 25 percent. This component is on quartzite & shale ridges, mountains. The parent material consists of residuum weathered from quartzite and/or residuum weathered from orthoquartzite. Depth to a root restrictive layer, bedrock, lithic, is 42 to 84 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.*

# Map Unit Description

Chester County, Pennsylvania

Map unit: ExB - Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony

Component: Edgemont, extremely stony (90%)

*The Edgemont, extremely stony component makes up 90 percent of the map unit. Slopes are 0 to 8 percent. This component is on quartzite & shale ridges, mountains. The parent material consists of residuum weathered from quartzite and/or residuum weathered from orthoquartzite. Depth to a root restrictive layer, bedrock, lithic, is 42 to 84 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.*

Map unit: ExD - Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony

Component: Edgemont, extremely stony (93%)

*The Edgemont, extremely stony component makes up 93 percent of the map unit. Slopes are 8 to 25 percent. This component is on mountains, quartzite & shale ridges. The parent material consists of residuum weathered from quartzite and/or residuum weathered from orthoquartzite. Depth to a root restrictive layer, bedrock, lithic, is 42 to 84 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.*

Map unit: ExF - Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony

Component: Edgemont, extremely stony (93%)

*The Edgemont, extremely stony component makes up 93 percent of the map unit. Slopes are 25 to 60 percent. This component is on quartzite & shale ridges, mountains. The parent material consists of residuum weathered from quartzite and/or residuum weathered from orthoquartzite. Depth to a root restrictive layer, bedrock, lithic, is 42 to 84 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.*

Map unit: GdA - Gladstone gravelly loam, 0 to 3 percent slopes

Component: Gladstone (90%)

*The Gladstone component makes up 90 percent of the map unit. Slopes are 0 to 3 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: GdB - Gladstone gravelly loam, 3 to 8 percent slopes

Component: Gladstone (85%)

*The Gladstone component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on foot hills hills, piedmonts. The parent material consists of loamy colluvium derived from granite and gneiss and/or loamy residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 80 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

## Map Unit Description

Chester County, Pennsylvania

Map unit: GdC - Gladstone gravelly loam, 8 to 15 percent slopes

Component: Gladstone (85%)

*The Gladstone component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes on piedmonts. The parent material consists of loamy colluvium derived from granite and gneiss and/or loamy residuum weathered from granite and gneiss. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.*

Map unit: GdD - Gladstone gravelly loam, 15 to 25 percent slopes

Component: Gladstone (90%)

*The Gladstone component makes up 90 percent of the map unit. Slopes are 15 to 25 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.*

Map unit: GdE - Gladstone gravelly loam, 25 to 35 percent slopes

Component: Gladstone (90%)

*The Gladstone component makes up 90 percent of the map unit. Slopes are 25 to 35 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Below this thin organic horizon the organic matter content is about 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.*

Map unit: GeD - Gladstone-Parker gravelly loams, 15 to 25 percent slopes

Component: Gladstone (58%)

*The Gladstone component makes up 58 percent of the map unit. Slopes are 15 to 25 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.*

Component: Parker (42%)

*The Parker component makes up 42 percent of the map unit. Slopes are 15 to 25 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.*

## Map Unit Description

Chester County, Pennsylvania

Map unit: GfB - Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery

Component: Gladstone, very bouldery (90%)

*The Gladstone, very bouldery component makes up 90 percent of the map unit. Slopes are 0 to 8 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.*

Map unit: GfD - Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery

Component: Gladstone, very bouldery (90%)

*The Gladstone, very bouldery component makes up 90 percent of the map unit. Slopes are 8 to 25 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.*

Map unit: GfF - Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery

Component: Gladstone, very bouldery (90%)

*The Gladstone, very bouldery component makes up 90 percent of the map unit. Slopes are 25 to 55 percent. This component is on hillslopes, colluvial & granitic gneiss hills. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.*

Map unit: GgA - Glenelg silt loam, 0 to 3 percent slopes

Component: Glenelg (100%)

*The Glenelg component makes up 100 percent of the map unit. Slopes are 0 to 3 percent. This component is on nearly level to steep dissected hillslopes, hills. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer, bedrock, paralithic, is 60 to 120 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 1. This soil does not meet hydric criteria.*

Map unit: GIB - Glenville silt loam, 3 to 8 percent slopes

Component: Glenville (75%)

*The Glenville component makes up 75 percent of the map unit. Slopes are 3 to 8 percent. This component is on drainageways, piedmonts. The parent material consists of colluvium over schist, gneiss or phyllite residuum. Depth to a root restrictive layer, fragipan, is 29 to 31 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 20 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

# Map Unit Description

Chester County, Pennsylvania

Map unit: GIC - Glenville silt loam, 8 to 15 percent slopes

Component: Glenville (100%)

*The Glenville component makes up 100 percent of the map unit. Slopes are 8 to 15 percent. This component is on hills, hillslopes. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer, fragipan, is 15 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.*

Map unit: Ha - Hatboro silt loam

Component: Hatboro (95%)

*The Hatboro component makes up 95 percent of the map unit. Slopes are 0 to 3 percent. This component is on flood plains, valleys. The parent material consists of alluvium derived from metamorphic and sedimentary rock. Depth to a root restrictive layer, bedrock, lithic, is 60 to 99 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.*

Map unit: LgB - Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony

Component: Legore, extremely stony (90%)

*The Legore, extremely stony component makes up 90 percent of the map unit. Slopes are 0 to 8 percent. This component is on hills, uplands. The parent material consists of residuum weathered from diabase and/or residuum weathered from anorthosite. Depth to a root restrictive layer, bedrock, lithic, is 60 to 99 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.*

Map unit: MIB - Mount Lucas silt loam, 3 to 8 percent slopes

Component: Mount Lucas (94%)

*The Mount Lucas component makes up 94 percent of the map unit. Slopes are 3 to 8 percent. This component is on nearly level to moderately steep hillslopes, uplands. The parent material consists of colluvium derived from diabase over residuum weathered from diabase. Depth to a root restrictive layer, bedrock, lithic, is 48 to 99 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: MIC - Mount Lucas silt loam, 8 to 15 percent slopes

Component: Mount Lucas (95%)

*The Mount Lucas component makes up 95 percent of the map unit. Slopes are 8 to 15 percent. This component is on nearly level to moderately steep hillslopes, uplands. The parent material consists of colluvium derived from diabase over residuum weathered from diabase. Depth to a root restrictive layer, bedrock, lithic, is 48 to 99 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.*

## Map Unit Description

Chester County, Pennsylvania

Map unit: PaB - Parker gravelly loam, 3 to 8 percent slopes

Component: Parker (96%)

*The Parker component makes up 96 percent of the map unit. Slopes are 3 to 8 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: PaC - Parker gravelly loam, 8 to 15 percent slopes

Component: Parker (97%)

*The Parker component makes up 97 percent of the map unit. Slopes are 8 to 15 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.*

Map unit: PaD - Parker gravelly loam, 15 to 25 percent slopes

Component: Parker (97%)

*The Parker component makes up 97 percent of the map unit. Slopes are 15 to 25 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.*

Map unit: PaE - Parker gravelly loam, 25 to 35 percent slopes

Component: Parker (98%)

*The Parker component makes up 98 percent of the map unit. Slopes are 25 to 35 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.*

Map unit: PaF - Parker gravelly loam, 35 to 60 percent slopes

Component: Parker (85%)

*The Parker component makes up 85 percent of the map unit. Slopes are 35 to 60 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.*

# Map Unit Description

Chester County, Pennsylvania

Map unit: PbD - Parker loam, 8 to 25 percent slopes, extremely stony

Component: Parker, extremely stony (97%)

*The Parker, extremely stony component makes up 97 percent of the map unit. Slopes are 8 to 25 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.*

Map unit: PbF - Parker loam, 25 to 60 percent slopes, extremely stony

Component: Parker, extremely stony (97%)

*The Parker, extremely stony component makes up 97 percent of the map unit. Slopes are 25 to 60 percent. This component is on hills, uplands. The parent material consists of residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 118 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Below this thin organic horizon the organic matter content is about 2 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.*

Map unit: ToA - Towhee silt loam, 0 to 3 percent slopes

Component: Towhee (96%)

*The Towhee component makes up 96 percent of the map unit. Slopes are 0 to 3 percent. This component is on depressions, uplands. The parent material consists of colluvium derived from igneous and metamorphic rock. Depth to a root restrictive layer, bedrock, lithic, is 48 to 96 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.*

Map unit: Ur1B - Urban land-Gladstone complex, 0 to 8 percent slopes

Component: Urban land (65%)

*Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.*

Component: Gladstone (25%)

*The Gladstone component makes up 25 percent of the map unit. Slopes are 0 to 8 percent. This component is on colluvial & granitic gneiss hills, hillslopes. The parent material consists of local colluvium and residuum weathered from granite and gneiss. Depth to a root restrictive layer, bedrock, lithic, is 60 to 100 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: UrmB - Urban land-Glenelg complex, 0 to 8 percent slopes

Component: Urban land (65%)

*Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.*

# Map Unit Description

Chester County, Pennsylvania

Map unit: UrmB - Urban land-Glenelg complex, 0 to 8 percent slopes

Component: Glenelg (30%)

*The Glenelg component makes up 30 percent of the map unit. Slopes are 0 to 8 percent. This component is on hillslopes, hills. The parent material consists of residuum weathered from mica schist. Depth to a root restrictive layer, bedrock, paralithic, is 60 to 120 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.*

Map unit: UugB - Urban land-Udortheints, schist and gneiss complex, 0 to 8 percent slopes

Component: Urban land (80%)

*Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.*

Component: Udortheints, schist and gneiss (15%)

*The Udortheints, schist and gneiss component makes up 15 percent of the map unit. Slopes are 0 to 8 percent. This component is on uplands, hills. The parent material consists of graded areas of schist and/or gneiss. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 70 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.*

Map unit: UugD - Urban land-Udortheints, schist and gneiss complex, 8 to 25 percent slopes

Component: Urban land (80%)

*Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.*

Component: Udortheints, schist and gneiss (15%)

*The Udortheints, schist and gneiss component makes up 15 percent of the map unit. Slopes are 8 to 25 percent. This component is on hills, uplands. The parent material consists of graded areas of schist and/or gneiss. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 70 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.*

Map unit: W - Water

Component: Water (100%)

*Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.*

## Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

## Map Unit Name

Aggregation Method: No Aggregation Necessary  
Tie-break Rule: Lower

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Map unit percent
CaA	Califon loam, 0 to 3 percent slopes	Califon loam, 0 to 3 percent slopes	100
CaB	Califon loam, 3 to 8 percent slopes	Califon loam, 3 to 8 percent slopes	100
CaC	Califon loam, 8 to 15 percent slopes	Califon loam, 8 to 15 percent slopes	100
Co	Codorus silt loam	Codorus silt loam	100
CpA	Cokesbury silt loam, 0 to 3 percent slopes	Cokesbury silt loam, 0 to 3 percent slopes	100
CpB	Cokesbury silt loam, 3 to 8 percent slopes	Cokesbury silt loam, 3 to 8 percent slopes	100
Cs	Comus silt loam	Comus silt loam	100
EdB	Edgemont channery loam, 3 to 8 percent slopes	Edgemont channery loam, 3 to 8 percent slopes	100
EdC	Edgemont channery loam, 8 to 15 percent slopes	Edgemont channery loam, 8 to 15 percent slopes	100
EdD	Edgemont channery loam, 15 to 25 percent slopes	Edgemont channery loam, 15 to 25 percent slopes	100
ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	100
ExD	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	100
ExF	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	100
GdA	Gladstone gravelly loam, 0 to 3 percent slopes	Gladstone gravelly loam, 0 to 3 percent slopes	100
GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Gladstone gravelly loam, 3 to 8 percent slopes	100
GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Gladstone gravelly loam, 8 to 15 percent slopes	100
GdD	Gladstone gravelly loam, 15 to 25 percent slopes	Gladstone gravelly loam, 15 to 25 percent slopes	100
GdE	Gladstone gravelly loam, 25 to 35 percent slopes	Gladstone gravelly loam, 25 to 35 percent slopes	100
GeD	Gladstone-Parker gravelly loams, 15 to 25 percent slopes	Gladstone-Parker gravelly loams, 15 to 25 percent slopes	100
GiB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	100
GiD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	100
GiF	Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery	Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery	100
GgA	Glenelg silt loam, 0 to 3 percent slopes	Glenelg silt loam, 0 to 3 percent slopes	100
GIB	Glenville silt loam, 3 to 8 percent slopes	Glenville silt loam, 3 to 8 percent slopes	100
GIC	Glenville silt loam, 8 to 15 percent slopes	Glenville silt loam, 8 to 15 percent slopes	100
Ha	Hatboro silt loam	Hatboro silt loam	100
LgB	Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony	Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony	100
MIB	Mount Lucas silt loam, 3 to 8 percent slopes	Mount Lucas silt loam, 3 to 8 percent slopes	100
MIC	Mount Lucas silt loam, 8 to 15 percent slopes	Mount Lucas silt loam, 8 to 15 percent slopes	100
PaB	Parker gravelly loam, 3 to 8 percent slopes	Parker gravelly loam, 3 to 8 percent slopes	100
PaC	Parker gravelly loam, 8 to 15 percent slopes	Parker gravelly loam, 8 to 15 percent slopes	100
PaD	Parker gravelly loam, 15 to 25 percent slopes	Parker gravelly loam, 15 to 25 percent slopes	100
PaE	Parker gravelly loam, 25 to 35 percent slopes	Parker gravelly loam, 25 to 35 percent slopes	100
PaF	Parker gravelly loam, 35 to 60 percent slopes	Parker gravelly loam, 35 to 60 percent slopes	100
PbD	Parker loam, 8 to 25 percent slopes, extremely stony	Parker loam, 8 to 25 percent slopes, extremely stony	100
PbF	Parker loam, 25 to 60 percent slopes, extremely stony	Parker loam, 25 to 60 percent slopes, extremely stony	100
ToA	Towhee silt loam, 0 to 3 percent slopes	Towhee silt loam, 0 to 3 percent slopes	100
UrIB	Urban land-Gladstone complex, 0 to 8 percent slopes	Urban land-Gladstone complex, 0 to 8 percent slopes	100
UrmB	Urban land-Glenelg complex, 0 to 8 percent slopes	Urban land-Glenelg complex, 0 to 8 percent slopes	100
UugB	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	100

## Map Unit Name

Aggregation Method: No Aggregation Necessary  
Tie-break Rule: Lower

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Map unit percent
UugD	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	100
W	Water	Water	100

# Map Unit Name

## Rating Options

### Attribute Name: Map Unit Name

A soil map unit is a collection of soil areas or nonsoil areas (miscellaneous areas) delineated in a soil survey. Each map unit is given a name that uniquely identifies the unit in a particular soil survey area.

### Aggregation Method: No Aggregation Necessary

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not.

The majority of soil attributes are associated with a component of a map unit, and such an attribute has to be aggregated to the map unit level before a thematic map can be rendered. Map units, however, also have their own attributes. An attribute of a map unit does not have to be aggregated in order to render a corresponding thematic map. Therefore, the "aggregation method" for any attribute of a map unit is referred to as "No Aggregation Necessary".

### Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

# Septic System In-Ground Bed (Conventional) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
CaA	Califon loam, 0 to 3 percent slopes	Very limited	Califon 90% Seasonal high water table Slow percolation >12" Slope Holly 4% Seasonal high water table Flooding Slope Potential slow percolation >12" Fluvaquents 3% Seasonal high water table Flooding Slope Baile 3% Seasonal high water table Slow percolation >12" Slope
CaB	Califon loam, 3 to 8 percent slopes	Very limited	Califon 82% Seasonal high water table Slow percolation >12" Slope Baile 4% Seasonal high water table Slow percolation >12" Slope Hatboro 4% Seasonal high water table Flooding Slow percolation >12" Slope
CaC	Califon loam, 8 to 15 percent slopes	Very limited	Califon 85% Seasonal high water table Too steep Slow percolation >12" Holly 3% Seasonal high water table Flooding Slope Potential slow percolation >12" Fluvaquents 1% Seasonal high water table Flooding Slope
Co	Codorus silt loam	Very limited	Codorus 85% Seasonal high water table Flooding Fast percolation >12" Slope Hatboro 8% Seasonal high water table Flooding Slope Glenville 4% Seasonal high water table Slow percolation >12" Slope Baile 3% Seasonal high water table Slow percolation >12" Slope

# Septic System In-Ground Bed (Conventional) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
CpA	Cokesbury silt loam, 0 to 3 percent slopes	Very limited	Cokesbury 85% Seasonal high water table Slow percolation >12" Slope Holly 3% Seasonal high water table Flooding Slope Potential slow percolation >12"
CpB	Cokesbury silt loam, 3 to 8 percent slopes	Very limited	Cokesbury 90% Seasonal high water table Slow percolation >12" Slope Holly 3% Seasonal high water table Flooding Slope Potential slow percolation >12"
Cs	Comus silt loam	Very limited	Comus 90% Flooding Slope Potential slow percolation >12" Holly 8% Seasonal high water table Flooding Slope Potential slow percolation >12" Newark 2% Seasonal high water table Flooding Slow percolation >12" Potential karst Slope
EdB	Edgemont channery loam, 3 to 8 percent slopes	Moderately limited	Edgemont 93% Too steep Potential bedrock near 60" Potential slow percolation >12"
EdC	Edgemont channery loam, 8 to 15 percent slopes	Very limited	Edgemont 93% Too steep Potential bedrock near 60" Potential slow percolation >12" Buchanan 4% Seasonal high water table Slow percolation >12" Too steep Andover 3% Seasonal high water table Slow percolation >12" Too steep
EdD	Edgemont channery loam, 15 to 25 percent slopes	Very limited	Edgemont 93% Too steep Potential bedrock near 60" Potential slow percolation >12" Buchanan 4% Seasonal high water table Slow percolation >12" Too steep Andover 3% Seasonal high water table Slow percolation >12" Too steep

## Septic System In-Ground Bed (Conventional) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Moderately limited	Edgemont, extremely stony 90% Potential bedrock near 60" Slope Potential slow percolation >12"
ExD	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	Very limited	Edgemont, extremely stony 93% Too steep Potential bedrock near 60" Potential slow percolation >12" Buchanan, extremely stony 4% Seasonal high water table Too steep Slow percolation >12" Andover, extremely stony 3% Seasonal high water table Slow percolation >12" Slope
ExF	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	Very limited	Edgemont, extremely stony 93% Too steep Potential bedrock near 60" Potential slow percolation >12" Buchanan, extremely stony 4% Seasonal high water table Too steep Slow percolation >12" Andover, extremely stony 3% Seasonal high water table Slow percolation >12" Slope
GdA	Gladstone gravelly loam, 0 to 3 percent slopes	Slightly limited	Gladstone 90% Potential bedrock near 60" Slope
GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Moderately limited	Gladstone 85% Slow percolation >12" Too steep Potential bedrock near 60"
GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Very limited	Gladstone 85% Too steep Slow percolation >12" Potential bedrock near 60" Parker 5% Bedrock, above 60" Too steep Fast percolation >12" Califon 5% Seasonal high water table Too steep Slow percolation >12" Annandale 5% Too steep Slow percolation >12"

# Septic System In-Ground Bed (Conventional) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
GdD	Gladstone gravelly loam, 15 to 25 percent slopes	Very limited	Gladstone 90% Too steep Potential bedrock near 60" Califon 5% Seasonal high water table Slow percolation >12" Slope Cokesbury 5% Seasonal high water table Slow percolation >12" Slope
GdE	Gladstone gravelly loam, 25 to 35 percent slopes	Very limited	Gladstone 90% Too steep Potential bedrock near 60" Califon 4% Seasonal high water table Slow percolation >12" Slope Cokesbury 3% Seasonal high water table Slow percolation >12" Slope
GeD	Gladstone-Parker gravelly loams, 15 to 25 percent slopes	Very limited	Gladstone 58% Too steep Potential bedrock near 60" Potential slow percolation >12" Parker 42% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"
GfB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	Moderately limited	Gladstone, very bouldery 90% Too steep Potential bedrock near 60"
GfD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	Very limited	Gladstone, very bouldery 90% Too steep Potential bedrock near 60" Califon 5% Seasonal high water table Slow percolation >12" Slope Cokesbury 5% Seasonal high water table Slow percolation >12" Slope
GfF	Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery	Very limited	Gladstone, very bouldery 90% Too steep Potential bedrock near 60" Cokesbury 5% Seasonal high water table Slow percolation >12" Slope Califon 5% Seasonal high water table Slow percolation >12" Slope
GgA	Glennelg silt loam, 0 to 3 percent slopes	Very limited	Glennelg 100% Bedrock, above 60" Slow percolation >12" Slope

# Septic System In-Ground Bed (Conventional) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
GIB	Glenville silt loam, 3 to 8 percent slopes	Very limited	Glenville 75% Seasonal high water table Slow percolation >12" Too steep Unnamed 15% Seasonal high water table Slow percolation >12" Too steep Baile 10% Seasonal high water table Slow percolation >12" Too steep
GIC	Glenville silt loam, 8 to 15 percent slopes	Very limited	Glenville 100% Seasonal high water table Too steep Slow percolation >12"
Ha	Hatboro silt loam	Very limited	Hatboro 95% Seasonal high water table Flooding Slow percolation >12" Slope Glenville 5% Seasonal high water table Slow percolation >12" Slope
LgB	Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony	Moderately limited	Legore, extremely stony 90% Slope Potential bedrock near 60" Potential slow percolation >12"
MIB	Mount Lucas silt loam, 3 to 8 percent slopes	Very limited	Mount Lucas 94% Seasonal high water table Too steep Potential slow percolation >12" Towhee 6% Seasonal high water table Slow percolation >12" Too steep
MIC	Mount Lucas silt loam, 8 to 15 percent slopes	Very limited	Mount Lucas 95% Seasonal high water table Too steep Potential slow percolation >12" Towhee 5% Seasonal high water table Slow percolation >12" Too steep
PaB	Parker gravelly loam, 3 to 8 percent slopes	Very limited	Parker 96% Fast percolation >12" Too steep Slight voided fragments Potential bedrock near 60"
PaC	Parker gravelly loam, 8 to 15 percent slopes	Very limited	Parker 97% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"
PaD	Parker gravelly loam, 15 to 25 percent slopes	Very limited	Parker 97% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"

## Septic System In-Ground Bed (Conventional) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
PaE	Parker gravelly loam, 25 to 35 percent slopes	Very limited	Parker 98% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"
PaF	Parker gravelly loam, 35 to 60 percent slopes	Very limited	Parker 85% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"
PbD	Parker loam, 8 to 25 percent slopes, extremely stony	Very limited	Parker, extremely stony 97% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"
PbF	Parker loam, 25 to 60 percent slopes, extremely stony	Very limited	Parker, extremely stony 97% Too steep Fast percolation >12" Slight voided fragments Potential bedrock near 60"
ToA	Towhee silt loam, 0 to 3 percent slopes	Very limited	Towhee 96% Seasonal high water table Slow percolation >12" Slope Mount Lucas 4% Seasonal high water table Too steep Potential slow percolation >12"
UriB	Urban land-Gladstone complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UrmB	Urban land-Glenelg complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UugB	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	Not rated	Urban land 80%
UugD	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	Not rated	Urban land 80%
W	Water	Not rated	Water 100%

# Septic System In-Ground Bed (Conventional) (PA)

## Rating Options

Attribute Name: Septic System In-Ground Bed (Conventional) (PA)

This is a system of subsurface lines that distribute effluent from a septic tank into the natural soil. The distribution lines are at a minimum depth of 12 inches. Only the part of the soils between depths of 0 and 60 inches is considered when the soils are rated.

The soil properties and site features considered are those that affect absorption of the effluent and construction and maintenance of the system and those that may affect public health. These include depth to a water table, depth to bedrock, content of rock fragments, flooding, slope, and saturated hydraulic conductivity (Ksat). Flooding is a serious problem because it can result in improper treatment of the effluent and contamination of ground water or surface water. If Ksat is too fast or too slow, if the content of rock fragments is too high, or if the water table is too close to the surface, the effluent can contaminate the ground water. If this system is improperly installed on the steeper slopes, the effluent could flow along the surface of the soils. Additional grading may be needed in areas downslope from the system.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Slightly limited" indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. "Moderately limited" indicates that the soil has features that are somewhat favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

### Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be

## Septic System In-Ground Bed (Conventional) (PA)

selected in the event of a percent composition tie.

# Septic System Sand Mound Bed or Trench (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
CaA	Califon loam, 0 to 3 percent slopes	Very limited	Califon 90% Potential seasonal high water table Slope Holly 4% Potential seasonal high water table Flooding Slope Fluvaquents 3% Potential seasonal high water table Flooding Slow percolation 12-20" Slope Baile 3% Potential seasonal high water table Slow percolation 12-20" Slope
CaB	Califon loam, 3 to 8 percent slopes	Very limited	Califon 82% Potential seasonal high water table Slope Baile 4% Potential seasonal high water table Slow percolation 12-20" Slope Hatboro 4% Potential seasonal high water table Flooding Slope
CaC	Califon loam, 8 to 15 percent slopes	Very limited	Califon 85% Potential seasonal high water table Too steep Holly 3% Potential seasonal high water table Flooding Slope Fluvaquents 1% Potential seasonal high water table Flooding Slow percolation 12-20" Slope
Co	Codorus silt loam	Very limited	Codorus 85% Flooding Low potential seasonal high water table Slope Hatboro 8% Potential seasonal high water table Flooding Slope Baile 3% Potential seasonal high water table Slow percolation 12-20" Slope
CpA	Cokesbury silt loam, 0 to 3 percent slopes	Very limited	Cokesbury 85% Potential seasonal high water table Slow percolation 12-20" Slope Holly 3% Potential seasonal high water table Flooding Slope

## Septic System Sand Mound Bed or Trench (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
CpB	Cokesbury silt loam, 3 to 8 percent slopes	Very limited	Cokesbury 90% Potential seasonal high water table Slow percolation 12-20" Slope Holly 3% Potential seasonal high water table Flooding Slope
Cs	Comus silt loam	Very limited	Comus 90% Flooding Slope Holly 8% Potential seasonal high water table Flooding Slope Newark 2% Potential seasonal high water table Flooding Potential karst Slope
EdB	Edgemont channery loam, 3 to 8 percent slopes	Slightly limited	Edgemont 93% Slope
EdC	Edgemont channery loam, 8 to 15 percent slopes	Moderately limited	Edgemont 93% Too steep Buchanan 4% Potential seasonal high water table Slope
EdD	Edgemont channery loam, 15 to 25 percent slopes	Very limited	Edgemont 93% Too steep Andover 3% Potential seasonal high water table Slow percolation 12-20" Slope
ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Slightly limited	Edgemont, extremely stony 90% Slope
ExD	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	Very limited	Edgemont, extremely stony 93% Too steep Buchanan, extremely stony 4% Too steep Potential seasonal high water table Andover, extremely stony 3% Potential seasonal high water table Slow percolation 12-20" Slope
ExF	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	Very limited	Edgemont, extremely stony 93% Too steep Buchanan, extremely stony 4% Too steep Potential seasonal high water table Andover, extremely stony 3% Potential seasonal high water table Slow percolation 12-20" Slope
GdA	Gladstone gravelly loam, 0 to 3 percent slopes	Slightly limited	Gladstone 90% Slow percolation 12-20" Slope

## Septic System Sand Mound Bed or Trench (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Slightly limited	Gladstone 85% Slope Parker 5% Slope Annandale 5% Slope
GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Moderately limited	Gladstone 85% Too steep Parker 5% Too steep Califon 5% Potential seasonal high water table Too steep Annandale 5% Too steep
GdD	Gladstone gravelly loam, 15 to 25 percent slopes	Very limited	Gladstone 90% Too steep Califon 5% Potential seasonal high water table Slope Cokesbury 5% Potential seasonal high water table Slow percolation 12-20" Slope
GdE	Gladstone gravelly loam, 25 to 35 percent slopes	Very limited	Gladstone 90% Too steep Califon 4% Potential seasonal high water table Slope Cokesbury 3% Potential seasonal high water table Slow percolation 12-20" Slope
GeD	Gladstone-Parker gravelly loams, 15 to 25 percent slopes	Very limited	Gladstone 58% Too steep Parker 42% Too steep Slight voided fragments
GfB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	Slightly limited	Gladstone, very bouldery 90% Slope
GfD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	Very limited	Gladstone, very bouldery 90% Too steep Califon 5% Potential seasonal high water table Slope Cokesbury 5% Potential seasonal high water table Slow percolation 12-20" Slope
GfF	Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery	Very limited	Gladstone, very bouldery 90% Too steep Cokesbury 5% Potential seasonal high water table Slow percolation 12-20" Slope Califon 5% Potential seasonal high water table Slope
GgA	Glenelg silt loam, 0 to 3 percent slopes	Slightly limited	Glenelg 100% Slope

## Septic System Sand Mound Bed or Trench (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
GIB	Glenville silt loam, 3 to 8 percent slopes	Very limited	Glenville 75% Potential seasonal high water table Slope Unnamed 15% Potential seasonal high water table Slope Baile 10% Potential seasonal high water table Slow percolation 12-20" Slope
GIC	Glenville silt loam, 8 to 15 percent slopes	Moderately limited	Glenville 100% Potential seasonal high water table Too steep Slow percolation 12-20"
Ha	Hatboro silt loam	Very limited	Hatboro 95% Potential seasonal high water table Flooding Slope
LgB	Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony	Slightly limited	Legore, extremely stony 90% Slope
MIB	Mount Lucas silt loam, 3 to 8 percent slopes	Moderately limited	Mount Lucas 94% Potential seasonal high water table Slow percolation 12-20" Slope
MIC	Mount Lucas silt loam, 8 to 15 percent slopes	Moderately limited	Mount Lucas 95% Potential seasonal high water table Too steep Slow percolation 12-20"
PaB	Parker gravelly loam, 3 to 8 percent slopes	Slightly limited	Parker 96% Slope Slight voided fragments Gladstone 4% Slope
PaC	Parker gravelly loam, 8 to 15 percent slopes	Moderately limited	Parker 97% Too steep Potential fast percolation 12-20" Slight voided fragments
PaD	Parker gravelly loam, 15 to 25 percent slopes	Very limited	Parker 97% Too steep Potential fast percolation 12-20" Slight voided fragments
PaE	Parker gravelly loam, 25 to 35 percent slopes	Very limited	Parker 98% Too steep Potential fast percolation 12-20" Slight voided fragments
PaF	Parker gravelly loam, 35 to 60 percent slopes	Very limited	Parker 85% Too steep Slight voided fragments
PbD	Parker loam, 8 to 25 percent slopes, extremely stony	Very limited	Parker, extremely stony 97% Too steep Slight voided fragments
PbF	Parker loam, 25 to 60 percent slopes, extremely stony	Very limited	Parker, extremely stony 97% Too steep Slight voided fragments

## Septic System Sand Mound Bed or Trench (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
ToA	Towhee silt loam, 0 to 3 percent slopes	Very limited	Towhee 96% Potential seasonal high water table Slope Mount Lucas 4% Potential seasonal high water table Slow percolation 12-20" Slope
Ur1B	Urban land-Gladstone complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UrmB	Urban land-Glenelg complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UugB	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	Not rated	Urban land 80%
UugD	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	Not rated	Urban land 80%
W	Water	Not rated	Water 100%

# Septic System Sand Mound Bed or Trench (PA)

## Rating Options

Attribute Name: Septic System Sand Mound Bed or Trench (PA)

This is a system of pressurized lines that distribute effluent from a septic tank into a mound with sand under aggregate. The mound is placed on top of the mineral soil surface. About 1 to 4 feet of sand could be placed on the mineral soil surface in a sand mound system. Only the part of the soils between depths of 0 and 20 inches is considered when the soils are rated.

The soil properties and site features considered are those that affect absorption of the effluent and construction and maintenance of the system and those that may affect public health. These include depth to a water table, depth to bedrock, content of rock fragments, flooding, slope, and saturated hydraulic conductivity (Ksat). Flooding is a serious problem because it can result in improper treatment of the effluent and contamination of ground water or surface water. If Ksat is too fast or too slow, if the content of rock fragments is too high, or if the water table is too close to the surface, the effluent can contaminate the ground water. If this system is improperly installed on the steeper slopes, the effluent could flow along the surface of the soils. Additional grading may be needed in areas downslope from the system.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Slightly limited" indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. "Moderately limited" indicates that the soil has features that are somewhat favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Tie-break Rule: Higher

## Septic System Sand Mound Bed or Trench (PA)

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



# Septic System Spray Irrigation (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
CaA	Califon loam, 0 to 3 percent slopes	Moderately limited	Califon 90% Low potential seasonal high water table
CaB	Califon loam, 3 to 8 percent slopes	Moderately limited	Califon 82% Low potential seasonal high water table Slope 0-12%; see land cover criteria
CaC	Califon loam, 8 to 15 percent slopes	Moderately limited	Califon 85% Low potential seasonal high water table Slope 0-12%; see land cover criteria
Co	Codorus silt loam	Very limited	Codorus 85% Flooding Low potential seasonal high water table Hatboro 8% Seasonal high water table Flooding Baile 3% Seasonal high water table
CpA	Cokesbury silt loam, 0 to 3 percent slopes	Very limited	Cokesbury 85% Seasonal high water table Holly 3% Seasonal high water table Flooding
CpB	Cokesbury silt loam, 3 to 8 percent slopes	Very limited	Cokesbury 90% Seasonal high water table Slope 0-12%; see land cover criteria Holly 3% Seasonal high water table Flooding
Cs	Comus silt loam	Very limited	Comus 90% Flooding Holly 8% Seasonal high water table Flooding Newark 2% Flooding Seasonal high water table Potential karst
EdB	Edgemont channery loam, 3 to 8 percent slopes	Slightly limited	Edgemont 93% Slope 0-12%; see land cover criteria Buchanan 4% Slope 0-12%; see land cover criteria Low potential seasonal high water table
EdC	Edgemont channery loam, 8 to 15 percent slopes	Slightly limited	Edgemont 93% Slope 0-12%; see land cover criteria Buchanan 4% Slope 0-12%; see land cover criteria Low potential seasonal high water table
EdD	Edgemont channery loam, 15 to 25 percent slopes	Moderately limited	Edgemont 93% Slope 0-25%; see land cover criteria
ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Not limited	Edgemont, extremely stony 90%
ExD	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	Moderately limited	Edgemont, extremely stony 93% Slope 0-25%; see land cover criteria Buchanan, extremely stony 4% Slope 0-25%; see land cover criteria Low potential seasonal high water table
ExF	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	Very limited	Edgemont, extremely stony 93% Slope > 25% too steep Andover, extremely stony 3% Seasonal high water table

# Septic System Spray Irrigation (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
GdA	Gladstone gravelly loam, 0 to 3 percent slopes	Not limited	Gladstone 90%
GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Slightly limited	Gladstone 85% Slope 0-12%; see land cover criteria Parker 5% Slope 0-12%; see land cover criteria Potential bedrock near 16" Annandale 5% Slope 0-12%; see land cover criteria
GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Slightly limited	Gladstone 85% Slope 0-12%; see land cover criteria Parker 5% Slope 0-12%; see land cover criteria Potential bedrock near 16" Califon 5% Slope 0-12%; see land cover criteria Low potential seasonal high water table Annandale 5% Slope 0-12%; see land cover criteria
GdD	Gladstone gravelly loam, 15 to 25 percent slopes	Moderately limited	Gladstone 90% Slope 0-25%; see land cover criteria Califon 5% Low potential seasonal high water table Slope 0-12%; see land cover criteria
GdE	Gladstone gravelly loam, 25 to 35 percent slopes	Very limited	Gladstone 90% Slope > 25% too steep Cokesbury 3% Seasonal high water table
GeD	Gladstone-Parker gravelly loams, 15 to 25 percent slopes	Moderately limited	Gladstone 58% Slope 0-25%; see land cover criteria Parker 42% Slope 0-25%; see land cover criteria Slight voided fragments
GfB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	Slightly limited	Gladstone, very bouldery 90% Slope 0-12%; see land cover criteria
GfD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	Moderately limited	Gladstone, very bouldery 90% Slope 0-25%; see land cover criteria Califon 5% Low potential seasonal high water table Slope 0-12%; see land cover criteria
GfF	Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery	Very limited	Gladstone, very bouldery 90% Slope > 25% too steep Cokesbury 5% Seasonal high water table
GgA	Glenelg silt loam, 0 to 3 percent slopes	Not limited	Glenelg 100%
GIB	Glenville silt loam, 3 to 8 percent slopes	Slightly limited	Glenville 75% Low potential seasonal high water table Slope 0-12%; see land cover criteria Unnamed 15% Low potential seasonal high water table Slope 0-12%; see land cover criteria
GIC	Glenville silt loam, 8 to 15 percent slopes	Slightly limited	Glenville 100% Slope 0-12%; see land cover criteria Low potential seasonal high water table
Ha	Hatboro silt loam	Very limited	Hatboro 95% Seasonal high water table Flooding
LgB	Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony	Slightly limited	Legore, extremely stony 90% Slope 0-12%; see land cover criteria

## Septic System Spray Irrigation (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
MIB	Mount Lucas silt loam, 3 to 8 percent slopes	Slightly limited	Mount Lucas 94% Slope 0-12%; see land cover criteria Low potential seasonal high water table
MIC	Mount Lucas silt loam, 8 to 15 percent slopes	Slightly limited	Mount Lucas 95% Slope 0-12%; see land cover criteria Low potential seasonal high water table
PaB	Parker gravelly loam, 3 to 8 percent slopes	Slightly limited	Parker 96% Slope 0-12%; see land cover criteria Slight voided fragments Gladstone 4% Slope 0-12%; see land cover criteria
PaC	Parker gravelly loam, 8 to 15 percent slopes	Slightly limited	Parker 97% Slope 0-12%; see land cover criteria Slight voided fragments Gladstone 3% Slope 0-12%; see land cover criteria
PaD	Parker gravelly loam, 15 to 25 percent slopes	Moderately limited	Parker 97% Slope 0-25%; see land cover criteria Slight voided fragments
PaE	Parker gravelly loam, 25 to 35 percent slopes	Very limited	Parker 98% Slope > 25% too steep Slight voided fragments
PaF	Parker gravelly loam, 35 to 60 percent slopes	Very limited	Parker 85% Slope > 25% too steep Slight voided fragments
PbD	Parker loam, 8 to 25 percent slopes, extremely stony	Moderately limited	Parker, extremely stony 97% Slope 0-25%; see land cover criteria Slight voided fragments
PbF	Parker loam, 25 to 60 percent slopes, extremely stony	Very limited	Parker, extremely stony 97% Slope > 25% too steep Slight voided fragments
ToA	Towhee silt loam, 0 to 3 percent slopes	Very limited	Towhee 96% Seasonal high water table Mount Lucas 4% Seasonal high water table Slope 0-12%; see land cover criteria
UrIB	Urban land-Gladstone complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UrmB	Urban land-Glenelg complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UugB	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	Not rated	Urban land 80%
UugD	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	Not rated	Urban land 80%
W	Water	Not rated	Water 100%

# Septic System Spray Irrigation (PA)

## Rating Options

### Attribute Name: Septic System Spray Irrigation (PA)

This is a system of pressurized lines that distribute effluent from a septic tank into a sand filter tank and chlorination system and then through spray heads that disperse the effluent onto the surface of the soil. Only the part of the soils between depths of 0 and 16 inches is considered when the soils are rated.

The soil properties and site features considered are those that affect absorption of the effluent and construction and maintenance of the system and those that may affect public health. These include depth to a water table, depth to bedrock, content of rock fragments, flooding, slope, and saturated hydraulic conductivity (Ksat). Flooding is a serious problem because it can result in improper treatment of the effluent and contamination of ground water or surface water. If Ksat is too fast or too slow, if the content of rock fragments is too high, or if the water table is too close to the surface, the effluent can contaminate the ground water. If this system is improperly installed on the steeper slopes, the effluent could flow along the surface of the soils. Additional grading may be needed in areas downslope from the system.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Slightly limited" indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. "Moderately limited" indicates that the soil has features that are somewhat favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

These ratings do not preclude the need for onsite investigation to determine the limitations affecting system placement.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

### Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

# Septic System Spray Irrigation (PA)

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



# Septic System Drip Irrigation (Alternate) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
CaA	Califon loam, 0 to 3 percent slopes	Very limited	Califon 90% Potential seasonal high water table Slope Holly 4% Potential seasonal high water table Flooding Slope Fluvaquents 3% Potential seasonal high water table Flooding Slope Baile 3% Potential seasonal high water table Slope
CaB	Califon loam, 3 to 8 percent slopes	Very limited	Califon 82% Potential seasonal high water table Slope Baile 4% Potential seasonal high water table Slope Hatboro 4% Potential seasonal high water table Flooding Slope
CaC	Califon loam, 8 to 15 percent slopes	Very limited	Califon 85% Potential seasonal high water table Slope Holly 3% Potential seasonal high water table Flooding Slope Fluvaquents 1% Potential seasonal high water table Flooding Slope
Co	Codorus silt loam	Very limited	Codorus 85% Flooding Low potential seasonal high water table Slope Hatboro 8% Potential seasonal high water table Flooding Slope Baile 3% Potential seasonal high water table Slope
CpA	Cokesbury silt loam, 0 to 3 percent slopes	Very limited	Cokesbury 85% Potential seasonal high water table Slope Holly 3% Potential seasonal high water table Flooding Slope
CpB	Cokesbury silt loam, 3 to 8 percent slopes	Very limited	Cokesbury 90% Potential seasonal high water table Slope Holly 3% Potential seasonal high water table Flooding Slope

# Septic System Drip Irrigation (Alternate) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
Cs	Comus silt loam	Very limited	Comus 90% Flooding Slope Holly 8% Potential seasonal high water table Flooding Slope Newark 2% Potential seasonal high water table Flooding Potential karst Slope
EdB	Edgemont channery loam, 3 to 8 percent slopes	Slightly limited	Edgemont 93% Slope
EdC	Edgemont channery loam, 8 to 15 percent slopes	Slightly limited	Edgemont 93% Slope
EdD	Edgemont channery loam, 15 to 25 percent slopes	Moderately limited	Edgemont 93% Too steep Buchanan 4% Potential seasonal high water table Slope
ExB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	Slightly limited	Edgemont, extremely stony 90% Slope
ExD	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	Moderately limited	Edgemont, extremely stony 93% Slope Buchanan, extremely stony 4% Potential seasonal high water table Slope
ExF	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	Very limited	Edgemont, extremely stony 93% Too steep Andover, extremely stony 3% Potential seasonal high water table Slope
GdA	Gladstone gravelly loam, 0 to 3 percent slopes	Slightly limited	Gladstone 90% Slope
GdB	Gladstone gravelly loam, 3 to 8 percent slopes	Slightly limited	Gladstone 85% Slope Parker 5% Slope Annandale 5% Slope
GdC	Gladstone gravelly loam, 8 to 15 percent slopes	Slightly limited	Gladstone 85% Slope Parker 5% Slope Annandale 5% Slope
GdD	Gladstone gravelly loam, 15 to 25 percent slopes	Moderately limited	Gladstone 90% Too steep
GdE	Gladstone gravelly loam, 25 to 35 percent slopes	Very limited	Gladstone 90% Too steep Califon 4% Potential seasonal high water table Slope Cokesbury 3% Potential seasonal high water table Slope

## Septic System Drip Irrigation (Alternate) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
GeD	Gladstone-Parker gravelly loams, 15 to 25 percent slopes	Moderately limited	Gladstone 58% Too steep Parker 42% Too steep Slight voided fragments
GfB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	Slightly limited	Gladstone, very bouldery 90% Slope
GfD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	Moderately limited	Gladstone, very bouldery 90% Slope
GfF	Gladstone gravelly loam, 25 to 50 percent slopes, very bouldery	Very limited	Gladstone, very bouldery 90% Too steep Cokesbury 5% Potential seasonal high water table Slope Califon 5% Potential seasonal high water table Slope
GgA	Glenelg silt loam, 0 to 3 percent slopes	Slightly limited	Glenelg 100% Slope
GIB	Glenville silt loam, 3 to 8 percent slopes	Very limited	Glenville 75% Potential seasonal high water table Slope Unnamed 15% Potential seasonal high water table Slope Baile 10% Potential seasonal high water table Slope
GIC	Glenville silt loam, 8 to 15 percent slopes	Moderately limited	Glenville 100% Potential seasonal high water table Slope
Ha	Hatboro silt loam	Very limited	Hatboro 95% Potential seasonal high water table Flooding Slope
LgB	Legore gravelly silt loam, 0 to 8 percent slopes, extremely stony	Slightly limited	Legore, extremely stony 90% Slope
MIB	Mount Lucas silt loam, 3 to 8 percent slopes	Moderately limited	Mount Lucas 94% Potential seasonal high water table Slope
MIC	Mount Lucas silt loam, 8 to 15 percent slopes	Moderately limited	Mount Lucas 95% Potential seasonal high water table Slope
PaB	Parker gravelly loam, 3 to 8 percent slopes	Slightly limited	Parker 96% Slope Slight voided fragments Gladstone 4% Slope
PaC	Parker gravelly loam, 8 to 15 percent slopes	Slightly limited	Parker 97% Slope Slight voided fragments Gladstone 3% Slope
PaD	Parker gravelly loam, 15 to 25 percent slopes	Moderately limited	Parker 97% Too steep Slight voided fragments
PaE	Parker gravelly loam, 25 to 35 percent slopes	Very limited	Parker 98% Too steep Slight voided fragments

## Septic System Drip Irrigation (Alternate) (PA)

Aggregation Method: Dominant Condition  
Tie-break Rule: Higher

Chester County, Pennsylvania  
Survey Area Version and Date: 9 - 10/03/2017

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
PaF	Parker gravelly loam, 35 to 60 percent slopes	Very limited	Parker 85% Too steep Slight voided fragments
PbD	Parker loam, 8 to 25 percent slopes, extremely stony	Moderately limited	Parker, extremely stony 97% Too steep Slight voided fragments
PbF	Parker loam, 25 to 60 percent slopes, extremely stony	Very limited	Parker, extremely stony 97% Too steep Slight voided fragments
ToA	Towhee silt loam, 0 to 3 percent slopes	Very limited	Towhee 96% Potential seasonal high water table Slope Mount Lucas 4% Potential seasonal high water table Slope
UrbB	Urban land-Gladstone complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UrmB	Urban land-Glenelg complex, 0 to 8 percent slopes	Not rated	Urban land 65%
UugB	Urban land-Udorthents, schist and gneiss complex, 0 to 8 percent slopes	Not rated	Urban land 80%
UugD	Urban land-Udorthents, schist and gneiss complex, 8 to 25 percent slopes	Not rated	Urban land 80%
W	Water	Not rated	Water 100%

# Septic System Drip Irrigation (Alternate) (PA)

## Rating Options

Attribute Name: Septic System Drip Irrigation (Alternate) (PA)

This system is currently listed as an alternate system in the Pennsylvania regulations. It is a subsurface system of drip tubing that distributes effluent from a septic tank, intermittent sand filter tank, and hydraulic filtration unit into the natural soil. The maximum depth of the drip tubing is 12 inches. Only the part of the soils between depths of 0 and 20 inches is considered when the soils are rated.

The soil properties and site features considered are those that affect absorption of the effluent and construction and maintenance of the system and those that may affect public health. These include depth to a water table, depth to bedrock, content of rock fragments, flooding, slope, and saturated hydraulic conductivity (Ksat). Flooding is a serious problem because it can result in improper treatment of the effluent and contamination of ground water or surface water. If Ksat is too fast or too slow, if the content of rock fragments is too high, or if the water table is too close to the surface, the effluent can contaminate the ground water. If this system is improperly installed on the steeper slopes, the effluent could flow along the surface of the soils. Additional grading may be needed in areas downslope from the system.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Slightly limited" indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. "Moderately limited" indicates that the soil has features that are somewhat favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

These ratings do not preclude the need for onsite investigation to determine the limitations affecting system placement. This septic system requires a soil morphological evaluation, which must be conducted by a qualified soil scientist.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

### Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be

## Septic System Drip Irrigation (Alternate) (PA)

returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

**Appendix - B**

**Applecross Treatment Plant NPDES & WQM Permits**

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**Applecross Regional WWTP NPDES Permit (2022-2027)**

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**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
DISCHARGE REQUIREMENTS FOR PUBLICLY OWNED  
TREATMENT WORKS (POTWs)**

**NPDES PERMIT NO: PA0244333**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

**East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downingtown, PA 19335-1132**

is authorized to discharge from a facility known as **Applecross WWTP (aka Overlook Road Farm WWTP)**, located at **101 Bolero Drive, Downingtown, PA 19335, East Brandywine Township, Chester County**, to **Beaver Creek (CWF, MF)** in Watershed(s) **3-H** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

**THIS PERMIT SHALL BECOME EFFECTIVE ON** JANUARY 1, 2022

**THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON** DECEMBER 31, 2026

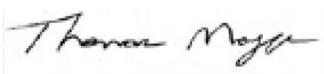
The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.
2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))
3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d))

In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

**DATE PERMIT ISSUED** December 16, 2021

**ISSUED BY** 

**Thomas L. Magge  
Environmental Program Manager  
Southeast Regional Office**

**PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS**

I. A. For Outfall 001, Latitude 40° 1' 44.00", Longitude 75° 46' 39.00", River Mile Index 6.1, Stream Code 00297

Receiving Waters: Beaver Creek (CWF, MF)

Type of Effluent: Treated Sewage Effluent

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)			Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type	
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Daily Maximum			Instant. Maximum
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Weekly when Discharging	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5)	11.5	17.3	XXX	10.0	15.0	20	1/week	8-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Total Suspended Solids	11.5	17.3	XXX	10.0	15.0	20	1/week	8-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000*	1/week	Grab

**Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date )**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Ultraviolet light transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Nitrate-Nitrite as N	XXX	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Total Nitrogen	11.5	XXX	XXX	10.0	XXX	20	1/week	8-Hr Composite
Ammonia-Nitrogen	3.5	XXX	XXX	3.0	XXX	6	1/week	8-Hr Composite
Total Phosphorus	2.3	XXX	XXX	2.0	XXX	4	1/week	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 001

\*Shall not exceed in more than 10% of samples. See Part C.I. Other Requirements No. F

**PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  
(Continued)**

Additional Requirements

1. The permittee may not discharge:
  - a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))
  - b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))
  - c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))
  - d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))
2. The monthly average percent removal of BOD<sub>5</sub> or CBOD<sub>5</sub> and TSS must be at least 85% for POTW facilities on a concentration basis except where 25 Pa. Code 92a.47(g) and (h) are applicable to facilities with combined sewer overflows (CSOs) or as otherwise specified in this permit. (25 Pa. Code § 92a.47(a)(3))
3. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.
4. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

- (1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.
- (2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

- (1) The hydraulic design capacity of 0.3 million gallons per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to help determine whether a "hydraulic overload" situation exists, as defined in Title 25 Pa. Code Chapter 94.
- (2) The effluent limitations for Outfall 001 were determined using an effluent discharge rate of 137,680 GPD.
- (3) The organic design capacity of 1351 lbs BOD<sub>5</sub> per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to determine whether an "organic overload" condition exists, as defined in 25 Pa. Code Chapter 94.

- (4) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N ( $\text{NO}_2+\text{NO}_3\text{-N}$ ), where TKN and  $\text{NO}_2+\text{NO}_3\text{-N}$  are measured in the same sample.

## II. DEFINITIONS

*At Outfall (XXX)* means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

*Average* refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

*Best Management Practices (BMPs)* means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

*Bypass* means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

*Calendar Week* is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

*Clean Water Act* means the Federal Water Pollution Control Act, as amended (33 U.S.C.A. §§ 1251 to 1387).

*Composite Sample* (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

*Composite Sample* (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

*Daily Average Temperature* means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

*Daily Discharge* means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

*Daily Maximum Discharge Limitation* means the highest allowable "daily discharge."

*Discharge Monitoring Report (DMR)* means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

*Estimated Flow* means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

*Geometric Mean* means the average of a set of n sample results given by the n<sup>th</sup> root of their product.

**Grab Sample** means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

**Hauled-In Wastes** means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

**Hazardous Substance** means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

**Immersion Stabilization** (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

**Indirect Discharger** means a non-domestic discharger introducing pollutants to a Publicly Owned Treatment Works (POTW) or other treatment works. (25 Pa. Code § 92a.2, 40 CFR 122.2)

**Industrial User** means a source of Indirect Discharge. (40 CFR 403.3)

**Instantaneous Maximum Effluent Limitation** means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

**Measured Flow** means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

**Monthly Average Discharge Limitation** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

**Municipality** means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. (25 Pa. Code § 92a.2)

**Municipal Waste** means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

**Publicly Owned Treatment Works** (POTW) means a treatment works as defined by §212 of the Clean Water Act, owned by a state or municipality. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. The term also includes sewers, pipes or other conveyances if they convey wastewater to a POTW providing treatment. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (25 Pa Code § 92a.2, 40 CFR 122.2)

**Residual Waste** means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

**Severe Property Damage** means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

**Stormwater** means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

*Stormwater Associated With Industrial Activity* means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) – (ix) and (xi) and 25 Pa. Code § 92a.2.

*Toxic Pollutant* means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

*Weekly Average Discharge Limitation* means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

### III. SELF-MONITORING, REPORTING AND RECORDKEEPING

#### A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)
2. Records Retention (40 CFR 122.41(j)(2))

Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling or measurements.
- b. The person(s) who performed the sampling or measurements.
- c. The date(s) the analyses were performed.
- d. The person(s) who performed the analyses.
- e. The analytical techniques or methods used; and the associated detection level.
- f. The results of such analyses.

4. Test Procedures

- a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.
- b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))
- c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

- a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))
- b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))
2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see [www.dep.pa.gov/edmr](http://www.dep.pa.gov/edmr)). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:
  - a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.
  - b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).
4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:
  - Monthly DMRs must be received within 28 days following the end of each calendar month.
  - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
  - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
  - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.
5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

### C. Reporting and Notification Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))
  - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))
  - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))
  - d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))
2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a) and 40 CFR 122.42(b), the permittee shall provide notice to DEP and EPA as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the “Planned Changes to Waste Stream” Supplemental Report (3800-FM-BCW0482), available on DEP’s website. The permittee shall provide information on the quality and quantity of waste introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW (40 CFR 122.42(b)(3)). The Report shall be sent via Certified Mail or other means to confirm DEP’s receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.
    - a. Introduction of New Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(1))

New pollutants are defined as parameters that meet one or more of the following criteria:

- (i) Any pollutants that were not detected in the facilities' influent waste stream as reported in the permit application; and have not been approved to be included in the permittee's influent waste stream by DEP in writing.
- (ii) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants (40 CFR 122.42(b)(1)).

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(2))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

- (i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or have been previously approved to be included in the permittee's influent waste stream by DEP in writing.
- (ii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP and/or EPA, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the POTW (as defined at 40 CFR 403.3), or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations, may not result in a hydraulic or organic overload condition as defined in 25 Pa. Code § 94.1, and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

- (i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from conventional oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

- (1) The dates that residual wastes were received.
- (2) The volume (gallons) of wastes received.
- (3) The license plate number of the vehicle transporting the waste to the treatment facility.
- (4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

- (5) The name and address of the generator of the residual wastes.
- (6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

- (ii) In accordance with 40 CFR Part 435, Subpart C, the permittee shall not accept wastewater pollutants associated with production, field exploration, drilling, well completion, or well treatment for unconventional oil and gas extraction (including, but not limited to, drilling muds, drill cuttings, produced sand, produced water). Unconventional oil and gas means crude oil and natural gas produced by a well drilled into a shale and/or tight formation (including, but not limited to, shale gas, shale oil, tight gas, and tight oil). This prohibition does not apply to wastewater generated from stripper wells as defined at 40 CFR Part 435, Subpart F.
- (iii) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

b. Receipt of Municipal Waste

- (i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

- (1) The dates that municipal wastes were received.
  - (2) The volume (gallons) of wastes received.
  - (3) The BOD<sub>5</sub> concentration (mg/l) and load (lbs) for the wastes received.
  - (4) The location(s) where wastes were disposed of within the treatment facility.
- (ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes. The influent BOD<sub>5</sub> characterization for the treatment facility, as reported in the annual Municipal Wasteload Management Report per 25 Pa. Code Chapter 94, must be representative of the hauled-in municipal wastes received.

4. Unanticipated Noncompliance or Potential Pollution Reporting

- a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).
- (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.
  - (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.
  - (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.
- b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:
- (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):
    - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
    - (2) Any upset which exceeds any effluent limitation in the permit; and
    - (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement.
  - (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

D. Annual Fee (25 Pa. Code § 92a.62)

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. As of the effective date of this permit, the facility covered by the permit is classified in the **Minor Sewage Facility  $\geq 0.05$  and  $< 1$  MGD** fee category, which has an annual fee of **\$1,000**.

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fee identified above is subject to change if DEP publishes changes to 25 Pa. Code § 92a.62.

Payment for annual fees shall be remitted to DEP at the address below or through DEP's electronic payment system ([www.depgreenport.state.pa.us/NPDESpay](http://www.depgreenport.state.pa.us/NPDESpay)) by the due date specified on the invoice. Checks, if used for payment, should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection  
Bureau of Clean Water  
Re: Chapter 92a Annual Fee  
P.O. Box 8466  
Harrisburg, PA 17105-8466

**PART B**

**I. MANAGEMENT REQUIREMENTS**

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))
2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))
3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))
2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))
3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))
4. The permittee shall provide the following information in the annual Municipal Wasteload Management Report, required under the provisions of Title 25 Pa. Code Chapter 94:
  - a. The requirements identified in 25 Pa. Code § 94.12.
  - b. The identity of any indirect discharger(s) served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the indirect discharger.
  - c. A "Solids Management Inventory" if specified in Part C of this permit.
  - d. The total volume of hauled-in residual and municipal wastes received during the year, by source.
  - e. The Annual Report requirements for permittees required to implement an industrial pretreatment program listed in Part C, as applicable.

D. General Pretreatment Requirements

1. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless specifically exempted by the Approval Authority. A POTW with a design flow of 5 MGD or less may be required to develop a POTW Pretreatment Program if the Approval Authority finds that the nature or volume of the industrial influent, treatment process upsets, violations of effluent limitations, contamination of sludge, or other circumstances warrant in order to prevent interference or pass through. (40 CFR 403.8)
2. Each POTW with an approved Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b), and shall continue to develop these limits as necessary and effectively enforce such limits. This condition applies, for example, when there are planned changes to the waste stream as identified in Part A III.C.2. If the permittee is required to develop or continue implementation of a Pretreatment Program, detailed requirements will be contained in Part C of this permit.
3. For all POTWs, where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure renewed or continued compliance with this permit or sludge use or disposal practices. Where POTWs do not have an approved Pretreatment Program, the permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).
2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))
2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:
  - a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

- b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))
  - c. The permittee submitted the necessary notice required in paragraph G.4 below. (40 CFR 122.41(m)(4)(i)(C))
3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in paragraph G.2 above. (40 CFR 122.41(m)(4)(ii))
  4. Notice
    - a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))
    - b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

#### H. Sanitary Sewer Overflows (SSOs)

An SSO is an overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility. SSOs are not authorized under this permit. The permittee shall immediately report any SSO to DEP in accordance with Part A III.C.4 of this permit.

#### I. Termination of Permit Coverage (25 Pa. Code § 92a.74 and 40 CFR 122.64)

1. Notice of Termination (NOT) – If the permittee plans to cease operations or will otherwise no longer require coverage under this permit, the permittee shall submit DEP's NPDES Notice of Termination (NOT) for Permits Issued Under Chapter 92a (3800-BCW-0410), signed in accordance with Part A III.B.6 of this permit, at least 30 days prior to cessation of operations or the date by which coverage is no longer required.
2. Where the permittee plans to cease operations, NOTs must be accompanied with an operation closure plan that identifies how tankage and equipment will be decommissioned and how pollutants will be managed.
3. The permittee shall submit the NOT to the DEP regional office with jurisdiction over the county in which the operation is located.

## II. PENALTIES AND LIABILITY

### A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

### B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or
- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A § 4904 and 40 CFR 122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

**III. OTHER RESPONSIBILITIES**

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92a and 40 CFR 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))
3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:
  - a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))
  - b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and (40 CFR 122.61(b)(2))
  - c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section. (40 CFR 122.61(b)(3))
  - d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate Department regulations. (25 Pa. Code § 92a.71)
3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

#### C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

#### D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

#### E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

**PART C**

**I. OTHER REQUIREMENTS**

- A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.
- B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.
- C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.
- D. Notification of the designation of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced.
- E. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for cleaning or other purposes, the permittee shall notify DEP prior to initiating use of chlorine and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

- F. The seasonal effluent limitations for fecal coliform are based on Chapter 92a (§ 92a.47(4) & (5)) of DEP's regulations and Delaware River Basin Commission's (DRBC's) Water Quality Regulations at § 4.30.4.A. DEP's regulations govern the summer limits for fecal coliform while the winter limits are based on DRBC's regulations. The DRBC regulations state that during winter season from October through April, the instantaneous maximum concentration of fecal coliform organisms shall not be greater than 1,000 per 100 milliliters in more than 10 percent of the samples tested. For reporting purposes, a copy of the guidelines on the 10 percent rule is enclosed with the permit.

**II. SOLIDS MANAGEMENT**

- A. The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within clarifiers or in the disinfection process is not permissible.
- B. The permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Sewage Sludge/Biosolids Production and Disposal" (Form No. 3800-FM-BCW0438) and "Supplemental Report – Influent & Process Control" (Form No. 3800-FM-BCW0436), as attachments to the DMR on a monthly basis. When applicable, the permittee shall submit the Supplemental Reports entitled, "Supplemental Report –

Hauled In Municipal Wastes" (Form No. 3800-FM-BCW0437) and "Supplemental Report – Hauled In Residual Wastes" (Form No. 3800-FM-BCW0450), as attachments to the DMR.

- C. By March 31 of each year, the permittee shall submit a "Sewage Sludge Management Inventory" that summarizes the amount of sewage sludge and/or biosolids produced and wasted during the calendar year from the system. The "Sewage Sludge Management Inventory" may be submitted with the Municipal Wasteload Management Report required by Chapter 94. This summary shall include the expected sewage sludge production (estimated using the methodology described in the U.S. EPA handbook, "Improving POTW Performance Using the Composite Correction Approach" (EPA-625/6-84-008)), compared with the actual amount disposed during the year. Sludge quantities shall be expressed as dry weight in addition to gallons or other appropriate units.

**Applecross Regional WWTP WQM Permit: Amendment 1 (2020-2025)**



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

RECEIVED

FEB 06 2020

HtP

JAN 30 2020

**CERTIFIED MAIL NO. 7001 2510 0006 1769 5839**  
**RETURN RECEIPT NO. 9590 9402 2927 7094 0158 04**

Scott Piersol  
East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downingtown, PA 19335

Re: WQM Permit - Sewage  
Applecross Regional WWTP  
Permit No. 1506407 A-1  
Authorization ID No. 1293951  
East Brandywine Township, Chester County

Dear Mr. Piersol:

Your Water Quality Management (WQM) permit amendment is enclosed. You must comply with all Standard and Special Conditions attached to this Permit. Construction must be done in accordance with the permit application and all supporting documentation. Please review the permit conditions and the supporting documentation submitted with your application before starting construction.

Please note that you are responsible for securing all other required permits, approvals and/or registrations associated with the project, if applicable, under Chapters 102 (erosion and sedimentation control), 105 (stream obstructions and encroachments) and 106 (floodplains) of DEP's regulations. Construction may not proceed until all other required permits have been obtained.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Mr. Scott Piersol

- 2 -

Please be advised that this permit expires on **December 31, 2024**. If you wish to continue the land application of effluent beyond the permit expiration date, you must submit a WQM permit application at least 180 days prior to the expiration date.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
Rachel Carson State Office Building, Second Floor  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

**IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.**

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.**

Mr. Scott Piersol

- 3 -

During construction or upon completing construction, please contact Reza H. Chowdhury, E.I.T. at 484.250.5197 or rchowdhury@pa.gov so that an inspection of the facilities may be conducted, at DEP's discretion.

Sincerely,



Thomas L. Magge  
Environmental Program Manager  
Clean Water Program

Enclosures

cc: Mr. Boldaz – Hydraterra Professionals  
Chester County Health Department  
Ms. Sansoni – Soil Scientist 2  
Mr. Evans – Hydrogeologist 2  
Mr. Veneziale – Sewage Planning Supervisor  
Mr. Wolfinger – Operations Section  
File



## WATER QUALITY MANAGEMENT PERMIT

<p>A. PERMITTEE (Name and Address):      CLIENT ID#: <b>226713</b>  <b>East Brandywine Township Municipal Authority</b>  <b>1214 Horseshoe Pike</b>  <b>Downingtown, PA 19335</b></p>	<p>B. PROJECT/FACILITY (Name):  <b>Applecross Regional WWTP</b></p>	
<p>C. LOCATION (Municipality, County):      SITE ID#: <b>480559</b>  <b>East Brandywine Township, Chester County</b></p>		
<p>D. This amendment approves the construction/operation of sewage facilities consisting of:</p> <ol style="list-style-type: none"> <li>1. Applecross WWTP rerate that previously permitted and constructed, consisting an influent pump station, an influent screen, an EQ tank, SBR treatment systems (3 trains, 100,000 GPD each), a decant EQ tank, a tertiary filter, an ultra violet disinfection system, a filtrate tank, a sludge holding tank, three storage lagoons, and a control building with chemical feed equipment, a spray irrigation system located on the Applecross Golf Course, a drip irrigation system, and a stream discharge outfall.</li> <li>2. Construction and operation of Mapleview Townhomes Drip Irrigation System.</li> <li>3. Rerate of Bondsville Road Pump Station.</li> </ol>		
<p>Pump Stations: <u>2</u>                  Design Capacity: <b>Zynn Road Pump Station: 131 GPM</b>                                            <b>Bondsville Road Pump Station: 200 GPM</b></p> <p>Average Annual Flow:  <b>Zynn Road Pump Station: 34,930 GPD</b>  <b>Bondsville Road Pump Station: 124,136 GPD</b></p>	<p>Manure Storage:                  Volume: _____ MG                  Freeboard: _____ inches</p>	<p>Sewage Treatment Facility:                  Annual Average Flow:      <b>186,016</b> GPD                  Design Hydraulic Capacity: <b>300,000</b> GPD                  Design Organic Capacity:    <b>1,351</b> lb/day</p>
<p>E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:</p> <ol style="list-style-type: none"> <li>1. <b>Amendments:</b> All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated <b>10/15/2019 and 03/29/2019</b> and its supporting documentation and addendums which are hereby made a part of this amendment. Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. <b>1506407</b> dated <b>October 25, 2007 and August 29, 2017</b> shall remain in effect.</li> <li>2. Permit Conditions Relating to Sewerage are attached and made part of this permit.</li> <li>3. Special Conditions <b>A-J</b> are attached and made part of this permit.</li> </ol>		
<p>F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:</p> <ol style="list-style-type: none"> <li>1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.</li> <li>2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.</li> <li>3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 <i>et seq.</i> Issuance of this permit shall not relieve the permittee of any responsibility under any other law.</li> <li>4. This permit shall expire on <b>1/31/2025</b>. The permittee shall submit an application to renew the permit no later than 180 days prior to the permit expiration date.</li> </ol>		
<p>PERMIT ISSUED: <b>JAN 30 2020</b></p>	<p>BY:                   TITLE: <b>Thomas L. Magge</b>  <b>Clean Water Program Manager</b>  <b>Southeast Regional Office</b></p>	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

**PERMIT CONDITIONS RELATING TO SEWERAGE**  
For use in Water Quality Management Permits

(Check boxes that apply)

**General**

- 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.
- 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.
- 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.
- 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.
- 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.
- 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 2 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the second anniversary of the permit date.
- 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.
- 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
- 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.
- 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.
- 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in the NPDES Permit and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

**Construction**

- 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

- 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.
- 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using the "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.
- 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.
- 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

**Operation and Maintenance**

- 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.
- 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.
- 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.
- 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.
- 21. The sewerage facilities shall be properly operated and maintained to perform as designed.
- 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.
- 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.
- 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.
- 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.
- 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.
- 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SPECIAL CONDITIONS**  
Water Quality Management Permit No. 1506407 A-1  
East Brandywine Township Municipal Authority

**A. Discharge Limitations and Monitoring Requirements:**

Effluent from the sewage treatment plant shall be sampled from the *filtrate tank* and shall be limited at all times as follows:

Parameter	Monthly Average (mg/l)	Instantaneous Maximum**	Measurement Frequency	Sample Type
Flow (mgd)	Shall be monitored.		Continuous	Recorded
CBOD <sub>5</sub>	10	20	1/week	24-Hr Composite
Total Suspended Solids	10	20	1/week	24-Hr Composite
Total Nitrogen*	10	20	1/week	24-Hr Composite
Total Phosphorus	Monitor/Report	Monitor/Report	1/week	24-Hr Composite
pH	6 - 9 S.U. at all times		1/week	Grab
Fecal Coliform	200/100 ml as a geometric average, not greater than 1,000/100 ml in more than ten percent of the samples tested.		1/week	Grab

\* Total Nitrogen = Total Kjeldahl Nitrogen + Nitrite (NO<sub>2</sub>) Nitrogen + Nitrate (NO<sub>3</sub>) Nitrogen

\*\* Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitation except for the parameters temperature, oil and grease, pH, total residual chlorine, and fecal coliform. However, if grab samples are collected for parameters normally monitored through composite sampling, the results must be reported.

Additional treatment requirements include the satisfactory disposal of sludge and the reduction of quantities of oils, greases, acids, alkalis, toxics, taste and odor producing substances, inimical to the public interest to levels which will not pollute the receiving waters.

**B. Effluent Land Application Reporting Requirements**

An annual Effluent Tracking Report shall be submitted to the Department by March 15 of each year. The report shall include monthly totals of wastewater treatment plant effluent (gallons) sent to the golf course, Applecross and Mapleview drip dispersal systems, and stream discharge. If the golf course uses potable water for irrigation, monthly records for those amounts shall be included in the Report

**C. Groundwater Monitoring Requirements:**

- I. The permittee shall effectively monitor the quality of the groundwater. The parameters to be tested, and frequency of analysis and other monitoring requirements shall be as follows:
  - a. For Applecross Golf Course and Applecross Drip Irrigation system: Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-1, MW-2, MW-4, MW-5, MW-6, MW-10, MW-11, MW-12, MW-13, MW-14 and MW-15** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.

For Maplevue Drip Irrigation System: Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-1, MW-2R, MW-3R, MW-4R, and MW-5R** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.

- b. Groundwater elevations must be measured prior to purging the groundwater monitoring well.
- c. Before collection of the groundwater sample, a groundwater monitoring well shall be properly purged and allowed to recover to at least 90 percent of the well volume that was present prior to purging.
- d. All groundwater samples shall be collected from within the top five feet of the water elevation within the well column
- e. For Maplevue Drip Irrigation: Background groundwater monitoring shall commence at least six months prior to utilization of the drip irrigation field.
- f. For Maplevue Drip Irrigation: Groundwater monitoring wells **MW-2R, MW-3R, MW-4R, and MW-5R** shall be installed in the locations shown on Drawing 102 prepared by Ebert Engineering, Inc. and updated November 7, 2019.
- g. For Maplevue Drip Irrigation: Test wells **MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8** shall be properly decommissioned within six months of permit issuance. Within 30 days of well closure, documentation that the wells have been properly decommissioned shall be submitted to DEP.
- h. Annual analysis of groundwater sampled at all groundwater monitoring wells shall consist of: suspended solids, sulfate, and sodium.

## II. Groundwater Monitoring Data Reporting Requirements

### A. Annual Groundwater Report

All groundwater data shall be submitted to DEP **annually** and be in **report form**.

The report shall be due to DEP within 28 days of the end of the month of permit issuance.

For example, if your permit was issued on March 4th, then your annual report is due by April 28th. The annual report shall be mailed under separate cover and addressed to:

Department of Environmental Protection  
Southeast Regional Office  
Clean Water Program  
2 East Main Street  
Norristown, PA 19401

Attention: Hydrogeologist  
Planning Section

The Annual Groundwater Monitoring Report shall include the following information:

#### 1. General Information

- a. Facility name
- b. Facility permit number
- c. Facility location (including municipality and county)
- d. Facility contact information:
  - i. permittee name, address, and telephone number
  - ii. contact name and title
  - iii. facility operator name, address, and telephone number
  - iv. facility consultant name, address, and telephone number

2. Site Data

- a. A brief narrative that provides the date and description of any facility event which may have impacted any part of the groundwater monitoring program. (e.g., collapse of groundwater monitoring well, etc.).
- b. Average effluent flow for the year covered by the report.
- c. In tabular form, the following information needs to be provided for at least the last 5 years of system operation:
  - i. Date of sampling.
  - ii. Groundwater elevation.
  - iii. Sampling depth.
  - iv. Identification of upgradient and downgradient wells.
  - v. The results of the analysis of the samples.
- d. Background groundwater data generated prior to system start-up. **This information is absolutely needed and needs to be included in the data tabulation.**

B. Comprehensive Groundwater Evaluation (CGE)

As part of the facility's 5-year permit renewal application, the permittee shall submit a report that is a result of a comprehensive evaluation of the systems impact on groundwater. A Registered P.G. must identify any trends which may pose a threat to human health or certify that none are present. Should adverse impacts to groundwater be identified, the permittee needs to recommend actions to address the potential threat.

C. Groundwater Background Report for Mapleview Drip Irrigation

Within 60 days of utilization of the drip irrigation fields, a Groundwater Background Report shall be submitted to DEP. The report shall include the follow information:

1. Site Information
  - a. Brief narrative, including site limitations.
  - b. Soil type and bedrock lithology beneath the absorption areas.
  - c. Site drawings showing general location of absorption fields and monitoring wells. Drawings must show site topography.
2. Construction details of each groundwater monitoring well shall include:
  - a. Well depth.
  - b. Casing depth.
  - c. Static water levels.
  - d. Surface elevation.
  - e. Well log.
  - f. Water bearing zones.
  - g. Top of casing elevation.
  - h. Ground surface elevation.

**The Groundwater Background Report is a one-time report. Should future changes or additions occur for any information in this section, an addendum that can be added to the report is all that is needed to update this report.**

- D. "Composite Sample" (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters each obtained at spaced time intervals during the compositing period. The composite must be "flow-proportional," which means either the volume

of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite.

E. The Total Nitrogen (expressed as N) content of an aqueous sample is determined by adding the individual analytical results (expressed as N) for Total Kjeldahl Nitrogen, Nitrite-Nitrogen, and Nitrate-Nitrogen. Total Kjeldahl Nitrogen is the sum of Organic Nitrogen and Ammonia Nitrogen as determined by the Kjeldahl method.

**F. Right of Entry**

Pursuant to Sections 5(b) and 30.5 of Pennsylvania's Clean Stream Law, the permittee shall allow authorized representatives of Department of Environmental Protection upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or The Clean Streams Law, any substances or parameters at any location.

**G. Representative Sampling**

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. Records Retention

Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities, which shall be retained for a period of at least five years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three years from the date of the sample measurement, report, or application. The three-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling or measurements.
- b. The person(s) who performed the sampling or measurements.
- c. The date(s) the analyses were performed.
- d. The person(s) who performed the analyses.
- e. The analytical techniques or methods used; and the associated detection level.
- f. The results of such analyses.

#### 4. Test Procedures

Unless otherwise specified in this permit, the test procedures for the analysis of pollutants shall be those approved under 40 CFR 136 (or in the case of sludge use or disposal, approved under 40 CFR 136, unless otherwise specified in 40 CFR 503), or alternate test procedures approved pursuant to those parts, unless other test procedures have been specified in this permit.

#### 5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

- a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA.
- b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR 136.

#### H. Submission of DMRs and Supplemental Reports

The permittee shall submit a Discharge Monitoring Report (DMR) containing a summary of self-monitoring data to DEP no later than 28 days following the end of each monthly reporting period. In addition, the permittee shall complete and submit all Supplemental Reports that are attached to this permit at the time the DMR is submitted, in accordance with the instructions to the Supplemental Reports. Unless the permittee elects to use DEP's electronic DMR (eDMR) system, the permittee shall submit paper copies of the DMR and Supplemental Reports to:

Department of Environmental Protection  
Clean Water Program  
2 E Main Street  
Norristown, PA 19401

- I. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537, the permittee shall, upon notification from the municipality and DEP, construct and operate the herein approved drip disposal facilities according to the schedules in the approved official plan and/or amendments to the plan.

#### J. Land Application Requirements:

##### 1. Applecross Re-Use Irrigation and Storage of Treated Effluent:

- a. The ultimate decision of golf course irrigation rates and frequency will rest upon the director of golf course maintenance.
- b. The golf course maintenance director shall conduct weekly inspections of the reclaimed wastewater irrigated areas and problems such as ponding or wetness must be addressed immediately. Application of effluent shall be managed to prevent runoff or ponding.
- c. Irrigation of the golf course may occur during the growing season only, generally April through November. Spray irrigation of reclaimed wastewater may not occur when the grasses are not actively growing.
- d. Spray irrigation pumps shall be shut down if wind velocities are 15 MPH or greater.
- e. Storage lagoon levels must be monitored and managed within the low and high-water level parameters as designed. The water level shall be controlled so that a freeboard of at least 24 inches is maintained at all times. The Department must be notified if the water level is anticipated to enter freeboard.

2. Applecross Drip Dispersal Field Operation

- a. Application of the effluent to drip dispersal fields shall be managed to prevent ponding, freezing, breakout, and run off. At no time may effluent be discharged to the ground surface.
- b. The drip dispersal system area shall be inspected on a routine basis. System components including valves and piping shall be repaired/replaced immediately if any damage occurs.
- c. The drip fields shall be established and maintained with sufficient vegetative growth remaining over the winter to aid in the prevention of drip tubing freezing. Care shall be exercised during cutting of the vegetation to prevent compaction and damage to the system. Lightweight, low compaction equipment should be used for maintenance of the drip fields.
- d. The drip dispersal system shall be programmed and maintained to operate within the maximum gallons per day capacity indicated in the following table.
- e. The permittee shall maintain a daily log of total gallons discharged to each individual zone A, B, C, D&F, E, G&H.
- f. Tracking of gallons sent to each subzone is not required in the daily log.

**Applecross Drip Irrigation System Zones A-H  
21,386 gpd total maximum capacity**

Subzone	Maximum Daily Dose (gpd)
A-1	1,590
A-2	1,572
A-3	959
<b>Zone A Total</b>	<b>4,121</b>
B-1	386
B-2	378
B-3	247
B-4	201
<b>Zone B Total</b>	<b>1,212</b>
C-1	417
C-2	489
C-3	627
C-4	671
C-5	454
<b>Zone C Total</b>	<b>2,658</b>
D-1	426
D-2	588
D-3	450
D-4	432
F-1	606
F-2	461
F-3	426
<b>Zone D&amp;F Total</b>	<b>3,389</b>
E-1	933
E-2	900
E-3	528
E-4	685
E-5	493
E-6	522
<b>Zone E Total</b>	<b>4,060</b>
G-1	1,272
G-2	1,622

G-3	1,130
H-1	1,389
H-2	535
<b>Zone G&amp;H Total</b>	<b>5,947</b>

3. Mapleview Drip System:

A. The permittee shall begin the construction of the Mapleview Drip Irrigation System when one of the below conditions occur first:

- a. Once the maximum monthly flow reaches 85% of the current reserve capacity of 25,066 GPD, the permittee shall start the construction of Mapleview Drip system. That translates to a flow of 134,000 GPD + 0.85\*25,066 GPD or 155,306 GPD.
- b. Once the number of houses in Mapleview development reaches 122 EDUs, the permittee shall start construction of drip field. This 122 EDU was calculated as 85% of the current reserve flow of 25,066 GPD and 175 Gallons/EDU.
- c. The permittee shall complete substantial construction of drip system on or before 4<sup>th</sup> year of the permit, otherwise the terms and conditions related to Mapleview Drip System will become null and void and no more connections will be made to ATP from Mapleview Townhomes. Substantial construction implies all major components constructed and at least 50% drip fields are operational.

The permittee shall submit a report of influent flow at the ATP and the number of houses occupied and connected to ATP in each quarter through the eDMR, as a supplemental report. The permittee shall submit this quarterly report until the developments covered under this permit are completely built-out.

B. Construction of Drip Dispersal Fields

- a. The Department must be notified at least two (2) weeks prior to the start of any construction activity on the system, so that a pre-construction meeting with the Department can be held. Representatives from the permittee, design engineer, and system contractor must attend the pre-construction meeting.
- b. Prior to installation of any drip irrigation tubing, the irrigation area shall be established in perennial vegetation that provides adequate coverage of the soil surface.
- c. Vehicles and unnecessary equipment shall be kept off the effluent dispersal fields to prevent undue compaction and damage to the system. No roads or permanent paths may be constructed through the drip fields. At no time shall any material be stockpiled on the effluent dispersal area.
- d. Prior to any site preparation, excavation and/or installation of the effluent dispersal areas, soil moisture levels, as confirmed by the Department, shall be such that a sample of natural mineral soil taken from the level of the maximum excavation will crumble if in a ball. Should any rain event occur during installation, the installation shall cease and the site soil moisture levels are to be re-tested.
- e. Only lightweight, low compaction equipment (less than 15,000 pounds; less than 6.5 pounds per square inch ground pressure) may be used on or in the drip dispersal fields.
- f. Protective coverings must be placed over any open ends of the drip tubing or piping during installation to prevent the introduction of foreign material into the lines.
- g. The drip tubing shall be installed between 6 and 12 inches below ground surface and on approximate two-foot centers on-contour, per the design engineer's specifications.
- h. The permittee is responsible for accurately tracking the amount of tubing installed per subzone and submitting the as-built information to the Department prior to start-up inspection of the drip fields. Any changes to the amount or configuration of drip tubing installed shall be reviewed by the design engineer, and any changes to the dosing submitted to the Department prior to start-up of the drip fields.

- i. The drip irrigation supply lines, return lines, and tubing loops and connections for each subzone must be pressure tested prior to backfill. The pressure test shall include checking that all joints are watertight and full flow to each zone is achieved. The permittee shall contact DEP and provide opportunity for DEP to conduct an inspection of the test.
- j. When the system is complete and before start-up, the permittee shall notify the Department in writing that the system is constructed and ready for inspection. All fields shall have established and sufficient vegetative cover to prevent soil erosion and run off. Late fall installations shall have sufficient vegetation to provide insulation over the drip tubing during the winter. Representatives of the Department must inspect the facilities prior to start-up.
- k. All aspects of vegetation establishment and maintenance shall be in accordance with the plans submitted with the permit application. Any changes to the plan shall be submitted to the Department for approval prior to implementation.

**C. Operation of Drip Dispersal Fields**

- a. Application of the effluent to drip dispersal fields shall be managed to prevent ponding, freezing, breakout, and run off. At no time may effluent be discharged to the ground surface.
- b. The drip dispersal system area shall be inspected on a routine basis. System components including valves and piping shall be repaired/replaced immediately if any damage occurs.
- c. Drip fields established and maintained in low maintenance grass-like species shall be mowed at least two times a year, with at least 6 inches of growth remaining over the winter to aid in the prevention of drip tubing freezing. Mowing shall be conducted during dry soil conditions.
- d. Drip fields shall be used for passive low impact use only.
- e. At no time shall any debris be stockpiled on the drip area.
- f. The drip dispersal system shall be programmed and maintained to operate within the maximum gallons per day capacity indicated in the following tables.
- g. The permittee shall maintain a daily log of total gallons discharged to each individual zone (A1, A2, A3, A4, A5, A6) (B1, B2, B3, B4, B5, B6). Tracking of gallons sent to each subzone is not required in the daily log.

**Mapleview Drip Irrigation System Zones A1-A6  
3.593 acres of Well Drained soils  
25,279 gpd total maximum capacity**

Subzone	Area (acres)	Maximum Daily Dose (gpd)
A-1A	0.106	755
A-1B	0.224	1,468
A-1C	0.140	1,027
A-1D	0.123	906
<b>Zone A-1</b>		<b>4,156</b>
A-2A	0.113	734
A-2B	0.358	2,395
A-2C	0.335	2,477
<b>Zone A-2</b>		<b>5,606</b>
A-3A	0.274	1,941
A-3B	0.137	935
A-3C	0.137	934
A-3D	0.060	415
A-3E	0.022	163
<b>Zone A-3</b>		<b>4,388</b>
A-4A	0.117	865
A-4B	0.135	996
A-4C	0.044	291
A-4D	0.028	195

A-4E	0.132	953
<b>Zone A-4</b>		<b>3,300</b>
A-5A	0.125	876
A-5B	0.087	572
A-5C	0.064	422
A-5D	0.253	1,868
A-5E	0.061	443
<b>Zone A-5</b>		<b>4,181</b>
A-6A	0.158	1,166
A-6B	0.134	845
A-6C	0.093	679
A-6D	0.133	958
<b>Zone A-6</b>		<b>3,648</b>

**Mapleview Drip Irrigation System Zones B1-B6  
4.446 acres of Moderately Well-Drained Soils  
15,474 gpd maximum capacity**

Subzone	Area (acres)	Maximum Daily Dose (gpd)
B-1A	0.125	427
B-1B	0.166	578
B-1C	0.202	713
B-1D	0.274	956
<b>Zone B-1</b>		<b>2,674</b>
B-2A	0.320	1,138
B-2B	0.541	1,920
<b>Zone B-2</b>		<b>3,058</b>
B-3A	0.383	1,319
B-3B	0.329	1,172
<b>Zone B-3</b>		<b>2,491</b>
B-4A	0.335	1,173
B-4B	0.288	1,020
<b>Zone B-4</b>		<b>2,193</b>
B-5A	0.319	1,144
B-5B	0.361	1,240
<b>Zone B-5</b>		<b>2,384</b>
B-6A	0.323	1,064
B-6B	0.092	307
B-6C	0.176	631
B-6D	0.064	194
B-6E	0.072	230
B-6F	0.075	248
<b>Zone B-6</b>		<b>2,674</b>

- D. Mapleview Drip Irrigation system has an approved disposal capacity of 26,950 GPD. Zone A provides 25,279 GPD and Zone B provides remaining 1,671 GPD. In addition, Zone B has a reserve of 13,806 GPD which provides at least 50% reserve as required by Township ordinance and Municipal Authority resolution. Reserve area in Zone B may not be constructed without further sewer facility planning and permit amendment.



NAME East Brandywine Township Municipal Authority  
 ADDRESS 1214 Horseshoe Pike  
Downingtown, PA 19335  
 FACILITY Applecross Regional WWTP  
 LOCATION East Brandywine Township  
Chester County  
 WATERSHED 3-H

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 BUREAU OF CLEAN WATER  
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
**DISCHARGE MONITORING REPORT (DMR)**

1506407 A-1			002			
PERMIT NUMBER			OUTFALL NUMBER			
MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Monthly  
 DMR Effective From: February 1, 2020  
 DMR Effective To: January 31, 2025  
 Permit Expires: January 31, 2025  
 Permit Application Due: August 4, 2024

Check Here if No Discharge  
 NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow Raw Sewage Influent	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	GPD	XXX	XXX	XXX	XXX		Continuous	Recorded
Flow	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	GPD	XXX	XXX	XXX	XXX		Continuous	Recorded
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	6.0 Daily Min	XXX	9.0 IMAX	S.U.		1/week	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10.0 Avg Mo	XXX	mg/L		1/week	24-Hr Composite
Total Suspended Solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10.0 Avg Mo	XXX	mg/L		1/week	24-Hr Composite
Fecal Coliform	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	XXX	No./100 ml		1/week	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).	TELEPHONE		DATE		
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
COMMENTS (Report all violations on the "Non-Compliance Reporting Form")						

**Applecross WQM Permit: Amendment 2 (2020-2025)**

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March 11, 2022

Luke Reven  
East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downingtown, PA 19335-1132

Re: WQM Permit - Sewage  
Applecross Regional WWTP  
Permit No. 1506407 A-2  
Authorization ID No. 1380630  
East Brandywine Township, Chester County

Dear Mr. Reven:

Your Water Quality Management (WQM) permit amendment is enclosed. You must comply with all Standard and Special Conditions attached to this Permit. Construction must be done in accordance with the permit application and all supporting documentation. Please review the permit conditions and the supporting documentation submitted with your application before starting construction.

Please note that you are responsible for securing all other required permits, approvals and/or registrations associated with the project, if applicable, under Chapters 102 (erosion and sedimentation control), 105 (stream obstructions and encroachments) and 106 (floodplains) of DEP's regulations. Construction may not proceed until all other required permits have been obtained.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Please be advised that this permit expires on January 31, 2025. If you wish to continue the land application of effluent beyond the permit expiration date, you must submit a WQM permit application at least 180 days prior to the expiration date.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
Rachel Carson State Office Building, Second Floor  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

**IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.**

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.**

During construction or upon completing construction, please contact Reza H. Chowdhury, E.I.T. at 484.250.5197 or [rchowdhury@pa.gov](mailto:rchowdhury@pa.gov) so that an inspection of the facilities may be conducted, at DEP's discretion.

Sincerely,



Thomas L. Magge  
Environmental Program Manager  
Clean Water Program

Enclosures

cc: Mr. Ferrer – NVR, Inc.  
Ebert Engineering, Inc.  
Mr. Boldaz – Hydraterra Professional  
East Brandywine Township (Transmittal Letter only)  
Chester County Health Department (Transmittal Letter only)  
Operations Section  
Planning Section  
Ms. Sansoni – Soil Scientist  
Mr. Evans – Hydrogeologist  
Mr. Veneziale – Planning Supervisor  
File



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF CLEAN WATER  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

NAME East Brandywine Township Municipal Authority  
ADDRESS 1214 Horseshoe Pike  
Downingtown, PA 19335-1132  
FACILITY Applecross Regional WWTP  
LOCATION East Brandywine Township  
Chester County  
WATERSHED 3-H

**1506407 A-2**  
PERMIT NUMBER

**002**  
OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Monthly  
DMR Effective From: March 11, 2022  
DMR Effective To: January 31, 2025  
Permit Expires: January 31, 2025  
Permit Application Due: August 4, 2024

Check Here if No Discharge

NOTE: Read Instructions before completing this form

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		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	GPD	XXX	XXX	XXX	XXX		Continuous	Recorded
Flow Raw Sewage Influent	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	231616 Avg Mo	Report Daily Max	GPD	XXX	XXX	XXX	XXX		Continuous	Recorded
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	6.0 Daily Min	XXX	9.0 IMAX	S.U.		1/week	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10.0 Avg Mo	XXX	mg/L		1/week	24-Hr Composite
Total Suspended Solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10.0 Avg Mo	XXX	mg/L		1/week	24-Hr Composite
Fecal Coliform	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	XXX	No./100 ml		1/week	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).	TELEPHONE		DATE		
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
COMMENTS (Report all violations on the "Non-Compliance Reporting Form")						

3800-FM-BCW0462 12/2016  
COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF CLEAN WATER  
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YEAR	MO	DAY	TO	YEAR	MO	DAY

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PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Total Nitrogen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10.0 Avg Mo	XXX	mg/L		1/week	24-Hr Composite
Total Phosphorus	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	Report Avg Mo	Report IMAX	mg/L		1/week	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).	TELEPHONE		DATE		
		AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	COMMENTS (Report all violations on the "Non-Compliance Reporting Form")				



## INSTRUCTIONS FOR COMPLETING DISCHARGE MONITORING REPORTS (DMRs)

### General

One or more Discharge Monitoring Reports (DMRs) are attached to your permit for reporting the results of self-monitoring activities as required by your permit. If required by your permit, you must use Department of Environmental Protection's (DEP's) [electronic DMR \(eDMR\) system](#) to submit results. If you are required to use eDMR, these physical forms should only be used under the following circumstances:

1. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.
2. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

You should make copies of the DMRs for your ongoing use, unless you participate in the eDMR program.

- Reporting frequencies will vary depending on the monitoring frequencies listed in your permit, and are generally monthly, quarterly, semi-annually and annually.
- Your reports must be received by DEP on the 28<sup>th</sup> day of the month following the end of the reporting period, unless otherwise specified in Part C of your permit.
- Your permit may require submission of DMRs to other agencies, including the U.S. Environmental Protection Agency (EPA).
- DMRs will generally include pre-populated information for permittee name and address, facility location, permit number, outfall number, permit expiration date, parameter names, and permit requirements. If you identify any errors on a DMR issued by DEP, please contact the DEP regional office that issued your permit. **DO NOT make changes to DMRs issued to you.**
- You may use computer-generated replicas of Form No. 3800-FM-BCW0462 if you receive prior approval from DEP. **DEP reserves the right to instruct you to discontinue the submission of computer-generated DMRs if the permit requirements you entered on the form are inaccurate.**

### Instructions

1. Enter statistical results into each blank field below the "VALUE" column headers. Results must be reported in the same units shown on the DMR.
2. Sum the total number of excursions or exceedances of permit limits across the row for each parameter and enter the value into the "NO. EX" field. For example, if the permit contains limits of 6.0 S.U. (Minimum) and 9.0 S.U. (Maximum) for pH, and the Minimum and Maximum results are 5.9 S.U. and 9.1 S.U., respectively, enter "2" into the "NO. EX" field.
3. Report the actual sampling frequency and sample type utilized during the reporting period in the fields corresponding to "Frequency of Analysis" and "Sample Type", respectively.
4. Type the name of the principal executive officer (or an authorized agent designated by a principal executive officer) who is taking responsibility for the report, sign the report (should be in ink), enter the telephone number of the responsible individual, and record the date that the report was signed. Mail only original, signed copies of DMRs.

5. In the Comments section at the bottom of the DMR, you may write a brief summary of violations in this section; however, DEP requests that all violations during the monitoring period be reported in more detail on DEP's **Non-Compliance Reporting Form** (3800-FM-BCW0440) and be submitted as an attachment to the DMR. Other uses of the Comments Section include explanations of attachments to the DMR, explanations for the unavailability of data, and brief summaries of issues that have affected operations or effluent quality during the monitoring period. Always consider attaching a letter or separate document to explain your situation in more detail.

### **No Discharge or No Data Available**

If there was no discharge at all from an outfall during the monitoring period, check the "No Discharge" box on the top of the DMR. Complete the information above and below the table and mail the DMR to the appropriate agencies. Be sure to sign and date the DMR.

If there was no discharge of a specific parameter (e.g., if a chlorine limit is in the permit but chlorine was not used for disinfection during the entire reporting period), or if data are not available for a specific parameter for the entire reporting period, do not leave the DMR blank. Instead, report one of the following No Data Indicator (NODI) codes that apply to your situation in the appropriate value field, and **provide an explanation as an attachment to the DMR**:

- E** All samples or results are not available due to analytical equipment failure, because a sample collection was overlooked, or samples could not be collected for the parameter during the reporting period. Use of this NODI code results in a violation.
- GG** Use if your permit requires sample collection and analysis only under certain conditions and those conditions were not met during the reporting period (e.g., report chlorine results only when chlorination system is used). This includes non-representative outfalls.
- FF** No Data, not covered by NODI codes "E" or "GG." Use in extenuating circumstances where the reason for the absence of data is not covered by NODI codes "E" or "GG." Use of this NODI code results in a violation.

If you have at least one result for a parameter, the value should be reported and not a NODI code.

Note: When the "E" and "FF" NODI codes are used, a comment explaining the violation is required and the Non-Compliance Reporting Form (3800-FM-BCW0440) must accompany the DMR.

### **Calculations**

The following explains how to calculate statistical values that are commonly required by permits:

**Monthly Average** – For Loading (lbs/day), sum the total of daily loadings and divide by the number of samples during the month. To calculate the daily loading, multiply the daily concentration (mg/l) by the flow (MGD) on the date of sampling and a conversion factor of 8.34. For Concentration, sum the total of daily concentrations and divide by the number of samples.

**Weekly Average** – For Loading (lbs/day), sum the total of average daily loadings during each week of the reporting period (beginning on a Sunday and ending on a Saturday) and divide by the number of samples during the week. For Concentration, sum the total of daily concentrations each week and divide by the number of samples. Report the maximum weekly average on the DMR.

**Maximum Daily ("Daily Max")** – Report the maximum concentration or load measured during a 24-hour period during the reporting period; if multiple measurements are taken daily, include all data in the analysis.

**Instantaneous Maximum ("IMAX")** – Report the maximum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

**Instantaneous Minimum ("Minimum")** – Report the minimum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

**Total Monthly Load (lbs)** – Sum the total of average daily loadings, divide by the number of samples during the month, and multiply by the number of days in the month.

**Geometric Mean** – Report the average of a set of  $n$  sample results given by the  $n$ th root of their product. If any result is zero (0), substitute 1 for the calculation. For example, five samples were analyzed with the following results: 20, 300, 400, 500, and 0. The calculation of geometric mean is as follows (note that you will need to use the power function on a calculator):

$$\sqrt[5]{20 \cdot 300 \cdot 400 \cdot 500 \cdot 1} = \sqrt[5]{1,200,000,000} = (1,200,000,000)^{1/5} = 65$$

## **Non-Detect Data**

### **Conventional and Toxic Parameters**

For calculating average values of data sets in which there are some “detections” (results at or above the laboratory quantitation limit) and some “non-detect” data (results reported below the laboratory quantitation limit), use the value of the quantitation limit for non-detect data. In other words, ignore the less than (<) symbol for statistical calculations and include the < symbol with the statistical result if there is at least one non-detect result in the data set. For example, four samples were analyzed with the following results: < 1.0, 2.0, < 1.0, and 1.0. The average statistical result is < 1.3.

Estimated values (i.e., values flagged with a “J” qualifier) should not be used for compliance purposes.

### **Bacteria Parameters**

Report all “non-detect” (e.g., < 2) and “too numerous to count” (TNTC) (e.g., > 2,000) results on DMR supplemental forms as reported by the laboratory. Do not report “TNTC” on supplemental forms, but instead report a value qualified with the “>” symbol. Where a data set includes one or more “non-detect” and/or TNTC results, calculate the geometric mean by ignoring qualifying symbols, but report the value with the symbol. If a data set includes both “>” and “<” qualifiers, the “>” qualifier takes precedence for reporting. For all “non-detect” values, specify in the Comments section of the DMR the maximum volume filtered at the laboratory. Note that DEP considers a DMR with reported values qualified by the “>” symbol for bacteria parameters to be a non-compliance.

*Example 1* – For results are determined, < 2, 10, 20, and 30. The geometric mean should be reported as <  $(2 \cdot 10 \cdot 20 \cdot 30)^{0.25} = < 10$ . Specify the maximum volume filtered for the < 2 result in the DMR Comments.

*Example 2* – Three results are determined, < 2, 1,000, and > 2,000. The geometric mean should be reported as >  $(2 \cdot 1,000 \cdot 2,000)^{0.333} = > 158$ .

## **Rounding and Precision**

Statistical values reported on the DMR should be rounded to the same number of decimal places as the limit for the parameter as set forth in the permit. If the permit does not contain a limit but requests monitoring only, statistical values for concentration results should be rounded to the maximum number of decimal places in the data set as reported by the laboratory or the instrument used for analysis. If mass loads must be reported and there is no limit, round statistical values to the nearest whole number, unless the calculated number is less than one, in which case the value should be rounded to one significant figure (e.g., 0.1, 0.05, etc.). If the number you are rounding is followed by 5, 6, 7, 8, or 9, round the number up, otherwise round down.

**DEP’s “Discharge Monitoring Reports: A Guide to Electronic and Paper DMR Reporting” (3800-BK-DEP3047) publication contains more information and are incorporated by reference. This document is available on DEP’s website.**

**SPECIAL CONDITIONS**  
Water Quality Management Permit No. 1506407 A-2  
East Brandywine Township Municipal Authority

**A. Discharge Limitations and Monitoring Requirements:**

Effluent from the sewage treatment plant shall be sampled from the **filtrate tank** and shall be limited at all times as follows:

Parameter	Monthly Average (mg/l)	Instantaneous Maximum**	Measurement Frequency	Sample Type
Flow-Effluent (GPD)	Shall be monitored.		Continuous	Recorded
Flow-Influent (GPD)	231,616	Monitor/Report	Continuous	Recorded
CBOD <sub>5</sub>	10	20	1/week	24-Hr Composite
Total Suspended Solids	10	20	1/week	24-Hr Composite
Total Nitrogen*	10	20	1/week	24-Hr Composite
Total Phosphorus	Monitor/Report	Monitor/Report	1/week	24-Hr Composite
pH	6 - 9 S.U. at all times		1/week	Grab
Fecal Coliform	200/100 ml as a geometric average, not greater than 1,000/100 ml in more than ten percent of the samples tested.		1/week	Grab

\* Total Nitrogen = Total Kjeldahl Nitrogen + Nitrite (NO<sub>2</sub>) Nitrogen + Nitrate (NO<sub>3</sub>) Nitrogen

\*\* Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitation except for the parameters temperature, oil and grease, pH, total residual chlorine, and fecal coliform. However, if grab samples are collected for parameters normally monitored through composite sampling, the results must be reported.

Additional treatment requirements include the satisfactory disposal of sludge and the reduction of quantities of oils, greases, acids, alkalis, toxics, taste and odor producing substances, inimical to the public interest to levels which will not pollute the receiving waters.

**B. Effluent Land Application Reporting Requirements**

An annual Effluent Tracking Report shall be submitted to the Department by March 15 of each year. The report shall include monthly totals of wastewater treatment plant effluent (gallons) sent to the golf course, Applecross, Mapleview and Weaver drip dispersal systems, and stream discharge. If the golf course uses potable water for irrigation, monthly records for those amounts shall be included in the Report.

**C. Groundwater Monitoring Requirements:**

- I. The permittee shall effectively monitor the quality of the groundwater. The parameters to be tested, and frequency of analysis and other monitoring requirements shall be as follows:
  - a. For Applecross Golf Course and Applecross Drip Irrigation system: Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-1, MW-2, MW-4, MW-5, MW-6, MW-10, MW-11, MW-12, MW-13, MW-14 and MW-15** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.

For Mapleview Drip Irrigation System: Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-1, MW-2R, MW-3R, MW-4R, and MW-5R** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.

For Weaver Tract Drip System: Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-1R, MW-2R, MW-3R, MW-5R, MW-9, MW-10R, MW-11, MW-12, MW-13, and MW-14** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.

- b. Groundwater elevations must be measured prior to purging the groundwater monitoring well.
- c. Before collection of the groundwater sample, a groundwater monitoring well shall be properly purged and allowed to recover to at least 90 percent of the well volume that was present prior to purging.
- d. All groundwater samples shall be collected from within the top five feet of the water elevation within the well column
- e. For Mapleview and Weaver Tract Drip Irrigation: Background groundwater monitoring shall commence at least six months prior to utilization of the drip irrigation fields.
- f. For Mapleview Drip Irrigation: Groundwater monitoring wells **MW-2R, MW-3R, MW-4R, and MW-5R** shall be installed in the locations shown on Drawing 102 prepared by Ebert Engineering, Inc. and updated November 7, 2019.  
For Weaver Tract Drip Irrigation: Groundwater monitoring wells **MW-1R, MW-2R, MW-3R, MW-5R, and MW-10R** shall be installed in the locations shown on Figure 7 entitled "Monitoring Well Plan, Drip Field A, Weaver Tract" received electronically by DEP on December 3, 2021.
- g. For Mapleview Drip Irrigation: Test wells **MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8** shall be properly decommissioned within six months of permit issuance.

For Weaver Tract Drip Irrigation: Existing test wells **MW-1, MW-2, MW-3, MW-4, MW-5, and MW-10** shall be properly decommissioned.

Within 30 days of well closure, documentation that the wells have been properly decommissioned shall be submitted to DEP.

- h. Annual analysis of groundwater sampled at all groundwater monitoring wells shall consist of: suspended solids, sulfate, and sodium.

## II. Groundwater Monitoring Data Reporting Requirements

### A. Annual Groundwater Report

All groundwater data shall be submitted to DEP **annually** and be in **report form**.

The report shall be due to DEP within 28 days of the end of the month of permit issuance.

For example, if your permit was issued on March 4th, then your annual report is due by April 28th. The annual report shall be mailed under separate cover and addressed to:

Department of Environmental Protection  
Southeast Regional Office  
Clean Water Program  
2 East Main Street  
Norristown, PA 19401

Attention: Hydrogeologist  
Planning Section

The Annual Groundwater Monitoring Report shall include the following information:

1. General Information

- a. Facility name
- b. Facility permit number
- c. Facility location (including municipality and county)
- d. Facility contact information:
  - i. permittee name, address, **e-mail address**, and telephone number
  - ii. contact name and title
  - iii. facility operator name, address, and telephone number
  - iv. facility consultant name, address, and telephone number

2. Site Data

- a. A brief narrative that provides the date and description of any facility event which may have impacted any part of the groundwater monitoring program. (e.g., collapse of groundwater monitoring well, etc.).
- b. Average effluent flow for the year covered by the report.
- c. In tabular form, the following information needs to be provided for at least the last 5 years of system operation:
  - i. Date of sampling.
  - ii. Groundwater elevation.
  - iii. Sampling depth.
  - iv. Identification of upgradient and downgradient wells.
  - v. The results of the analysis of the samples.
- d. Background groundwater data generated prior to system start-up. **This information is absolutely needed and needs to be included in the data tabulation.**

**B. Comprehensive Groundwater Evaluation (CGE)**

As part of the facility's 5-year permit renewal application, the permittee shall submit a report that is a result of a comprehensive evaluation of the systems impact on groundwater. A Registered P.G. must identify any trends which may pose a threat to human health or certify that none are present. Should adverse impacts to groundwater be identified, the permittee needs to recommend actions to address the potential threat.

**C. Groundwater Background Report**

Within 60 days of system start up, or upon issuance of permit renewal a Groundwater Background Report shall be submitted to DEP. The report shall include the follow information:

1. Site Information

- a. Brief narrative, including site limitations.
- b. Soil type and bedrock lithology beneath the absorption areas.
- c. Site drawings showing general location of absorption fields and monitoring wells. Drawings must show site topography.

2. Construction details of each groundwater monitoring well shall include:

- a. Well depth.
- b. Casing depth.

- c. Static water levels.
- d. Surface elevation.
- e. Well log.
- f. Water bearing zones.
- g. Top of casing elevation.
- h. Ground surface elevation.

**The Groundwater Background Report is a one-time report. Should future changes or additions occur for any information in this section, an addendum that can be added to the report is all that is needed to update this report.**

- D. "Composite Sample" (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters each obtained at spaced time intervals during the compositing period. The composite must be "flow-proportional," which means either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite.
- E. The Total Nitrogen (expressed as N) content of an aqueous sample is determined by adding the individual analytical results (expressed as N) for Total Kjeldahl Nitrogen, Nitrite-Nitrogen, and Nitrate-Nitrogen. Total Kjeldahl Nitrogen is the sum of Organic Nitrogen and Ammonia Nitrogen as determined by the Kjeldahl method.

**F. Right of Entry**

Pursuant to Sections 5(b) and 30 5 of Pennsylvania's Clean Stream Law, the permittee shall allow authorized representatives of Department of Environmental Protection upon the presentation of credentials and other documents as may be required by law:

- 1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
- 2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- 3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
- 4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or The Clean Streams Law, any substances or parameters at any location.

**G. Representative Sampling**

- 1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 2. Records Retention

Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities, which shall be retained for a period of at least five years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three years from the date of the sample measurement, report, or application. The three-year period shall be extended as requested by DEP or the EPA Regional Administrator.

- 3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling or measurements.
- b. The person(s) who performed the sampling or measurements.
- c. The date(s) the analyses were performed.
- d. The person(s) who performed the analyses.
- e. The analytical techniques or methods used; and the associated detection level.
- f. The results of such analyses.

4. Test Procedures

Unless otherwise specified in this permit, the test procedures for the analysis of pollutants shall be those approved under 40 CFR 136 (or in the case of sludge use or disposal, approved under 40 CFR 136, unless otherwise specified in 40 CFR 503), or alternate test procedures approved pursuant to those parts, unless other test procedures have been specified in this permit.

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

- a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA.
- b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR 136.

**H. Submission of DMRs and Supplemental Reports**

The permittee shall submit a Discharge Monitoring Report (DMR) containing a summary of self-monitoring data to DEP no later than 28 days following the end of each monthly reporting period. In addition, the permittee shall complete and submit all Supplemental Reports that are attached to this permit at the time the DMR is submitted, in accordance with the instructions to the Supplemental Reports. Unless the permittee elects to use DEP's electronic DMR (eDMR) system, the permittee shall submit paper copies of the DMR and Supplemental Reports to:

Department of Environmental Protection  
 Clean Water Program  
 2 E Main Street  
 Norristown, PA 19401

- I. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537, the permittee shall, upon notification from the municipality and DEP, construct and operate the herein approved drip disposal facilities according to the schedules in the approved official plan and/or amendments to the plan.

**J. Land Application Requirements:**

- 1. Applecross Golf Course Re-Use Irrigation and Storage of Treated Effluent:
  - a. The ultimate decision of golf course irrigation rates and frequency will rest upon the director of golf course maintenance.
  - b. The golf course maintenance director shall conduct weekly inspections of the reclaimed wastewater irrigated areas and problems such as ponding or wetness must be addressed immediately. Application of effluent shall be managed to prevent runoff or ponding.
  - c. Irrigation of the golf course may occur during the growing season only, generally April through November. Spray irrigation of reclaimed wastewater may not occur when the grasses are not actively growing.

- d. Spray irrigation pumps shall be shut down if wind velocities are 15 MPH or greater.
- e. Storage lagoon levels must be monitored and managed within the low and high-water level parameters as designed. The water level shall be controlled so that a freeboard of at least 24 inches is maintained at all times. The Department must be notified if the water level is anticipated to enter freeboard.

2. Drip Dispersal Systems Operational Requirements

At the time of permit issuance, the Applecross drip irrigation system is constructed and operational. All future constructed drip systems will be subject to these conditions.

- a. Application of the effluent to drip dispersal fields shall be managed to prevent ponding, freezing, breakout, and run off. At no time may effluent be discharged to the ground surface.
- b. The drip dispersal system area shall be inspected on a routine basis. System components including valves and piping shall be repaired/replaced immediately if any damage occurs.
- c. All drip fields shall be maintained in established vegetation that provides perennial coverage of the soil surface to prevent erosion.
- d. Drip fields maintained in grass shall be mowed at least two times a year, with at least 6 inches of growth remaining over the winter to aid in the prevention of drip tubing freezing. Mowing shall be conducted during dry soil conditions. Lightweight, low compaction equipment should be used for maintenance of the drip fields.
- e. Drip fields shall be used for passive low impact use only.
- f. At no time shall any debris be stockpiled on the drip area.
- g. The permittee shall maintain a daily log of total gallons discharged to each drip zone.
- h. Drip dispersal systems shall be programmed and operated within the maximum soil loading rates and maximum gallons per day capacity as designed and constructed.

**Applecross Drip Irrigation System Zones A-H  
21,386 gpd total maximum capacity**

Subzone	Maximum Daily Dose (gpd)
A-1	1,590
A-2	1,572
A-3	959
<b>Zone A Total</b>	<b>4,121</b>
B-1	386
B-2	378
B-3	247
B-4	201
<b>Zone B Total</b>	<b>1,212</b>
C-1	417
C-2	489
C-3	627
C-4	671
C-5	454
<b>Zone C Total</b>	<b>2,658</b>
D-1	426
D-2	588
D-3	450
D-4	432
F-1	606
F-2	461
F-3	426
<b>Zone D&amp;F Total</b>	<b>3,389</b>
E-1	933

E-2	900
E-3	528
E-4	685
E-5	493
E-6	522
<b>Zone E Total</b>	<b>4,060</b>
G-1	1,272
G-2	1,622
G-3	1,130
H-1	1,389
H-2	535
<b>Zone G&amp;H Total</b>	<b>5,947</b>

2. Drip Dispersal System Construction Requirements:

At the time of permit issuance, the Mapleview and Weaver Tract drip systems have not yet been constructed.

- a. The permittee shall complete drip dispersal system(s) construction to be operational on or before January 31, 2024 to provide a minimum 26,950 gpd capacity and a minimum 45,600 gpd capacity to serve the Mapleview and Weaver Tract's approved wastewater flows, respectively. This condition supersedes Special Condition J.3.A of the amended permit 1506407 A-1 issued on January 30, 2020.
- b. The Department must be notified at least two (2) weeks prior to the start of any construction activity on the system, so that a pre-construction meeting with the Department can be held. Representatives from the permittee, design engineer, and system contractor must attend the pre-construction meeting.
- c. Prior to installation of any drip irrigation tubing, the irrigation area shall be established in perennial vegetation that provides adequate coverage of the soil surface.
- d. All aspects of drip field vegetation establishment and maintenance shall be in accordance with the plans submitted with the permit application. Any changes to the plan shall be submitted to the Department for approval prior to implementation.
- e. Vehicles and unnecessary equipment shall be kept off the effluent dispersal fields to prevent undue compaction and damage to the system. No roads or permanent paths may be constructed through the drip fields. At no time shall any material be stockpiled on the effluent dispersal area.
- f. Prior to any site preparation, excavation and/or installation of the effluent dispersal areas, soil moisture levels, as confirmed by the Department, shall be such that a sample of natural mineral soil taken from the level of the maximum excavation will crumble if in a ball. Should any rain event occur during installation, the installation shall cease and the site soil moisture levels are to be re-tested.
- g. Only lightweight, low compaction equipment (less than 15,000 pounds; less than 6.5 pounds per square inch ground pressure) may be used on or in the drip dispersal fields.
- h. Protective coverings must be placed over any open ends of the drip tubing or piping during installation to prevent the introduction of foreign material into the lines.
- i. The drip tubing shall be installed between 6 and 12 inches below ground surface and on approximate two-foot centers on-contour, per the design engineer's specifications.
- j. The permittee is responsible for accurately tracking the amount of tubing installed per subzone and submitting the as-built information to the Department prior to start-up inspection of the drip fields. Any changes to the amount or configuration of drip tubing installed shall be reviewed by the design engineer, and any changes to the dosing submitted to the Department prior to start-up of the drip fields.
- k. The drip irrigation supply lines, return lines, and tubing loops and connections for each subzone must be pressure tested prior to backfill. The pressure test shall include checking that all joints are watertight and full flow to each zone is achieved. The permittee shall contact DEP and provide opportunity for DEP to conduct an inspection of the test.

- l. When the system is complete and before start-up, the permittee shall notify the Department in writing that the system is constructed and ready for inspection. All fields shall have established and sufficient vegetative cover to prevent soil erosion and run off. Late fall installations shall have sufficient vegetation to provide insulation over the drip tubing during the winter. Representatives of the Department must inspect the facilities prior to start-up.
- m. The Maplevue drip irrigation zones shall be programmed and operated based on a loading rate of 7,405 gpd per acre for well drained soils zone A, and 3,587 gpd per acre for moderately well drained soils zone B.

**Maplevue Drip Irrigation System Zone A  
Permit Application Design  
3.593 acres of Well Drained soils  
25,279 gpd total maximum capacity**

<b>Subzone</b>	<b>Area (acres)</b>	<b>Drip Tubing Length (feet)</b>	<b>Maximum Daily Capacity (gpd)</b>
Zone A-1	0.593	9,908	4,156
Zone A-2	0.806	12,185	5,606
Zone A-3	0.630	10,855	4,388
Zone A-4	0.456	9,477	3,300
Zone A-5	0.590	9,508	4,181
Zone A-6	0.518	9,324	3,648

**Maplevue Drip Irrigation System Zone B  
Permit Application Design  
4.446 acres of Moderately Well-Drained Soils  
15,474 gpd maximum capacity**

<b>Subzone</b>	<b>Area (acres)</b>	<b>Drip Tubing Length (feet)</b>	<b>Maximum Daily Capacity (gpd)</b>
Zone B-1	0.767	10,217	2,674
Zone B-2	0.861	13,223	3,058
Zone B-3	0.712	11,264	2,491
Zone B-4	0.623	10,652	2,193
Zone B-5	0.680	11,797	2,384
Zone B-6	0.802	10,738	2,674

- n. The Weaver Tract drip irrigation zones shall be programmed and operated based on a soil loading rate of 7,500 gpd per acre for well drained soils zones A and C, and 3,567 gpd per acre for moderately well drained soils zone B.

**Weaver Tract Drip Irrigation System Zone A  
Permit Application Design  
5.789 acres of Well-Drained Soils  
41,333 gpd maximum capacity**

<b>Zone</b>	<b>Area (acres)</b>	<b>Drip Tubing Length (feet)</b>	<b>Maximum Daily Capacity (gpd)</b>
Zone A-01	0.517	11,127	3,789
Zone A-02	0.606	12,828	4,369
Zone A-03	0.705	13,438	5,054
Zone A-04	0.589	10,964	4,375
Zone A-05	0.873	14,818	5,912
Zone A-06	0.510	10,310	3,694
Zone A-07	0.437	8,849	2,811
Zone A-08	0.659	13,216	4,870
Zone A-09	0.744	13,764	5,317
Zone A-10	0.156	3,330	1,142

**Weaver Tract Drip Irrigation System Zone B  
Permit Application Design  
1.391 acres of Moderately Well-Drained Soils  
4,708 gpd maximum capacity**

<b>Zone</b>	<b>Area (acres)</b>	<b>Drip Tubing Length (feet)</b>	<b>Maximum Daily Capacity (gpd)</b>
Zone B-01	0.339	7,510	1,183
Zone B-02	0.340	6,562	1,117
Zone B-03	0.398	8,280	1,304
Zone B-04	0.314	6,486	1,104

**Weaver Tract Drip Irrigation System Zone C  
Permit Application Design  
4.088 acres of Well-Drained Soils  
28,792 gpd maximum capacity**

<b>Zone</b>	<b>Area (acres)</b>	<b>Drip Tubing Length (feet)</b>	<b>Maximum Daily Capacity (gpd)</b>
Zone C-01	0.639	11,769	4,427
Zone C-02	0.438	8,850	3,171
Zone C-03	0.461	8,814	3,225
Zone C-04	0.697	12,804	4,946
Zone C-05	0.370	8,137	2,585
Zone C-06	0.384	7,987	2,740
Zone C-07	0.542	10,638	3,893
Zone C-08	0.557	10,326	3,805



## WATER QUALITY MANAGEMENT PERMIT

<p>A. PERMITTEE (Name and Address): CLIENT ID#: <b>226713</b>  <b>East Brandywine Township Municipal Authority</b>  <b>1214 Horseshoe Pike</b>  <b>Downingtown, PA 19335-1132</b></p>	<p>B. PROJECT/FACILITY (Name):  <b>Applecross Regional WWTP</b></p>	
<p>C. LOCATION (Municipality, County): SITE ID#: <b>480559</b>  <b>East Brandywine Township, Chester County</b></p>		
<p>D. This amendment approves the construction/operation of sewage facilities consisting of:                  Construction and operation of Weaver Tract Development Sewer Extension and Weaver Tract Drip Irrigation System, rerate of Applecross Regional Wastewater Treatment Plant (ARTP), and rerate of Bondsville Road Pump Station.</p> <p>After the constructions are completed, the overall Regional System will consist of ARTP consisting an influent pump station, an influent screen, an EQ tank, SBR treatment systems (3 trains, 100,000 GPD each), a decant EQ tank, a tertiary filter, an ultra violet disinfection system, a filtrate tank, a sludge holding tank, three storage lagoons, and a control building with chemical feed equipment; Applecross Golf Course Spray Irrigation System; Mapleview Townhouse Drip Irrigation System; Stream Discharge Outfall; Weaver Tract Drip system; Zynn Road Pump Station; and Bondsville Road Pump Station.</p>		
<p>Pump Stations: <b>2</b>                  Design Capacity: <b>Zynn Road Pump Station: 131</b> GPM                                            <b>Bondsville Road Pump Station: 460</b> GPM                  Average Annual Flow:  <b>Zynn Road Pump Station: 38,150</b> GPD  <b>Bondsville Road Pump Station: 169,736</b> GPD</p>	<p>Manure Storage:                  Volume: _____ MG                  Freeboard: _____ inches</p>	<p>Sewage Treatment Facility:                  Annual Average Flow: <b>300,000</b> GPD                  Approved Annual Average Flow: <b>231,616</b> GPD                  Design Hydraulic Capacity: <b>399,000</b> GPD                  Design Organic Capacity: <b>1,351</b> lbs./day</p>
<p>E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:</p> <p>1. <b>Amendments:</b> All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated <b>September 30, 2021</b> and its supporting documentation and addendums dated <b>January 3, 2022</b> which are hereby made a part of this amendment.</p> <p>Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. <b>1506407, 1506407 A-1</b> dated <b>October 25, 2007, August 29, 2017, and January 30, 2020</b> shall remain in effect.</p> <p>2. Permit Conditions Relating to Sewerage are attached and made part of this permit.</p> <p>3. Special Conditions <b>A-J</b> are attached and made part of this permit.</p>		
<p>F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:</p> <p>1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.</p> <p>2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.</p> <p>3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 <i>et seq.</i> Issuance of this permit shall not relieve the permittee of any responsibility under any other law.</p> <p>4. This permit shall expire on <b>January 31, 2025</b>. The permittee shall submit an application to renew the permit no later than 180 days prior to the permit expiration date.</p>		
<p>PERMIT ISSUED: <b>October 25, 2007</b>                  Permit amended: <b>March 11, 2022</b></p>	<p>BY:   <b>Thomas L. Magge</b>                  TITLE: <b>Clean Water Program Manager</b>  <b>Southeast Regional Office</b></p>	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

**PERMIT CONDITIONS RELATING TO SEWERAGE**  
For use in Water Quality Management Permits

(Check boxes that apply)

**General**

- 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.
- 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.
- 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.
- 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.
- 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.
- 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 5 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the fifth anniversary of the permit date.
- 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.
- 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
- 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.
- 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.
- 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in the NPDES Permit and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

**Construction**

- 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

- 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.
- 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using the "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.
- 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.
- 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

#### Operation and Maintenance

- 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.
- 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.
- 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.
- 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.
- 21. The sewerage facilities shall be properly operated and maintained to perform as designed.
- 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.
- 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.
- 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.
- 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.
- 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.
- 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.



**WATER QUALITY MANAGEMENT  
 POST CONSTRUCTION CERTIFICATION**

**PERMITTEE IDENTIFIER**

Permittee	East Brandywine Township Municipal Authority
Municipality	East Brandywine Township
County	Chester
WQM Permit No.	<u>1506407 A-2</u>
Facility Type	Sewage

**All of the above information should be taken directly from the Water Quality Management Permit.**

**CERTIFICATION**

This certification must be completed and returned to the permits section of the DEP's regional office issuing the WQM permit within 30 days of completion of the project and received by DEP prior to operation, and if requested, as-built drawings, photographs (if available) and a discussion of any DEP-approved deviations from the design plans during construction.

I, being a Registered Professional Engineer in Pennsylvania, do hereby certify to the best of my knowledge and belief, based upon personal observation and interviews, that the above facility approved under the Water Quality Management Permit has been constructed in accordance with the plans, specifications and modifications approved by DEP.

Construction Completion Date (MM/DD/YYYY): \_\_\_\_\_

	<b>Professional Engineer</b>
	Name _____ (Please Print or Type)
	Signature
	Date
	License Expiration Date
	Firm or Agency
	Telephone
	<b>Permittee or Authorized Representative</b>
	Name _____ (Please Print or Type)
	Signature
	Title
	Telephone

**Appendix - C**

**Applecross Treatment Plant Capacity Management Plan**

## Applecross Sewer Service Area

### Treatment Capacity Management Plan

Year	Name of Area	Use Classification	Number of Connections	Flow per connection (gpd)	Treatment Demand (gpd)	Footnotes	Treatment Capacity (gpd)	Footnotes	
Reporting Year	Applecross Treatment Plant Monthly Average Flow		<b>1</b>	<b>141,000</b>	<b>141,000</b>	<b>1</b>	<b>231,616</b>	<b>A</b>	
2023	Mapleview	Townhouses	28	175	4,900	2			
	Weaver Tract	SF Home	1	150	150	3			
	EBT Park Building	Park Building	2	225	450				
	201 Zynn Road	SF Home	1	225	225				
	<b>Subtotal Through 2023</b>					<b>146,725</b>		<b>231,616</b>	
2024	Weaver Tract	SF Homes	20	150	3,000	3			
	Mapleview	Townhouses	28	175	4,900	2			
	Plank Farm	Residential	40	175	7,000	4	15,575	B	
	<b>Subtotal Through 2024</b>					<b>161,625</b>		<b>247,191</b>	
2025	East Brandywine Center	Shopping Center	1	7030	7,030	5			
	Weaver Tract	SF Homes	63	150	9,450	3			
	Plank Farm	Townhouses	49	175	8,575	4			
	<b>Subtotal Through 2025</b>					<b>186,680</b>		<b>247,191</b>	
2026	Weaver Tract	Townhouses	20	150	3,000	3			
	Weaver Tract	SF Homes	50	150	7,500	3			
	<b>Subtotal Through 2026</b>					<b>197,180</b>		<b>247,191</b>	
2027	Weaver Tract	Townhouses	70	150	10,500	3			
	Weaver Tract	Clubhouse	1	450	450	3			
	<b>Subtotal Through 2027</b>					<b>208,130</b>		<b>247,191</b>	
2028	Plank Farm	School	1	2982	2,982	4			
	Weaver Tract	SF Homes Existing	4	225	900	3			
	Weaver Tract	SF Homes	27	150	4,050	3			
	Weaver Tract	Townhouses	44	150	6,600	3			
	<b>Subtotal Through 2028</b>					<b>222,662</b>		<b>247,191</b>	
2029	<b>Subtotal Through 2029</b>					<b>222,662</b>		<b>247,191</b>	
2030	<b>Subtotal Through 2030</b>					<b>222,662</b>		<b>247,191</b>	
2031	Gville Village Misc Conn.	Mixed Use (EDU)	10	225	2,250	6	2,250	C	
	<b>Subtotal Through 2031</b>					<b>224,912</b>		<b>249,441</b>	
2032	Gville Village Misc Conn.	Mixed Use (EDU)	10	225	2,250	6	2,250	C	
	<b>Subtotal Through 2032</b>					<b>227,162</b>		<b>251,691</b>	

#### Flow Notes

- <sup>1</sup> Based on the Maximum Monthly Average Flow at the ATP during the Reporting Year
- <sup>2</sup> Based on developer projections for Mapleview
- <sup>3</sup> Based on developer projections for Weaver
- <sup>4</sup> Based on developer projections for Plank
- <sup>5</sup> Based on SFPM approval for EBC of 7,030 gpd
- <sup>6</sup> Based on potential future connections in Guthriesville Village

#### Capacity Notes

- <sup>A</sup> 2022-2025 WQM Permit
- <sup>B</sup> Plank Drip Disposal Area, SFPM Required
- <sup>C</sup> Future SFPM Required

Projected sewer flow generated exceeds capacity

Last Revised : March 2nd, 2023

Applecross Sewer Service Area					
Disposal Capacity Management Plan					
			D	E	F = D - E
Year	Footnotes	Disposal Type(s)	Disposal Capacity (gpd)	Disposal Demand (gpd) <sup>(1)</sup>	Available Disposal Capacity (gpd)
Reporting Year		Spray Irrigation	137,680		
		Applecross Drip Irrigation	21,386		
			159,066	141,000	18,066
2023		Prior yr Capacity	159,066	146,725	12,341
	A	Mapleview Drip Irrigation	40,425		
			199,491	146,725	52,766
2024		Prior yr Capacity	199,491	161,625	37,866
	A	Weaver Drip Irrigation	34,254		
			233,745		
2025		Prior yr Capacity	233,745	186,680	47,065
	B	Plank Drip Irrigation	19,638		
			253,383	186,680	66,703
2026		Prior yr Capacity	253,383	197,180	56,203
2027		Prior yr Capacity	253,383	208,130	45,253
2028		Prior yr Capacity	253,383	222,662	30,721
	A	Weaver Drip Irrigation	36,837		
			290,220	222,662	67,558
2029		Prior yr Capacity	290,220	222,662	67,558
2030		Prior yr Capacity	290,220	222,662	67,558
2031		Prior yr Capacity	290,220	224,912	65,308
2032		Prior yr Capacity	290,220	227,162	63,058
	C	HAWF LVOLDS	39,638		
			329,858	227,162	102,696

<sup>(1)</sup> Disposal Demand based on future development projections and maximum monthly flow.

<sup>A</sup> Schedule of construction of Mapleview and Weaver Drip Fields based on needs of Joint System with future planning by EBTMA and Developers.

<sup>B</sup> Assume Plank will have similar permitted requirements.

<sup>C</sup> HAWF LVOLDS will be connected as needed.

Projected sewer flow generated exceeds capacity

Last Revised : March 2nd, 2023

**Appendix - D**

**Keats Glen Sewage Treatment Plant NPDES Permit**

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**Keats Glen NPDES Permit (2022-2027)**

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**PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS**

I. A. For Outfall 001, Latitude 40° 1' 32.31", Longitude 75° 44' 31.98", River Mile Index 2.1, Stream Code 00301

Receiving Waters: Unnamed Tributary to Beaver Creek (CWF, MF)

Type of Effluent: Treated Sewage Effluent

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	6.2 Inst Min	XXX	XXX	XXX	1/week	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.4	XXX	0.9	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) Nov 1 - Apr 30	2.12	3.0	XXX	14	20	28	2/month	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) May 1 - Oct 31	1.06	1.5	XXX	7.0	10	14	2/month	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/month	24-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/month	24-Hr Composite
Total Suspended Solids	3.0	4.5	XXX	20	30	40	2/month	24-Hr Composite

**Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date )**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Suspended Solids Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000*	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	3.77	XXX	XXX	25	50 Daily Max	62.5	2/month	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	0.45	XXX	XXX	3.0	XXX	6	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	0.15	XXX	XXX	1.0	XXX	2	2/month	24-Hr Composite
Total Phosphorus	0.30	XXX	XXX	2.0	XXX	4	2/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 001

\*Shall not exceed in more than 10% of samples. See Part C.I. Other Requirements No. F.

**PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  
(Continued)**

Additional Requirements

1. The permittee may not discharge:
  - a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))
  - b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))
  - c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))
  - d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))
2. The monthly average percent removal of BOD<sub>5</sub> or CBOD<sub>5</sub> and TSS must be at least 85% for POTW facilities on a concentration basis except where 25 Pa. Code 92a.47(g) and (h) are applicable to facilities with combined sewer overflows (CSOs) or as otherwise specified in this permit. (25 Pa. Code § 92a.47(a)(3))
3. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.
4. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

- (1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.
- (2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

- (1) The hydraulic design capacity of 0.0225 million gallons per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to help determine whether a "hydraulic overload" situation exists, as defined in Title 25 Pa. Code Chapter 94.
- (2) The effluent limitations for Outfall 001 were determined using an effluent discharge rate of 0.0181 MGD.
- (3) The organic design capacity of 48.8 lbs BOD<sub>5</sub> per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to determine whether an "organic overload" condition exists, as defined in 25 Pa. Code Chapter 94.

- (4) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N ( $\text{NO}_2+\text{NO}_3\text{-N}$ ), where TKN and  $\text{NO}_2+\text{NO}_3\text{-N}$  are measured in the same sample.

## II. DEFINITIONS

*At Outfall (XXX)* means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

*Average* refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

*Best Management Practices (BMPs)* means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

*Bypass* means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

*Calendar Week* is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

*Clean Water Act* means the Federal Water Pollution Control Act, as amended (33 U.S.C.A. §§ 1251 to 1387).

*Composite Sample* (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

*Composite Sample* (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

*Daily Average Temperature* means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

*Daily Discharge* means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

*Daily Maximum Discharge Limitation* means the highest allowable "daily discharge."

*Discharge Monitoring Report (DMR)* means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

*Estimated Flow* means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

*Geometric Mean* means the average of a set of n sample results given by the n<sup>th</sup> root of their product.

**Grab Sample** means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

**Hauled-In Wastes** means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

**Hazardous Substance** means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

**Immersion Stabilization** (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

**Indirect Discharger** means a non-domestic discharger introducing pollutants to a Publicly Owned Treatment Works (POTW) or other treatment works. (25 Pa. Code § 92a.2, 40 CFR 122.2)

**Industrial User** means a source of Indirect Discharge. (40 CFR 403.3)

**Instantaneous Maximum Effluent Limitation** means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

**Measured Flow** means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

**Monthly Average Discharge Limitation** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

**Municipality** means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. (25 Pa. Code § 92a.2)

**Municipal Waste** means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

**Publicly Owned Treatment Works** (POTW) means a treatment works as defined by §212 of the Clean Water Act, owned by a state or municipality. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. The term also includes sewers, pipes or other conveyances if they convey wastewater to a POTW providing treatment. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (25 Pa Code § 92a.2, 40 CFR 122.2)

**Residual Waste** means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

**Severe Property Damage** means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

**Stormwater** means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

*Stormwater Associated With Industrial Activity* means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) – (ix) and (xi) and 25 Pa. Code § 92a.2.

*Toxic Pollutant* means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

*Weekly Average Discharge Limitation* means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

### III. SELF-MONITORING, REPORTING AND RECORDKEEPING

#### A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)
2. Records Retention (40 CFR 122.41(j)(2))

Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling or measurements.
- b. The person(s) who performed the sampling or measurements.
- c. The date(s) the analyses were performed.
- d. The person(s) who performed the analyses.
- e. The analytical techniques or methods used; and the associated detection level.
- f. The results of such analyses.

4. Test Procedures

- a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.
- b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))
- c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

- a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))
- b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))
2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see [www.dep.pa.gov/edmr](http://www.dep.pa.gov/edmr)). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:
  - a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.
  - b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).
4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:
  - Monthly DMRs must be received within 28 days following the end of each calendar month.
  - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
  - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
  - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.
5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

### C. Reporting and Notification Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))
  - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))
  - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))
  - d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))
2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a) and 40 CFR 122.42(b), the permittee shall provide notice to DEP and EPA as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW (40 CFR 122.42(b)(3)). The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.
    - a. Introduction of New Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(1))

New pollutants are defined as parameters that meet one or more of the following criteria:

- (i) Any pollutants that were not detected in the facilities' influent waste stream as reported in the permit application; and have not been approved to be included in the permittee's influent waste stream by DEP in writing.
- (ii) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants (40 CFR 122.42(b)(1)).

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(2))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

- (i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or have been previously approved to be included in the permittee's influent waste stream by DEP in writing.
- (ii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP and/or EPA, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the POTW (as defined at 40 CFR 403.3), or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations, may not result in a hydraulic or organic overload condition as defined in 25 Pa. Code § 94.1, and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

- (i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from conventional oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

- (1) The dates that residual wastes were received.
- (2) The volume (gallons) of wastes received.
- (3) The license plate number of the vehicle transporting the waste to the treatment facility.
- (4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

- (5) The name and address of the generator of the residual wastes.
- (6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

- (ii) In accordance with 40 CFR Part 435, Subpart C, the permittee shall not accept wastewater pollutants associated with production, field exploration, drilling, well completion, or well treatment for unconventional oil and gas extraction (including, but not limited to, drilling muds, drill cuttings, produced sand, produced water). Unconventional oil and gas means crude oil and natural gas produced by a well drilled into a shale and/or tight formation (including, but not limited to, shale gas, shale oil, tight gas, and tight oil). This prohibition does not apply to wastewater generated from stripper wells as defined at 40 CFR Part 435, Subpart F.
- (iii) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

b. Receipt of Municipal Waste

- (i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

- (1) The dates that municipal wastes were received.
  - (2) The volume (gallons) of wastes received.
  - (3) The BOD<sub>5</sub> concentration (mg/l) and load (lbs) for the wastes received.
  - (4) The location(s) where wastes were disposed of within the treatment facility.
- (ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes. The influent BOD<sub>5</sub> characterization for the treatment facility, as reported in the annual Municipal Wasteload Management Report per 25 Pa. Code Chapter 94, must be representative of the hauled-in municipal wastes received.

4. Unanticipated Noncompliance or Potential Pollution Reporting

- a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).
- (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.
  - (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.
  - (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.
- b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:
- (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):
    - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
    - (2) Any upset which exceeds any effluent limitation in the permit; and
    - (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement.
  - (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

D. Annual Fee (25 Pa. Code § 92a.62)

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. As of the effective date of this permit, the facility covered by the permit is classified in the **Minor Sewage Facility <0.05 MGD** fee category, which has an annual fee of **\$500**.

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fee identified above is subject to change if DEP publishes changes to 25 Pa. Code § 92a.62.

Payment for annual fees shall be remitted to DEP at the address below or through DEP's electronic payment system ([www.depgreenport.state.pa.us/NPDESpay](http://www.depgreenport.state.pa.us/NPDESpay)) by the due date specified on the invoice. Checks, if used for payment, should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection  
Bureau of Clean Water  
Re: Chapter 92a Annual Fee  
P.O. Box 8466  
Harrisburg, PA 17105-8466

**PART B**

**I. MANAGEMENT REQUIREMENTS**

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))
2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))
3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))
2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))
3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))
4. The permittee shall provide the following information in the annual Municipal Wasteload Management Report, required under the provisions of Title 25 Pa. Code Chapter 94:
  - a. The requirements identified in 25 Pa. Code § 94.12.
  - b. The identity of any indirect discharger(s) served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the indirect discharger.
  - c. A "Solids Management Inventory" if specified in Part C of this permit.
  - d. The total volume of hauled-in residual and municipal wastes received during the year, by source.
  - e. The Annual Report requirements for permittees required to implement an industrial pretreatment program listed in Part C, as applicable.

D. General Pretreatment Requirements

1. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless specifically exempted by the Approval Authority. A POTW with a design flow of 5 MGD or less may be required to develop a POTW Pretreatment Program if the Approval Authority finds that the nature or volume of the industrial influent, treatment process upsets, violations of effluent limitations, contamination of sludge, or other circumstances warrant in order to prevent interference or pass through. (40 CFR 403.8)
2. Each POTW with an approved Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b), and shall continue to develop these limits as necessary and effectively enforce such limits. This condition applies, for example, when there are planned changes to the waste stream as identified in Part A III.C.2. If the permittee is required to develop or continue implementation of a Pretreatment Program, detailed requirements will be contained in Part C of this permit.
3. For all POTWs, where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure renewed or continued compliance with this permit or sludge use or disposal practices. Where POTWs do not have an approved Pretreatment Program, the permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).
2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))
2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:
  - a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

- b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))
  - c. The permittee submitted the necessary notice required in paragraph G.4 below. (40 CFR 122.41(m)(4)(i)(C))
3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in paragraph G.2 above. (40 CFR 122.41(m)(4)(ii))
  4. Notice
    - a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))
    - b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

#### H. Sanitary Sewer Overflows (SSOs)

An SSO is an overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility. SSOs are not authorized under this permit. The permittee shall immediately report any SSO to DEP in accordance with Part A III.C.4 of this permit.

#### I. Termination of Permit Coverage (25 Pa. Code § 92a.74 and 40 CFR 122.64)

1. Notice of Termination (NOT) – If the permittee plans to cease operations or will otherwise no longer require coverage under this permit, the permittee shall submit DEP's NPDES Notice of Termination (NOT) for Permits Issued Under Chapter 92a (3800-BCW-0410), signed in accordance with Part A III.B.6 of this permit, at least 30 days prior to cessation of operations or the date by which coverage is no longer required.
2. Where the permittee plans to cease operations, NOTs must be accompanied with an operation closure plan that identifies how tankage and equipment will be decommissioned and how pollutants will be managed.
3. The permittee shall submit the NOT to the DEP regional office with jurisdiction over the county in which the operation is located.

## II. PENALTIES AND LIABILITY

### A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

### B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or
- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A § 4904 and 40 CFR 122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

**III. OTHER RESPONSIBILITIES**

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92a and 40 CFR 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))
3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:
  - a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))
  - b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and (40 CFR 122.61(b)(2))
  - c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section. (40 CFR 122.61(b)(3))
  - d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate Department regulations. (25 Pa. Code § 92a.71)
3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

**PART C**

**I. OTHER REQUIREMENTS**

- A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.
- B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.
- C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.
- D. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for cleaning or other purposes, the permittee shall notify DEP prior to initiating use of chlorine and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

- E. Notification of the designation of the responsible operator must be submitted to the permitting agency by the permittee within 60 days after the effective date of the permit and from time to time thereafter as the operator is replaced.
- F. The seasonal effluent limitations for fecal coliform are based on Chapter 92a (Section 92a.47(4) and (5)) of DEP's regulations and Delaware River Basin Commission's (DRBC's) Water Quality Regulations at Section 4.30.4.A. DEP's regulations govern the summer limits for fecal coliform while the winter limits are based on DRBC's regulations. The DRBC regulations state that during winter season from October through April, the instantaneous maximum concentration of fecal coliform organisms shall not be greater than 1,000 per 100 milliliters in more than 10 percent of the samples tested. For reporting purposes, a copy of the guidelines on the 10 percent rule is enclosed with the permit.

**II. SOLIDS MANAGEMENT**

- A. The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within clarifiers or in the disinfection process is not permissible.
- B. The permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Sewage Sludge/Biosolids Production and Disposal" (Form No. 3800-FM-BCW0438) and "Supplemental Report – Influent & Process Control" (Form No. 3800-FM-BCW0436), as attachments to the DMR on a monthly basis. When applicable, the permittee shall submit the Supplemental Reports entitled, "Supplemental Report –

Hauled In Municipal Wastes" (Form No. 3800-FM-BCW0437) and "Supplemental Report – Hauled In Residual Wastes" (Form No. 3800-FM-BCW0450), as attachments to the DMR.

- C. By March 31 of each year, the permittee shall submit a "Sewage Sludge Management Inventory" that summarizes the amount of sewage sludge and/or biosolids produced and wasted during the calendar year from the system. The "Sewage Sludge Management Inventory" may be submitted with the Municipal Wasteload Management Report required by Chapter 94. This summary shall include the expected sewage sludge production (estimated using the methodology described in the U.S. EPA handbook, "Improving POTW Performance Using the Composite Correction Approach" (EPA-625/6-84-008)), compared with the actual amount disposed during the year. Sludge quantities shall be expressed as dry weight in addition to gallons or other appropriate units.

**Appendix - E**  
**Hillendale Sewage Treatment Plant Developers Sanitary**  
**Construction, Improvement, and Financial Security Agreement**

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**DEVELOPER'S SANITARY SEWER CONSTRUCTION, IMPROVEMENT AND  
FINANCIAL SECURITY AGREEMENT FOR  
THE ESTATES AT DOWLIN FORGE STATION**

THIS DEVELOPER'S SANITARY SEWER CONSTRUCTION, IMPROVEMENT AND FINANCIAL SECURITY AGREEMENT ("Agreement") is made this 25<sup>th</sup> day of May, 2017 ("Effective Date"), by and between: East Brandywine Township Municipal Authority, 1214 Horseshoe Pike, Downingtown, PA 19335 ("Authority") and MDG Downingtown, LP, 1030 Reed Avenue, Suite 100, Wyomissing, PA 19610, and its assigns and successors in interest ("Developer").

**Background**

A. Developer represents that it is the owner of and is in the process of developing a tract of land situated in East Brandywine Township, fronting on both Creek Road and Township Road, East Brandywine Township, Chester County, Pennsylvania, being Chester County UPI Nos. 30-3-67 and 30-3-78 ("Subject Property"), as and for a residential subdivision (the "Development"). The Development includes the installation of certain sanitary sewer facilities necessary to provide for the conveyance, treatment and disposal of sanitary sewage for the development. A legal description of the Subject Property is attached hereto and made a part hereof as **Exhibit "A."**

B. On or about November 11, 2010, the Authority, through its Engineer, approved certain plans for the design, construction and installation of the sanitary sewer collection facilities as depicted on a set of plans titled Hillendale Development prepared by Edward B. Walsh & Associates, Inc., dated July 31, 2006, as last revised October 27, 2014 comprised of 47 plan sheets ("Collection System Plans").

C. By letter dated August 19, 2015, the Authority, through its Engineer, approved with exceptions noted in the letter certain plans and specifications for the design, construction and installation of the sanitary sewer conveyance facilities, pump stations and treatment plant as depicted on a set of plans titled Wastewater Treatment Facility, Hillendale Subdivision, dated February 12, 2007, last revised June 22, 2015 comprised of 37 plan sheets ("Treatment Plant Plans"). The collection facilities, conveyance facilities, pumping stations, treatment plant and all sanitary sewer facilities and equipment shown on the Collection System Plans and the Treatment Plant Plans (collectively the "Plans") are hereinafter referred to as the "Improvements".

D. Developer, contemporaneously herewith, has provided to the Authority three separate performance bonds to financially secure the installation of the Improvements. The Improvements, for which security must be provided, together with the estimated cost of completing such Improvements, broken down into two phases, are listed on **Exhibit "B,"** which is attached hereto and made a part hereof.

E. Developer has heretofore commenced installation of the Improvements and now desires to record the final land development plan approved by East Brandywine Township which

requires, among other things, the execution of this Agreement and posting of the Financial Security with the Authority for the Improvements.

**NOW, THEREFORE**, the parties hereto, in consideration of the premises and the mutual promises herein contained and intending to be legally bound hereby, agree as follows:

1. Definitions; Interpretation

a. For purposes of this Agreement, except where the context clearly indicates otherwise, the following words and phrases (including the singular and plural forms thereof) shall have the following meanings:

(1) "Completion Date" shall mean the date specified in Section 2.c of this Agreement on or before which the Improvements shall be completed.

(2) "Financial Institution" shall mean the bonding company or lending institution, approved by Authority, with which the Financial Security has been posted or established and/or which issues the Financial Security.

(3) "Financial Security" shall mean the financial security provided for under and in accordance with the provisions of Section 5 of this Agreement (including any additional financial security made part thereof, any increases and other adjustments thereto, and any financial security substituted therefor) and the funds representative thereof and therein.

(4) "Improvements" shall mean all sanitary sewer improvements and facilities shown on or required by the Plans, and/or other improvements or common amenities required by this Agreement and any applicable ordinances or regulations.

(5) "Plans" shall mean the plans as defined in Background Paragraphs B and C herein above consisting of various plan sheets including, without limitation, all notes, statements and other information appearing on the Plans, and all reports, narratives, studies, profiles, delineations and other materials of whatever nature or kind referenced in and related to the Plans.

(6) "MAA" shall mean the Pennsylvania Municipality Authorities Act, 53 Pa. C.S.A. Chapter 56, as the same now exists and hereafter may be further amended.

(7) "Specifications" shall mean, as related to the completion of the Improvements, all statutes, ordinances, resolutions, rules and regulations of the Authority, East Brandywine Township, County of Chester, Commonwealth of Pennsylvania, United States of America and utility providers applicable to land disturbance, grading, sedimentation and erosion control, storm water management, traffic control, construction and sanitary sewer design, construction and installation.

(8) "Authority Engineer" shall mean the professional engineer(s), licensed as such in the Commonwealth of Pennsylvania, duly appointed and employed as the engineer for the Authority and/or engaged by the Authority as a consultant thereto.

(9) “Dedicated Facilities” shall mean those Improvements to be dedicated to and owned and operated by the Authority.

(10) “Shop Drawings” shall mean drawings, sketches, diagrams and manufacturer’s equipment data prepared and submitted by the Sewer Project Contractor or Sewer Project Engineer to illustrate in greater detail the construction of parts or components of the Improvements.

(11) Sewer Project Contractor shall mean the contractor(s) retained by the Developer to construct the Improvements.

(12) Sewer Project Engineer shall mean the engineer and any other licensed professionals retained by the Developer in connection with the design and construction of the Improvements.

(13) “Substantial Completion” shall mean a stage of construction that is sufficiently complete in accordance with the Plans and the Specifications, so that the Authority may use the Improvements for their intended purpose.

(14) “Treatment Plant” shall mean a complete sewage treatment facility utilizing a sequential batch reactor as described in the Treatment Plant Plans.

(15) The Phase 1 work and the Phase 2 work shall mean the portions of the sewer work referenced on **Exhibit “B”**.

b. Except as may be otherwise provided herein and/or if the context clearly indicates otherwise, all words and phrases appearing in this Agreement, which also appear in the Specifications or the MAA, shall have the meanings set forth therein.

## 2. Completion of Improvements

a. The Background section set forth above is incorporated herein by reference thereto.

b. Developer, at its sole expense, shall lay out, construct, install, and/or otherwise complete the Improvements in a good and workmanlike manner, in accordance with the Plans and the Specifications, as may be modified by a change authorized by this Paragraph 2. In the event of any inconsistency or conflict between or among the provisions of any of the Plans and Specifications, the Developer shall comply as reasonably directed by the Authority Engineer.

c. The Improvements shall be completed on or before the dates set forth on the Schedule of Completion attached hereto as **Exhibit “F”**, subject to delay for events of force majeure. Upon written request of Developer and approval of the Authority Board, which approval shall not be unreasonably withheld, said completion date may be extended from time to time, provided that (i) Developer's written request is received by the Authority Board not less than sixty (60) days prior to the then-current completion date, and (ii) the Financial Security is also extended

so that it continues valid and effective for all purposes thereof to a date occurring at least ninety (90) days after the extended completion date. Such times shall be of the essence.

d. Developer's present address is as set forth on page 1 of this Agreement. Developer agrees to notify the Authority, in accordance with Paragraph 9 herein below, of any change in this address. Developer agrees that notice of any kind or nature, relating to this Agreement or Authority resolutions, rules, regulations or specifications applicable to the Subject Property or its development, mailed to Developer at the above address, or any new address that Developer has given the Authority notice of pursuant to this paragraph, shall be valid and effective for all purposes.

e. Before connecting any sanitary sewers to existing sewer or sanitary systems, Developer shall obtain all necessary approvals and permits from the Authority and the Commonwealth of Pennsylvania, and Developer shall provide proof of such State approvals and permits to the Authority Engineer.

f. There shall be no revisions to or changes of the Plans, as approved, or to any construction detail, requirement, specification or standard therein or required by any of the Specifications (including the use of alternate equipment) unless the Authority Board or the Authority Engineer first approves such change (such approval to be in the sole discretion of the Authority Board or the Authority Engineer.)

(1) Developer, Sewer Project Engineer or Sewer Project Contractor shall submit any proposed changes in the approved Plans or any Specifications to the Authority Engineer with such drawings, plans and written explanations as shall be required by the Authority Engineer for adequate review and a decision on the proposed change. All such changes shall be reviewed by and bear the stamp of the Sewer Project Engineer.

(2) The Authority Engineer may, without approval of the Authority Board, authorize Developer to change construction details which do not alter the Specifications, a standard required by applicable regulations or a condition of Plan approvals and which do not make any substantial changes in the Plans as approved

(3) All changes directly affecting lots or property not owned by Developer must be approved by the owner(s) of those lots or property.

(4) The Authority Engineer shall review any change proposed by Developer and shall provide the Authority with an analysis of the change and make a recommendation for action, except that any change of a construction detail or use of alternate equipment which the Authority Engineer is permitted to authorize hereunder need not be submitted to the Authority Board for approval. Developer shall not cause any work to be done pursuant to a change in the Plans or Specifications, except a change in a construction detail or use of alternate equipment which the Authority Engineer authorizes hereunder, until the Authority Board has first approved the change.

(5) If the Authority Engineer approves a change in the Plans or Specifications which requires the approval of the Authority Board, then Developer agrees to enter into any additional formal agreements with the Authority necessary to bring such changes within the scope of this Agreement. No construction or other work shall be done, pursuant to any change in Plans or Specifications which requires the approval of the Authority Board, until such changes are incorporated into this Agreement and Developer provides satisfactory Financial Security, which complies with the MAA and is acceptable to the Authority, to guarantee any additional construction costs for additional improvements.

g. Within five (5) days after each Improvement is completed, Developer, by written notice in accordance with the provisions hereof, shall ask the Authority Engineer to conduct a final inspection of the Improvement. The Authority Engineer, exercising reasonable judgment, will determine if the Improvement complies with the requirements hereof and with all applicable standards.

h. Developer agrees that if any materials used or any work done in the construction of the Improvements or in otherwise implementing the Plans shall be reasonably rejected or disapproved by the Authority Engineer as defective or as not in compliance with the provision hereof or with any applicable standards, or if the work is done without prior inspection when prior inspection is required hereunder or is necessary to determine compliance with the Plans, Specifications, applicable regulations, or this Agreement, then, if such action is requested by the Authority or Authority Engineer, said materials and/or work shall be removed and replaced with other approved materials and/or the work shall be done anew, at the sole cost and expense of Developer and subject to inspection by the Authority Engineer to determine compliance. Any work covered without an inspection when an inspection is required hereunder shall be uncovered at Developer's expense to permit the Authority Engineer to make the inspection if the Authority Engineer requests that such action be taken. Developer agrees that the Authority Engineer is authorized to require the removal and replacement of any work and/or materials which are not completed in accordance with this Agreement and all applicable standards.

i. Developer shall be responsible, at its sole cost and expense, for the repair and maintenance of all Improvements during and after construction thereof; provided, however, that in the case of Improvements which are completed and dedication (or other transfer or assignment) of which is offered to and accepted by Authority, Developer shall have such repair and maintenance responsibility until such time as the acceptance of dedication (or other transfer or assignment) is final and effective (and in the case of the Treatment Plant and drip disposal fields, Developer shall have repair responsibility for a period of One Hundred Twenty (120) Days from the date of acceptance of dedication of the Treatment Plant), and the maintenance bond or other Financial Security is deposited with respect to such dedicated (or otherwise transferred or assigned) Improvements as provided under Section 5 below. For purposes of this subsection, "repair and maintenance of all Improvements" shall mean, without limitation, keeping the Improvements at all times in such condition that the structural integrity and functioning of the same shall be maintained at least in accordance with and/or as contemplated by the design and specifications thereof as shown on the Plans and in accordance with the Pennsylvania Department of Environmental Protection Water Quality Management Permit and the Delaware River Basin Commission Docket applicable to the Improvements. .

j. In the event that Developer is in default of any of its repair and maintenance obligations under this subsection, Authority shall have the right, but not the obligation (which right shall be in addition to such other or further rights and remedies as may be available to the Authority under this Agreement, the MAA, and/or otherwise at law or in equity) to:

(i) Enter upon the Subject Property and satisfy any of such defaulted repair and maintenance obligation of Developer (provided that any such entry and/or satisfaction shall not be deemed in any manner or to any extent whatsoever as an acceptance by Authority of the dedication, transfer or other assignment of the Improvements subject of the default and/or as imposing any responsibility upon Authority for the completion, further repair and maintenance, or otherwise, with respect to the Improvements subject of the default); provided that, except in the case of an emergency, the Authority shall not undertake any such repair or maintenance obligations without first providing Developer with a written notice of the alleged default and a ten (10) day opportunity to commence and diligently perform such repair and maintenance work; and

(ii) In order to pay for the costs, expenses and/or fees incurred by the Authority related to the satisfaction of any such defaulted obligations, (a) obtain payment for the Authority, or its order, out of all or any part of the Financial Security for such costs, expenses and fees (notwithstanding that the amount of the Financial Security, but for this paragraph, is not now or hereafter specifically established to guarantee or otherwise cover the payment of such costs, expenses and/or fees); and/or (b) institute and prosecute appropriate legal and/or equitable actions or proceedings against Developer in order to recover such costs, expenses and/or fees, together with attorney fees and costs incurred by Authority related to any such legal and/or equitable action or proceeding.

k. The entire costs to design, permit, inspect and complete the Improvements shall be borne by Developer. Developer is responsible to connect all dwellings and other structures shown on the Plans to the sanitary sewer system. Authority will not charge any connection or tapping fees for the foregoing connections. Any excess treatment and/or disposal capacity remaining after all of the dwellings in the Development have been completed and connected to the sewer system may be sold by the Authority; provided that Authority shall have no obligation to sell any such excess capacity. If any such excess treatment and disposal capacity is sold, Developer shall be entitled to payment by Authority of the reimbursement component of any tapping fee collected by Authority from users who connect to the Treatment Plant or the collection facilities within ten (10) years of the date of acceptance of dedication of the Treatment Plant or collection facilities as authorized by MAA Sections 5607(d)(24)(i)(C)(IV) and (31). This Agreement constitutes the reimbursement agreement required under the MAA for the Authority to reimburse the Developer when a third party connects to the Improvements. Authority shall retain an administrative fee of five percent (5%) of each reimbursement payment to be deducted from the reimbursement component/payment and retained by the Authority. Developer shall provide to Authority, following completion of the Improvements, written documentation satisfactory to the Authority confirming the actual costs incurred by Developer to complete the Improvements and any other information required by the Authority to calculate the reimbursement component in accordance with the MAA. The Authority shall have the right to set uniform rates for sewage service to be charged to users of the Improvements, based upon water usage, equivalent dwelling

units, or such other non-discriminatory methods as may be established by the Authority and uniformly charged to all users of sewer service.

1. Developer shall be entitled to charge and collect a fee from owners of dwelling units connected to the collection and conveyance facilities prior to dedication of the Improvements to the Authority. This fee is intended to offset the costs to be incurred by Developer to pump and haul sewage prior to acceptance of dedication and operation of the Treatment Plant by the Authority. Authority makes no representation regarding the legality of the Developer charging and collecting such pump and haul fees. After acceptance of dedication and the commencement of processing sewage at the Treatment Plant, Developer shall discontinue pump and haul of sewage and cease collection of pump and haul fees.

3. Conditions to be Met Prior to Commencing Construction of Improvements

a. Unless installed prior to the date of this Agreement, no permits shall be issued by the Authority and no Improvements listed on **Exhibit "B"** hereto shall be commenced until:

(1) The final subdivision and land development plan approved by East Brandywine Township, as finally approved, is recorded.; and

(2) This Agreement is duly signed by all parties and delivered to the Authority; and

(3) Developer pays to the Authority to be held by the Authority as a security deposit ("Security Deposit") and to be drawn on by the Authority to pay for the Authority's costs (including costs of preparing agreements, reviewing and approving plans and specifications, inspecting construction of the Improvements, and any engineering, inspection, legal or other expense incurred by the Authority in connection with the preparation, implementation or enforcement of the Plans and/or this Agreement and/or the Financial Security), in the amounts set forth in the Inspection Fee Deposit Agreement; and

(4) All fees required by any ordinance, resolution or regulation of the Authority or this Agreement are paid, including the payment of costs, legal and engineering expenses incurred by the Authority for the review of plans, preparation of this Agreement, the Financial Security, resolutions and other papers reviewed or prepared pursuant to this Agreement; and

(5) Developer has provided to the Authority a valid and effective performance bond as Financial Security for the Improvements required hereunder, which security shall meet the requirements of the MAA and this Agreement and be satisfactory to the Authority; and

(6) All required third party certificates, licenses, permits or approvals, including but not limited to Water Quality Management permits from PA DEP or a highway

occupancy permit from PennDOT, have been obtained and are still in effect and satisfactory proof thereof has been provided to the Authority; and

(7) All variances or other zoning approvals needed in order to develop the Subject Property as shown on the Plans have been obtained and are still in effect and have not expired and all applicable requirements of the Township's ordinances, resolutions and regulations have been met; and

(8) Developer has complied, to the reasonable satisfaction of the Authority Engineer, with the requirements set forth in any Authority Engineer's report or review letters relating to the development or the Improvements, including but not limited to the Authority Engineer's review letter dated August 19, 2015; and

(9) Developer has furnished the required insurance certificates to the Authority.

b. Before commencing work on any Improvement that requires submission of shop drawings, Developer shall submit shop drawings, for review and approval by the Authority Engineer. Developer shall not proceed with any work on the Improvements without approval of the shop drawings and without first giving notice to the Authority Engineer and, when the Authority Engineer's inspection is required under this Agreement, arranging with the Authority Engineer for such inspection.

#### 4. Obligations of Developer During Construction

a. All Improvements are subject to inspection by the Authority Engineer. Improvements that are to be underground shall be inspected prior to backfilling and may require an Authority inspector to be present at all times (full-time) during construction and installation. Improvements that are visible from finished grade may only require part-time inspection. At least two (2) days prior to the commencement of each Improvement, Developer shall notify the Authority Engineer. Developer shall also notify the Authority Engineer at least two (2) days prior to conducting any testing of the Improvements.

b. It shall be the obligation of Developer to arrange, in advance, with the Authority Engineer for inspection of work as the work progresses. Developer agrees that the Authority's personnel shall have reasonable access to the Subject Property at all times.

c. Developer shall bear the cost of and shall reimburse the Authority for the cost of all inspections by the Authority Engineer and/or the Township Code Enforcement Officer. Developer shall execute and fund the standard Authority Inspection Fee Deposit Agreement attached hereto as Exhibit "E" prior to commencing work on any of the Improvements not installed as of the date of this Agreement.

d. Developer shall bear all the cost and expense associated with any relocation, removal, correction, replacement, repair or reconstruction of Improvements.

e. During the course of construction of the Improvements, Developer will be responsible for proper removal and disposal of all construction debris and waste materials, including but not limited to rejected or defective materials, paper, packaging, cartons and the like, from the Subject Property and surrounding areas, whether discarded by it or others employed by it or by persons engaged in the delivery of materials to and/or construction within the Subject Property and/or any other activity pursuant to the Plans. Developer agrees to prevent such waste materials from being buried or burned on the site or deposited, thrown or blown, upon any property adjacent to or within the vicinity of the Subject Property.

f. Developer agrees to provide dumpsters on the site in the size and number as reasonably required by the Authority Engineer and/or the Township Code Enforcement Officer.

g. If Developer fails to remove any construction debris or waste materials, including rubbish, cartons and discarded materials, generated by or because of Developer's activities, from the Subject Property or from surrounding areas within 72 hours after Developer received written notice from the Authority to do so, or immediately if such debris or materials are causing a traffic hazard or other danger to the public health, safety and welfare, then the Authority shall have the right but not the obligation to remove said waste materials and to draw from the Security Deposit created under Section 3.a(3) hereof, the sums necessary to pay to parties who complete such work or to reimburse the Authority for the costs of cleaning up the Subject Property and surrounding areas. The Authority's exercise of its rights to remove waste materials pursuant to this paragraph shall not obligate the Authority to do so in the future.

h. Developer shall, at all times, release and indemnify and hold the Authority, its agents, employees and officials, harmless from any and all expenses and liability arising out of or from or relating to Developer's activities in implementing the Plans and for any and all failures to comply with applicable Specifications. Developer agrees to furnish the Authority prior to commencement of any work whatsoever a certificate showing that Developer and Developer's general contractor have adequate liability insurance coverage in an amount not less than Two Million dollars (\$2,000,000.00) each and each such policy shall name the Authority as an additional insured and shall provide that the policies cannot be terminated or not renewed without 30 days' prior written notice to the Authority. Developer shall keep said coverage in effect until all work is completed and approved by the Authority and shall continue to furnish to the Authority certificates showing continued coverage.

i. Developer agrees to complete all Improvements by the Completion Date, unless the time for completion is extended by the Authority in writing. This permission shall not relieve Developer from its obligation to properly complete the Improvements.

j. Developer agrees to be responsible for work at the site and to: (1) reasonably restrict the noise from workmen; (2) cease all work on the site by 7:00 PM on Monday to Friday and by 5:00 PM on weekends, except in cases of emergency or exceptional cases; and (3) not to begin work prior to 7:00 AM on Monday through Friday and 8:00 AM on weekends, except in cases of emergency or exceptional cases. Any work outside of the permitted hours shall be completed in consultation with the Authority Engineer.

4a. Pump and Haul.

a. The Authority agrees, subject to PADEP approval, to permit temporary waste disposal for any completed residences by "pump and haul" until the Treatment Plant is operational.

b. Developer agrees to apply for and the Authority agrees to cooperate in Developer obtaining of pump and haul permits from the PADEP and other applicable governmental agencies.

c. The Authority will not withhold or delay issuing any permits or approvals provided that pump and haul permits have been issued and are in effect, an escrow has been established and maintained as described below and adequate capacity as defined by the pump and haul permit exists. In addition, and subject to the provisions of this section, Developer shall be permitted to pump and haul sewage effluent from any "model home" prior to completion of the Improvements and until such time that the model home can be connected to the Improvements and the Treatment Plant is operational.

d. During the continuation of pump and haul process, the Authority will not be responsible to charge any homeowners benefiting from such disposal. The Developer is solely responsible to determine the appropriate costs and payment of costs resulting from the pump and haul operation.

e. Developer and Authority shall enter into the pump and haul agreement, for 124 homes (including the 4 model homes), in a form reasonably acceptable to Developer and the Authority.

f. Prior to commencing the pump and haul process, Developer shall deposit with the Authority a Pump and Haul Escrow which shall be maintained with the Authority equal to the maximum costs associated with pumping and hauling the planned flow from the designed pump and haul EDUs for a period of six (6) months, based on a bona fide contract between a waste hauler and the Developer.

5. Guaranty of Completion of Improvements

a. Developer shall deposit with Authority or otherwise establish the Financial Security in accordance with and pursuant to the terms and conditions of this Section 5. Unless and until the Financial Security is so deposited or otherwise established by Developer for each phase of the construction of the Improvements, no work towards the completion of any of the Improvements shall be laid out, installed or otherwise commenced, and no construction or other permit, relating to the construction or placement of any of the Improvements or of any buildings or other structures in, on and/or related to the Subject Property, shall be issued by Authority.

b. The Financial Security shall provide for and secure to the public, as represented by the Authority, the completion, on or before the Completion Date, as may be extended hereunder, of the Improvements in accordance with and pursuant to the terms and

conditions of this Agreement, and shall further guarantee the performance of the other obligations of Developer under this Agreement.

c. The Financial Security for the Improvements shall be a total of Five Million Six Hundred Fifty Seven Thousand Seven Hundred Forty Five Dollars and Ninety-Two Cents (\$5,657,745.93) for both phases, which is the total cost estimate for installation of the Improvements, including a 10% contingency, as set forth in **Exhibit "B"** attached hereto and made fully part hereof.

d. The Financial Security is subject to the terms and conditions of the Financial Security Procedures attached hereto as **Exhibit "C"** and made a part of this Agreement.

e. A duly authorized officer of Financial Institution shall execute the Acknowledgement and Verification attached hereto as **Exhibit "D"**.

6. Failure to Complete; Other Default

a. In the event that any of the Improvements is or are not completed fully in accordance with the terms, conditions and requirements of this Agreement , or in the event that Developer becomes insolvent, declares bankruptcy or ceases work on the Improvements for a period of greater than thirty (30) days without Authority approval, the Authority shall have the right, but not the obligation (which right shall be in addition to such other or further rights and remedies, as may be available to Authority under this Agreement, the MAA, and/or otherwise at law or in equity), or to: (1) enter upon the Subject Property and complete all or part of the Improvements in accordance with the terms, conditions and requirements of this Agreement ; and (ii) obtain payment to it, or its order, of all or any part of the Financial Security and/or to otherwise enforce the Financial Security in order to pay for the costs of such completion and related costs, expenses and fees, provided that the Authority shall not undertake any such completion without first providing Developer with a written notice of the alleged default and a ten (10) day opportunity to commence and diligently perform such completion.

b. If the proceeds of the Financial Security paid to the Authority, or its order, are not sufficient or unavailable to pay the costs of fully completing all the incomplete Improvements, together with related costs, expenses and fees, Authority, at its option, shall have the right to complete part of the Improvements and to institute appropriate legal and/or equitable actions against Developer to recover monies necessary to complete the remainder of the incomplete Improvements and pay all related costs, expenses and fees, including, but not limited to, the following: (i) the amount that Authority shall incur to fully complete the Improvements or otherwise fully cure the default; (ii) any other costs, expenses and fees referred to in this Agreement for which Developer is obligated and has not paid and which are past due and/or which have been incurred by Authority; (iii) interest, at the then-legal rate on all of the foregoing amounts, costs, expenses and fees accruing either as of the respective payment due dates herein provided or, if no payment due dates are so provided, as of the respective dates on which Authority incurs such amounts, costs, expenses or fees; (iv) costs of suit; and (v) attorney's fees.

c. In the event that Authority exercises its right, but not obligation, to complete all or part of the incomplete Improvements upon the aforesaid uncured default of Developer, there shall be no requirement for the advertisement of public works or for competitive bidding. Any monies paid to Authority of, from or under the Financial Security and any proceeds resulting from the aforesaid legal and/or equitable actions against Developer shall be deemed not to be public funds for the purpose of any laws relating to public advertising or solicitation of bids. Authority may use any commercially reasonable means to select contractors and/or negotiate prices or costs of material and labor, and Developer hereby ratifies all actions taken by Authority in that regard. Authority shall have the right, but not the obligation, to use its own employees to complete all or part of the Improvements. Developer shall exonerate, indemnify and hold harmless Authority, its officials, officers, employees and agents, of and from any liability, claim, suit or demand of whatever nature or kind arising from, out of or related to any act of Authority, or of any official, officer, employee or agent thereof, done or authorized to be done in completing all or part of the Improvements; and Developer hereby authorizes, ratifies and affirms any act done by Authority, or by any official, officer, employee or agent thereof, in furtherance of such competition; provided that the Developer shall not be obligated to indemnify or hold the Authority, its officials officers employees and agents, harmless from and against third party claims alleging negligence, willful misconduct or other wrongful conduct by the Authority or its officials, officers, employees and/or agents.

7. Advancement and/or Reimbursement of Expenses

a. Developer shall advance and/or reimburse Authority the following as provided in this Section 7:

(1) All costs, expenses and fees incurred by Authority in and for the preparation, review, orderly performance and/or enforcement of this Agreement. Such costs, expenses and fees shall include, without limitation, reasonable legal expenses and fees of the Authority Solicitor; and reasonable expenses and fees of the Authority Engineer, and/or any other professional consultant(s) engaged by Authority in visiting the site for the purposes of inspection and for the performance of official duties necessarily connected with said inspection purpose, including expenses and fees of the Authority Engineer and other contractors and consultants Developer during the preparation for operation of the Improvements and startup of the process, pumping and discharge equipment. Developer shall execute a separate Inspection Fee Deposit Agreement attached hereto as **Exhibit "E"** and deposit the fee amount prior to recording the Final Subdivision Plan approved by East Brandywine Township.

(2) All costs, expenses and fees incurred by Authority of and for necessary legal proceedings in connection with the dedication (or other transfer or assignment) of the Improvements to the Authority, including, without limitation, reasonable fees of the Authority Solicitor, the Authority Engineer and/or other professional consultants engaged by Authority.

(3) All reasonably required professional consultant and administrative costs and expenses of or incurred by Authority in connection with the subject subdivision/land development at then-prevailing rates.

b. In accordance with the MAA and Authority resolutions, Developer shall reimburse the Authority for all outstanding fees, costs and expenses reasonably incurred in connection with the review of plans and all other documents, construction inspections, testing, operations and administrative, legal and engineering services related to the Improvements for the Subject Property, or related to inspections or other work to satisfy the conditions of the approval of the Plans (collectively the "Fees") Developer shall, within forty-five (45) days of receipt of any such invoices from the Authority or its professional consultants, remit payment to the Authority for the Fees. Any balance of any invoice not paid within such forty-five (45) day period shall bear interest at the rate of one and one-half percent (1 1/2%) per month. Should Developer wish to dispute any of the above-referenced Fees, it must notify the Authority and the Authority's professional consultant no later than sixty (60) days after the date of any bill for services and shall identify, with specificity, the basis for the objection to any charge for Fees. The failure of Developer to contest such Fees within sixty (60) days constitutes a waiver of the right to challenge any such Fees charged. Should Developer contest any Fees, it shall nonetheless remit payment of the disputed Fees, without prejudice to its position in disputing the same. The procedure set forth in the MAA Section 5607(d) (30) (i) through (vi), shall then be utilized to resolve all timely disputed Fees.

c. To the extent that Developer fails to remit payment within forty-five (45) days, the Authority may withdraw such amounts from the escrow fund created pursuant to the Financial Security posted in accordance with this Agreement, and shall notify Developer of such withdrawal. Developer shall then be required to replenish the escrow fund created to the Financial Security within thirty (30) days thereafter.

d. It is expressly acknowledged and agreed that Authority shall not be obligated hereunder or otherwise to finally release Developer from or under the Financial Security, or any other financial security provided pursuant hereto, to accept dedication (or other transfer or assignment) of any facilities, and/or to issue any permit, unless and until all the aforesaid Fees are paid in full.

7a. Dedication of Improvements

a. Within forty-five (45) days after Substantial Completion and prior to the Authority's acceptance of dedication of the Dedicated Facilities, Developer, at its own expense, shall provide the Authority with one (1) digital set, in the latest AutoCad format, and two (2) reproducible sets of "Record Drawings" plans of the Improvements, which shall be subject to the review and approval by the Authority Engineer.

(1) Such plans shall include the horizontal and vertical locations of rim and inverts for manholes; gravity and force mains; tops and bottom elevations for pump stations and treatment plant tanks; pipe and weir inverts, control and maintenance building locations showing first floor elevation and the location of underground utilities for the pumping stations and waste water treatment plant; dimensions of the drip disposal fields; and other information necessary to replicate the as-built conditions of the Improvements.

(2) The Record Drawings shall be certified by a professional engineer and/or a professional land surveyor licensed in the State of Pennsylvania. A certification statement, approved by the Authority Engineer, shall be included on the plans indicating that the plans accurately reflect the as-built conditions of construction and that the responsibility of the accuracy rests with the Sewer Project Contractor.

b. Before offering the Dedicated Facilities for dedication, Developer shall provide the Authority with thirty (30) days' notice of its intention to do so. During this thirty (30) day period, the Authority shall inspect the Improvements. If the Improvements have not been completed in accordance with the approved Plans and Specifications, then the Authority shall provide to Developer within the thirty (30) day period a "punch list" of incomplete or unsatisfactory items. Developer shall then have thirty (30) days or such other reasonable period of time as may be necessary in the situation, to correct the punch list items before re-inspection by the Authority. The Authority may, but is not obligated to, accept dedication of the Dedicated Facilities once they are Substantially Completed and while the Developer continues to correct punch list items. The acceptance by the Authority of same will not be deemed a waiver of the obligation of the Developer to complete the punch list items.

c. Prior to the Authority's acceptance of the Dedicated Facilities, the Developer, at its sole expense, shall conduct, under observation of the Authority Engineer a mechanical performance test of the Improvements (including hydraulic tests, pressure tests, video camera inspections and any test recommended by the equipment manufacturer) to demonstrate that the Improvements and all of the equipment related thereto function as intended. The testing shall include but not be limited to start-up of the Treatment Plant using water provided by Developer, operation of all equipment and discharge of effluent to the drip disposal fields. Within ten (10) business days after completion of such tests, the Authority's Engineer will issue a written report thereof to Developer containing the engineer's approval of the test results or stating in detail the deficiencies and such corrective actions that will be needed for acceptance of the Dedicated Facilities. The Authority will not accept dedication of the Dedicated Facilities or responsibility for the operation of the Dedicated Facilities and maintenance expenses until testing has been completed to the satisfaction of the Authority and the Authority's Engineer. Until such time as the Authority accepts dedication of the Improvements, (a) all expenses related thereto shall be the Developer's responsibility, and (b) Developer shall be entitled to retain pump and haul fees per Section 2 above.

d. When installation of the Dedicated Facilities has been fully completed, tested and approved by the Authority Engineer, or by the third-party engineer, as provided above, Developer shall tender to the Authority the following:

(1) Deed(s) of Dedication (in fee or easement, as the case may be), in customary form satisfactory to the Authority, dedicating the Dedicated Facilities as public improvements to the Authority at no cost or expense;

(2) Grant of easements over such portions of the Property as are necessary for the use, repair and maintenance of the Dedicated Facilities;

(3) Bill of Sale for all personal property to be transferred to the Authority;

(4) A certificate of title insurance or other proof of clear title to any real property satisfactory to the Authority, and a UCC search certificate evidencing that title to any personal property to be transferred to the Authority is free of any security interests, liens or claims or record;

(5) Financial security in the amount of fifteen percent (15%) of the actual cost of all labor and materials for installation of the Dedicated Facilities to secure the structural integrity and function thereof in accordance with the Plans and Specifications. Said financial security shall be of the same type as is acceptable to secure completion of the Improvements and shall be held by the Authority for a period of eighteen (18) months from the date of dedication.

(6) An amount equal to the cost of recording the Deed(s) of Dedication, including any applicable realty transfer tax, plus the Authority's reasonable legal expenses in connection with the acceptance of dedication;

(7) Delivery and assignment to the Authority of all warranties, instruction and operating manuals and other such materials that Developer receives with respect to the Improvements.

(8) A minimum of one-hundred twenty (120) residential units are occupied and connected to sewer system or such lesser number as deemed acceptable to the Authority.

(9) Deposit with the Authority of immediately available funds to pay for Developer's obligations during the Maintenance Period as described in Paragraph 7a.f hereinbelow. The amount of the deposit will be estimated by the Authority Engineer. Developer shall deposit additional amounts from time to time as determined by the Authority Engineer when the Maintenance Period deposit balance is 20% of its original amount

e. The Authority shall accept the Deed(s) of Dedication within thirty (30) days following the satisfaction of items (a) through (d) above and (f) below, provided the Improvements have been approved as aforesaid.. The Authority may defer its acceptance of said tender until all Improvements shall have been fully tested and are functioning to the satisfaction of the Authority, such approval not to be unreasonably withheld.

f. Repair Period. After acceptance and dedication of the Dedicated Facilities, Authority shall be responsible to operate the Dedicated Facilities. It is expected that during the initial operation there will be necessary adjustments or repairs to enable operation in accordance with design specifications and permit limitations. Therefore, for a period of one-hundred twenty (120) days from the initial start-up of the Treatment Plant after dedication (the "Repair Period"), Developer shall be financially responsible for all costs and expenses related to adjustments, repairs and replacements of the Dedicated Improvements. Prior to acceptance and dedication of the

Dedicated Improvements, Developer shall deposit with the Authority in immediately-available funds a Repair Period fund in an amount mutually agreeable by Developer and Authority. The Repair Period fund shall be used by the Authority to pay costs and expenses related to repairs and replacements. The Repair Period fund shall comply with the requirements of the Inspection Fee Deposit Agreement attached hereto as Exhibit E. This Repair Period fund shall be in addition to the 18-month financial security required by Paragraph 7a.d(5) hereinabove

8. Representations; Indemnification

a. Developer represents and warrants that the Plans are adequate for the purpose of constructing and using the Improvements as intended. Developer acknowledges and agrees that the Authority has reviewed the Plans for the sole purpose of protecting the interests of the Authority and does not thereby expressly or impliedly warrant the technical suitability of the Plans. Authority disclaims all liability for design, construction, installation or operational defects based on the Plans.

b. Developer hereby agrees to indemnify and save harmless Authority, its officials, officers, employees and agents, of, from and against any liability, claim, suit or demand of whatever nature or kind, whether founded or unfounded, arising from, out of or related to the design, laying out, permitting, installation, construction, completion, inspection, testing, functioning, repair and/or maintenance of (or the failure to repair and/or maintain) the Improvements and the pump and haul process and the collection of fees associated therewith (subject to subsection 8(c) below), together with all cost, fees and expenses (including, but not limited to, attorney's fees and costs and expert witness fees and costs) as may be incurred by Authority in connection with any such liability, claim, suit or demand.

c. The indemnification, save harmless and defense provisions of Subsection 8.a shall not apply to any claims, suits or demands arising from, out of or related to the repair and/or maintenance of (or the failure to repair and/or maintain) any Improvements, the dedication (or other transfer or assignment) of which has been offered to and accepted by Authority, which repair and/or maintenance (or the failure thereof) occurs in whole after the time when Authority's acceptance of the offer of dedication becomes final and effective, nor to claims, suits or demands arising from the sole negligence or wrongful conduct of Authority, including claims, suits or demands during the Maintenance Period.

9. Notices

a. Any notice, demand or other communication required, authorized or permitted to be given under this Agreement shall be sufficient if given in writing and delivered to the party to whom or which the notice or demand is directed at the respective address of the party first above indicated, or to such other address as the party may give by notice complying with the terms of this section.

b. Such notice, demand or other communication shall be delivered to the addressee by one of the following means: (i) personal delivery against receipt; (ii) certified U.S. mail, postage prepared, return receipt requested; or (iii) nationally recognized express delivery

service, postage or delivery charges prepaid. The notice, demand or other communication shall be deemed given and effective as follows: (i) if by personal delivery, at the time of delivery; or (ii) if by express delivery or mail, at the time of receipt.

10. Miscellaneous

a. Waiver. Neither the failure nor any delay on the part of the Authority to exercise any right, remedy, power or privilege granted under this Agreement or otherwise provided at law or in equity, shall operate as a waiver thereof; nor shall any single or partial exercise of any such right, remedy, power or privilege preclude further exercise of the same or of any other such right, remedy, power or privilege; nor shall any waiver of any such right, remedy, power or privilege with respect to any occurrence be construed as a waiver of such right, remedy, power or privilege with respect to any other occurrence. No waiver shall be effective against Authority, unless it is in writing signed by a duly authorized representative of the Authority.

b. Assignment; Delegation. Developer shall not assign or delegate any of its rights, powers, privileges, duties, obligations or liabilities hereunder without the express written consent of Authority. Any such assignment or delegation without such consent shall be void.

c. Cumulative Rights and Remedies. Any and all rights, powers, privileges and/or remedies granted or accruing to Authority under or pursuant to this Agreement shall not be exclusive, but shall be cumulative and in addition to such other rights, powers, privileges and/or remedies as may be now or hereafter available to Authority under the Subdivision and Land Development Ordinance and/or the MPC and/or otherwise at law or in equity.

d. Headings. The captions or headings preceding the text of the several sections and subsections of this Agreement are inserted solely for convenience of reference; they shall neither constitute a part of this Agreement nor affect its meaning, construction or effect.

e. Severability. If any provision on this Agreement is held to be invalid or unenforceable: (i) the remaining provisions of this Agreement shall not be affected thereby, but shall continue in full force and effect; (ii) this Agreement shall be and is hereby amended, to the minimum necessary, to remedy such invalidity or unenforceability, and the parties hereto shall adjust their respective rights and obligations hereunder accordingly; and (iii) to the extent that such invalid or unenforceable provisions cannot be rendered valid or enforceable by amendment as aforesaid, the same shall be severed here from as though never set forth herein.

f. No Third-Party Beneficiaries. This Agreement does not confer any enforceable rights or remedies upon any person other than the signatories hereto. Neither contractors of the Developer, nor owners of lots within or adjoining the Subject Property, shall be considered beneficiaries of this Agreement and, accordingly, shall have no rights hereunder, *inter alia* and without limitation, for the completion or maintenance of any Improvements, or for the use, increase, decrease or modification of any Financial Security for any purposes whatsoever.

g. Binding Effect. Subject to Subsection b. above, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

h. Entire Agreement; Amendment. This Agreement, together with the exhibits attached hereto and made a part hereof, constitutes the entire understanding and agreement of the parties with respect to the subject matter hereof and, except as may be otherwise specifically set forth herein, supersedes all prior and contemporaneous agreements and understandings, express or implied, oral or written. Except as may be otherwise specifically provided herein, this Agreement may not be amended, revoked, changed, altered or modified in any manner whatsoever, other than by written unanimous agreement of and signed by all parties hereto.

i. Governing Law & Jurisdiction. This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, regardless of conflicts of laws and principles. All claims arising from this Agreement shall be the exclusive jurisdiction of the Chester County Court of Common Pleas or the U.S. District Court for the Eastern District of Pennsylvania.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

ATTEST:

Jan C. Bednarchik

EAST BRANDYWINE TOWNSHIP  
MUNICIPAL AUTHORITY

By: [Signature]

Title: Chairman

Date: 6-5-17

MDG DOWNINGTOWN, LP  
By: LIGM Developers, LLC,  
its general partner

ATTEST/WITNESS:

[Signature]

By: [Signature]  
Kevin Timochenko, Sole Member

\_\_\_\_\_

May 25, 2017  
Date

\_\_\_\_\_

**EXHIBITS**

EXHIBIT A: Legal Description of the Subject Property

EXHIBIT B: Cost Estimates for Phase I and Phase II Improvements

EXHIBIT C: Financial Security Procedures

EXHIBIT D: Acknowledgement and verification

EXHIBIT E: Inspection Fee Deposit Agreement

EXHIBIT F: Schedule of Completion

**EXHIBIT "A"**



**EDWARD B. WALSH & ASSOCIATES, INC.**  
*Complete Civil Engineering & Land Surveying Services*  
Lionville Professional Center  
125 Down Forge Road  
Exton, PA 19341

4148  
Hillendale  
8/27/2015

**LEGAL DESCRIPTION**  
**TRACTS I & II**  
**UPI 30-3-67 AND UPI 30-3-78**

**ALL THAT CERTAIN** parcel of land situate in the East Brandywine Township, County of Chester, Commonwealth of Pennsylvania, shown as UPI 30-3-67 and UPI 30-3-78 on a plan titled "ALTA/ACSM Land Title Survey of Tax Parcels 30-3-67, 30-3-78 & 30-3-82 for Lennar Corporation", dated September 14, 2015, Sheets 1 & 2 of a total of 3 sheets, prepared by Edward B. Walsh and Associates, Inc., of Exton, PA, and being more fully described as follows:

**BEGINNING** at a corner of lands now or late of Aaron J. Balch in the title line in the bed of Creek Road, SR 0282, thirty-three (33) feet wide legal right-of-way; thence from the point of beginning along said Balch the following two (2) courses and distances:

- 1) crossing the north line of Creek Road, passing over an iron pipe found 35.97 feet from the last mentioned point, North 09 degrees 04 minutes 34 seconds West 228.85 feet to an iron pipe found;
- 2) South 85 degrees 44 minutes 43 seconds West 165.85 feet to an iron pipe found in the east line of lands now or late of Ethan J. Hoke and James A. Hoke;

thence along the same North 11 degrees 52 minutes 39 seconds West 266.29 feet to a rebar found next to a concrete monument; thence partly along the same and along lands now or late of Scott and Jennifer Simpson, respectively, along the southerly terminus of a twenty (20) feet wide Utility Easement over UPI 30-3-78, North 80 degrees 45 minutes 57 seconds West 1272.81 feet to a 1/2 inch diameter iron pipe found in the east line of lands now or late of Peter A. Mielnik and Dorthy Angela Kerrick; thence partly along the same and along lands now or late of Robert H. Hodge and Elizabeth W. Hodge respectively, North 01 degrees 49 minutes 22 seconds West 1057.26 feet to a field stone found; thence continuing along the same, North 86 degrees 58 minutes 0 seconds West 523.17 feet to a field stone found at a corner of lands now or late of Misa Corporation; thence partly along the same and along lands now or late of The Board of Supervisors of East Brandywine Township respectively, North 86 degrees 32 minutes 21 seconds West 1402.27 feet to a point; thence continuing along same, South 43 degrees 34 minutes 12 seconds West 40.75 feet to an iron pipe found at the corner of lands now or late of William

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Belmonte and Joseph J. Belmonte, Jr.; thence along the same, crossing the north legal right-of-way line of Township Road, thirty-three (33) feet wide legal right-of-way, South 50 degrees 21 minutes 14 seconds West 315.08 feet to a point in the title line in the bed of said road; thence along the same, South 88 degrees 03 minutes 54 seconds West 204.74 feet to a railroad spike found at the southeast corner of lands now or late of CJD Group, LLC; thence partly along the same and along lands now or late of Arthur B. and Lorraine C. Tahar, respectively, recrossing the north legal right-of-way line of Township Road, North 03 degrees 38 minutes 3 seconds East 373.84 feet to a 5/8 inch diameter iron pipe found; thence continuing along said Tahar, South 86 degrees 48 minutes 33 seconds East 270.78 feet to a 5/8 inch diameter iron pipe found; thence continuing partly along said Tahar and along lands now or late of Emil and Gladys Tkachik, crossing a certain Buckeye Partners Pipeline Easement, North 11 degrees 49 minutes 37 seconds East 678.37 feet to a 5/8 inch diameter rebar in concrete found at a corner of other lands of said Tkachik; thence continuing along the same, North 11 degrees 48 minutes 37 seconds East 340.67 feet to a 3/4" inch diameter iron pipe found at a corner of lands common to said Tkachik, the now or late Isaac W. Tipton, Jr. and the now or late Samuel A. and Michele R. Smith, respectively; thence continuing along lands of said Smith, North 10 degrees 53 minutes 08 seconds East 160.67 feet to a 3/4" inch diameter iron pipe found; thence continuing along the same, passing over another 3/4 inch diameter rebar found at a distance of 67.35 feet from the next mentioned point, North 81 degrees 23 minutes 32 seconds East 370.99 feet to a corner of lands now or late of Todd M. Reidinger and Patricia A. Farrell; thence along the same the following eight (8) courses and distances:

- 1) South 20 degrees 25 minutes 20 seconds East 260.08 feet to a point;
- 2) South 87 degrees 42 minutes 22 seconds East 98.80 feet to a point;
- 3) North 33 degrees 15 minutes 47 seconds West 113.28 feet to a point;
- 4) North 06 degrees 52 minutes 35 seconds West 80.00 feet to point;
- 5) North 70 degrees 52 minutes 47 seconds West 58.58 feet to a point;
- 6) North 04 degrees 57 minutes 38 seconds East 208.84 feet to a point;
- 7) North 16 degrees 02 minutes 38 seconds East 100.00 feet to a point;
- 8) North 29 degrees 55 minutes 38 seconds East 60.00 feet to a point in the south line of lands now or late of Kenneth J. and Ann R. Haas;

thence along the same, North 89 degrees 00 minutes 38 seconds East 56.72 feet to point in the west line of lands now or late of Mark A. Miller; thence along the same, South 05 degrees 26 minutes 07 seconds West 75.67 feet to a 5/8 inch diameter iron pipe found; thence continuing partly along the same and along the lands now or late of Kermit H. Lyman, Jr. and Cynthia P. Lyman, respectively, South 55 degrees 08 minutes 4 seconds East, passing over a field stone found at a distance of 53.86 feet from the next mentioned point, 335.48 feet to a point; thence continuing partly along said Lyman and along lands now or late of Francis A. Alleva and along lands now or late of H. Peter Herring and Louise R. Herring, and lands now or late of Graham F. and Daneen N. Baird and lands now of late of Barbara August Walker and David Mead Walker, respectively, South 87 degrees 23 minutes 11 seconds East 1138.15 feet to a point; thence continuing along said Walker the following two (2) courses and distances:

- 1) South 49 degrees 37 minutes 42 seconds East 230.35 feet to an iron pipe found;
- 2) crossing the west legal right-of-way line of Creek Road aforesaid, North 83 degrees 56 minutes 04 seconds East 74.70 feet to a point in the title line in the bed of said road;

thence along the same the following fourteen (14) courses and distances:

- 1) South 19 degrees 43 minutes 12 seconds East 72.00 feet to a point;

- 2) South 15 degrees 00 minutes 13 seconds East 136.50 feet to a point;
- 3) South 32 degrees 25 minutes 13 seconds East 246.00 feet to a point;
- 4) South 27 degrees 55 minutes 13 seconds East 425.07 feet to a point;
- 5) South 47 degrees 15 minutes 13 seconds East 380.00 feet to a point;
- 6) South 52 degrees 45 minutes 13 seconds East 200.00 feet to a point;
- 7) South 58 degrees 07 minutes 13 seconds East 100.00 feet to a point;
- 8) South 66 degrees 07 minutes 13 seconds East 100.00 feet to a point;
- 9) South 74 degrees 07 minutes 13 seconds East 100.00 feet to a point;
- 10) South 86 degrees 25 minutes 10 seconds East 83.56 feet to a point;
- 11) South 04 degrees 20 minutes 40 seconds East 10.00 feet to a point;
- 12) North 83 degrees 07 minutes 27 seconds East 155.30 feet to a point of curvature;
- 13) southeasterly along a curve to the right having a radius of 85.00 feet, an arc distance of 100.71 feet and a chord which bears South 62 degrees 18 minutes 46 seconds East 94.92 feet to a point of compound curvature;
- 14) southerly along a curve to the right having a radius of 190.00 feet, an arc distance of 94.30 feet and a chord which bears South 14 degrees 09 minutes 04 seconds East 93.33 feet to a point of cusp;

thence along lands now or of late of Audrey L. Boyd, crossing the west legal right-of-way line of Creek Road, passing over a concrete monument found 34.17 feet from the last mentioned point, crossing a certain Buckeye Partners Pipe Line Easement, South 71 degrees 17 minutes 40 seconds West 670.11 feet to a concrete monument found; thence continuing along said Boyd the following two (2) courses and distances:

1. South 02 degrees 23 minutes 34 seconds East 76.44 feet to a concrete monument found;
2. South 83 degrees 37 minutes 31 seconds East 242.47 feet to a 1/2 inch diameter rebar found at the northwest corner of lands now or late of Theodore Greisser;

thence along the same the following two (2) courses and distances:

1. South 06 degrees 35 minutes 28 seconds West 403.48 feet to a concrete monument found;
2. recrossing the west line of Creek Road, South 78 degrees 19 minutes 18 seconds East, passing over a concrete monument found at a distance of 27.43 feet from the next mentioned point, 370.53 feet to a point in the title line in the bed of said road;

thence along the same the following four (4) courses and distances:

- 1) South 06 degrees 30 minutes 00 seconds West 163.48 feet to a point;
- 2) South 08 degrees 15 minutes 00 seconds West 283.80 feet to a point;
- 3) South 15 degrees 00 minutes 00 seconds West 254.10 feet to a point;
- 4) South 54 degrees 55 minutes 00 seconds West 217.21 feet to the point of BEGINNING.

**CONTAINING:** 140.387 acres of land, be the same more or less.

**EXHIBIT “B”**



May 22, 2017

Ms. Jan Bednarchik  
Authority Secretary  
East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downingtown, PA 19335

**RE: The Estates at Dowlin Forge (AKA Hillendale)  
Sanitary Sewer Escrow Account (Phase II – Final Phase)  
Project Number: EBMA10806**

Dear Ms. Bednarchik:

On May 16, 2017 our office received, via email, a response to our May 12, 2017 escrow letter. The response included the following documents for the above referenced project:

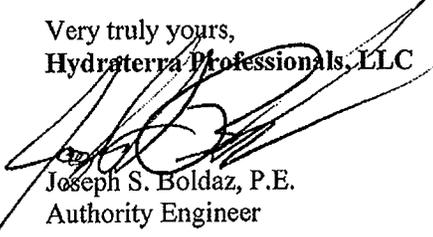
1. Estimate of Costs of Sanitary Sewer Facilities – Phase II signed and sealed by Andrew Defonzo, P.E. dated May 18, 2017;
2. Pikeland Construction, Inc. proposal dated 5/17/2017 for the Hillendale WWTP, drip fields and Pump Station 1 & 2;
3. Schlouch Incorporated Bid dated 5/15/2017 for the Sanitary Sewer, Force Main & Drip Irrigation Lines in Road for Phase 2; and
4. MDG Downingtown, LP response letter dated May 16, 2017.

On May 22, 2017 our office received, via Email, a revised estimate of cost of sanitary sewer facilities – Phase II signed and sealed by Andrew Defonzo.

The revised Phase II Sanitary Sewer Escrow Total is **\$4,786,623.58**

We recommend the East Brandywine Township Municipal Authority approve the \$4,786,623.58 escrow amount by executing the Summary of Escrow Account Please then forward a copy onto Mr. Michael Tulio of Metropolitan Development Group, return a copy to my attention, and retain the original for Authority records.

Very truly yours,  
Hydraterra Professionals, LLC

  
Joseph S. Boldaz, P.E.  
Authority Engineer

cc: Michael V. Tulio (via email) Andrew Defonzo (via email) Tom Oeste (via email)  
Paul A. Bauer (via email) Nathan Kline (via email)

EBMA10806 - Hillendale\02 WW Collection\Construction\escrow\Ph3-Escrow-review 05 22 2017.docx

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ESTIMATE OF COSTS OF SANITARY SEWER FACILITIES - PHASE II			East Brandywine Township Municipal Authority				
Project: The Estates At Dowlin Forge Station			Project No: EBMA10806				
PHASE II (Including WWTP and Drip Fields)			Date: 5-22-2017				
Site Improvement Contractor: Schlouch, Inc.			Payment No: Original				
Waste Water, Pumpstation & Drip Field Contractor: Pikeland Construction, Inc.*			Financial Security:				
Address: P.O BOX 69, Blandon, PA 19510							
Prepared by: D.L. Howell & Associates							
			Original Escrow				
Item No.	Description	Quantity	Unit	Unit Price	Amount		
<b>Phase 2 Sanitary Sewer (Location per Phase II Plan)</b>							
1	8" Sdr-26 Main	3,214.00	LF	20.32	\$65,308.48		
2	6" SDR-26 Laterals - Single Family	690.00	LF	25.42	\$17,539.80		
3	48" Sanitary Manholes	17.00	EA	1,911.66	\$32,498.22		
4	48" Sanitary Manholes #43,45,47,50	4.00	EA	6,094.34	\$24,377.36		
5	48" Air Release Manhole with Arguliner	1.00	EA	4,150.25	\$4,150.25		
6	48" Drop Manholes	4.00	EA	2,816.32	\$11,265.28		
7	60" Inside Drop Manholes #41	1.00	EA	4,250.00	\$4,250.00		
8	Cretex Seals	23.00	EA	340.68	\$7,835.64		
9	Testing	1.00	EA	4,825.00	\$4,825.00		
10	Total for Sanitary Sewer Phase 2:					<b>\$172,050.03</b>	
<b>Phase 2 Force Main (Location per Phase II Plan)</b>							
11	1.5" SDR-11 Force Main (N/A)	-	LF	13.51	\$0.00		
12	4" SDR-11 Pipe Force Main	1,683.00	LF	18.66	\$31,404.78		
13	4" DIP MJ Fittings Force Main (N/A)	-	EA	263.63	\$0.00		
14	48" Flushing Manhole (N/A)	-	EA	3,728.17	\$0.00		
15	Concrete Thrust Blocks	-	EA	66.07	\$0.00		
16	Testing	1.00	EA	3,175.00	\$3,175.00		
17	Total for Force Main Phase 2:					<b>\$34,579.78</b>	
<b>Phase 2 Drip Irrigation Lines In Road (Same trench as Force Main)</b>							
18	3" DR-11 Flush Return Line	105.00	LF	17.00	\$1,785.00		
19	3" DR-11 Flush Return Line In Foremain Trench	515.00	LF	9.40	\$4,841.00		
20	3" DR-11 Drip Supply Line In Foremain Trench	870.00	LF	9.40	\$8,178.00		
21	4" DR-11 Drip Supply Line	930.00	LF	14.40	\$13,392.00		
22	4" DR-11 Drip Supply Line In Foremain Trench	2,430.00	LF	10.15	\$24,664.50		
23	4" Air Release Valve - Budget	1.00	EA	3,460.00	\$3,460.00		
24	4" Gate Valve & Box	1.00	EA	730.00	\$730.00		
25	Total for Drip Irrigation Lines Phase 2:					<b>\$57,050.50</b>	
<b>Phase 2 Pump Station</b>							
26	Pump Station Phase 2	1.00	EA	262,000.00	\$262,000.00		
27	Total for Pump Station Phase 2:					<b>\$262,000.00</b>	
<b>Phase 2 Waste Water Treatment Plant, Drip Fields (Location per Phase II Plan)</b>							
28	Waste Water Treatment Plant, Drip Fields	1.00	EA	3,327,000.00	\$3,327,000.00		
29	Construction Stake Out	1.00	EA	7,500.00	\$7,500.00		
30	Total for WWTP & Drip Phase 2:					<b>\$3,334,500.00</b>	
<b>Contingency</b>							
31	Construction Stake Out	1.00	LS	2.00%	\$77,203.61	\$77,203.61	
32	As-Built Drawings	1.00	LS	2.00%	\$77,203.61	\$77,203.61	
33	Construction Inspection	1.00	LS	10.00%	\$386,018.03	\$386,018.03	
34	Contingency Fee	1.00	LS	10.00%	\$386,018.03	\$386,018.03	
					TOTAL	<b>\$4,786,623.58</b>	

0 Quantity was removed per a previous review.

SUBMITTED BY:

RECOMMENDED BY:

APPROVED BY:

\* Final Contractor yet to be selected

MDG Downingtown, LP 5-22-2017

DATE

5/22/2017  
DATE

DATE





February 15, 2017

Ms. Jan Bednarchik, Authority Secretary  
East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downingtown, PA 19335

**RE: The Estates at Dowlin Forge (AKA Hillendale)  
Sanitary Sewer Escrow Account  
Project Number EBMA10806**

Dear Ms. Bednarchik:

On January 31, 2017 our office received, via email, a Summary of Escrow Account tabulation, dated January 25, 2017, sealed by Andrew Defonzo, P.E. of D.L. Howell & Associates and submitted by MDG Downingtown. The Summary of Escrow Account is attached for your consideration and generally includes installation Phase I Sanitary Sewer, Force Main & Pump Station (PS#1).

The Phase I Sanitary Sewer Escrow is summarized as follows:

Estimated Cost of the Work (Phase I)	
Sanitary Sewer Construction	\$326,477.77
Force Main Construction	\$126,040.25
Pump Station (PS#1) Construction	\$250,000.00
Construction Stake-Out	\$14,050.36
As-Built Drawings	\$14,050.36
Construction Inspection	\$70,251.80
Contingency Fee	<u>\$70,251.80</u>
<b>TOTAL PHASE I SANITARY SEWER ESCROW</b>	<b>\$871,122.34</b>

We understand that the Financial Security Agreement and Performance Bond are currently under review by the Authority's Solicitor. Therefore we recommend the East Brandywine Township Municipal Authority approve the \$871,122.34 escrow amount subject to final approval of the Agreement and Bond by the Authority's Solicitor.

Should you find the documents acceptable, please execute the Summary of Escrow Account by signing where indicated, forward a copy onto Michael Laudermilch of Metropolitan Development Group, return a copy to my attention, and retain the original for Authority records.

Very truly yours,  
**Hydraterra Professionals, LLC**

Joseph S. Boldaz, P.E.  
Authority Engineer

cc: Michael Laudermilch (via email w/attachments)      Andrew Defonzo (via email w/attachments)  
Tom Oeste (via email w/attachments)  
Nathan Kline (via email w/attachments)

EBMA10806 - Hillendale\Collection\Construction\escrow\170202-Approved Escrow-Sealed.docx

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ESCROW RELEASE REQUEST; Original			East Brandywine Township Municipal Authority			
Project: The Estates At Dowlin Forge Station			Project No: EBMA10806			
Contractor: Schlouch, Inc.			Date: 1/25/2017			
Address: P.O BOX 69, Blandon, PA 19510			Payment No: Original			
Prepared by: D.L. Howell & Associates			Financial Security:			
			Original Escrow			
Item No.	Description	Quantity	Unit		Unit Price	Amount
<b>Phase 1 Sanitary Sewer (Location Per Phasing Plan)</b>						
1	8" Sdr-26 Main	7,129.00	LF		20.32	\$144,861.28
2	Pipe Crossing	4.00	EA		2,445.74	\$9,782.96
3	6" SDR-26 Laterals - Single Fam	1,041.00	LF		25.42	\$26,462.22
4	6" SDR-26 Laterals - Townhomes	777.00	LF		25.45	\$19,774.85
5	48" Sanitary Manholes	38.00	EA		1,911.66	\$72,643.08
6	48" Sanitary Manholes #16 (17.83'	1.00	EA		6,094.34	\$6,094.34
7	48" Air Release Manhole with Arg	1.00	EA		7,882.02	\$7,882.02
8	48" Drop Manholes	4.00	EA		2,816.32	\$11,265.28
9	Crete Seals	43.00	EA		340.68	\$14,649.24
10	Concrete Encasement	10.00	LF		66.27	\$662.70
11	Testing	1.00	EA		12,400.00	\$12,400.00
12	Total for Sanitary Sewer Phase 1:					\$326,477.77
<b>Phase 1 Force Main (Location per Phasing Plan)</b>						
13	1.5" SDR-11 Force Main (N/A)	-	LF		13.51	\$0.00
14	4" SDR-11 Pipe Force Main	3,510.00	LF		18.66	\$65,496.60
15	4" DIP MJ Fittings Force Main (N	-	EA		263.63	\$0.00
16	48" Flushing Manhole (N/A)	-	EA		3,728.17	\$0.00
17	Concrete Thrust Blocks	-	EA		66.07	\$0.00
18	Flush Return Lines	1.00	LS		55,693.65	\$55,693.65
19	Testing	1.00	Ea		4,850.00	\$4,850.00
20	Total for Force Main Phase 1:					\$126,040.25
<b>Phase 1 Pump Station (Location per Phasing Plan)</b>						
21	Pump Station along Nichols Mill R	1.00	EA		250,000.00	\$250,000.00
22	Total for Pump Station Phase 1:					\$250,000.00
<b>Total Price for all Items</b>						<b>\$702,518.02</b>
23	Construction Stake Out	1.00	LS	2.00%	\$14,050.36	\$14,050.36
24	As-Built Drawings	1.00	LS	2.00%	\$14,050.36	\$14,050.36
25	Construction Inspection	1.00	LS	10.00%	\$70,251.80	\$70,251.80
26	Contingency Fee	1.00	LS	10.00%	\$70,251.80	\$70,251.80
27						
28	TOTAL					\$871,122.34

0 Quantity was removed per a previous review.

SUBMITTED BY:

*MDG Downingtown 1-31-2017*  
 DEVELOPER DATE

RECOMMENDED BY:

*[Signature]* 2/15/2017  
 EBTMA ENGINEER DATE

APPROVED BY:

\_\_\_\_\_  
 EBTMA DATE



## EXHIBIT “C”

### FINANCIAL SECURITY PROCEDURE

#### 1. General

a. The Financial Security shall be held in the taxpayer identification number of Developer.

b. The Financial Security shall be automatically extended from year to year for additional periods of thirteen (13) months from the original or each future expiration date, without amendment, unless the Financial Institution shall have notified the Authority in writing, not less than sixty (60) days before such expiration date, that the Financial Institution elects not to renew the Financial Security. The Financial Institution’s notice of such election must be sent to the Authority by certified mail addressed to the Authority at 1214 Horseshoe Pike, Downingtown, PA 19335, return receipt requested. A copy of the same shall be forwarded to the Authority Solicitor and Authority Engineer. In the event that the Financial Institution provides the above-notice of its intent not to renew the Financial Security, the Authority may draw upon the Financial Security to secure the completion of the remaining Improvements, unless the Developer provides substitute Financial Security acceptable to the Authority at least forty-five (45) days prior to the date of expiration of the then effective Financial Security. It shall be the continuing responsibility of the Developer to ensure that the Financial Security (or the acceptable substitute thereof) shall not be terminated or closed or expired, but shall be and remain open until the final release of funds therefrom in accordance with and pursuant to Paragraph 5 of the Developer’s Sanitary Sewer Construction and Improvement Agreement (“Developer’s Agreement”).

c. A notation shall appear on the records of the Financial Institution providing that, except as provided in and by the Developer’s Agreement or as may be otherwise consented to and approved and directed by the Board of the Authority in and by a writing signed by the Chair or Vice Chair of the Authority, (i) no withdrawals shall be made from the Financial Security, (ii) the Financial Security shall not be terminated or closed or expired, and (iii) any balance of funds in the Financial Security shall be fully available to Authority for use under and for purposes of this Agreement and the Developer’s Agreement.

d. The Financial Institution shall acknowledge and verify in writing to Authority that, among other things: (i) the Financial Security, in accordance with this Agreement, has been duly established with it, (ii) the establishment, maintenance and use of the Financial Security under, for purposes of and in accordance with this Agreement and the Developer’s Improvement Agreement do not violate any federal, state or other laws or regulations applicable

to the Financial Institution, and (iii) that the notation required by Subsection 2.c. above appears on its records. The written acknowledgment and verification shall be substantially in the form attached to the Developer's Agreement as Exhibit "D".

2. Adjustments to Financial Security

a. Developer agrees that the total amount of the Financial Security and the amount of each of the specific items thereof shall be subject to increase or other adjustment as permitted by and in accordance with the provisions of Section 5607(d)(23) of the MAA. Without limiting the generality of the foregoing:

(1) Developer agrees that, if the Improvements, or any part thereof, are not completed to the satisfaction of Authority within one (1) year after the date of this Financial Security Agreement and Authority has agreed to extend the time for completion beyond the Completion Date as may be necessary for the completion, Developer shall post such additional financial security as directed by Authority and in accordance with the provisions of the MAA; and Developer shall continue to provide such additional financial security on each one (1)-year anniversary date of this Financial Security Agreement thereafter as so directed by Authority, if the Improvements, or any part thereof, are not completed to the satisfaction of Authority and Authority has agreed to further extend the time for completion beyond the Completion Date, as the same may be previously extended, as such further extension may be necessary for the completion.

(2) Authority reserves the right to refuse or limit a request for release of the Financial Security, or to increase or otherwise adjust the amount of the Financial Security on an annual basis, if, in the sole opinion of Authority, the balance of the Financial Security is insufficient to complete the Improvements, or to pay any of the other costs, expenses or fees for which the Financial Security has been established, as a result of any foreseeable or unforeseeable events which may arise at any time prior to the completion of the Improvements, including, without limitation, interruptions in construction and inflationary increases in the cost of materials.

b. Notice of any such additional financial security or of any such increase or other adjustment in the amount of the Financial Security, or any part thereof, shall be given in writing by Authority to Developer, and Developer shall post the amount of the additional financial security, increase or other adjustment within thirty (30) days of the date of such notice.

c. In the event that Developer fails to fully post the additional Financial Security, increase or other adjustment within the said thirty (30)-day period, Authority, in addition to such other or further rights and remedies as may be available, shall have the right to (i) withdraw or revoke all permits previously issued in connection with the Subject Property, (ii) refrain from issuing new permits of any kind for the Subject Property, and (iii) issue one or more stop, cease

and desist orders concerning further work upon construction of the Improvements. Upon the issuance and delivery of any such stop, cease and desist order, Developer shall cease all further work on the construction of the Improvements described in the order; provided, however, that upon posting of such additional financial security, increase or other adjustment in the Financial Security as required herein, the Authority shall withdraw the stop, cease and desist order(s), and Developer may resume work on the construction of the Improvements, and any building and other permits previously revoked or withdrawn shall be reinstated.

d. Any funds posted or provided under this Section (2) as additional financial security or as increases or other adjustments to the Financial Security shall become part of the Financial Security and fully subject to the terms and conditions of the Developer's Agreement.

### 3. Interim Releases of Funds

a. As the work of the construction of the Improvements satisfactorily proceeds, Authority, from time to time upon written request of Developer prior to final release under Paragraph 6 below, shall authorize the release of funds from the Financial Security in accordance with the provisions of the MAA, in such amounts as directed by the Authority in writing, but only by and upon the issuance to and receipt by the Financial Institution of a duly executed Certificate of Completion signed by the Authority Engineer and the Chairman or Vice Chairman of the Authority Board. The Certificate of Completion shall be in the form set forth in Paragraph 14 herein below.

b. Unless Authority expressly and affirmatively directs otherwise in and by the said duly executed Certificate of Completion, the following shall apply to every release of funds from the Financial Security requested under this Section 4: (i) ten percent (10%) of the amount of the funds requested for release shall be retained and not released; and (ii) in no event shall the balance of the Financial Security be reduced below one hundred ten percent (110%) of the estimated costs of completing the remaining uncompleted Improvements, as such estimated costs of completion shall be determined or approved by the Authority Engineer.

### 4. Default

a. If Authority determines that any of the Improvements has not been completed fully in accordance with the terms, conditions, and requirements of the Developer's Improvement Agreement or that Developer is otherwise in default of the Developer's Improvement Agreement (including in the event that Developer becomes insolvent, declares bankruptcy, or ceases work on the Improvements for a period of greater than thirty (30) days without Authority approval), Authority, in addition to such other or further rights and remedies as may be available, shall have the right to demand and collect payment from the Financial Institution of the full undrawn amount, after reductions and interim releases, if any, pursuant to the Developer's Agreement, of the Financial Security, or any part or lesser amount thereof which

Authority in its sole discretion deems necessary to cure any such default as well as to pay for any professional services related to such cure.

b. The following shall apply to such demand and payment:

(1) Developer hereby authorizes the Financial Institution upon such default, without further inquiry being made, to make said payment directly and immediately to Authority or its order, and no further authorization, consent and/or approval of or by Developer to or of said payment shall be required.

(2) Authority may draw amounts from and under the Financial Security prior to the performance of any work by or for Authority in order to complete the Improvements in accordance with the Developer's Agreement or otherwise cure the default, and/or to pay professional services related thereto, based upon (i) estimates received by Authority for the completion and/or (ii) bills received by Authority for the professional services.

(3) Developer agrees that it shall have no right or standing to prevent or delay any such payment to and/or collection by Authority.

(4) Developer hereby remises, releases and forever discharges Financial Institution from any and all liability with respect to honoring any such draws by Authority.

(5) In the event of a dispute between Developer and Authority, Developer nevertheless agrees that the provisions of Paragraph 5.b(1) above shall continue to apply, and that the provisions of Paragraph 5.b(1) shall not be satisfied by the Financial Institution's payment into court of the amount demanded by Authority but shall be satisfied only by the Financial Institution's payment of the demanded amount directly and immediately to Authority.

(6) The right of Authority to demand payment and collect less than the full undrawn amount of the Financial Security shall not be exhausted by a single exercise thereof, but may be exercised by Authority from time to time and at any time without limitation on the number of exercises thereof until the amount of the Financial Security has been fully drawn.

(7) If the costs, expenses and fees, incurred by Authority on account of (i) the foregoing completion of Improvements or otherwise curing the default of Developer and (ii) the professional services related thereto, exceed the amount, if any, received by Authority from and under the Financial Security, Developer, in addition to such other and further obligations and liabilities imposed upon it under the Developer's Agreement and otherwise by law, shall be liable to Authority for such excess of such costs, expenses and fees. Developer hereby agrees to pay the full amount of such excess to Authority immediately upon demand.

(8) A condition of the obligations set forth herein is such that if Developer shall well and truly construct, install and complete the Improvements in accordance with the terms and conditions of the Developer's Agreement, the Financial Security obligations shall be null and void; otherwise to remain in full force and effect. The Financial Institution, upon receipt of a resolution of the Authority indicating that the Improvements have not been installed or completed, shall within fifteen days estimate the cost of the Improvements yet to be completed and tender same to the Authority. If there is no dispute as to the estimate of the cost of completion, the Financial Institution shall then pay that amount within ten days of that declaration by the Authority. However, if there is a dispute to the estimate of the cost of completion by the Authority, then said dispute shall be arbitrated by an Independent Certified Engineer and the decision of the Arbitrator shall be binding to the Financial Institution and the Authority. The Financial Institution's obligation shall be limited only to the remaining cost of completing the Improvements. This subparagraph (8) shall take precedence over any contradictory provisions in this Financial Security Procedure and especially those pertaining to default and the rights of the Financial Institution as expressed therein.

5. Costs, Expenses and Fees

a. If Developer fails to reimburse Authority any costs, expenses or fees in accordance with and pursuant to the Developer's Agreement, Authority shall be authorized to collect the amount thereof from and under the Financial Security (notwithstanding that the amount of the Financial Security, but for this Subsection a., is not now or hereafter specifically established to guarantee, secure or otherwise cover the payment of such costs, expenses or fees) in same manner and to the same extent as a default made and provided for under Paragraph 4 hereinabove.

b. Developer shall provide additional Financial Security, in a form acceptable to Authority and in the amount by which the Financial Security was reduced by any payment made to Authority from the Financial Security under provisions of Subparagraph 5.a above, within fifteen (15) days after written notice of such reduction in the amount of the Financial Security is sent by Authority to Developer. Developer shall also provide Authority, to Authority's satisfaction and within such fifteen (15) day period, written proof of such additional financial security. The failure of Developer to provide Authority, to Authority's satisfaction, such additional financial security and written proof thereof within such time shall constitute a default under the Developer's Agreement, and Developer shall be subject to the provisions governing its default or breach, as set forth in the Developer's Agreement and/or as otherwise provided by law, including, without limitation, the revocation by Authority of all building and other permits issued in connection with the Property, the refusal of Authority to reinstate any of the same or issue other permits in the future, and/or the issuance by Authority of stop, cease and desist orders upon the construction of the Improvements and/or other Improvements or any part thereof, until the default or breach is properly and fully cured. The additional financial security shall be and constitute financial security fully subject to the terms and conditions of the Developer's Agreement.

6. Final Release of Financial Security; Termination of Agreement.

a. After all the Improvements have been completed fully in accordance with the Developer's Agreement to the satisfaction of the Authority, and after all the provisions of the Developer's Agreement have been satisfied fully by Developer (including the payment of all costs, expenses and fees for which Developer is responsible under said Agreements), Authority shall authorize the Financial Institution in writing to release the balance of the Financial Security. Such release authorized by Authority shall be the final release of funds from the Financial Security, and shall further release Developer from and under the Financial Security.

b. At and upon the aforesaid Authority authorized release of the balance of the Financial Security, the Financial Security may be terminated by the Financial Institution.

7. Validity and Enforceability of Financial Security

a. The Financial Security shall be valid, and shall be maintained by Developer in full force and effect at all times following the establishment thereof in accordance with and during continuance of the Developer's Agreement.

b. During the continuance of the Developer's Agreement, Developer shall, as may be requested by written notice from Authority from time to time or at any time, provide verification and proof to Authority concerning the existence, validity and enforceability of the Financial Security. The verification and proof shall be satisfactory to Authority.

c. Developer agrees and hereby authorizes the Financial Institution, during the continuance of the Developer's Agreement, to release to Authority any information as may be requested from time to time or at any time by Authority concerning the financial affairs of Developer relative to the Financial Security.

d. If Authority determines that, upon the information provided or not provided pursuant to Subsections 7.b and/or 7.c above, the financial security requirements of the Developer's Improvement Agreement are not satisfied, or, if Developer otherwise fails to provide and maintain the Financial Security under and in accordance with the Developer's Improvement Agreement, Authority shall give Developer written notice to provide the required Financial Security within thirty (30) days of the date of the notice. If Developer fails to so provide the Financial Security to Authority's reasonable satisfaction within that time, Authority, in addition to other and further rights and remedies as may be available, may revoke all permits previously issued in connection with the Property, may refuse to issue any new permits, and/or may issue stop, cease and desist orders upon the construction of the Improvements and/or other Improvements or any part thereof, until the Financial Security is provided to Authority's reasonable satisfaction.

e. Developer further agrees that if it determines or obtains knowledge during the continuance of the Developer's Agreement that the Financial Institution is, may be or will be unable to honor, provide or maintain the Financial Security for any reason whatsoever in

accordance with the Developer's Agreement (including, but not limited to, the reason that control of the Financial Institution is or is about to be assumed by an agency of the United States government or the Commonwealth of Pennsylvania), Developer shall, immediately, but in no event later than two (2) business days after making such determination or obtaining such knowledge, give written notice of the same to Authority. Within thirty (30) days after either the aforesaid notice is given by Developer or such other time as Authority notifies Developer that the Financial Security does not exist to the satisfaction of Authority, Developer shall obtain additional or substituted financial security with another financial institution as shall be satisfactory to Authority. The failure of Developer to provide such additional or substituted financial security shall allow Authority, in addition to other or further rights and remedies as may be available, to revoke all permits previously issued in connection with the Property, to refuse to issue any new permits, and/or to issue stop, cease and desist orders upon the construction of the Improvements and/or other Improvements or any part thereof, until such additional or substituted financial security is provided to Authority's satisfaction.

f. Developer agrees that any and all notices from Authority to the Financial Institution demanding payment of, from and under the Financial Security shall be valid and enforceable, and shall be honored by the Financial Institution if given to the Financial Institution during the continuance of this Financial Security Agreement.

#### 8. Authority Non-Responsibility

a. Neither these Procedures nor the Developer's Agreement (including any actions taken by Authority in or related to the review, consideration and/or approval of the Plans ) shall impose, or be construed to impose, any liability, responsibility or obligation on Authority for the design, layout, construction, installation, maintenance or upkeep of the Improvements and/or other Improvements, or render Authority liable for the costs of any work to be performed under or in connection with the Developer's Agreement or for any other costs to be incurred under or in connection with the Developer's Improvement Agreement, it being expressly understood and agreed that the full responsibility and financial liability for all the foregoing are imposed upon Developer.

#### 9. Financial Institution Non-Responsibility

a. Developer agrees that Financial Institution shall have no duty to inquire as to the truthfulness, acceptability, due execution, due authorization or validity of any document, certificate, statement or notice which purports to have been executed by an official or other representative of the Authority.

b. Developer further agrees that Financial Institution shall not have any duty or responsibility with respect to the Financial Security other than to comply with the terms of the

Developer's Agreement that apply to the Financial Security and the actions which the Financial Institution is to take or not take with respect to the Financial Security.

c. Developer further agrees that the obligations of the Financial Institution under the Developer's Agreement, and under and with respect to the Financial Security, are for the sole benefit of Authority, and shall not be affected, in any way, by any default, action or omission of Developer.

d. Authority and Developer further agree and acknowledge that the Financial Institution assumes no liability for the design, layout, construction, installation, maintenance and/or upkeep of the Improvements.

e. It shall be noted that, to the extent that the Financial Institution undertakes any action that would affect the validity of the Financial Security hereunder (including merger or dissolution), the Financial Institution shall provide sixty (60) days' prior notice to the Authority and Developer of the same, in which instance the Developer shall be responsible for providing full and complete alternative Financial Security, failing which the Authority has the right, but not the obligation to draw down upon all remaining Financial Security.

#### 10. Charges of Financial Institution

a. Any and all charges made by the Financial Institution for the establishment, creation, administration or termination of the Financial Security and/or for all other actions of the Financial Institution under, pursuant and/or related to the Developer's Agreement are the sole responsibility of Developer and shall be billed to and paid directly by Developer, and no amount of, from or under the Financial Security may be used by or paid to the Financial Institution for such charges. Developer agrees that Authority shall not be liable or otherwise obligated for any of such charges, and Developer hereby agrees to indemnify, protect and defend Authority from and against any such charges.

#### 11. Interest

a. If any interest accrues on account of the Financial Security, such interest shall merge with and become part of the funds represented by the Financial Security and shall be treated as an integral part thereof and applied in accordance with the terms of the Developer's Agreement. All such interest shall be reported under and to the taxpayer identification number of Developer, and Developer shall be liable for the payment of any income taxes as may be imposed and due on such interest.

#### 12. Insolvency of Developer

a. Developer acknowledges, covenants and agrees that, in case of any bankruptcy, receivership, or voluntary or involuntary assignment for the benefit of creditors by or

of Developer, the Financial Security and all interest of Developer in, to or under the Developer's Agreement are not and shall not be considered part of the estate of Developer.

13. Payments, Reductions or Releases of Financial Security

a. It is expressly and specifically understood, covenanted and agreed by Developer that no payment, reduction and/or release whatsoever shall be made at any time of, from or under the Financial Security without the express written consent and instructions of Authority, and that the Financial Security shall be maintained by the Financial Institution at all times during the continuance of the Developer's Agreement in the amounts required therein, less all sums drawn or released therefrom by Authority in accordance with the terms hereof. Any violation of this covenant shall render Developer liable for all damages to Authority, including, without limitation, all costs, fees and expenses (including, but not limited to, attorney's fees and costs), which Authority is required to pay in order to cure any default or breach by the Developer under the Developer's Agreement because the Financial Security is not maintained and/or funds thereunder are not available or paid upon demand to the Authority in order to cure such default or breach.

14. Certificate of Completion

**CERTIFICATE OF COMPLETION AND  
AUTHORIZATION OF REDUCTION AND RELEASE**

NO. \_\_\_\_\_

**WE, THE UNDERSIGNED, HEREBY:**

**A. CERTIFY** that the work and improvements, described hereinbelow, completion of which is provided under and by that certain Developer's Improvement Agreement between East Brandywine Township Municipal Authority ("Authority") and MDG Downingtown, LP, ("Developer"), dated \_\_\_\_\_, 20\_\_, concerning the construction, installation and completion of improvements in the Hillendale Subdivision and Land Development, **HAVE BEEN COMPLETED TO THE EXTENT OF THE AMOUNT INDICATED IN ITEM I BELOW;** and

**B. AUTHORIZE** \_\_\_\_\_, pursuant to the Developer's Agreement, **TO REDUCE** the Financial Security, in the nature of a Bond provided and held with said Bank to guaranty, among other things, the completion of said work and improvements, **TO THE EXTENT OF THE AMOUNT INDICATED IN ITEM III BELOW,** and **TO RELEASE SAID AMOUNT OF REDUCTION FROM AND UNDER THE TERMS AND CONDITIONS OF THE ESCROW ACCOUNT.**



**EXHIBIT "D"**  
**ACKNOWLEDGMENT AND VERIFICATION**

**THE UNDERSIGNED**, by duly authorized officer or other representative and intending to be legally bound, hereby acknowledges, verifies and agrees:

1. **THAT** the Undersigned is the entity referred to as the "Financial Institution" in that certain Developer's Sanitary Sewer Construction, Improvement And Financial Security Agreement Improvement Agreement, dated \_\_\_\_\_ (the "Development Agreement") between East Brandywine Township Municipal Authority, (the "Authority") and MDG Downingtown, LP, (the "Developer"), with respect to sanitary sewer improvements and facilities to be installed on a tract of land situated in East Brandywine Township, fronting on both Creek Road and Township Road in East Brandywine Township, Chester County, Pennsylvania, being Chester County UPI Nos. 30-3-67 and 30-3-78 ("Subject Property"),

2. **THAT**, as of the date hereof, a performance bond, in the amount of Eight Hundred Seventy-One Thousand One Hundred Twenty-Two and Thirty-Four Cents \$871,122.34 (the "Bond") has been duly issued by the Undersigned, as surety, for the benefit of East Brandywine Township Municipal Authority, as Obligee, to secure the completion of the improvements referred to in the Development Agreement.

3. **THAT** the above Bond is the financial security referred to as the "Financial Security" in the Development Agreement.

4. **THAT**, except as provided in and by the Development Agreement or as may be otherwise consented to and approved and directed by the Authority Board in and by a writing signed by the Chairman or Vice Chairman of the Board, (i) no reduction of the principal amount of the bond shall occur or be permitted, (ii) the Bond shall not be terminated, revoked, cancelled or closed, unless in conformity with the Development Agreement, and (iii) the principal amount of the Bond or the balance of the principal amount if reductions are authorized by the Authority, shall be fully available to the Authority for use under, for purposes of and in accordance with the Development Agreement.

5. **THAT** a notation appears on the records of the Undersigned setting forth the substance of Paragraph 4 above.

6. **THAT** the Financial Security has been duly established and will be maintained by the Undersigned to comply with the Development Agreement, copies of which Agreements have been reviewed, received and if required, executed, by the Undersigned.

7. **THAT** the Undersigned will otherwise comply with the terms of the Development Agreement to the extent that said terms apply to: (i) the Financial Security referred to in the Development Agreement; and (ii) the actions which the Undersigned, as the Financial Institution referred to in the Development Agreement, is to take or not take with respect to such Financial Security.

8. **THAT** the establishment, maintenance and use of the Financial Security for purposes of and in accordance with the Development Agreement do not violate any of federal, state or other laws or regulations applicable to the Undersigned.

9. **THAT** the Undersigned shall not assign or delegate any of its duties or obligations under this Acknowledgment and Verification or otherwise, as the Financial Institution under the Financial Security Agreement and the Development Agreement, without the express written consent of the Authority.

10. **THAT**, subject to Paragraph 9 above, the duties and obligations of the Undersigned, under this Acknowledgment and Verification or otherwise as the Financial Institution under the Development Agreement, shall be binding upon the successors and assigns of the Undersigned.

11. **THAT**, A condition of the obligations set forth herein is such that if Developer shall well and truly construct, install and complete the Improvements in accordance with the terms and conditions of the Development Agreement, the Financial Security obligations shall be null and void; otherwise to remain in full force and effect. The Financial Institution, upon receipt of a resolution of the Authority indicating that the Improvements have not been installed or completed, shall within fifteen days estimate the cost of the Improvements yet to be completed and tender same to the Township. If there is no dispute as to the estimate of the cost of completion, the Financial Institution shall then pay that amount to the Authority within ten days of that declaration by the Authority. However, if there is a dispute to the estimate of the cost of completion by the Authority, then said dispute shall be arbitrated by an Independent Certified Engineer and the decision of the Arbitrator shall be binding to the Financial Institution and the Authority. . The Financial Institution's obligation shall be limited only to the remaining cost of completing the Improvements. This paragraph 11 shall take precedence over any contradictory provisions in this Acknowledgement and especially those pertaining to default and the rights of the Financial Institution as expressed therein.

**First Indemnity of America Insurance Company**

Attest:

Katyna S. McGill

Katyna S. McGill

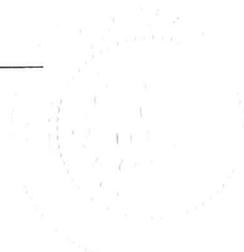
Witness as to Surety

Date: April 10, 2017

By: Arthur H. Jones

Arthur H. Jones

Attorney-In-Fact



**FIRST INDEMNITY OF AMERICA  
INSURANCE COMPANY**  
2740 Route 10 West, Suite 205, Morris Plains, N.J. 07950  
Telephone: (973) 402-1200

Bond No: AL100930

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**POWER OF ATTORNEY FOR BONDS AND UNDERTAKINGS**

Know All Men By These Presents: That First Indemnity of America Insurance Company, a Corporation of the State of New Jersey does hereby appoint: Arthur H. Jones, Catherine E. Warren, J. Russell Tyldesley, Adam T. Grap, its true and lawful Attorneys-in-Fact: to make, execute, sign, acknowledge, affix the Company Seal to, deliver any and all surety bonds, undertakings, recognizances, and other contracts of indemnity and writings obligatory in the nature of a bond, for and on behalf of said Company and as an act and deed of said Company.

IN WITNESS WHEREOF, First Indemnity of America Insurance Company of the State of New Jersey has executed these presents this 20th day of March, 2012.



*Patrick J. Lynch*

Patrick J. Lynch, President

STATE OF NEW JERSEY )  
COUNTY OF MORRIS ) ss:

On this 20th day of March, 2012, before me came the above named officer of First Indemnity of America Insurance Company of New Jersey, to me personally known to be the individual and officer described herein, and acknowledge that he executed the foregoing instrument and affixed the seal of said corporation thereto by authority of this office.



*Frances A. Frazzano*

Frances A. Frazzano  
Notary Public, State of New Jersey  
My term expires on May 10, 2017

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**CERTIFICATE**

Excerpts of Resolutions (Article V, Paragraph 5, of the By-Laws of said Company) adopted by the Board of Directors of the First Indemnity of America Insurance Company of the State of New Jersey, March 20, 2012.

RESOLVED, that the President, or any one of the Vice Presidents specially authorized to do so by the Board of Directors, or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Attorneys-in-Fact as the business of the company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and release and assignment of judgments, decrees, mortgages and instruments in the nature of mortgages, and also all other instruments and documents which the business of the Company may require and to affix the Seal of the Company thereto.

RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating to the Power of Attorney by facsimile and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company with respect to any bond, undertaking, recognizances or other contract of indemnity of writing obligatory in the nature thereof.

I, Jane E. Lynch, Secretary of First Indemnity of America Insurance Company of New Jersey, do hereby certify that the foregoing excerpts of the Resolution adopted by the Board of Directors of the Corporation and the Powers of Attorney issued pursuant thereto, are true and correct and that both the Resolution and the Powers of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have herewith set my hand and affixed the seal of said Corporation this 10th day of April, 2017.



*Jane E. Lynch*

Jane E. Lynch, Secretary



COMMONWEALTH OF PENNSYLVANIA  
INSURANCE DEPARTMENT

# CERTIFICATE OF AUTHORITY

**Casualty**

**Effective Date: April 1, 2016**

**FIRST INDEMNITY OF AMERICA INSURANCE COMPANY**

**NAIC NO. 38326**

HAS COMPLIED WITH THE REQUIREMENTS OF THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA RELATING TO ADMISSION IN SAID COMMONWEALTH FOR THE PURPOSE OF TRANSACTING INSURANCE BUSINESS IN PENNSYLVANIA AND THAT THE ABOVE NAMED COMPANY IS HEREBY AUTHORIZED TO TRANSACT THE BUSINESS OF:

Boiler and Machinery 40 P.S. s 382(c)(5)

Burglary and Theft 40 P.S. s 382(c)(6)

Elevator 40 P.S. s 382(c)(9)

Fidelity and Surety 40 P.S. s 382(c)(1)

Glass 40 P.S. s 382(c)(3)

Inland Marine and Physical Damage 40 P.S. s 382(b)(2)

Mine and Machinery 40 P.S. s 382(c)(12)

Ocean Marine 40 P.S. s 382(b)(3)

Other Liability 40 P.S. s 382(c)(4)

Personal Property Floater 40 P.S. s 382(c)(13)

Property and Allied Lines 40 P.S. s 382(b)(1)

Water Damage 40 P.S. s 382(c)(8)

FOR THE YEAR ENDING MARCH 31, 2017, IN ACCORDANCE WITH ITS CHARTER AND IN CONFORMITY WITH THE LAWS OF SAID COMMONWEALTH OF PENNSYLVANIA.



IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, THE DATE AND YEAR FIRST ABOVE WRITTEN.

---

Teresa D. Miller  
INSURANCE COMMISSIONER

Institution referred to in the Development Agreement, is to take or not take with respect to such Financial Security.

8. **THAT** the establishment, maintenance and use of the Financial Security for purposes of and in accordance with the Development Agreement do not violate any of federal, state or other laws or regulations applicable to the Undersigned.

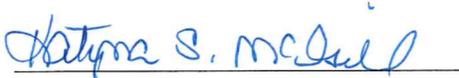
9. **THAT** the Undersigned shall not assign or delegate any of its duties or obligations under this Acknowledgment and Verification or otherwise, as the Financial Institution under the Financial Security Agreement and the Development Agreement, without the express written consent of the Authority.

10. **THAT**, subject to Paragraph 9 above, the duties and obligations of the Undersigned, under this Acknowledgment and Verification or otherwise as the Financial Institution under the Development Agreement, shall be binding upon the successors and assigns of the Undersigned.

11. **THAT**, A condition of the obligations set forth herein is such that if Developer shall well and truly construct, install and complete the Improvements in accordance with the terms and conditions of the Development Agreement, the Financial Security obligations shall be null and void; otherwise to remain in full force and effect. The Financial Institution, upon receipt of a resolution of the Authority indicating that the Improvements have not been installed or completed, shall within fifteen days estimate the cost of the Improvements yet to be completed and tender same to the Township. If there is no dispute as to the estimate of the cost of completion, the Financial Institution shall then pay that amount to the Authority within ten days of that declaration by the Authority. However, if there is a dispute to the estimate of the cost of completion by the Authority, then said dispute shall be arbitrated by an Independent Certified Engineer and the decision of the Arbitrator shall be binding to the Financial Institution and the Authority. . The Financial Institution's obligation shall be limited only to the remaining cost of completing the Improvements. This paragraph 11 shall take precedence over any contradictory provisions in this Acknowledgement and especially those pertaining to default and the rights of the Financial Institution as expressed therein.

**First Indemnity of America Insurance Company**

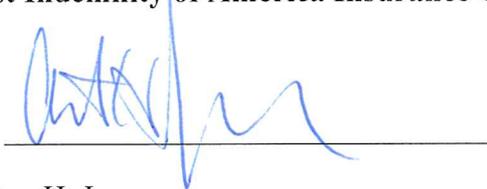
Attest:



Katyna S. McGill

Witness as to Surety

Date: April 10, 2017

By: 

Arthur H. Jones

Attorney-In-Fact

**EXHIBIT "D"**  
**ACKNOWLEDGMENT AND VERIFICATION**

**THE UNDERSIGNED**, by duly authorized officer or other representative and intending to be legally bound, hereby acknowledges, verifies and agrees:

1. **THAT** the Undersigned is the entity referred to as the "Financial Institution" in that that certain Developer's Sanitary Sewer Construction, Improvement And Financial Security Agreement Improvement Agreement, dated \_\_\_\_\_ (the "Development Agreement") between East Brandywine Township Municipal Authority, (the "Authority") and MDG Downingtown, LP, (the "Developer"), with respect to sanitary sewer improvements and facilities to be installed on a tract of land situated in East Brandywine Township, fronting on both Creek Road and Township Road in East Brandywine Township, Chester County, Pennsylvania, being Chester County UPI Nos. 30-3-67 and 30-3-78 ("Subject Property"),

2. **THAT**, as of the date hereof, a performance bond, in the amount of One Million Four Hundred Fifty Two Thousand One Hundred Twenty Three and Fifty Eight Cents (\$1,452,123.58) (the "Bond") has been duly issued by the Undersigned, as surety, for the benefit of East Brandywine Township Municipal Authority, as Obligee, to secure the completion of the improvements referred to in the Development Agreement.

3. **THAT** the above Bond is the financial security referred to as the "Financial Security" in the Development Agreement.

4. **THAT**, except as provided in and by the Development Agreement or as may be otherwise consented to and approved and directed by the Authority Board in and by a writing signed by the Chairman or Vice Chairman of the Board, (i) no reduction of the principal amount of the bond shall occur or be permitted, (ii) the Bond shall not be terminated, revoked, cancelled or closed, unless in conformity with the Development Agreement, and (iii) the principal amount of the Bond or the balance of the principal amount if reductions are authorized by the Authority, shall be fully available to the Authority for use under, for purposes of and in accordance with the Development Agreement.

5. **THAT** a notation appears on the records of the Undersigned setting forth the substance of Paragraph 4 above.

6. **THAT** the Financial Security has been duly established and will be maintained by the Undersigned to comply with the Development Agreement, copies of which Agreements have been reviewed, received and if required, executed, by the Undersigned.

7. **THAT** the Undersigned will otherwise comply with the terms of the Development Agreement to the extent that said terms apply to: (i) the Financial Security referred to in the Development Agreement; and (ii) the actions which the Undersigned, as the Financial Institution referred to in the Development Agreement, is to take or not take with respect to such Financial Security.

8. THAT the establishment, maintenance and use of the Financial Security for purposes of and in accordance with the Development Agreement do not violate any of federal, state or other laws or regulations applicable to the Undersigned.

9. THAT the Undersigned shall not assign or delegate any of its duties or obligations under this Acknowledgment and Verification or otherwise, as the Financial Institution under the Financial Security Agreement and the Development Agreement, without the express written consent of the Authority.

10. THAT, subject to Paragraph 9 above, the duties and obligations of the Undersigned, under this Acknowledgment and Verification or otherwise as the Financial Institution under the Development Agreement, shall be binding upon the successors and assigns of the Undersigned.

11. THAT, A condition of the obligations set forth herein is such that if Developer shall well and truly construct, install and complete the Improvements in accordance with the terms and conditions of the Development Agreement, the Financial Security obligations shall be null and void; otherwise to remain in full force and effect. The Financial Institution, upon receipt of a resolution of the Authority indicating that the Improvements have not been installed or completed, shall within fifteen days estimate the cost of the Improvements yet to be completed and tender same to the Township. If there is no dispute as to the estimate of the cost of completion, the Financial Institution shall then pay that amount to the Authority within ten days of that declaration by the Authority. However, if there is a dispute to the estimate of the cost of completion by the Authority, then said dispute shall be arbitrated by an Independent Certified Engineer and the decision of the Arbitrator shall be binding to the Financial Institution and the Authority. . The Financial Institution's obligation shall be limited only to the remaining cost of completing the Improvements. This paragraph 11 shall take precedence over any contradictory provisions in this Acknowledgement and especially those pertaining to default and the rights of the Financial Institution as expressed therein.

**First Indemnity of America Insurance Company**

Attest:

Katyna S. McGill

Katyna S. McGill  
Printed Name

Witness as to Surety  
Printed Title

Date: April 13, 2017

By: Arthur H. Jones

Arthur H. Jones  
Printed Name

Attorney-In-Fact  
Printed Title

**FIRST INDEMNITY OF AMERICA  
INSURANCE COMPANY**  
2740 Route 10 West, Suite 205, Morris Plains, N.J. 07950  
Telephone: (973) 402-1200

Bond NO: AL100932

**POWER OF ATTORNEY FOR BONDS AND UNDERTAKINGS**

Know All Men By These Presents: That First Indemnity of America Insurance Company, a Corporation of the State of New Jersey does hereby appoint: Arthur H. Jones, Catherine E. Warren, J. Russell Tyldesley, Adam T. Grap, its true and lawful Attorneys-in-Fact: to make, execute, sign, acknowledge, affix the Company Seal to, deliver any and all surety bonds, undertakings, recognizances, and other contracts of indemnity and writings obligatory in the nature of a bond, for and on behalf of said Company and as an act and deed of said Company.

IN WITNESS WHEREOF, First Indemnity of America Insurance Company of the State of New Jersey has executed these presents this 20th day of March, 2012.



*Patrick J. Lynch*

Patrick J. Lynch, President

STATE OF NEW JERSEY )  
COUNTY OF MORRIS ) ss:

On this 20th day of March, 2012, before me came the above named officer of First Indemnity of America Insurance Company of New Jersey, to me personally known to be the individual and officer described herein, and acknowledge that he executed the foregoing instrument and affixed the seal of said corporation thereto by authority of this office.



*Frances A. Frazzano*

Frances A. Frazzano  
Notary Public, State of New Jersey  
My term expires on May 10, 2017

**CERTIFICATE**

Excerpts of Resolutions (Article V, Paragraph 5, of the By-Laws of said Company) adopted by the Board of Directors of the First Indemnity of America Insurance Company of the State of New Jersey, March 20, 2012.

RESOLVED, that the President, or any one of the Vice Presidents specially authorized to do so by the Board of Directors, or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Attorneys-in-Fact as the business of the company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and release and assignment of judgments, decrees, mortgages and instruments in the nature of mortgages, and also all other instruments and documents which the business of the Company may require and to affix the Seal of the Company thereto.

RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating to the Power of Attorney by facsimile and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company with respect to any bond, undertaking, recognizances or other contract of indemnity of writing obligatory in the nature thereof.

I, Jane E. Lynch, Secretary of First Indemnity of America Insurance Company of New Jersey, do hereby certify that the foregoing excerpts of the Resolution adopted by the Board of Directors of the Corporation and the Powers of Attorney issued pursuant thereto, are true and correct and that both the Resolution and the Powers of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have herewith set my hand and affixed the seal of said Corporation this 13th day of April, 2017.



*Jane E. Lynch*  
Jane E. Lynch, Secretary



COMMONWEALTH OF PENNSYLVANIA  
INSURANCE DEPARTMENT

# CERTIFICATE OF AUTHORITY

Casualty

Effective Date: April 1, 2016

FIRST INDEMNITY OF AMERICA INSURANCE COMPANY

NAIC NO. 38326

HAS COMPLIED WITH THE REQUIREMENTS OF THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA RELATING TO ADMISSION IN SAID COMMONWEALTH FOR THE PURPOSE OF TRANSACTING INSURANCE BUSINESS IN PENNSYLVANIA AND THAT THE ABOVE NAMED COMPANY IS HEREBY AUTHORIZED TO TRANSACT THE BUSINESS OF:

Boiler and Machinery 40 P.S. s 382(c)(5)

Burglary and Theft 40 P.S. s 382(c)(6)

Elevator 40 P.S. s 382(c)(9)

Fidelity and Surety 40 P.S. s 382(c)(1)

Glass 40 P.S. s 382(c)(3)

Inland Marine and Physical Damage 40 P.S. s 382(b)(2)

Mine and Machinery 40 P.S. s 382(c)(12)

Ocean Marine 40 P.S. s 382(b)(3)

Other Liability 40 P.S. s 382(c)(4)

Personal Property Floater 40 P.S. s 382(c)(13)

Property and Allied Lines 40 P.S. s 382(b)(1)

Water Damage 40 P.S. s 382(c)(8)

FOR THE YEAR ENDING MARCH 31, 2017, IN ACCORDANCE WITH ITS CHARTER AND IN CONFORMITY WITH THE LAWS OF SAID COMMONWEALTH OF PENNSYLVANIA.



IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, THE DATE AND YEAR FIRST ABOVE WRITTEN.

Teresa D. Miller  
INSURANCE COMMISSIONER

**EXHIBIT "D"**  
**ACKNOWLEDGMENT AND VERIFICATION**

**THE UNDERSIGNED**, by duly authorized officer or other representative and intending to be legally bound, hereby acknowledges, verifies and agrees:

1. **THAT** the Undersigned is the entity referred to as the "Financial Institution" in that certain Developer's Sanitary Sewer Construction, Improvement And Financial Security Agreement Improvement Agreement, dated \_\_\_\_\_ (the "Development Agreement") between East Brandywine Township Municipal Authority, (the "Authority") and MDG Downingtown, LP, (the "Developer"), with respect to sanitary sewer improvements and facilities to be installed on a tract of land situated in East Brandywine Township, fronting on both Creek Road and Township Road in East Brandywine Township, Chester County, Pennsylvania, being Chester County UPI Nos. 30-3-67 and 30-3-78 ("Subject Property"),

2. **THAT**, as of the date hereof, a performance bond, in the amount of Three Million Three Hundred Thirty Four Thousand Five Hundred and Zero Cents (\$3,334,500) (the "Bond") has been duly issued by the Undersigned, as surety, for the benefit of East Brandywine Township Municipal Authority, as Obligee, to secure the completion of the improvements referred to in the Development Agreement.

3. **THAT** the above Bond is the financial security referred to as the "Financial Security" in the Development Agreement.

4. **THAT**, except as provided in and by the Development Agreement or as may be otherwise consented to and approved and directed by the Authority Board in and by a writing signed by the Chairman or Vice Chairman of the Board, (i) no reduction of the principal amount of the bond shall occur or be permitted, (ii) the Bond shall not be terminated, revoked, cancelled or closed, unless in conformity with the Development Agreement, and (iii) the principal amount of the Bond or the balance of the principal amount if reductions are authorized by the Authority, shall be fully available to the Authority for use under, for purposes of and in accordance with the Development Agreement.

5. **THAT** a notation appears on the records of the Undersigned setting forth the substance of Paragraph 4 above.

6. **THAT** the Financial Security has been duly established and will be maintained by the Undersigned to comply with the Development Agreement, copies of which Agreements have been reviewed, received and if required, executed, by the Undersigned.

7. **THAT** the Undersigned will otherwise comply with the terms of the Development Agreement to the extent that said terms apply to: (i) the Financial Security referred to in the Development Agreement; and (ii) the actions which the Undersigned, as the Financial Institution referred to in the Development Agreement, is to take or not take with respect to such Financial Security.

8. THAT the establishment, maintenance and use of the Financial Security for purposes of and in accordance with the Development Agreement do not violate any of federal, state or other laws or regulations applicable to the Undersigned.

9. THAT the Undersigned shall not assign or delegate any of its duties or obligations under this Acknowledgment and Verification or otherwise, as the Financial Institution under the Financial Security Agreement and the Development Agreement, without the express written consent of the Authority.

10. THAT, subject to Paragraph 9 above, the duties and obligations of the Undersigned, under this Acknowledgment and Verification or otherwise as the Financial Institution under the Development Agreement, shall be binding upon the successors and assigns of the Undersigned.

11. THAT, A condition of the obligations set forth herein is such that if Developer shall well and truly construct, install and complete the Improvements in accordance with the terms and conditions of the Development Agreement, the Financial Security obligations shall be null and void; otherwise to remain in full force and effect. The Financial Institution, upon receipt of a resolution of the Authority indicating that the Improvements have not been installed or completed, shall within fifteen days estimate the cost of the Improvements yet to be completed and tender same to the Township. If there is no dispute as to the estimate of the cost of completion, the Financial Institution shall then pay that amount to the Authority within ten days of that declaration by the Authority. However, if there is a dispute to the estimate of the cost of completion by the Authority, then said dispute shall be arbitrated by an Independent Certified Engineer and the decision of the Arbitrator shall be binding to the Financial Institution and the Authority. . The Financial Institution's obligation shall be limited only to the remaining cost of completing the Improvements. This paragraph 11 shall take precedence over any contradictory provisions in this Acknowledgement and especially those pertaining to default and the rights of the Financial Institution as expressed therein.

**First Indemnity of America Insurance Company**

Attest:

Katyna S. McGill

Katyna S. McGill  
Printed Name

Witness as to Surety  
Printed Title

Date: April 13, 2017

By: Arthur H. Jones

Arthur H. Jones  
Printed Name

Attorney-In-Fact  
Printed Title

**FIRST INDEMNITY OF AMERICA  
INSURANCE COMPANY**  
2740 Route 10 West, Suite 205, Morris Plains, N.J. 07950  
Telephone: (973) 402-1200

Bond No: AL100931

**POWER OF ATTORNEY FOR BONDS AND UNDERTAKINGS**

Know All Men By These Presents: That First Indemnity of America Insurance Company, a Corporation of the State of New Jersey does hereby appoint: Arthur H. Jones, Catherine E. Warren, J. Russell Tyldesley, Adam T. Grap, its true and lawful Attorneys-in-Fact: to make, execute, sign, acknowledge, affix the Company Seal to, deliver any and all surety bonds, undertakings, recognizances, and other contracts of indemnity and writings obligatory in the nature of a bond, for and on behalf of said Company and as an act and deed of said Company.

IN WITNESS WHEREOF, First Indemnity of America Insurance Company of the State of New Jersey has executed these presents this 20th day of March, 2012.



*Patrick J. Lynch*

Patrick J. Lynch, President

STATE OF NEW JERSEY )  
COUNTY OF MORRIS ) ss:

On this 20th day of March, 2012, before me came the above named officer of First Indemnity of America Insurance Company of New Jersey, to me personally known to be the individual and officer described herein, and acknowledge that he executed the foregoing instrument and affixed the seal of said corporation thereto by authority of this office.



*Frances A. Frazzano*

Frances A. Frazzano  
Notary Public, State of New Jersey  
My term expires on May 10, 2017

**CERTIFICATE**

Excerpts of Resolutions (Article V, Paragraph 5, of the By-Laws of said Company) adopted by the Board of Directors of the First Indemnity of America Insurance Company of the State of New Jersey, March 20, 2012.

RESOLVED, that the President, or any one of the Vice Presidents specially authorized to do so by the Board of Directors, or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Attorneys-in-Fact as the business of the company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and release and assignment of judgments, decrees, mortgages and instruments in the nature of mortgages, and also all other instruments and documents which the business of the Company may require and to affix the Seal of the Company thereto.

RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating to the Power of Attorney by facsimile and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company with respect to any bond, undertaking, recognizances or other contract of indemnity of writing obligatory in the nature thereof.

I, Jane E. Lynch, Secretary of First Indemnity of America Insurance Company of New Jersey, do hereby certify that the foregoing excerpts of the Resolution adopted by the Board of Directors of the Corporation and the Powers of Attorney issued pursuant thereto, are true and correct and that both the Resolution and the Powers of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have herewith set my hand and affixed the seal of said Corporation this 13th day of April,  
2017.



*Jane E. Lynch*  
Jane E. Lynch, Secretary



COMMONWEALTH OF PENNSYLVANIA  
INSURANCE DEPARTMENT

# CERTIFICATE OF AUTHORITY

**Casualty**

**Effective Date: April 1, 2016**

**FIRST INDEMNITY OF AMERICA INSURANCE COMPANY**

**NAIC NO. 38326**

HAS COMPLIED WITH THE REQUIREMENTS OF THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA RELATING TO ADMISSION IN SAID COMMONWEALTH FOR THE PURPOSE OF TRANSACTING INSURANCE BUSINESS IN PENNSYLVANIA AND THAT THE ABOVE NAMED COMPANY IS HEREBY AUTHORIZED TO TRANSACT THE BUSINESS OF:

Boiler and Machinery 40 P.S. s 382(c)(5)

Burglary and Theft 40 P.S. s 382(c)(6)

Elevator 40 P.S. s 382(c)(9)

Fidelity and Surety 40 P.S. s 382(c)(1)

Glass 40 P.S. s 382(c)(3)

Inland Marine and Physical Damage 40 P.S. s 382(b)(2)

Mine and Machinery 40 P.S. s 382(c)(12)

Ocean Marine 40 P.S. s 382(b)(3)

Other Liability 40 P.S. s 382(c)(4)

Personal Property Floater 40 P.S. s 382(c)(13)

Property and Allied Lines 40 P.S. s 382(b)(1)

Water Damage 40 P.S. s 382(c)(8)

FOR THE YEAR ENDING MARCH 31, 2017, IN ACCORDANCE WITH ITS CHARTER AND IN CONFORMITY WITH THE LAWS OF SAID COMMONWEALTH OF PENNSYLVANIA.



IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, THE DATE AND YEAR FIRST ABOVE WRITTEN.

Handwritten signature of Teresa D. Miller in black ink.

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Teresa D. Miller  
INSURANCE COMMISSIONER

**EXHIBIT "E"**

**EAST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY  
1214 Horseshoe Pike  
Downingtown, PA 19335**

**INSPECTION FEE DEPOSIT AGREEMENT**

This Agreement made this 20<sup>th</sup> day of May, 2017 by and between East Brandywine Township Municipal Authority, with offices located at 1214 Horseshoe Pike, Downingtown PA 19335 ("Authority") and MDG Downingtown, L.P., a Pennsylvania Limited Partnership, with offices located at 1030 Reed Avenue, Suite 100, Wyomissing, PA 19610 ("Developer").

WITNESSETH:

A. Developer is the owner of and is in the process of developing a tract of land situated in East Brandywine Township, fronting on Creek Road and Township Road, East Brandywine Township, Chester County, Pennsylvania, being Chester County UPI Nos. 30-3-67 and 30-3-78 ("Subject Property"), as and for a residential subdivision. The development includes the installation of certain sanitary sewer facilities necessary to provide for the collection, conveyance, treatment and disposal of sanitary sewage for the development. A legal description of the Subject Property is attached hereto and made a part hereof as **Exhibit "A."**

B. On or about November 11, 2010, the Authority, through its Engineer, approved certain plans for the design, construction and installation of the sanitary sewer collection facilities as depicted on a set of plans titled Hillendale Development, dated July 31, 2006, last revised April 11, 2011 comprised of 47 plan sheets.

C. On or about August 19, 2015, the Authority, through its Engineer, approved, with exceptions noted in the letter, certain plans and specifications for the design, construction and installation of the sanitary sewer facilities as depicted on a set of plans titled Wastewater Treatment Facility, Hillendale Subdivision, dated February 12, 2007, last revised June 22, 2015 comprised of 37 plan sheets .

D. Developer is in the process of installing the collection facilities, conveyance facilities, pumping stations, treatment plant and all sanitary sewer facilities and equipment depicted on the aforesaid plans (collectively the "Improvements") which require inspection of by the Authority Engineer and Authority requires Developer to deposit an inspection fee deposit with the Authority.

NOW, THEREFORE, the parties, intending to be legally bound, agree as follows:

1. The Authority and Applicant hereby authorize the Authority Engineer, Hydraterra Professionals, LLC (“Engineer”) and other consultants as necessary to inspect the Improvements as they are installed. Applicant acknowledges that the Authority Engineer will determine the necessary frequency of inspections. Any facilities that are to be installed underground will require an Authority inspector to be present during all times of construction and installation.

2. Developer will notify the Engineer by electronic mail at least 48-hours before the installation of any of the Improvements.

3. Developer shall pay the Engineer’s charges, costs, fees and expenses necessary for inspection of the Improvements in accordance with hourly rates charged by Engineer to Authority for similar services.

4. Developer hereby agrees to deposit with the Authority in immediately-available funds the sum of \$ 70,251.80 for Phase I of installation of the Improvements , (“Inspection Fee Deposit”) which is estimated by Engineer to be the amount necessary to inspect the Phase 1 Improvements. Invoices for the services of the Engineer shall be sent to the Applicant on a monthly basis. Developer shall pay invoices from the Inspection Fee Deposit and the Authority is hereby authorized by Developer to withdraw the invoice amounts from the Inspection Fee Deposit.

5. Additional deposits shall be made by Developer to the Inspection Fee Deposit for future phases and if and when the balance reaches 10% of the original amount. The amount of the additional deposit shall be estimated by the Authority Engineer. The amount deposited pursuant to this Agreement shall be used only for payment of invoices as identified in this Agreement.

6. No Improvements shall be installed without inspections determined necessary by the Engineer. Any Improvements installed without inspections shall be uncovered and/or removed and replaced as determined necessary by the Engineer.

7. The Applicant shall be provided with a detailed statement of the account from the Authority within thirty (30) days of a written request.

8. Developer understands and agrees that Developer will not install any Improvements until authorized by Engineer, and if determined to be necessary by Engineer, without the presence of an inspector from the Engineer’s office. Developer further understands and agrees

that no inspections will be authorized by the Authority until the Inspection Fee Deposit has been deposited with the Authority. Developer further understands and agrees that failure to comply with the terms of this Agreement, including failure to deposit funds into or replenish the Inspection Fee Deposit shall be sufficient cause for the Authority to discontinue inspections of the Improvements.

9. The Applicant and the Authority acknowledge that this Agreement represents their full understanding on the subject matter of this agreement. This agreement can only be amended or modified by a writing signed by the Authority and Developer.

IN WITNESS WHEREOF, and intending to be legally bound, the parties have caused their signatures to be affixed the day and year first above written.

EAST BRANDYWINE TOWNSHIP  
MUNICIPAL AUTHORITY



Michael Corbin, Chairman



Jan, Bednarchik, Secretary/Treasurer

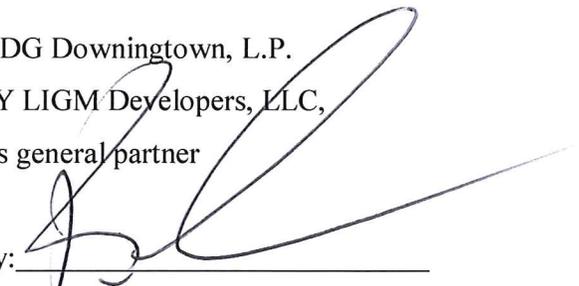
DEVELOPER



Corporate Secretary

MDG Downingtown, L.P.  
BY LIGM Developers, LLC,  
its general partner

By:



Kevin Timochenko, Sole Member

**EXHIBIT “F”**  
**Schedule of Completion**



# EXHIBIT F

<b>IMPLEMENTATION SCHEDULE</b>	
Start Home Construction	June 2017
Open Model Homes Start P&H using frac tanks and pump station wetwell	November 2017
Start up Pump Station 1– Terminate P&H from pump station (7 singles and 2 models connected)	April 2018
Home Connection Schedule	Average 5 per month starting November 2017
WWTP and Drip Field Submittals	May 2018 to July 2018
WWTP and Drip Field Construction	August 2018 to December 2019
Start up WWTP – Terminate P&H	December 2019

**Appendix - F**

**Hillendale Sewage Treatment Plant WQM Permit**

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**Hillendale STP WQM Permit (2018-2023)**

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**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

**March 1, 2018**

**CERTIFIED MAIL NO. 7015 3010 0001 5161 8740**

Mr. Scott Piersol  
East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downingtown, PA 19335-1132

Re: WQM Permit - Sewage  
Hillendale STP  
Permit No. 1507406  
Authorization ID No. 1211091  
East Brandywine Township  
Chester County

Dear Mr. Piersol:

Your Water Quality Management (WQM) permit is enclosed. You must comply with all Standard and Special Conditions attached to this Permit. Construction must be done in accordance with the permit application and all supporting documentation. Please review the permit conditions and the supporting documentation submitted with your application before starting construction.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

Mr. Scott Piersol

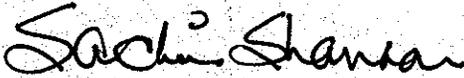
- 2 -

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact Mr. James Roth at 484.250.5169.

Sincerely,



*f* Environmental Program Manager  
Clean Water

Enclosures

cc: Chester County Health Department (w/o encl)  
Mr. Boldaz, P.E. – Hydraterra Professionals  
Ms. Sansoni (scanned copy)  
Mr. Evans (scanned copy)  
Operations  
Re(GJE18CLW)059-11



## WATER QUALITY MANAGEMENT PERMIT

<p>A. PERMITTEE (Name and Address): <span style="float: right;">CLIENT ID#: <b>226713</b></span>  <b>East Brandywine Township Municipal Authority</b>  <b>1214 Horseshoe Pike</b>  <b>Downingtown, PA 19335-1132</b></p>	<p>B. PROJECT/FACILITY (Name):  <b>Hillendale STP</b></p>	
<p>C. LOCATION (Municipality, County): <span style="float: right;">SITE ID#: <b>676460</b></span>  <b>East Brandywine Township, Chester County</b></p>		
<p>D. THIS PERMIT APPROVES THE CONSTRUCTION AND OPERATION OF SEWAGE FACILITIES CONSISTING OF: a sewage grinder, a pre-equalization tank, a SBR reactor basin, a post-equalization tank, a dual-disk cloth media filter, a UV disinfection system, an aerobic digester, an effluent storage tank, and a drip dispersal field.</p>		
<p>Pump Stations: _____                  Design Capacity: _____ GPM</p>	<p>Manure Storage:                  Volume: _____ MG                  Freeboard: _____ inches</p>	<p>Sewage Treatment Facility:                  Annual Average Flow: <b>55,387</b> GPD                  Design Hydraulic Capacity: <b>61,388</b> GPD                  Design Organic Capacity: <b>152</b> lb/day</p>
<p>E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:</p> <p>1. <b>New Permits:</b> All construction, operations and procedures shall be in accordance with the Water Quality Management Permit application dated <u>12/13/2017</u>, its supporting documentation and addendums dated _____, which are hereby made a part of this permit.</p> <p><b>Amendments:</b> All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated _____ and its supporting documentation and addendums dated _____, which are hereby made a part of this amendment.</p> <p>Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. _____ dated _____ shall remain in effect.</p> <p><b>Transfers:</b> Water Quality Management Permit No. _____ dated _____ and conditions, supporting documentation and addendums are also made part of this transfer.</p> <p>2. Permit Conditions Relating to Sewerage are attached and made part of this permit.</p> <p>3. Special Conditions <b>I through XIX</b> are attached and made part of this permit.</p>		
<p>F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:</p> <p>1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.</p> <p>2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.</p> <p>3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 <i>et seq.</i> Issuance of this permit shall not relieve the permittee of any responsibility under any other law.</p> <p>4. This permit shall expire on <b>MARCH 31, 2023</b>. The permittee shall submit an application to renew the permit no later than 180 days prior to the permit expiration date.</p>		
<p>PERMIT ISSUED:  <u>3/1/2018</u></p>	<p>BY: <u>Sachin Shanka</u>                  TITLE: <u>Clean Water Program Manager                  Southeast Regional Office</u></p>	



**SPECIAL CONDITIONS**  
Water Quality Management Permit No. 1507406  
Hillendale STP

East Brandywine Township Municipal Authority, Chester County

I. Discharge Limitations and Monitoring Requirements

Effluent from the sewage treatment plant shall be sampled from the sampling port prior to the effluent storage tank and shall be limited at all times as follows:

Parameter	Discharge Limitations (mg/l)			Monitoring Requirements	
	Average Monthly	Average Weekly	Instantaneous Maximum	Measurement Frequency	Sample Type
Influent Flow (gpd)	55,387			Continuous	Recorded
CBOD <sub>5</sub>	10		20	2/Month	8 Hour Composite
Total Suspended Solids	10		20	2/Month	8 Hour Composite
Total Nitrogen*	10		20	2/Month	8 Hour Composite
Fecal Coliform	200/100 ml as a geometric average			2/Month	Grab
pH	Within limits of 6.0 to 9.0 standard units at all times			2/Month	Grab

\* Total Nitrogen = Total Kjeldahl Nitrogen + Nitrite (NO<sub>2</sub>) Nitrogen + Nitrate (NO<sub>3</sub>) Nitrogen

Additional treatment requirements include the satisfactory disposal of sludge and the reduction of quantities of oils, greases, acids, alkalis, toxic, taste, and odor producing substances, inimical to the public interest to levels which will not pollute the receiving waters.

Monitoring results shall be reported monthly on the Discharge Monitoring Report (DMR). The term "composite" sample means a combination of individual samples collected at regular intervals over a time period. The term "grab" sample means an individual sample collected in less than 15 minutes. Samples and measurements taken as required, herein, shall be representative of the volume and nature of the monitored discharge.

- II. A copy of the monthly DMR form must be submitted within 28 days of the end of the monitoring period to:

Department of Environmental Protection  
Southeast Regional Office  
Clean Water  
2 East Main Street  
Norristown, PA 19401

III. Groundwater Monitoring Requirements

The permittee shall effectively monitor the quality of the groundwater. The parameters to be tested, and frequency of analysis and other monitoring requirements shall be as follows:

- A. Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-3, MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, and Springhead No. 2** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.
- B. Static water level shall be measured in groundwater monitoring wells MW-1, MW-2, and MW-6 quarterly.
- C. Groundwater elevations must be measured prior to purging the groundwater monitoring well.
- D. Before collection of the groundwater sample, a groundwater monitoring well shall be properly purged and allowed to recover to at least 90 percent of the well volume that was present prior to purging.
- E. All groundwater samples shall be collected from within the top five feet of the water elevation within the well column.
- F. Background groundwater monitoring shall commence six months prior to startup of the treatment system or utilization of the lagoons.

IV. Groundwater Monitoring Data Reporting Requirements

All groundwater data shall be submitted to DEP annually and be in report form. The report shall be due to DEP within 28 days of the end of the month of permit issuance. For example, if your permit was issued on March 4th, then your annual report is due by April 28th. The annual report shall be mailed under separate cover and addressed to:

Department of Environmental Protection  
Southeast Regional Office  
Clean Water Program  
2 East Main Street  
Norristown, PA 19401

Attention: Hydrogeologist  
Planning Section

V. The annual groundwater monitoring report shall include the following information:

A. General Information

- i. Facility name
- ii. Facility permit number
- iii. Facility location (including municipality and county)
- iv. Facility contact information:
  - permittee name, address, and telephone number
  - contact name and title
  - facility operator name, address, and telephone number
  - facility consultant name, address, and telephone number

B. Site Data

- i. A brief narrative that provides the date and description of any facility event which may have impacted any part of the groundwater monitoring program. (e.g., collapse of groundwater monitoring well, etc.).
- ii. Average effluent flow for the year covered by the report.
- iii. In tabular form, the following information needs to be provided for at least the last five (5) years of system operation:
  - a. Date of sampling.
  - b. Groundwater elevations.
  - c. Sampling depth.
  - d. Identification of upgradient and downgradient wells.
  - e. The results of the analysis of the samples.
- iv. Background groundwater data generated prior to system start-up. **This information is absolutely needed and needs to be included in the data tabulation.**

C. Comprehensive Groundwater Evaluation (CGE)

As part of the facility's 5-year permit renewal application, the permittee shall submit a report that is a result of a comprehensive evaluation of the systems impact on groundwater. A Registered P.G. must identify any trends which may pose a threat to human health or certify that none are present. Should adverse impacts to groundwater be identified, the permittee needs to recommend actions to address the potential threat.

VI. Groundwater Background Report

Within 60 days of system start up, or upon issuance of permit renewal a Groundwater Background Report shall be submitted to DEP. The report shall include the follow information:

A. Site Information

- i. Brief narrative, including site limitations.
- ii. Soil type and bedrock lithology beneath the absorption areas.

- iii. Site drawings showing general location of absorption fields and monitoring wells. Drawings must show site topography.

B. Construction details of each groundwater monitoring well shall include:

- i. Well depth.
- ii. Casing depth.
- iii. Static water levels.
- iv. Surface elevation.
- v. Well log.
- vi. Water bearing zones.
- viii. Top of casing elevation.
- ix. Ground surface elevation.

VII. If the permittee monitors any pollutant more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

VIII. Unless otherwise, specified in this permit, the test procedures for analysis of pollutants shall be those contained in 40 CFR Part 136, or alternative test procedures approved pursuant to that Part. For the analysis of CBOD5, consult Section 507 of Standard Methods.

IX. Drip Dispersal Construction Requirements

- A. The drip field area shall be fenced with highly visible fencing immediately after the total area has been delineated by survey so that traffic, materials movement or storage, or any other operation detrimental to preserving the structural integrity of the drip area soil is prohibited. This notification must also be made for each drip field when there is a time lapse between construction of the proposed drip zone parcels.
- B. The Department must be notified at least two (2) weeks prior to the start of any construction activity on the system, so that a pre-construction meeting with the Department can be held. Representatives from the permittee, design engineer, and system contractor must attend the pre-construction meeting.
- C. Vehicles and unnecessary equipment shall be kept off the effluent dispersal fields to prevent undue compaction and damage to the system. No roads or permanent paths may be constructed through the drip fields.
- D. Prior to any site preparation, excavation and/or installation of the effluent dispersal areas, soil moisture levels, as confirmed by the Department, shall be such that a sample of natural mineral soil taken from the level of the maximum excavation will crumble if in a ball. Should any rain event occur during installation, the installation shall stop and the site soil moisture levels are to be re-tested.
- E. At no time shall any material be stockpiled on the effluent dispersal area. Care shall be exercised during construction to prevent undue compaction and damage to the soils and system. Only lightweight, low compaction equipment (less than 15,000 pounds; less than 6.5 pounds per square inch ground pressure) may be used on or in the drip dispersal fields.
- F. The drip tubing shall be installed between 6 and 12 inches below ground surface.

- G. The permittee is responsible for accurately tracking the amount of tubing installed per subzone, and submitting the as-built information to the Department prior to start-up inspection of the drip fields.
- H. Each drip dispersal zone's completed distribution system must be pressure tested. The pressure test shall include checking that all joints are watertight and full flow to each zone is achieved.
- I. When the system is completed and before start-up, the permittee shall notify the Department in writing that the system is complete and ready for inspection. All fields shall have established and sufficient vegetative cover to prevent soil erosion and run off. Late fall installations shall have sufficient vegetation to provide insulation over the drip tubing during the winter. Representatives of the Department must inspect the facilities prior to start-up.
- J. All aspects of vegetation establishment and maintenance shall be in accordance with the plans submitted with the permit application. Any changes to the plan shall be submitted to the Department for approval prior to implementation.
- K. Protective coverings must be placed over any open ends of the drip tubing or piping during installation to prevent the introduction of foreign material into the lines.

X. Drip Dispersal Field Operation

- A. Application of the effluent to drip dispersal fields shall be managed to prevent ponding, freezing, breakout, and run off of the effluent.
- B. The operator is to assess soil moisture content and soil/crop conditions frequently. It is the operator's responsibility to inspect the fields on a routine basis to prevent and/or address damage to the fields.
- C. The non-forested drip fields shall be established and maintained in low maintenance grass-like species, to be mowed at least two times a year with a rotary mower, with at least 6 inches of growth remaining over the winter to aid in the prevention of drip tubing freezing. Mowing shall be conducted during dry soil conditions, with the drip fields having not received any precipitation or effluent for at least 24 hours. Care shall be exercised during cutting of the vegetation to prevent compaction and damage to the system. Lightweight, low compaction equipment should be used for maintenance of the drip fields. All vehicles shall be kept off the drip fields. At no time shall the any debris be stockpiled on the drip area.

XI. Hydraulic Loading Requirements

The Maximum Hydraulic Loading Rates for each Area are as follows: Area 1 = 7,397 gpd/acre, Area 2 = 5,294 gpd/acre, Area 3 = 8,282 gpd/acre, Area 4 = 8,294 gpd/acre. Under normal operating conditions, the system will be set to dose dual zones four (4) times each day.

The hydraulic loadings for these fields are as follows (the table below reflects dual zone dosing):

Area	Zone	Total Area of Zone (Acres)	Minimum Linear Feet of Tubing per Zone	Anticipated Volume per Dose (Gallons)	Maximum Daily Dose per Zone (Gallons)
1	1	0.475	9,300	1,825	7,299
	2	0.485	9,300		
	3	0.476	9,300	1,825	7,299
	4	0.472	9,300		
	5	0.465	9,300	1,825	7,299
	6	0.586	9,300		
2	7	0.430	9,300	1,253	5,011
	8	0.515	9,300		
	9	0.649	12,300	1,876	7,503
	10	0.770	12,300		
	11	0.567	9,300	1,464	5,856
	12	0.540	9,280		
3	13	0.796	12,460	3,189	12,755
	14	0.746	12,432		
4	15	0.517	9,300	2,094	8,377
	16	0.492	9,300		

**XII. Reporting Drip Irrigation Volumes**

The permittee shall include with the monthly Discharge Monitoring Report a chart listing the gallons per day discharged to each zone.

**XIII. Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- A. The exact place, date, and time of sampling or measurement.
- B. The person(s) who performed the sampling or measurement.
- C. The dates the analyses were performed.
- D. The person(s) who performed the analyses.
- E. The analytical techniques or methods used.
- F. The results of such analyses.

**XIV. Recordkeeping and Retention**

The permittee shall keep records of operation and efficiency of the wastewater treatment facilities. All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years. The 3-year period shall be extended as requested by DEP.

XV. The authorization to discharge contained in Section D of this permit shall expire in 5 years from the date of issuance, or reissuance. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date). In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal. The application for renewal shall be submitted on the appropriate Water Quality Management Part II Application forms and shall include a tabulated summary of all groundwater monitoring data for the previous 5 years, including a discussion of groundwater quality trends resulting from this discharge.

XVI. When the herein approved sewage treatment works is completed and before it is placed in operation, the permittee shall notify the Department in writing so that an inspection of the works may be made by a representative of the Department.

XVII. Laboratory Certification

Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of act 90 of 2002 (27 Pa. Code C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation. An environmental laboratory is any facility engaged in the testing or analysis of environmental samples required by a statute administered by the Department relating to the protection of the environment or of public health, safety, and welfare.

XVIII. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Stream Law, the permittee shall allow authorized representatives of Department of Environmental Protection upon the presentation of credentials and other documents as may be required by law:

- A. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
- B. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- C. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
- D. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or The Clean Streams Law, any substances or parameters at any location.

XIX. If there is a change in ownership of this facility or in permittee name, an application for transfer of permit must be submitted to DEP.

**Appendix - G**  
**Little Washington Wastewater Treatment Plant**  
**NPDES & WQM Permit**

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**Culbertson Run WWTP WQM Permit (2017-2022)**

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**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

**September 5, 2017**

**CERTIFIED MAIL NO. 7015 0640 0002 3147 7452**

Mr. Mark J. Bubel, P.E.  
Aqua Pennsylvania Wastewater, Inc.  
762 West Lancaster Avenue  
Bryn Mawr, PA 19010-3402

Re: WQM Permit - Sewage  
Culbertson Run WWTP  
Permit No. 1596401  
Authorization ID No. 1188033  
East Brandywine Township  
Chester County

Dear Mr. Bubel:

Your Water Quality Management (WQM) permit is enclosed. You must comply with all Standard and Special Conditions attached to this Permit.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.**

Mr. Mark J. Bubel, P.E.

- 2 -

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact Mr. James Roth at 484.250.5169.

Sincerely,



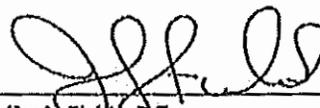
Jenifer L. Fields, P.E.  
Regional Manager  
Clean Water

Enclosures

cc: Chester County Health Department  
East Brandywine Township  
Mr. Evans  
Ms. Sansoni (scanned copy)  
Operations  
Re 30 (GJE17CLW)243-1



## WATER QUALITY MANAGEMENT PERMIT

<p><b>A. PERMITTEE (Name and Address):</b> CLIENT ID#: 62814 Aqua Pennsylvania Wastewater, Inc. 762 W Lancaster Avenue Bryn Mawr, PA 19010-3402</p>	<p><b>B. PROJECT/FACILITY (Name):</b> Culbertson Run WWTP</p>	
<p><b>C. LOCATION (Municipality, County):</b> SITE ID#: 281784 East Brandywine Township, Chester County</p>		
<p><b>D. THIS PERMIT APPROVES THE OPERATION OF SEWAGE FACILITIES CONSISTING OF:</b> a comminutor, an influent flow meter, two flow equalization tanks, a flow distribution box, five parallel Modified Ludzak Ettinger treatment trains in parallel each consisting of; an anoxic/oxic tank and a clarifier. The treatment trains are followed by two plate settlers, two rapid sand filters, two UV disinfection systems, an aerated sludge holding tank, two effluent pump stations, a stream discharge approved by NPDES Permit No. PA0050458 and three separate seepage bed areas; on-site seepage beds, Timberlake Development seepage beds and Hideaway Farm seepage beds authorized under WQM Permit 1504407 issued to East Brandywine Township Municipal Authority.</p>		
<p>Pump Stations: _____ Design Capacity: _____ GPM</p>	<p>Effluent Disposal Capacity: Stream Discharge: <u>53,000</u> GPD Timber Lakes Beds: <u>40,000</u> GPD On-Site Beds: <u>22,133</u> GPD</p>	<p>Sewage Treatment Facility: Annual Average Flow: <u>145,000</u> GPD Design Hydraulic Capacity: <u>155,000</u> GPD Design Organic Capacity: <u>323</u> lb/day</p>
<p><b>E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:</b></p> <p>1. <b>New Permits:</b> All operations and procedures shall be in accordance with the Water Quality Management Permit application dated <u>8/2/2017</u>, its supporting documentation and addendums dated _____, which are hereby made a part of this permit.</p> <p><b>Amendments:</b> All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated _____ and its supporting documentation and addendums dated _____, which are hereby made a part of this amendment.</p> <p>Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. _____ dated _____ shall remain in effect.</p> <p><b>Transfers:</b> Water Quality Management Permit No. _____ dated _____ and conditions, supporting documentation and addendums are also made part of this transfer.</p> <p>2. Permit Conditions Relating to Sewerage are attached and made part of this permit.</p> <p>3. Special Conditions <u>f through XV</u> are attached and made part of this permit.</p>		
<p><b>F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:</b></p> <p>1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.</p> <p>2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.</p> <p>3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 et seq. Issuance of this permit shall not relieve the permittee of any responsibility under any other law.</p>		
<p><b>COVERAGE APPROVAL DATE:</b> <u>October 1, 2017</u>      <b>COVERAGE EXPIRATION DATE:</b> <u>September 31, 2022</u></p>		
<p><b>RENEWAL DUE DATE:</b> <u>April 4, 2022</u></p>		
<p><b>PERMIT ISSUED:</b> <u>September 5, 2017</u>      <b>BY:</b> </p>		
<p><b>TITLE:</b> Jennifer L. Flejta, P.E. Clean Water Program Manager Southeast Regional Office</p>		



COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SPECIAL CONDITIONS**  
 Water Quality Management Permit No. 1596401  
 Aqua Pennsylvania Wastewater, Inc.  
 Culbertson Run WWTP

I. Discharge Limitations and Monitoring Requirements

Effluent from the sewage treatment plant being discharged to either the **Timber Lake Development Beds** or the **On-site Beds** shall be sampled at the effluent sample from monitoring point **MP001** and shall be limited at all times as follows:

Parameter	Discharge Limitations (mg/l)			Monitoring Requirements	
	Average Monthly	Average Weekly	Instantaneous Maximum	Measurement Frequency**	Sample Type
Flow (gpd)	62,133			Continuous	Recorded
CBOD <sub>5</sub>	10		20	2/Month	24 Hour Composite
Suspended Solids	10		20	2/Month	24 Hour Composite
Total Nitrogen*	10		20	2/Month	24 Hour Composite
Fecal Coliform	200/100 ml as geometric average			2/Month	Grab
pH	Within limits of 6.0 to 9.0 standard units at all times			Daily	Grab

\* Total Nitrogen = Total Kjeldahl Nitrogen + Nitrite (NO<sub>2</sub>) Nitrogen + Nitrate (NO<sub>3</sub>) Nitrogen

\*\* Parameters with a sampling frequency of twice per month must be sampled at least 10 days apart. If more than the required two samples are taken, then only two must be at least 10 days apart. All samples taken must be reported.

Additional treatment requirements include the satisfactory disposal of sludge and the reduction of quantities of oils, greases, acids, alkalis, toxic, taste and odor producing substances, inimical to the public interest to levels which will not pollute the receiving waters.

Monitoring results shall be reported monthly on the Discharge Monitoring Report (DMR). The term "composite" sample means a combination of individual samples collected at regular intervals over a time period. The term "grab" sample means an individual sample collected in less than 15 minutes. Samples and measurements taken as required, herein, shall be representative of the volume and nature of the monitored discharge.

- II. A copy of monthly Discharge Monitoring Report form must be submitted within 28 days of the end of the monitoring period to:

Department of Environmental Protection  
Southeast Regional Office  
Water Management  
2 East Main Street  
Norristown, PA 19401

III. Groundwater Monitoring Requirements

The permittee shall effectively monitor the quality of the groundwater. The parameters to be tested, and frequency of analysis and other monitoring requirements shall be as follows:

- A. Quarterly analysis of groundwater sampled at groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.
- B. Groundwater elevations must be measured prior to purging the groundwater monitoring well.
- C. Before collection of the groundwater sample, a groundwater monitoring well shall be properly purged and allowed to recover to at least 90 percent of the well volume that was present prior to purging.
- D. All groundwater samples shall be collected from within the top five feet of the water elevation within the well column.

IV. Groundwater Monitoring Data Reporting Requirements

All groundwater data shall be submitted to DEP annually and be in report form. The report shall be due to DEP within 28 days of the end of the month of permit issuance. For example, if your permit was issued on March 4th, then your annual report is due by April 28th. The annual report shall be mailed under separate cover and addressed to:

Department of Environmental Protection  
Southeast Regional Office  
Water Management Program  
2 East Main Street  
Norristown, PA 19401

Attention: Hydrogeologist  
Planning Section

V. The annual groundwater monitoring report shall include the following information:

A. General Information

- i. Facility name
- ii. Facility permit number
- iii. Facility location (including municipality and county)
- iv. Facility contact information:
  - a. permittee name, address, and telephone number
  - b. contact name and title
  - c. facility operator name, address, and telephone number
  - d. facility consultant name, address, and telephone number

B. Site Data

- i. A brief narrative that provides the date and description of any facility event which may have impacted any part of the groundwater monitoring program. (e.g., collapse of groundwater monitoring well, etc.).
- ii. In tabular form, the following information needs to be provided for at least the last 5 years of system operation:
  - a. Date of sampling
  - b. Groundwater elevations
  - c. Sampling depth
  - d. Identification of upgradient and downgradient wells
  - e. The results of the analysis of the samples
- iii. Background groundwater data generated prior to system start-up. **This information is absolutely needed and needs to be included in the data tabulation.**

C. Comprehensive Groundwater Evaluation (CGE)

As part of the facility's 5-year permit renewal application, the permittee shall submit a report that is a result of a comprehensive evaluation of the systems impact on groundwater. A Registered P.G. must identify any trends which may pose a threat to human health or certify that none are present. Should adverse impacts to groundwater be identified, the permittee needs to recommend actions to address the potential threat.

D. Groundwater Background Report

Within 60 days of system start up, or upon issuance of permit renewal a Groundwater Background Report shall be submitted to DEP. The report shall include the following information:

i. Site Information

- a. Brief narrative, including site limitations.
- b. Soil type and bedrock lithology beneath the absorption areas.
- c. Site drawings showing general location of absorption fields and monitoring wells. Drawings must show site topography.

- ii. Construction details of each groundwater monitoring well shall include:
  - a. Well depth.
  - b. Casing depth.
  - c. Static water levels.
  - d. Surface elevation.
  - e. Well log.
  - f. Water bearing zones.
  - g. Top of casing elevation.
  - h. Ground surface elevation.

**VI. Effluent Disposal Bed Loading**

- A. Discharge of effluent to the disposal beds may not exceed the limits shown in the following table:

<b>Effluent Disposal Bed</b>	<b>Maximum Gallons per Day</b>
Timbers Beds	40,000 total*
Culbertson Run Beds	22,133 total*
Hideaway 1	4,596
Hideaway 2	6,217
Hideaway 3	4,152
Hideaway 4	2,813
Hideaway 5	6,502
Hideaway 6	6,337
Hideaway 7	4,840
Hideaway 8	4,182

*\*The amount shown in the table for the Timbers and Culbertson Run beds is the total gallons per day that can be sent out to the combined beds at each location. The number is not a daily loading rate for each bed.*

- B. It is the operator's responsibility to inspect the subsurface disposal bed areas fields on a routine basis to prevent and/or address damage to the disposal system including lateral end cleanouts, distribution system and absorption area.
  - C. At no time may effluent be discharged to the surface of the ground.
  - D. The permittee shall maintain a daily log of total gallons discharged to each disposal bed.
  - E. No roads or permanent paths may be constructed through the absorption areas. At no time shall any material be stockpiled on the sewage disposal areas.
- VII. Effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration not greater than 200/100 ml of Fecal Coliform organisms, as a geometric average value nor greater than 1000/100 ml of these organisms in a more than 10 percent of the samples tested.
- VIII. Unless, otherwise, specified in this permit, the test procedures for analysis of pollutants shall be those contained in 40 C.F.R. Part 136, or alternative test procedures approved pursuant to that Part. For the analysis of CBOD5, consult Section 507 of Standard Methods.

**IX. Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

1. The exact place, date and time of the sampling or measurement.
2. The person(s) who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The person(s) who performed the analyses.
5. The analytical techniques or methods used.
6. The results of such analyses.

**X. Record Keeping and Retention**

The permittee shall keep records of operation and efficiency of the wastewater treatment facilities. All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for five (5) years. The five-year period shall be extended as requested by the Department.

XI. If the permittee monitors any pollutant more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

XII. The authorization to discharge contained in Section D of this permit shall expire in five years from the date of issuance, or reissuance. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to the Department at least 180 days prior to the above expiration date (unless permission has been granted by the Department for submission at a later date). In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal. The application for renewal shall be submitted on the appropriate Water Quality Management Part II Application forms and shall include a tabulated summary of all groundwater monitoring data for the previous five years, including a discussion of groundwater quality trends resulting from this discharge.

**XIII. Laboratory Certification**

Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of act 90 of 2002 (27 Pa. Code C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation. An environmental laboratory is any facility engaged in the testing or analysis of environmental samples required by a statute administered by the Department relating to the protection of the environment or of public health, safety, and welfare.

**XIV. Right of Entry**

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Stream Law, the permittee shall allow authorized representatives of Department of Environmental Protection upon the presentation of credentials and other documents as may be required by law:

- A. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
- B. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- C. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
- D. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or The Clean Streams Law, any substances or parameters at any location.

**XV.** If there is a change in ownership of in permittee name, an application for transfer of permit must be submitted to the Department.



SOUTHEAST REGIONAL OFFICE  
CLEAN WATER PROGRAM

Application Type Renewal  
 Facility Type Sewage  
Land  
 WQM Type Application

**WATER QUALITY MANAGEMENT PERMIT  
INTERNAL REVIEW AND  
RECOMMENDATIONS**

Application No. 1586401  
 APS ID 944231  
 Authorization ID 1188033

Applicant and Facility Information			
Applicant Name	<u>Aqua Pennsylvania Wastewater Inc.</u>	Facility Name	<u>Aqua PA Culbertson Run</u>
Applicant Address	<u>762 W Lancaster Avenue</u> <u>Bryn Mawr, PA 19010-3402</u>	Facility Address	<u>294 Little Washington Lydell Road</u> <u>Downington, PA 19335</u>
Applicant Contact	<u>Anthony</u>	Facility Contact	<u>Alan</u>
Applicant Phone	<u>(610) 626-1400</u>	Facility Phone	<u>(610) 645-4215</u>
Client ID	<u>62814</u>	Site ID	<u>261784</u>
SIC Code	<u>4952</u>	Municipality	<u>East Brandywine Township</u>
SIC Description	<u>Trans. &amp; Utilities - Sewerage Systems</u>	County	<u>Chester</u>
PA Bulletin Date			
Purpose of Application	<u>Permit Renewal</u>		

**Internal Review and Recommendations**

The applicant requests approval for renewal of a WQM, Part II Permit to allow continued operation of the Culbertson Run WWTP which includes land application of treated sewage via large volume on-lot disposal beds located at the in East Brandywine Township, Chester County.

The treatment plant includes the following: a comminutor, an influent flow meter, two flow equalization tanks, a flow distribution box, five parallel Modified Ludzak Ettinger treatment trains in parallel each consisting of; an anoxic/oxic tank and a clarifier. The treatment trains are followed by two plate settlers, two rapid sand filters, two UV disinfection systems, an aerated sludge holding tank, two effluent pump stations.

Treated effluent is discharged via one of 4 methods:

1. Stream discharge approved by NPDES Permit No. PA0060458 = 63,000 gpd
2. On-site seepage beds = 22,133 gpd
3. Timberlake Development seepage beds and = 40,000 gpd
4. Hideaway Farm seepage beds authorized under WQM Permit 1504407 issued to East Brandywine Township Municipal Authority = 39,638 gpd

**Total Effluent Disposal Capacity = 155,000 gpd.**

The permit requires that effluent being be sampled and tested for CBOD (10 mg/l), TSS (10 mg/l), total nitrogen (10 mg/l), fecal coliform (200) and pH (8.0 to 9.0 su). There have been no changes to the effluent limits during this renewal.

Approve	Return	Deny	Signatures	Date
X			 James Roth / Project Manager	31 Aug 17
X			 Pravin C. Patel, P.E. / Environmental Engineer Manager	8/31/2017
X			 Jenifer L. Fields, P.E. / Program Manager	8/31/17

**Aqua PA Culbertson Run NPDES Permit (2018-2023)**

---



September 12, 2018

**CERTIFIED MAIL NO. 7017 1000 0000 5886 5961**

Mr. Curt Steffy  
Aqua Pennsylvania Wastewater, Inc.  
762 W Lancaster Avenue  
Bryn Mawr, PA 19010-3402

Re: Final NPDES Permit- Sewage  
Aqua PA Culbertson Run  
NPDES Permit No. PA0050458  
Authorization ID No. 1216541  
East Brandywine Township, Chester County

Dear Mr. Steffy:

Your NPDES permit is enclosed. Please read the permit carefully. The permit expires on the date identified on page 1 of the permit. A renewal application must be submitted to this office 180 days prior to the permit expiration date, if a discharge is expected to continue past the expiration date of the permit.

Enclosed are Discharge Monitoring Report (DMR) templates and DMR instructions. It is recommended that you retain the DMR templates in the event you are unable to submit DMRs electronically through DEP's eDMR system. Routine use of the eDMR system is a requirement of the permit unless the conditions in Part A III.B.3 of the permit are met to submit hard copies.

Also enclosed is a Supplemental Form Inventory, which identifies the forms that are attached to the permit and must be submitted as attachments to eDMR reports, as applicable (see individual form instructions). The submission of other supplemental forms may be required in accordance with the permit. We encourage you to use the spreadsheet versions of supplemental forms that contain appropriate validation and DEP-approved calculations.

For upgrades to the existing facilities, a Water Quality Management (WQM) permit application must be submitted at least 90 days prior to the anticipated date for initiating construction, and a WQM permit must be issued prior to initiating construction.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice

Mr. Curt Steffy

- 2 -

of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact Juan Vicenty-Gonzalez at 484.250.5117.

Sincerely,



Thomas L. Magge  
Environmental Program Manager  
Clean Water Program

Enclosures

cc: Mr. Bubel – Aqua Services, Inc.  
East Brandywine Township (w/o enclosures)  
Chester County Health Department (w/o enclosures)  
Ms. Lashley (w/o enclosures)  
Operations Section  
Central Office, Division of Operations  
NPDES File  
Re



**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
DISCHARGE REQUIREMENTS FOR NON-MUNICIPAL  
SEWAGE TREATMENT WORKS**

**NPDES PERMIT NO: PA0050458**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

**Aqua Pennsylvania Wastewater, Inc.  
762 W Lancaster Avenue  
Bryn Mawr, PA 19010-3402**

is authorized to discharge from a facility known as **Aqua PA Culbertson Run**, located in **East Brandywine Township, Chester County**, to **Culbertson Run** in Watershed(s) **3-H** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

**THIS PERMIT SHALL BECOME EFFECTIVE ON** OCTOBER 1, 2018

**THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON** SEPTEMBER 30, 2023

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.
2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))
3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d)(2))

In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

**DATE PERMIT ISSUED** September 12, 2018

**ISSUED BY**

**Thomas L. Magge  
Clean Water Program Manager  
Southeast Regional Office**

**PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  
(Continued)**

Additional Requirements

1. The permittee may not discharge:
  - a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))
  - b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))
  - c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))
  - d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))
2. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.
3. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

- (1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.
- (2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

- (1) The effluent limitations for Outfall 001 were determined using an effluent discharge rate of 0.053 MGD.
- (2) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N ( $\text{NO}_2 + \text{NO}_3\text{-N}$ ), where TKN and  $\text{NO}_2 + \text{NO}_3\text{-N}$  are measured in the same sample.

## II. DEFINITIONS

*At Outfall (XXX)* means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

*Average* refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

*Best Management Practices (BMPs)* means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

*Bypass* means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

*Calendar Week* is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

*Clean Water Act* means the Federal Water Pollution Control Act, as amended. (33 U.S.C.A. §§ 1251 to 1387).

*Composite Sample* (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

*Composite Sample* (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

*Daily Average Temperature* means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

*Daily Discharge* means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

*Daily Maximum Discharge Limitation* means the highest allowable "daily discharge."

*Discharge Monitoring Report (DMR)* means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

*Estimated Flow* means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

*Geometric Mean* means the average of a set of n sample results given by the nth root of their product.

**Grab Sample** means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

**Hazardous Substance** means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

**Hauled-In Wastes** means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

**Immersion Stabilization** (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

**Instantaneous Maximum Effluent Limitation** means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

**Measured Flow** means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

**Monthly Average Discharge Limitation** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

**Municipal Waste** means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

**Residual Waste** means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

**Severe Property Damage** means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

**Stormwater** means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

**Stormwater Associated With Industrial Activity** means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) - (ix) and (xi) and 25 Pa. Code § 92a.2.

**Total Dissolved Solids** means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

**Toxic Pollutant** means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including

malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

### III. SELF-MONITORING, REPORTING AND RECORDKEEPING

#### A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)
2. Records Retention (40 CFR 122.41(j)(2))

Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling or measurements.
- b. The person(s) who performed the sampling or measurements.
- c. The date(s) the analyses were performed.
- d. The person(s) who performed the analyses.
- e. The analytical techniques or methods used; and the associated detection level.
- f. The results of such analyses.

4. Test Procedures

- a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.
- b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))
- c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

- a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))
- b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(i)(4))

**B. Reporting of Monitoring Results**

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))
2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see [www.dep.pa.gov/edmr](http://www.dep.pa.gov/edmr)). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:
  - a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.
  - b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).
4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:
  - Monthly DMRs must be received within 28 days following the end of each calendar month.
  - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
  - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
  - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.
5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

### C. Reporting Requirements

1. **Planned Changes to Physical Facilities** – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))
  - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))
  - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))
  - d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))
2. **Planned Changes to Waste Stream** – Under the authority of 25 Pa. Code § 92a.24(a), the permittee shall provide notice to DEP as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the facility, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility. The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.
    - a. **Introduction of New Pollutants** (25 Pa. Code § 92a.24(a))

New pollutants are defined as parameters that meet all of the following criteria:

- (i) Were not detected in the facilities' influent waste stream as reported in the permit application; and

- (ii) Have not been approved to be included in the permittee's influent waste stream by DEP in writing.

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

- (i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or
- (ii) Have been approved to be included in the permittee's influent waste stream by DEP in writing; or
- (iii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the facility, or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

- (i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

- (1) The dates that residual wastes were received.
- (2) The volume (gallons) of wastes received.
- (3) The license plate number of the vehicle transporting the waste to the treatment facility.
- (4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.
- (5) The name and address of the generator of the residual wastes.

(6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

(ii) The following conditions apply to the characterization of residual wastes received by the permittee:

(1) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

(2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the chemical analysis may be a general frac wastewater characterization approved by DEP. Thereafter, the chemical analysis must be waste-specific and be reported on the Form 26R.

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

(2) The volume (gallons) of wastes received.

(3) The BOD<sub>5</sub> concentration (mg/l) and load (lbs) for the wastes received.

(4) The location(s) where wastes were disposed of within the treatment facility.

(ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes.

4. Unanticipated Noncompliance or Potential Pollution Reporting

a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).

(i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.

- (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.
  - (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.
- b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:
- (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph:
    - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
    - (2) Any upset which exceeds any effluent limitation in the permit; and
    - (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement. (40 CFR 122.44(g))
  - (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))
5. Other Noncompliance
- The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

**PART B**

**I. MANAGEMENT REQUIREMENTS**

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))
2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with Title 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))
3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))
2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))
3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))
4. If the sewage treatment facility provides service in part or whole to a municipality, through a contract or agreement between the operator and municipality, an annual report shall be submitted to DEP by March 31 containing the following information, at a minimum:
  - a. The information identified in 25 Pa. Code § 94.12.
  - b. A "Solids Management Inventory" if specified in Part C of this permit.
  - c. The total volume of hauled-in residual and municipal wastes received during the year, by source.

D. General Pretreatment Requirements

Where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure

renewed or continued compliance with this permit or sludge use or disposal practices. The permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).
2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))
2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:
  - a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))
  - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))
  - c. The permittee submitted the necessary notice required in G.4.a. and b. below. (40 CFR 122.41(m)(4)(i)(C))
3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in G.2. above. (40 CFR 122.41(m)(4)(ii))
4. Notice
  - a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))
  - b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

H. Sanitary Sewer Overflows (SSOs)

An SSO is an overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility. SSOs are not authorized under this permit. The permittee shall immediately report any SSO to DEP in accordance with Part A III.C.4 of this permit.

## II. PENALTIES AND LIABILITY

### A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR §122.41(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

### B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or
- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A § 4904 and 40 CFR 122.41(j)(5) and (k)(2).

### C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

### D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

## III. OTHER RESPONSIBILITIES

### A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92a and 40 CFR 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))
3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

#### B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))
2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:
  - a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))
  - b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and (40 CFR 122.61(b)(2))
  - c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section. (40 CFR 122.61(b)(3))
  - d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate DEP regulations. (25 Pa. Code § 92a.71)
3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

#### C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

#### D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

#### E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

**IV. ANNUAL FEE**

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. Annual fee amounts are specified in the following schedule and are due on each anniversary of the effective date of the most recent new or reissued permit. All flows identified in the schedule are annual average design flows. (25 Pa. Code § 92a.62)

Small Flow Treatment Facility (SRSTP or SFTF)	\$0
Minor Sewage Facility < 0.05 MGD (million gallons per day)	\$250
Minor Sewage Facility ≥ 0.05 and < 1 MGD	\$500
Minor Sewage Facility with CSO (Combined Sewer Overflow)	\$750
Major Sewage Facility ≥ 1 and < 5 MGD	\$1,250
Major Sewage Facility ≥ 5 MGD	\$2,500
Major Sewage Facility with CSO	\$5,000

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category:  
**Minor Sewage Facility ≥0.05 and <1 MGD.**

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection  
 Bureau of Clean Water  
 Re: Chapter 92a Annual Fee  
 P.O. Box 8466  
 Harrisburg, PA 17105-8466

**PART C**

**I. OTHER REQUIREMENTS**

- A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.
- B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.
- C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 75, and in a manner equivalent to the requirements indicated in Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.
- D. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
- E. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for cleaning or other purposes, the permittee shall notify DEP prior to initiating use of chlorine and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

- F. The attention of the permittee is directed to the fact that effluent is discharged to a location with little or no assimilative capacity or dilution during critical periods. If the effluent creates a health hazard or nuisance, the permittee shall, upon notice from DEP, provide such additional treatment as may be required by DEP.
- G. If, at anytime, the DEP determines that the discharge permitted herein creates a public nuisance or causes environmental harm to the receiving water of the Commonwealth, the DEP may require the permittee to adopt such remedial measures as will produce a satisfactory effluent. If the permittee fails to adopt such remedial measures within the time specified by the DEP, the right to discharge herein granted shall upon notice by the DEP, cease and become null and void.
- H. Parameters with a sampling frequency of twice per month must be sampled at least 10 days apart. If more than the required two samples are taken, then only two must be at least 10 days apart. All samples taken must be reported.

- I. The permittee shall maximize the use of subsurface system for disposal of treated wastewater in accordance with WQM Permit No. 1596401.
- J. Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitation except for the parameters pH, total residual chlorine, and fecal coliform. However, if grab samples are collected for parameters normally monitored through composite sampling, the results must be reported.
- K. The permittee shall develop a treatment facility operations and maintenance (O&M) plan addressing key wastewater processes. The plan shall be reviewed annually and updated when appropriate. The plan shall be submitted to DEP for review upon request. For the purpose of this paragraph, a key wastewater process includes any equipment or process that, if it fails, may cause the discharge of raw wastewater or wastewater that fails to meet NPDES permit discharge requirements, or a failure that may threaten human or environmental health. The O&M plan shall include the following, at a minimum:
  1. A process control strategy that includes a schedule for process control sampling, monitoring, testing, and recordkeeping.
  2. A plan that identifies how key wastewater processes shall be monitored and adjusted while the facility is staffed.
  3. A plan that identifies how key wastewater processes will be monitored while the treatment facility is not staffed.
  4. For treatment plants that are impacted by wet weather flows, the permittee shall develop and implement a wet weather operations strategy that minimizes or eliminates the wash out of solids from the treatment system while maximizing the flow through the treatment plant.
  5. An emergency plan that identifies how the facility will be operated during times of emergency. For example, the plan shall detail how key wastewater processes will be repaired or replaced in the event of a failure while minimizing loss of life and property damage to the facility. This plan shall also include emergency contact numbers for local emergency response agencies, plant personnel, critical suppliers and vendors, and DEP contacts, at a minimum.
  6. A preventative maintenance plan that includes a schedule for preventative maintenance for all equipment within the treatment system. A spare parts inventory shall be included as part of this plan.
  7. A solids management plan that identifies how solids produced by the facility will be wasted, treated, and ultimately disposed of.



## INSTRUCTIONS FOR COMPLETING DISCHARGE MONITORING REPORTS (DMRs)

### General

One or more Discharge Monitoring Reports (DMRs) are attached to your permit for reporting the results of self-monitoring activities as required by your permit. You should make copies of the DMRs for your ongoing use, unless you elect to participate in the Department of Environmental Protection's (DEP's) electronic DMR (eDMR) program (see [www.dep.pa.gov/edmr](http://www.dep.pa.gov/edmr)).

- Reporting frequencies will vary depending on the monitoring frequencies listed in your permit, and are generally monthly, quarterly semi-annually and annually.
- Your reports must be received by DEP on the 28<sup>th</sup> day of the month following the end of the reporting period, unless otherwise specified in Part C of your permit.
- Your permit may require submission of DMRs to other agencies, including the U.S. Environmental Protection Agency (EPA).
- If you receive DMRs in the mail from EPA, please discontinue use of DMR Form No. 3800-FM-BCW0462 and begin using EPA's DMRs.
- DMRs will generally include pre-populated information for permittee name and address, facility location, permit number, outfall number, permit expiration date, parameter names, and permit requirements. If you identify any errors on a DMR issued by DEP, please contact the DEP regional office that issued your permit. If you identify any errors on a DMR issued by EPA, please contact DEP's Central Office at 717-787-6744. **DO NOT make changes to DMRs issued to you.**
- You may use computer-generated replicas of Form No. 3800-FM-BCW0462 or of EPA's DMR if you receive prior approval from DEP and EPA. **DEP reserves the right to instruct you to discontinue the submission of computer-generated DMRs if the permit requirements you entered on the form are inaccurate.**

### Instructions

1. Enter statistical results into each blank field below the "VALUE" column headers. Results must be reported in the same units shown on the DMR.
2. Sum the total number of excursions or exceedances of permit limits across the row for each parameter and enter the value into the "NO. EX" field. For example, if the permit contains limits of 6.0 S.U. (Minimum) and 9.0 S.U. (Maximum) for pH, and the Minimum and Maximum results are 5.9 S.U. and 9.1 S.U., respectively, enter "2" into the "NO. EX" field.
3. Report the actual sampling frequency and sample type utilized during the reporting period in the fields corresponding to "Frequency of Analysis" and "Sample Type", respectively.
4. Type the name of the principal executive officer (or an authorized agent designated by a principal executive officer) who is taking responsibility for the report, sign the report (should be in ink), enter the telephone number of the responsible individual, and record the date that the report was signed. Mail only original, signed copies of DMRs.
5. In the Comments section at the bottom of the DMR, you may write a brief summary of violations in this section; however, DEP requests that all violations during the monitoring period be reported in more detail on DEP's **Non-Compliance Reporting Form** (3800-FM-BCW0440) and be submitted as an attachment to the DMR. Other uses of the Comments Section include explanations of attachments to the DMR, explanations for the unavailability of data, and brief summaries of issues that have affected operations or effluent quality during the monitoring period. Always consider attaching a letter or separate document to explain your situation in more detail.

**No Discharge or No Data Available**

If there was no discharge at all from an outfall during the monitoring period, check the "No Discharge" box on the top of the DMR. Complete the information above and below the table and mail the DMR to the appropriate agencies. Be sure to sign and date the DMR.

If there was no discharge of a specific parameter (e.g., if a chlorine limit is in the permit but chlorine was not used for disinfection during the entire reporting period), or if data are not available for a specific parameter for the entire reporting period, do not leave the DMR blank. Instead, report one of the following No Data Indicator (NODI) codes that apply to your situation in the appropriate value field, and **provide an explanation as an attachment to the DMR**:

- A** Use if you are exempted from monitoring the parameter because of a General Permit condition.
- E** Use if all samples or results are not available for the reporting period due to equipment failure or because sample collection was overlooked or samples could not be collected for the parameter.
- GG** Use if your permit requires sample collection and analysis only under certain conditions and those conditions were not met during the reporting period (e.g., report chlorine results only when chlorination system is used).
- FF** Other: use if there is any reason for the absence of data that is not covered by those above.

If you have at least one result for a parameter, the value should be reported and not a NODI code.

**Calculations**

The following explains how to calculate statistical values that are commonly required by permits:

**Monthly Average** – For Loading (lbs/day), sum the total of daily loadings and divide by the number of samples during the month. To calculate the daily loading, multiply the daily concentration (mg/l) by the flow (MGD) on the date of sampling and a conversion factor of 8.34. For Concentration, sum the total of daily concentrations and divide by the number of samples.

**Weekly Average** – For Loading (lbs/day), sum the total of average daily loadings during each week of the reporting period (beginning on a Sunday and ending on a Saturday) and divide by the number of samples during the week. For Concentration, sum the total of daily concentrations each week and divide by the number of samples. Report the maximum weekly average on the DMR.

**Maximum Daily ("Daily Max")** – Report the maximum concentration or load measured during a 24-hour period during the reporting period; if multiple measurements are taken daily, include all data in the analysis.

**Instantaneous Maximum ("IMAX")** – Report the maximum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

**Instantaneous Minimum ("Minimum")** – Report the minimum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

**Total Monthly Load (lbs)** – Sum the total of average daily loadings, divide by the number of samples during the month, and multiply by the number of days in the month.

**Geometric Mean** – Report the average of a set of  $n$  sample results given by the  $n$ th root of their product. If any result is zero (0), substitute 1 for the calculation. For example, five samples were analyzed with the following results: 20, 300, 400, 500, and 0. The calculation of geometric mean is as follows (note that you will need to use the power function on a calculator):

$$\sqrt[5]{20 \cdot 300 \cdot 400 \cdot 500 \cdot 1} = \sqrt[5]{1,200,000,000} = (1,200,000,000)^{1/5} = 65$$

**Appendix - H**  
**Hide-A-Way Farms LVOLDS WQM Permit**

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**Hide-A-Way Farm Seepage Beds and Pump Stations WQM Permit (2022-2027)**



June 30, 2022

**ISSUED VIA ELECTRONIC MAIL**

Jan Bednarchik  
East Brandywine Township Municipal Authority  
1214 Horseshoe Pike  
Downington, PA 19335

Re: WQM Permit - Sewage  
Aqua PA Culbertson Run Hideaway Farm Seepage  
Beds  
Permit No. 1504407  
Authorization ID No. 1379999  
East Brandywine Township, Chester County

Dear Ms. Bednarchik:

Your Water Quality Management (WQM) permit is enclosed. You must comply with all Standard and Special Conditions attached to this Permit.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
Rachel Carson State Office Building, Second Floor  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

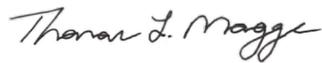
A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.**

Please contact Karen McDaniel at 484.250.5126 or kmcdaniel@pa.gov if there are any questions or concerns.

Sincerely,



Thomas L. Magge  
Environmental Program Manager  
Clean Water Program

Enclosures

cc: Chester County Health Department  
Mr. Borgioni, Hydroterra Professionals  
Mr. Boldaz, P.E, Hydroterra Professionals  
Mr. Wolfinger, SERO, Pa DEP  
Ms. Sansoni, SERO, Pa DEP  
Mr. Evans, P.G., SERO Pa DEP  
Re



# WATER QUALITY MANAGEMENT PERMIT

<p>A. PERMITTEE (Name and Address): CLIENT ID#: <b>226713</b>  <b>East Brandywine Township Municipal Authority</b>  <b>1214 Horseshoe Pike</b>  <b>Downingtown, PA 19335</b></p>	<p>B. PROJECT/FACILITY (Name):  <b>Hide-A-Way Farm Seepage Beds and Pump Stations</b></p>
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<p>C. LOCATION (Municipality, County):  <b>East Brandywine Township, Chester County</b></p>	<p>SITE ID#: <b>261784</b></p>
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D. This Permit approves the operation of sewage facilities consisting of: **Eight deep seepage beds and, a pump station to transfer treated sewage from the CRWWTP back to the Hide-A-Way Farm subsurface disposal area**

<p>Pump Stations: <b>1</b>  Development Design Capacity: <b>95</b> GPM  Beds/Dosing Design Capacity: <b>185</b> GPM</p>	<p>Manure Storage:  Volume: _____ MG  Freeboard: _____ inches</p>	<p>Sewage Treatment Facility:  Annual Average Flow: <b>39,638</b> GPD  Design Hydraulic Capacity: <b>46,476</b> GPD  Design Organic Capacity: <b>165</b> lb/day</p>
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E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:

- Renewal:** All construction, operations and procedures shall be in accordance with the Water Quality Management Permit application dated **12/2021**, its supporting documentation and addendums dated \_\_\_\_\_, which are hereby made a part of this permit.  
**Amendments:** All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated \_\_\_\_\_ and its supporting documentation and addendums dated \_\_\_\_\_, which are hereby made a part of this amendment.  
Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. \_\_\_\_\_ dated \_\_\_\_\_ shall remain in effect.  
**Transfers:** Water Quality Management Permit No. \_\_\_\_\_ dated \_\_\_\_\_ and conditions, supporting documentation and addendums are also made part of this transfer.
- Permit Conditions Relating to Sewerage are attached and made part of this permit.
- Special Conditions **I- XIII** are attached and made part of this permit.

F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:

- If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.
- Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.
- This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 *et seq.* Issuance of this permit shall not relieve the permittee of any responsibility under any other law.
- This permit shall expire on **06/30/2027**. The permittee shall submit an application to renew the permit no later than 180 days prior to the permit expiration date.

<p>PERMIT ISSUED:   <u>June 30, 2022</u>  Permit Effective: <b>July 1, 2022</b></p>	<p>BY: <u>Thomas L. Magge</u>  <b>Thomas L. Magge</b>  <b>Clean Water Program Manager</b>  <b>Southeast Regional Office</b></p>
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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

**PERMIT CONDITIONS RELATING TO SEWERAGE**  
For use in Water Quality Management Permits

(Check boxes that apply)

**General**

- 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.
- 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.
- 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.
- 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.
- 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.
- 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 5 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the fifth anniversary of the permit date.
- 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.
- 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
- 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.
- 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.
- 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in the NPDES Permit and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

**Construction**

- 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

- 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.
- 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using the "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.
- 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.
- 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

### Operation and Maintenance

- 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.
- 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.
- 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.
- 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.
- 21. The sewerage facilities shall be properly operated and maintained to perform as designed.
- 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.
- 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.
- 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.
- 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.
- 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.
- 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.

**SPECIAL CONDITIONS**  
Water Quality Management Permit No. **1504407- Renewal**  
East Brandywine Township Municipal Authority

**I. Discharge Limitations and Monitoring Requirements**

Effluent from the sewage treatment plant shall be sampled at the dosing tank sampling point and shall be limited at all times as follows:

Parameter	Discharge Limitations (mg/l)			Monitoring Requirements	
	Average Monthly	Average Weekly	Instantaneous Maximum	Measurement Frequency	Sample Type
Flow (gpd)	39,638			Continuous	Recorded
CBOD <sub>5</sub>	10		20	2/Month	24 Hour Composite
Suspended Solids	10		20	2/Month	24 Hour Composite
Fluoride	Monitor/ Report			1/Quarter	24 Hour Composite
Iron	Monitor/ Report			1/Quarter	24 Hour Composite
Turbidity	Monitor/ Report			1/Quarter	Grab
Total Nitrogen*	10		20	2/Month	24 Hour Composite
Fecal Coliform	50/100 ml as a geometric average			2/Month	Grab
pH	Within limits of 6.5 to 8.5 standard units at all times			Daily	Grab

\* Total Nitrogen = Total Kjeldahl Nitrogen + Nitrite (NO<sub>2</sub>) Nitrogen + Nitrate (NO<sub>3</sub>) Nitrogen

Additional treatment requirements include the satisfactory disposal of sludge and the reduction of quantities of oils, greases, acids, alkalis, toxic, taste, and odor producing substances, inimical to the public interest to levels which will not pollute the receiving waters.

Monitoring results shall be reported monthly on the Discharge Monitoring Report (DMR). The term “composite” sample means a combination of individual samples collected at regular intervals over a time period. The term “grab” sample means an individual sample collected in less than 15 minutes. Samples and measurements taken as required, herein, shall be representative of the volume and nature of the monitored discharge.

**II.** A copy of monthly DMR form must be submitted within 28 days of the end of the monitoring period to:

Department of Environmental Protection  
Southeast Regional Office  
Clean Water  
2 East Main Street  
Norristown, PA 19401

### III. Groundwater Monitoring Requirements

The permittee shall effectively monitor the quality of the groundwater. The parameters to be tested, and frequency of analysis and other monitoring requirements shall be as follows:

- A. Quarterly analysis of groundwater sampled at groundwater monitoring wells **MW-2, MW-3, MW-4, and MW-5** shall consist of: static water level, sampling depth, turbidity, pH, chloride, total phosphorus, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total dissolved solids, fecal coliform, and alkalinity.
- B. Groundwater elevations must be measured prior to purging the groundwater monitoring well.
- C. Before collection of the groundwater sample, a groundwater monitoring well shall be properly purged and allowed to recover to at least 90 percent of the well volume that was present prior to purging.
- D. All groundwater samples shall be collected from within the top five feet of the water elevation within the well column.
- E. Background groundwater monitoring shall commence six months prior to startup of the treatment system.

### IV. Groundwater Monitoring Data Reporting Requirements

#### A. Annual Groundwater Report

All groundwater data shall be submitted to DEP **annually** and be in **report form**. The report shall be due to DEP within 28 days of the end of the month of permit issuance. For example, if your permit was issued on March 4th, then your annual report is due by April 28th. The annual report shall be mailed under separate cover and addressed to:

Department of Environmental Protection  
Southeast Regional Office  
Clean Water Program  
2 East Main Street  
Norristown, PA 19401

Attention: Hydrogeologist  
Planning Section

The Annual Groundwater Monitoring Report shall include the following information:

- 1. General Information
  - a. Facility name
  - b. Facility permit number
  - c. Facility location (including municipality and county)
  - d. Facility contact information:
    - i. permittee name, address, e-mail address, and telephone number
    - ii. contact name and title
    - iii. facility operator name, address, e-mail address, and telephone number
    - iv. facility consultant name, address, e-mail address, and telephone number
- 2. Site Data

- a. A brief narrative that provides the date and description of any facility event which may have impacted any part of the groundwater monitoring program. (e.g., collapse of groundwater monitoring well, etc.).
- b. Average effluent flow for the year covered by the report.
- c. In tabular form, the following information needs to be provided for at least the last 5 years of system operation:
  - i. Date of sampling.
  - ii. Groundwater elevation.
  - iii. Sampling depth.
  - iv. Identification of upgradient and downgradient wells.
  - v. The results of the analysis of the samples.
- d. Background groundwater data generated prior to system start-up. **This information is absolutely needed and needs to be included in the data tabulation.**

**B. Comprehensive Groundwater Evaluation (CGE)**

As part of the facility’s 5-year permit renewal application, the permittee shall submit a report that is a result of a comprehensive evaluation of the systems impact on groundwater. A Registered P.G. must identify any trends which may pose a threat to human health or certify that none are present. Should adverse impacts to groundwater be identified, the permittee needs to recommend actions to address the potential threat.

**C. Groundwater Background Report**

The existing Groundwater Background Report shall be updated as needed.

**The Groundwater Background Report is a one-time report. Should future changes or additions occur for any information in this section, an addendum that can be added to the report is all that is needed to update this report.**

**V. Soil Absorption Bed Requirements**

- A. It is the operator’s responsibility to inspect the subsurface bed areas on a routine basis to prevent and/or address damage to the disposal system including lateral end cleanouts, distribution system and absorption area.
- B. At no time may effluent be discharged to the surface area.

**Maximum Absorption Bed Dosing Rate**

Hideaway Bed Number	Maximum Dose (gallons/day)
1	4,596
2	6,217
3	4,152
4	2,813
5	6,502
6	6,337
7	4,840
8	4,182

- VI.** If the permittee monitors any pollutant more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.
- VII.** Unless otherwise, specified in this permit, the test procedures for analysis of pollutants shall be those contained in 40 CFR Part 136, or alternative test procedures approved pursuant to that Part. For the analysis of CBOD<sub>5</sub>, consult Section 507 of Standard Methods.

**VIII. Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- A. The exact place, date, and time of sampling or measurement.
- B. The person(s) who performed the sampling or measurement.
- C. The dates the analyses were performed.
- D. The person(s) who performed the analyses.
- E. The analytical techniques or methods used.
- F. The results of such analyses.

**IX. Recordkeeping and Retention**

The permittee shall keep records of operation and efficiency of the wastewater treatment facilities. All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years. The 3-year period shall be extended as requested by DEP.

- X.** The authorization to discharge contained in Section D of this permit shall expire in 5 years from the date of issuance, or reissuance. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date). In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal. The application for renewal shall be submitted on the appropriate Water Quality Management Part II Application forms and shall include a tabulated summary of all groundwater monitoring data for the previous 5 years, including a discussion of groundwater quality trends resulting from this discharge.

**XI. Laboratory Certification**

Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of act 90 of 2002 (27 Pa. Code C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation. An environmental laboratory is any facility engaged in the testing or analysis of environmental samples required by a statute administered by the Department relating to the protection of the environment or of public health, safety, and welfare.

**XII. Right of Entry**

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Stream Law, the permittee shall allow authorized representatives of Department of Environmental Protection upon the presentation of credentials and other documents as may be required by law:

- A. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
  - B. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
  - C. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
  - D. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or The Clean Streams Law, any substances or parameters at any location.
- XIII.** If there is a change in ownership of this facility or in permittee name, an application for transfer of permit must be submitted to DEP.



**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF CLEAN WATER  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)**

PRIMARY FACILITY NAME/ADDRESS

NAME Hideaway Farm Ps & Seepage Beds  
 CLIENT East Brandywine Township Municipal Authority Chester County  
 ADDRESS 1214 Horseshoe Pike  
Downington, PA 19335  
 LOCATION East Brandywine Township  
Chester County  
 WATERSHED 3-H

**1504407**  
 PERMIT NUMBER

**001/Seepage Beds**  
 OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Quarterly  
 DMR Effective From: July 1, 2022  
 DMR Effective To: June 30, 2027  
 Permit Expires: June 30, 2027  
 Permit Application Due: January 1, 2027  
 Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Turbidity	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	Report Avg Qrtly	XXX	NTU		1/quarter	Grab
Fluoride, Total	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	Report Avg Qrtly	XXX	mg/L		1/quarter	24-Hr Composite
Iron, Total	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	Report Avg Qrtly	XXX	mg/L		1/quarter	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).	TELEPHONE		DATE		
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
COMMENTS (Report all violations on the "Non-Compliance Reporting Form")						



**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF CLEAN WATER  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
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PRIMARY FACILITY NAME/ADDRESS

NAME Hideaway Farm Ps & Seepage Beds  
East Brandywine Township Municipal Authority Chester County  
 CLIENT  
 ADDRESS 1214 Horseshoe Pike  
Downington, PA 19335  
 LOCATION East Brandywine Township  
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 WATERSHED 3-H

**1504407**  
 PERMIT NUMBER

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 OUTFALL NUMBER

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Check Here if No Discharge  
 NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	39638 Avg Mo	XXX	GPD	XXX	XXX	XXX	XXX		Continuous	Recorded
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	6.5 Inst Min	XXX	8.5 IMAX	S.U.		1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10 Avg Mo	20 IMAX	mg/L		2/month	24-Hr Composite
Total Suspended Solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10 Avg Mo	20 IMAX	mg/L		2/month	24-Hr Composite
Fecal Coliform	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	50 Geo Mean	XXX	No./100 ml		2/month	Grab
Total Nitrogen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	10 Avg Mo	20 IMAX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).	TELEPHONE		DATE		
		AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					

COMMENTS (Report all violations on the "Non-Compliance Reporting Form")



## INSTRUCTIONS FOR COMPLETING DISCHARGE MONITORING REPORTS (DMRs)

### General

One or more Discharge Monitoring Reports (DMRs) are attached to your permit for reporting the results of self-monitoring activities as required by your permit. If required by your permit, you must use Department of Environmental Protection's (DEP's) [electronic DMR \(eDMR\) system](#) to submit results. If you are required to use eDMR, these physical forms should only be used under the following circumstances:

1. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.
2. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

You should make copies of the DMRs for your ongoing use, unless you participate in the eDMR program.

- Reporting frequencies will vary depending on the monitoring frequencies listed in your permit, and are generally monthly, quarterly, semi-annually and annually.
- Your reports must be received by DEP on the 28<sup>th</sup> day of the month following the end of the reporting period, unless otherwise specified in Part C of your permit.
- Your permit may require submission of DMRs to other agencies, including the U.S. Environmental Protection Agency (EPA).
- DMRs will generally include pre-populated information for permittee name and address, facility location, permit number, outfall number, permit expiration date, parameter names, and permit requirements. If you identify any errors on a DMR issued by DEP, please contact the DEP regional office that issued your permit. **DO NOT make changes to DMRs issued to you.**
- You may use computer-generated replicas of Form No. 3800-FM-BCW0462 if you receive prior approval from DEP. **DEP reserves the right to instruct you to discontinue the submission of computer-generated DMRs if the permit requirements you entered on the form are inaccurate.**

### Instructions

1. Enter statistical results into each blank field below the "VALUE" column headers. Results must be reported in the same units shown on the DMR.
2. Sum the total number of excursions or exceedances of permit limits across the row for each parameter and enter the value into the "NO. EX" field. For example, if the permit contains limits of 6.0 S.U. (Minimum) and 9.0 S.U. (Maximum) for pH, and the Minimum and Maximum results are 5.9 S.U. and 9.1 S.U., respectively, enter "2" into the "NO. EX" field.
3. Report the actual sampling frequency and sample type utilized during the reporting period in the fields corresponding to "Frequency of Analysis" and "Sample Type", respectively.
4. Type the name of the principal executive officer (or an authorized agent designated by a principal executive officer) who is taking responsibility for the report, sign the report (should be in ink), enter the telephone number of the responsible individual, and record the date that the report was signed. Mail only original, signed copies of DMRs.

5. In the Comments section at the bottom of the DMR, you may write a brief summary of violations in this section; however, DEP requests that all violations during the monitoring period be reported in more detail on DEP's **Non-Compliance Reporting Form** (3800-FM-BCW0440) and be submitted as an attachment to the DMR. Other uses of the Comments Section include explanations of attachments to the DMR, explanations for the unavailability of data, and brief summaries of issues that have affected operations or effluent quality during the monitoring period. Always consider attaching a letter or separate document to explain your situation in more detail.

### **No Discharge or No Data Available**

If there was no discharge at all from an outfall during the monitoring period, check the "No Discharge" box on the top of the DMR. Complete the information above and below the table and mail the DMR to the appropriate agencies. Be sure to sign and date the DMR.

If there was no discharge of a specific parameter (e.g., if a chlorine limit is in the permit but chlorine was not used for disinfection during the entire reporting period), or if data are not available for a specific parameter for the entire reporting period, do not leave the DMR blank. Instead, report one of the following No Data Indicator (NODI) codes that apply to your situation in the appropriate value field, and **provide an explanation as an attachment to the DMR**:

- E** All samples or results are not available due to analytical equipment failure, because a sample collection was overlooked, or samples could not be collected for the parameter during the reporting period. Use of this NODI code results in a violation.
- GG** Use if your permit requires sample collection and analysis only under certain conditions and those conditions were not met during the reporting period (e.g., report chlorine results only when chlorination system is used). This includes non-representative outfalls.
- FF** No Data, not covered by NODI codes "E" or "GG." Use in extenuating circumstances where the reason for the absence of data is not covered by NODI codes "E" or "GG." Use of this NODI code results in a violation.

If you have at least one result for a parameter, the value should be reported and not a NODI code.

Note: When the "E" and "FF" NODI codes are used, a comment explaining the violation is required and the Non-Compliance Reporting Form (3800-FM-BCW0440) must accompany the DMR.

### **Calculations**

The following explains how to calculate statistical values that are commonly required by permits:

**Monthly Average** – For Loading (lbs/day), sum the total of daily loadings and divide by the number of samples during the month. To calculate the daily loading, multiply the daily concentration (mg/l) by the flow (MGD) on the date of sampling and a conversion factor of 8.34. For Concentration, sum the total of daily concentrations and divide by the number of samples.

**Weekly Average** – For Loading (lbs/day), sum the total of average daily loadings during each week of the reporting period (beginning on a Sunday and ending on a Saturday) and divide by the number of samples during the week. For Concentration, sum the total of daily concentrations each week and divide by the number of samples. Report the maximum weekly average on the DMR.

**Maximum Daily ("Daily Max")** – Report the maximum concentration or load measured during a 24-hour period during the reporting period; if multiple measurements are taken daily, include all data in the analysis.

**Instantaneous Maximum ("IMAX")** – Report the maximum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

**Instantaneous Minimum ("Minimum")** – Report the minimum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

**Total Monthly Load (lbs)** – Sum the total of average daily loadings, divide by the number of samples during the month, and multiply by the number of days in the month.

**Geometric Mean** – Report the average of a set of  $n$  sample results given by the  $n$ th root of their product. If any result is zero (0), substitute 1 for the calculation. For example, five samples were analyzed with the following results: 20, 300, 400, 500, and 0. The calculation of geometric mean is as follows (note that you will need to use the power function on a calculator):

$$\sqrt[5]{20 \cdot 300 \cdot 400 \cdot 500 \cdot 1} = \sqrt[5]{1,200,000,000} = (1,200,000,000)^{1/5} = 65$$

## **Non-Detect Data**

### **Conventional and Toxic Parameters**

For calculating average values of data sets in which there are some “detections” (results at or above the laboratory quantitation limit) and some “non-detect” data (results reported below the laboratory quantitation limit), use the value of the quantitation limit for non-detect data. In other words, ignore the less than (<) symbol for statistical calculations and include the < symbol with the statistical result if there is at least one non-detect result in the data set. For example, four samples were analyzed with the following results: < 1.0, 2.0, < 1.0, and 1.0. The average statistical result is < 1.3.

Estimated values (i.e., values flagged with a “J” qualifier) should not be used for compliance purposes.

### **Bacteria Parameters**

Report all "non-detect" (e.g., < 2) and "too numerous to count" (TNTC) (e.g., > 2,000) results on DMR supplemental forms as reported by the laboratory. Do not report "TNTC" on supplemental forms, but instead report a value qualified with the ">" symbol. Where a data set includes one or more "non-detect" and/or TNTC results, calculate the geometric mean by ignoring qualifying symbols, but report the value with the symbol. If a data set includes both ">" and "<" qualifiers, the ">" qualifier takes precedence for reporting. For all "non-detect" values, specify in the Comments section of the DMR the maximum volume filtered at the laboratory. Note that DEP considers a DMR with reported values qualified by the ">" symbol for bacteria parameters to be a non-compliance.

*Example 1* – For results are determined, < 2, 10, 20, and 30. The geometric mean should be reported as <  $(2 \cdot 10 \cdot 20 \cdot 30)^{0.25} = < 10$ . Specify the maximum volume filtered for the < 2 result in the DMR Comments.

*Example 2* – Three results are determined, < 2, 1,000, and > 2,000. The geometric mean should be reported as >  $(2 \cdot 1,000 \cdot 2,000)^{0.333} = > 158$ .

## **Rounding and Precision**

Statistical values reported on the DMR should be rounded to the same number of decimal places as the limit for the parameter as set forth in the permit. If the permit does not contain a limit but requests monitoring only, statistical values for concentration results should be rounded to the maximum number of decimal places in the data set as reported by the laboratory or the instrument used for analysis. If mass loads must be reported and there is no limit, round statistical values to the nearest whole number, unless the calculated number is less than one, in which case the value should be rounded to one significant figure (e.g., 0.1, 0.05, etc.). If the number you are rounding is followed by 5, 6, 7, 8, or 9, round the number up, otherwise round down.

**DEP’s “Discharge Monitoring Reports: A Guide to Electronic and Paper DMR Reporting” (3800-BK-DEP3047) publication contains more information and are incorporated by reference. This document is available on DEP’s website.**

**Appendix - I**  
**Prohibitions and Restrictions on**  
**Food Services Establishments**

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**ARTICLE 600**  
**PROHIBITIONS AND RESTRICTIONS ON FOOD SERVICE ESTABLISHMENTS**

**601 APPLICABILITY**

- (A) The requirements of this section shall apply to public sewer system users of: (1) any new or modified Food Service Establishments; (2) any existing food service establishment upon the sale/transfer thereof; and (3) any existing Food Service Establishments or other users determined by the Municipal Authority to be discharging fat, oil or grease (FOG) in sufficient quantities to require control in excess of the discharge limitation of the User.

**602 SCOPE AND PURPOSE**

- (A) To minimize the accumulation of FOG in the sanitary sewers and wastewater treatment systems in East Brandywine Township. FOG discharged into the sanitary sewer system from industrial or commercial establishments, particularly food preparation and serving facilities, will be subject to the conditions of these Rules and Regulations.

**603 FOOD SERVICE ESTABLISHMENT REQUIREMENTS**

- (A) All covered Food Service Establishments discharging wastewater to the sewer system are subject to the following requirements:
- (B) **Grease Interceptor**: All covered Food Service Establishments are required to install, operate, and maintain a grease interceptor of an approved type and size necessary to maintain compliance with the discharge limitation of these Rules and Regulations. All grease interceptors must meet the requirements of the East Brandywine Township Plumbing Code in effect at the time of installation.
- (C) **Implementation**: All covered Food Service Establishments must obtain prior approval from the Authority for the size and design of the grease interceptor prior to submitting plans for a building permit. All grease interceptors shall be readily and easily accessible for cleaning and inspection. Any Food Service Establishments existing on the effective date of these Rules and Regulations determined by the Authority to have a reasonable potential to discharge wastewater to the sewer system with concentrations of FOG in excess of the discharge limitation will be notified of their obligation to install a grease interceptor within the specified period set forth in the notification letter.
- (D) **Variance from Grease Interceptor Requirements**:
- (1) Grease interceptors required under this Section shall be installed unless the Authority determines, in writing, that the installation of an indoor grease trap or other alternative pretreatment technology may be installed in lieu of a grease interceptor because the installation of a grease interceptor would not be reasonably feasible.
  - (2) The user bears the burden of demonstrating that the installation of a grease interceptor is not reasonably feasible. The Authority may authorize the installation of an indoor grease trap or other method where the installation of a grease interceptor is not feasible due to space constraints or other considerations.

- (3) If the user believes the installation of a grease interceptor is not reasonably feasible, they shall submit to the Authority a written request for a determination, containing the following information:
  - (a) A plan showing the location of Sewer System, Private Lateral, Building Drain, easements and building. Plans shall provide all necessary dimensions.
  - (b) A plumbing diagram showing all existing and proposed plumbing and services at the site.
  - (c) An explanation as to why the installation of a grease interceptor is not reasonably feasible.
  - (d) A description and design of a plan for any alternative pretreatment technology (other than a grease interceptor) proposed to be installed to trap, separate and hold FOG from wastewater and prevent it from being discharged into the sewer system. All alternative pretreatment technology must be appropriately documented.
  - (e) A plan for regular maintenance of the alternative pretreatment technology.
- (4) Alternative pretreatment technology includes, but is not limited to, devices that are used to trap, separate and hold grease from wastewater and prevent it from being discharged into the Sewer System. All alternative pretreatment technology must be appropriately sized and approved by the Authority.

#### (E) Grease Interceptor Requirements

- (1) Grease interceptor sizing, and installation shall conform to the East Brandywine Township Plumbing Code in effect at the time of the installation.
- (2) Grease interceptors shall be constructed in accordance with design approved by the Authority and shall have a minimum of two compartments with fittings designed for grease retention.
- (3) Grease interceptors shall be installed at a location where it shall be easily accessible for inspection cleaning, and removal of intercepted grease. The grease interceptor may not be installed in any part of the building where food is handled. Location of the grease interceptor must meet the approval of the Authority.
- (4) All such grease interceptors shall be serviced and emptied of accumulated waste content as required in order to maintain minimum design capability or effective volume. These devices should be inspected at least monthly.
- (5) Grease interceptors shall be kept free of solid materials such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle in the tank and thereby reduce the effective volume of the device.
- (6) During the first year of operation after installation, grease interceptors shall be pumped out at least semi-annually, or when seventy-five percent of the system capacity is reached, whichever is more frequent. After the first year of use, grease interceptors must be maintained at least annually or when no more than seventy-five percent of the system capacity is reached, whichever is more frequent. After two years of use, the pumping frequency may be reduced, upon written approval of the Authority, if adequate documentation can be shown that a reduced pumping frequency is sufficient to comply with the provisions of this section.
- (7) The User shall maintain a written record of inspection and maintenance for as long as the interceptor is in use. All such records will be made available for on-site inspection by representative of the Authority during all operating hours.
- (8) Sanitary wastes are not permitted to be connected to sewer lines intended for grease interceptor service.

- (9) Access manholes, with a minimum diameter of 24 inches, shall be provided over each grease interceptor chamber and sanitary tee. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities. Grease interceptors shall be subject to inspection by the Authority during normal business hours of the User.

(F) Grease Trap Requirements

- (1) In the event that the Authority approves the installation of a grease trap in lieu of a grease interceptor, such grease trap shall comply with the provisions of this section. Grease traps must be installed in the waste line leading from sinks, drains, and other fixtures or equipment in Food Service Establishments where FOG may be introduced into the Sewage System in concentrations greater than 100 mg/l.
- (2) Grease traps sizing and installation shall conform to the East Brandywine Township Plumbing Code in effect at the time of installation.
- (3) No grease trap shall be installed which has a stated flow rate of more than fifty-five (55) gallons per minute, nor less than twenty (20) gallons per minute, except when specially approved by the Authority.
- (4) Grease traps shall be maintained in efficient operating conditions by periodic removal of the accumulated FOG. No such collected grease shall be introduced into the Building Drain, Private Laterals, Sewer Connection or Sewer System.
- (5) For the first year of operation after installation the trap shall be cleaned at least quarterly, or when seventy-five percent of the capacity of the system is reached, whichever is more frequent. Thereafter, traps must be maintained at least annually, or when no more than seventy-five percent of the capacity of the system is reached, whichever is more frequent. This frequency can be reduced by the Authority, in writing, if adequate documentation can be shown that a reduced pumping frequency is sufficient to comply with the provisions of this section.
- (6) The User shall maintain a written record of inspection and maintenance for as long as the grease trap is in use. The User shall submit, to the Authority for review, written record of the periodic inspection and maintenance documents. All such records will be made available for on-site inspection by representative of the Authority during all operating hours.
- (7) No food waste disposal unit or dishwasher shall be connected to or discharge into any grease trap.
- (8) Wastewater in excess of one hundred-forty (140) °F/ (60°C) shall not be discharged into a grease trap.

**Appendix - J**  
**The Mile Marker**

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# THE Milemarker

EAST BRANDYWINE TOWNSHIP QUARTERLY NEWSLETTER

chester county  
**STUDIO  
TOUR**<sup>®</sup>

**EAST BRANDYWINE RESIDENT  
STUDIOS INCLUDE:**

**Larry Crossan, Fine Furniture Maker**  
11 Highspire Road

**Mike Fleck, Photographer**  
70 Highspire Road

**Susan O'Hanlon, Potter**  
36 Cambridge Court  
(Culbertson Run development)

**Jeff Schaller, Encaustic Painter**  
80 Highspire Road

**Lisa White, Botanical Collage Artist**  
399 Echo Dell Road

**OTHER STUDIOS INCLUDE:**

**Pam McKee, Botanical Painter**  
109 Hoffman Circle  
(Upper Uwchlan Township)

**Justin Smith, Glass Artist**  
138 Moore Road—Ivystone Studios  
(Upper Uwchlan Township)

**Marie Wolfington Jones, Painter**  
240 Little Conestoga Road  
(Wallace Township)



## East Brandywine Supports the Arts *Local Artists Open Their Studios*

**T**HE RICH TRADITION of fine arts and crafts is alive and well in Chester County! On May 18 and 19, several East Brandywine Township artists will open their studios to show their work and the work of 34 visiting artists from the surrounding area. It's all part of the **Chester County Studio Tour**, an annual county-wide event started by East Brandywine Township's own internationally recognized artist, Jeff Schaller, nine years ago.

In the week leading up to the event, signs will pop-up all-over Chester County pointing the way to the studios of resident artists. The artists will share their stories, show their newest work, and invite you into their studios for a visit filled with fun, laughter, new friends, and new experiences. Many stops along the tour will feature multiple artists, demonstrations, and light refreshments.

Local potter Susan O'Hanlon has shown her work for the past three years at the studio of Larry Crossan, Fine Furniture Maker. She is excited to be exhibiting at her home studio for the first time this year. "Being part of the tour has really helped me as a Ceramic Artist. The only down side to exhibiting is that I can't tour all the amazing studios myself like I used to!"

Susan will be joined at her Culbertson's Run home studio by alcohol ink artist Julie Cargill, silversmith Linda Lurcott, and Painter & DHS

West Art Teacher Anne Russell. "We're all really excited to share our work and our processes. I'll bring a pottery wheel onto my porch and throw pots throughout the weekend, and—weather and time permitting—I'll demo the raku firing process as well!"

[CONTINUED ON PAGE 3]



### *In this issue*

- 2** Parks and Rec
- 4** On-Lot Disposal Systems Survey
- 7** Resident Spotlight—Ruth Zavitsanos

## Directory

### TOWNSHIP BOARD OF SUPERVISORS

CHAIRMAN ..... Kyle P. Scribner  
 VICE CHAIRMAN ..... Jay G. Fischer, Esq.  
 MEMBER ..... Jason R. Winters

### TOWNSHIP PUBLIC MEETINGS

[ Held at Township Building ]

BOARD OF SUPERVISORS .... 1st Thu at 8:00am  
 and 3rd Thu at 7:30pm  
 BONDSVILLE MILL COMM .... 4th Thu at 8:00am  
 HISTORICAL COMMISSION . 2nd Wed at 7:00pm  
 MUNICIPAL AUTHORITY ..... 2nd Tue at 7:30am  
 and last Fri at 8:00am  
 OPEN SPACE COMMITTEE .... 1st Thu at 7:30pm  
 ORDINANCE TASK FORCE .... 3rd Wed at 7:30pm  
 PARK AND REC BOARD ..... 1st Mon at 7:00pm  
 PLANNING COMMISSION .... 1st Wed at 7:30pm  
 TRAILS COMMITTEE ..... 2nd Tue at 7:00pm  
 ZONING HEARING BOARD .... 1st Tue at 7:30pm  
 (as needed)

### FIRE/AMBULANCE/POLICE

FIRE, AMBULANCE, POLICE (EMERGENCY) .. 911  
 POLICE (NON-EMERG) ..... (610) 383-7000  
 POLICE ADMIN ..... (610) 269-4300  
 POLICE WEBSITE ..... WWW.EBTPD.ORG

### RECREATION

EBYA ..... WWW.EBYA.ORG  
 DARC ..... WWW.DARCINFO.COM  
 PARK&REC .. PARKANDREC@EBRANDYWINE.ORG

### TOWNSHIP STAFF DIRECTORY

DIAL (610) 269-8230 M-F, 9am-noon; 1-5pm  
 x200 Norann King, Building Department  
 x201 Mary Slade, Secretary/Treasurer  
 x203 Scott Piersol, Township Manager/  
 Emergency Management Coordinator  
 x204 Matthew VanLew, Roadmaster  
 x205 Luke Reven, Assistant Township Manager  
 x210 Dennis Mulhern, Tax Collector  
 x218 Lisa Taraschi, Administrative Assistant  
 x100 Police Administration

### TAX INFORMATION

COUNTY TAXES ..... (610) 344-6361  
 TAX CLAIM OFFICE ..... (610) 344-6360  
 ASSESSMENT OFFICE ..... (610) 344-6105  
 EIT AND LST ..... (610) 269-4402  
 SCHOOL TAXES ..... 1 (866) 300-1714

## What's Happening—Parks and Rec

*Planning for Summer Events is Underway!*

**S**UMMER 2018 WAS filled with great community events and wonderful repairs at our Community Park. The tennis courts were refurbished and now are bright, beautiful and without any game altering cracks. Please show respect and use the tennis courts for tennis and pickleball play only. No dogs or any other activities are permitted on the courts.



Our summer concert series begins in June (see schedule below). Other events being planned: Memorial Day Flag Display, Fore the Parks, 3 Summer Movies, Community Day, Run for the Parks, Fall Festival, and our Tree Lighting Ceremony.

Follow us on Facebook for dates and information on all events: Search for East Brandywine Community Park. Volunteers are always needed to help run events. Support for our fundraising efforts is most welcome. Email us at [PARKANDREC@EBRANDYWINE](mailto:PARKANDREC@EBRANDYWINE) for more information or to volunteer.

## Summer Concert Series

CONCERTS HELD AT COMMUNITY PARK AT 6 PM

### DNR

SATURDAY, JUNE 1

Start the Summer off with classic rock and roll with music from the bands and albums you love. DNR likes to dive into some of the less widely played tracks too!



from the school attend some of the top music colleges in the world—including the Berklee School of Music, New York University, and Belmont University.

### Flatland Drive

SATURDAY, JULY 13

Blending traditional, hard-driving bluegrass with modern styling. The band has shared the stage with bluegrass giants such as The Seldom Scene, The Lonesome River Band, Dailey and Vincent, The Boxcars, and many other stellar bands in the world of bluegrass.



### The School of Rock in Downingtown

SATURDAY, JUNE 15

Showcasing some of the finest young musicians in the nation. The school's house band is comprised of its most talented and committed students. Each year, graduates



# The Gardens at Bondsville Mill Park

## *The ‘Ruins Garden’ Plan is Underway*

**PROGRESS IN DEVELOPMENT** of the Gardens at Bondsville Mill Park continues, with a Horticultural Committee formed to take on the details of the task. Meeting since October 2018, the Committee’s members come from the horticultural community of Chester County and include the expertise needed to create something truly special at the Park:

- **David Culp**— Horticultural Committee Chair, internationally renowned plantsman, designer, author, and East Brandywine Township resident
- **Kai Pederson**— Sun Leaf Gardens
- **John Lilley**— Plantsman and former owner of Avantgardeners Inc., landscape design/build company
- **Dale Hendricks**— Green Light Plants, and authority on Hershey Tree Farms
- **Matthew Ross**— Director of Continuing Education at Longwood Gardens
- **Adrian Martinez**— Artist, art historian
- **Sandy Moser**— Lead on gardens for BMP Committee
- **Chris Uhland**— Manager of Harmony Hill Wholesale Nursery [East Brandywine]
- **Andy Schenk**— Owner of Sam Brown’s Wholesale Nursery
- **Bridget Wosczyzna**— Owner of Diggin Jacks, plantsperson
- **Glenda Brion**— Plantsperson, Director of Community Warehouse Project
- **Chris Felhaber**— Chanticleer



The above painting by Kai Pederson shows the vision for the "Ruins Garden" planned for the area in front of the Mill Buildings at Bondsville Mill Park.

The Horticultural Committee (within the Bondsville Mill Park Committee) will drive development of gardens and landscaping throughout the Park, although the current focus is on the “Ruins Garden” planned for the area in front of the Mill Buildings. The painting by Kai Pederson, above, presents the vision for this area.

As gardens and landscaping projects proceed, many helpful hands will be needed. “Friends of the Gardens” has been created to manage the volunteers for these efforts. If you have an interest in gardening/landscape development and want to be part of this exciting project, please contact Sandy Moser at [SMOSER@EBRANDYWINE.ORG](mailto:SMOSER@EBRANDYWINE.ORG). For updates on happenings at the Park, visit our Facebook page (search for Bondsville Mill).

### ON THE MOVE

#### RECENTLY SOLD HOMES IN EAST BRANDYWINE TOWNSHIP

85 Tucker Drive.....	\$492,000
2 Longwood Drive .....	\$507,000
86 Rebecca Drive .....	\$650,000
110 Wooded Acres Lane.....	\$440,900
701 Pinebrooke Circle.....	\$254,000
77 Tucker Drive .....	\$431,820
211 Heritage Court.....	\$550,000
176 Sills Lane.....	\$332,500
221 North Caldwell Circle.....	\$364,000
322 Dawson Place .....	\$335,000
361 Corner Ketch Road.....	\$296,000
30 Par Lane .....	\$365,000
4 Raymond Circle.....	\$155,000
327 Dawson Place .....	\$337,770
201 Pinebrooke Circle.....	\$251,000
212 Montpelier Drive.....	\$520,000
25 Emma Court .....	\$624,559
457 Brookside Drive .....	\$257,500
104 Pinebrooke Circle.....	\$248,000
583 Prizer Court .....	\$345,000
93 Locks Farm Lane.....	\$348,332
101 Cherry Grove Lane.....	\$485,000
62 Ponds Edge Drive.....	\$271,500
75 Tucker Drive.....	\$445,125
146 Sills Lane.....	\$340,000
48 Lakeview Court .....	\$280,000
743 Little Washington Road...	\$425,000

Source: Zillow.com

### Studio Tour

[CONTINUED FROM PAGE 1]

Learn more online at [WWW.COUNTYSTUDIOTOUR.COM](http://WWW.COUNTYSTUDIOTOUR.COM). There are maps showing the studio locations, bios of participating artists, and information on how to buy an original piece of art for only \$75 as part of the County Collector program. **The County Studio Tour is a free event and is open to the public.**

## Protecting our Groundwater Resources

### *Important Survey Information for Township Residents*

**E**AST BRANDYWINE TOWNSHIP is taking proactive steps to preserve and protect the groundwater we drink for future generations. In the near future, every property not connected to a public sewer system will receive a survey about their On-Lot Disposal System (OLDS). All property owners are encouraged to complete this very important survey.

#### **WHY IS THE TOWNSHIP CONDUCTING A SURVEY?**

Survey responses will help the Township become familiar with the current methods of sewage disposal used in the Township to assure they do not impact the safety and quality of our community's drinking water.

The survey is being conducted in conjunction with a recent Township Board of Supervisors vote to update their Act 537 Sewage Facilities Plan, which is required of every municipality in the Commonwealth. A successful survey will allow the Township to comply with the Pennsylvania Department of Environmental Protection (PADEP) requirements for updating the Township sewage facilities plan by developing a "Sewage Disposal Needs Identification" process, a key component of Act 537 Sewage Facilities Planning.

Replies to the survey will assist the Township to develop the most efficient and economical ways of planning for the future sewage needs of East Brandywine Township in compliance with PADEP.

Each property owner not connected to a public sewer will be mailed educational information and a survey concerning their OLDS. Page #1 of the information will explain the importance of this survey and instructions on how to complete the survey. Page #2 will provide a description of the types of OLDS. Page #3 will provide the two-sided returnable survey form.

Each homeowner will be asked to fill out the survey, either on the paper copy directly, or online using the survey website link. The link for the survey will be provided in the instructions.

#### **YOUR PARTICIPATION IS VITAL TO PROTECTING OUR WATER RESOURCES**

All property owners are encouraged to learn more about their On-Lot Disposal System to ensure our water resources are being protected today and for the future. Participation by East Brandywine Township residents is vital to the success of this project. Completing this survey will help property owners become more aware and knowledgeable about their own systems and will help the Township plan for future water and sewer needs.

If you would like additional information on this project prior to receiving the mailed survey, please go on the following websites:



The survey will generate information needed for the Board of Supervisors to update the Township sewage facilities plan, helping to keep groundwater safe for residents.

[HTTP://WWW.EBRANDYWINE.ORG/299/2426/ACT-537-UPDATE-PROJECT-PAGE](http://www.ebrandywine.org/299/2426/act-537-update-project-page)

[HTTP://WWW.DEP.STATE.PA.US/DEP/DEPUTATE/WATERMGT/WQP/WQP\\_WM/FACTS/PA1608.HTM](http://www.dep.state.pa.us/dep/deputate/watermgt/wqp/wqp_wm/facts/pa1608.htm)

Please Note: The completion of this survey is necessary as an initial step in the update of our Act 537 Plan. You are encouraged to answer honestly and accurately. If we receive an insufficient number of responses, the Township will be required to conduct door-to-door surveys, which will be very costly, and time-consuming. This survey benefits everyone's future property values and water supply.

Expect this survey in the mail approximately March 18, 2019 to March 30, 2019. Thank you, your cooperation is greatly appreciated!

# What Your Packet Will Contain

Look for this Survey from March 18 to March 30

**PROPERTY OWNERS NOT CONNECTED TO A PUBLIC SEWER WILL RECEIVE A PACKET WITH THE FOLLOWING ITEMS:**

- A letter from the Township explaining the purpose and instructions for completing the survey
- A description of the types of On-Lot Disposal Systems (OLDS)
- A two-page survey (with information about how to fill out online)
- A postage paid envelope to return the completed survey

## GRANTS AWARDED

### COMMUNITY PARK AND STORMWATER MANAGEMENT PROJECT RECEIVE FUNDS

**A New Trail Extension**—PECO awarded the Township a Green Region Grant of \$10,000 to help fund a trail extension between Phase II of the Community Park and the cul de sac on Ferndale Lane. The Township hopes to begin construction Spring 2019. Open Space funds will fund the balance of this project.

**Comfort Stations in the Community Park**—The PA Department of Conservation and Natural Resources awarded East Brandywine Township a grant submitted for a Comfort Station for Phases I & III of our Community Park. Nathan Cline, our Township Engineer from Pennoni, Inc. submitted the grant application. \$165,000 was approved, with the Township match of 50% coming from EBYA, our Parks and Recreation Board, and developer open space and recreation fees. Construction is slated to begin in Fall 2019.

**Stormwater Management**—The Department of Environmental Protection (DEP) awarded the Environmental Stewardship and Watershed Protection (Growing Greener) grant to the Township in the amount of \$246,021. These funds will go to the Hawthorne Drive Stormwater Management project. Matthew Van Lew, Roadmaster, with assistance from Cedarville Engineering Group, applied for this grant. The tree removal phase of this project is now in progress.





**SUMMER PROGRAMS**

[WWW.DARC.INFO](http://WWW.DARC.INFO)

**Camps for Kids**—Supported by East Brandywine Township, DARC provides a wide variety of reasonably priced camps for all ages and interests. Included are half-day playground camps, held at local elementary schools for ages 3-11 and Adventure Camps for ages 7-12. Adventure Camps go on an exciting trip each day including Hershey Park, Lincoln Financial Field, Lancaster Science Museum, Zip-lining, and swimming. If your child has a passion for a particular interest or hobby, there are computer, engineering, art, cooking, sports, tennis, golf, Lego, theater, and science camps.

**Want to Get Away?**—DARC sponsored bus trips this spring include: New York City to see Tootsie, Prom, and King Kong. There is a bus trip planned for the Cherry Blossom Festival in Washington DC and a visit to the Inner Harbor in Baltimore MD.

SPRING 2019

Volume 26, Number 2

**EDITOR**

Diane Sweeney, *Editor*

**DESIGN**

Look Loud Creative Services

Send community news to:

[EBTMILEMARKER@GMAIL.COM](mailto:EBTMILEMARKER@GMAIL.COM)

## East Brandywine Historical Commission Speakers Spring Series

ALL PROGRAMS PRESENTED AT  
EAST BRANDYWINE TOWNSHIP BUILDING AT 3:30 PM

### The Arrival of the Mormons and How it Impacted East Brandywine and Wallace Townships

SUNDAY, MARCH 17, 2019

Did you know that before the Mormons traveled to Salt Lake City they were active right in our area? We'll find out about their meetings in "Mormon Hollow" and the residents of East Brandywine who joined the winter trek out West! There is even a Chester County clock in the temple of the Church of Jesus Christ of the Latter-Day Saints. John Miller, retired Downingtown School teacher and Gettysburg National Military Park guide, will tell us the details. John is an Educator and Historian at Springton Manor Farm and past President of Chester County Historic Preservation Network. Come prepared to tell stories you may have heard to add to the discussion.



Edward Hunter of Chester County.

and how geology, matched with man's ingenuity, dictated the path. We will also discuss the importance of building, maintaining and expanding suburban green spaces to ensure the health of both humans and animals. Christine Coccozza is a Science teacher at Methacton School District where she teaches Biology and Environmental Science. An avid world traveler, long distance hiker, climber, and scuba diver, she will present a program that will open your eyes to what's around you that you may never have noticed!

### The Special Barns of Chester County

SUNDAY, MAY 19, 2019

Our Chester County barns have long been recognized by barn observers for their forms, styles



and diverse building materials. Our speaker, Greg Huber, specializes in pre-civil war era house and barn architecture of Holland Dutch and Swiss-German areas. He has documented more than 8,000 vernacular buildings that include more than 5,000 homestead barns. We'll look at records of barns built 1750 to 1900. Greg is an independent scholar, consultant and principal owner of Past Perspectives and Eastern Barn Consultants. The author of 265 articles on barn and house architecture, Greg has led more than 110 house and barn tours. He will hold a book signing following his talk.

### Follow the Brandywine for the Geology, Ecology and Architectural Features of the Border of East Brandywine

SUNDAY, APRIL 28, 2019

Join us to learn about the unique geology, ecology, and history of our area. We'll hear about the East



Brandywine Trail which borders the Brandywine Creek (and East Brandywine Township)

## Resident Spotlight—Ruth Zavitsanos

*Author and Writing Instructor*

**A**S THE SUN peeks over the horizon to start the day, Township resident and author, Ruth Zavitsanos, is at her computer researching and writing about dogs, people, and places far—and not so far—from her home office in East Brandywine.

With her devoted dogs at her side, the multi-genre author shares how she has always loved to write. After graduating Marshall University in West Virginia as a Journalism major, she started her career in news reporting and column writing. On a trip to the Tuscany region of Italy, however, Zavitsanos was struck by a friendly dog greeting guests at the villa where she was staying. The dog inspired Ruth's first children's book, *The Villa Dog*, now first of a four-book children's chapter books series.

Her canine-focused books take readers (young and old!) to Tuscany, Italy (*The Villa Dog*), Corfu, Greece (*The Old Fortress Dog*), Hawaii (*The Kona Dog*)

and right here in Chester County to Valley Forge (*The Valley Forge Dog*). *The Valley Forge Dog* is a great seller at the Encampment Store in Valley Forge National Park.

Ruth did not set out to write a children's chapter book series. However, her love of travel, dogs, writing, and two young daughters all came together to motivate her to pen these historically accurate yet fictional stories.

"When my daughters were learning to read, I volunteered at their elementary school," shares Ruth. "I realized there was a need for the type of book that would be easy—and interesting—for children who might not love reading. This made it easy to begin to write about something most kids love—dogs! And adventures for them in new places."

Ruth's highly acclaimed books are not only written for children or about dogs. She has also written three historical

fiction novels, *Flight of The Dove* and *Sisters Inn*, (part of her *Frontier Series*) and *A Life Unfolds in the City*, along with a novella, *Sight Unseen in the City* in her New York City based *Through the Times Series*. She is currently working on a memoir.

Ruth's favorite part of writing is meeting with readers. She is often seen at Chester County schools and libraries reading her stories to children. She has partnered with a Hallmark store in the region for regular signings and can be seen at many seasonal fairs.

"The support from the East Brandywine community has been wonderful," Ruth says. *Crops Fresh Market*, *Medicine Shoppe Pharmacy*, and Ruth's local veterinarian all feature her books in their displays. The *Downingtown Library* has helped her to promote her books and to reach out to others to encourage them to write. "I so enjoy the reception from the local people. I may like to travel to and write about places far away, but the people right here in Chester County who tell me they enjoy my books and what they mean to them encourages me to keep writing."

Ruth will be leading a *Tuscany Writer's Workshop in Italy* in May. She will also be teaching about travel blogging in a *DARC workshop in Fall 2019*.



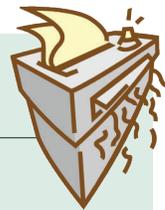
### DOCUMENT SHREDDING AND COMPUTER/E-WASTE RECYCLING EVENT

SPONSORED BY EAST BRANDYWINE TOWNSHIP  
SAT, MAY 11, 9AM TO NOON

The event will be held at the CASD School Complex, 248-256 Reeceville Road (across from Brandywine Hospital), and is free to all residents of South Coatesville Borough, Caln, East Brandywine, Valley, West Bradford & West Brandywine Townships.

- **Document Shredding**—Limit of 4 boxes per person.
- **E-Waste (office & home electronics)**—Computers, LCD monitors, laptops, printers, open toner cartridges, wire, cables & AC adapters. Flat screen & plasma TVs, cell phones, iPods, digital cameras, DVD & VCR players.
- CRT (tube-type) TVs & computer monitors, and LCD TVs will be accepted.

*A fee of \$20 to \$40 will be charged depending on size of unit.*





# THE Milemarker

1214 Horseshoe Pike  
Downingtown, PA 19335-1153

PRESORTED STANDARD  
US POSTAGE PAID  
SOUTHEASTERN, PA 19399  
PERMIT #50

## SAVE THE DATE

### Historical Commission Speakers (see p. 6)

MAR 17, APR 28, MAY 19

3:30 PM, TOWNSHIP BUILDING

### Chester County Studio Tour (see p. 1)

MAY 18-19

### Parks & Rec Summer Concerts (see p. 2)

JUN 1, JUN 15, JUL 13

6PM, COMMUNITY PARK

## Spring 2019

### CALENDAR OF EVENTS

FOR MORE INFORMATION ON ANY EVENT,  
SEE [WWW.EBRANDYWINE.ORG](http://WWW.EBRANDYWINE.ORG)

#### PARTIAL MAR 2019

17	<b>Speaker Series: Arrival of the Mormons &amp; E. Brandywine/Wallace</b>	Township Bldg	3:30pm
20	Ordinance Task Force Meeting	Township Bldg	7:30pm
21	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
28	Bondsville Mill Committee	Township Bldg	8:00am
29	Municipal Authority Work Session	Township Bldg	8:00am

#### MAY 2019

1	Planning Commission Meeting	Township Bldg	7:30pm
2	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
2	Open Space Committee Meeting	Township Bldg	7:30pm
6	Parks & Rec Board Meeting	Township Bldg	7:00pm
7	Zoning Hearing Board Meeting	Township Bldg	7:30pm
8	Historical Commission Meeting	Township Bldg	7:00pm
11	<b>E-Waste Shredding Event</b> at 248-256 Reeceville Road	CASD School Complex	9:00am-noon
14	Municipal Authority Regular Meeting	Township Bldg	7:30am
14	Trails Committee Meeting	Township Bldg	7:00pm
15	Ordinance Task Force Meeting	Township Bldg	7:30pm
16	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
19	<b>Speaker Series: Barns of Chester Cty</b>	Township Bldg	3:30pm
23	Bondsville Mill Committee	Township Bldg	8:00am
25	<b>Yard Waste Collection</b>		
27	<b>Memorial Day (observed)—Administrative Offices Closed</b>		
31	Municipal Authority Work Session	Township Bldg	8:00am

#### APR 2019

1	Parks & Rec Board Meeting	Township Bldg	7:00pm
2	Zoning Hearing Board Meeting	Township Bldg	7:30pm
3	Planning Commission Meeting	Township Bldg	7:30pm
4	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
4	Open Space Committee Meeting	Township Bldg	7:30pm
9	Municipal Authority Regular Meeting	Township Bldg	7:30am
9	Trails Committee Meeting	Township Bldg	7:00pm
10	Historical Commission Meeting	Township Bldg	7:00pm
17	Ordinance Task Force Meeting	Township Bldg	7:30pm
18	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
19	<b>Good Friday (observed)—Administrative Offices Closed</b>		
25	Bondsville Mill Committee	Township Bldg	8:00am
26	Municipal Authority Work Session	Township Bldg	8:00am
28	<b>Speaker Series: Follow the Brandywine</b>	Township Bldg	3:30pm

#### JUN 2019

1	<b>Summer Concert: DNR</b>	Community Park	6:00pm
3	Parks & Rec Board Meeting	Township Bldg	7:00pm
4	Zoning Hearing Board Meeting	Township Bldg	7:30pm
5	Planning Commission Meeting	Township Bldg	7:30pm
6	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
6	Open Space Committee Meeting	Township Bldg	7:30pm
11	Municipal Authority Regular Meeting	Township Bldg	7:30am
11	Trails Committee Meeting	Township Bldg	7:00pm
12	Historical Commission Meeting	Township Bldg	7:00pm
15	<b>Summer Concert: School of Rock Dwoningtown Band</b>	Community Park	6:00pm
19	Ordinance Task Force Meeting	Township Bldg	7:30pm
20	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
27	Bondsville Mill Committee	Township Bldg	8:00am
28	Municipal Authority Work Session	Township Bldg	8:00am
29	<b>Yard Waste Collection</b>		



FALL 2019

THE

# Milemarker

EAST BRANDYWINE TOWNSHIP QUARTERLY NEWSLETTER



## BUTTERFLY PROGRAMS

LEARN ABOUT  
DIFFERENT SPECIES  
THIS FALL AT  
BONDSVILLE MILL

The gardens at Bondsville Mill are playing host to a number of butterfly species including the Monarch. In September and October there will be several programs on butterflies and one specific to the Monarch.

Program dates and times will be posted on the Bondsville Mill Facebook page [www.facebook.com/bondsvillepark/](http://www.facebook.com/bondsvillepark/) and at the Mill entrance.

To be included on weekly Mill updates, email [SMOSER@EBRANDYWINE.ORG](mailto:SMOSER@EBRANDYWINE.ORG) and you will be added to our list.

## The Value of Open Space to Homeowners

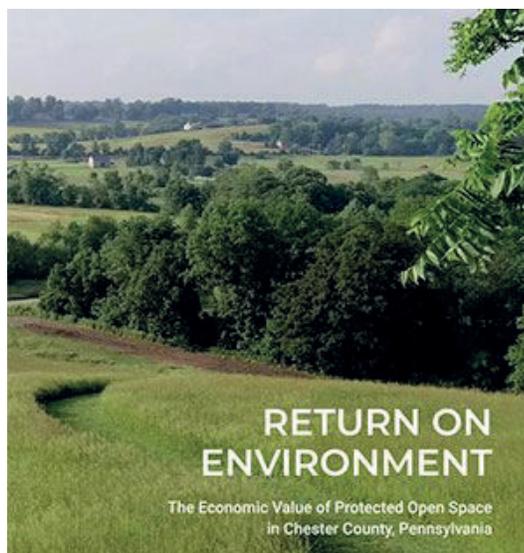
*Chester County Unveils "Return on Environment" Report*

**D**ID YOU KNOW there are so many more benefits to preserving open space than what meets the eye? In addition to keeping Chester County beautiful, protected open space provides valuable economic, environmental, and public health benefits. These benefits have been documented in a new study, *Return on Environment: The Economic Value of Protected Open Space in Chester County*, which was unveiled by the Chester County Commissioners during an Open Space Summit in early May.

In 1989, Chester County became the first county in the region to formally set aside funds for a rigorous open space preservation program through the passage of a \$50 million bond referendum. Today, about 28.8 percent of land, or 140,000 acres, has been preserved as protected open space in Chester County, which is more land than the size of Philadelphia. Study results demonstrate the valuable economic, environmental, and public health benefits that open space preservation has provided, including:

- Homes in the county are valued at over \$11,000 more when they are located within a half-mile of preserved open space, according to the study. In total, it's a gain of more than \$1.65 billion for Chester County's homeowners and economy.
- If protected lands were lost to development, Chester County would need to spend \$97 million a year to replicate vital services such as flood control and air and water pollution mitigation through costly alternative methods.
- Recreational activities on open space account for over \$170 million in avoided medical costs every year.
- Protected open space creates jobs and attracts people who spend in the community. Each year, open space

[CONTINUED ON PAGE 3]



## RETURN ON ENVIRONMENT

The Economic Value of Protected Open Space in Chester County, Pennsylvania

## In this issue

- 3 Parks & Rec Fall Events
- 4 Volunteer Spotlight—Jay Fischer
- 5 Can I Recycle This?
- 7 Latest Giant Decisions

## Directory

### TOWNSHIP BOARD OF SUPERVISORS

CHAIRMAN ..... Kyle P. Scribner  
 VICE CHAIRMAN ..... Jay G. Fischer, Esq.  
 MEMBER ..... Jason R. Winters

### TOWNSHIP PUBLIC MEETINGS

[ Held at Township Building ]

BOARD OF SUPERVISORS ..... 1st Thu at 8:00am  
 and 3rd Thu at 7:30pm  
 BONDSVILLE MILL COMM ..... 4th Thu at 8:00am  
 HISTORICAL COMMISSION . 2nd Wed at 7:00pm  
 MUNICIPAL AUTHORITY ..... 2nd Tue at 7:30am  
 and last Fri at 8:00am  
 OPEN SPACE COMMITTEE .... 1st Thu at 7:30pm  
 ORDINANCE TASK FORCE .... 3rd Wed at 7:30pm  
 PARK AND REC BOARD ..... 1st Mon at 7:00pm  
 PLANNING COMMISSION .... 1st Wed at 7:30pm  
 TRAILS COMMITTEE ..... 2nd Tue at 7:00pm  
 ZONING HEARING BOARD .... 1st Tue at 7:30pm  
 (as needed)

### FIRE/AMBULANCE/POLICE

FIRE, AMBULANCE, POLICE (EMERGENCY) .. 911  
 POLICE (NON-EMERG) ..... (610) 383-7000  
 POLICE ADMIN ..... (610) 269-4300  
 POLICE WEBSITE ..... WWW.EBTPD.ORG

### RECREATION

EBYA ..... WWW.EBYA.ORG  
 DARC ..... WWW.DARCINFO.COM  
 PARK&REC .. PARKANDREC@EBRANDYWINE.ORG

### TOWNSHIP STAFF DIRECTORY

DIAL (610) 269-8230 M-F, 9am-noon; 1-5pm  
 x200 Norann King, Building Department  
 x201 Mary Slade, Secretary/Treasurer  
 x203 Scott Piersol, Township Manager/  
 Emergency Management Coordinator  
 x204 Matthew VanLew, Roadmaster  
 x205 Luke Reven, Assistant Township Manager  
 x210 Dennis Mulhern, Tax Collector  
 x218 Lisa Taraschi, Administrative Assistant  
 x100 Police Administration

### TAX INFORMATION

COUNTY TAXES ..... (610) 344-6361  
 TAX CLAIM OFFICE ..... (610) 344-6360  
 ASSESSMENT OFFICE ..... (610) 344-6105  
 EIT AND LST ..... (610) 269-4402  
 SCHOOL TAXES ..... 1 (866) 300-1714

## East Brandywine Historical Commission Fall Speaker Series

*Presented at the Township Building, 3:30 PM*

### Property Research in East Brandywine Township

SUNDAY,  
SEPTEMBER 15



Learn about the history of area properties and what they may have been used as in 1777! John E. Smith III, Assistant Archivist for Chester County Archives, will discuss the property research process recently completed by the Chester County Archives's staff and introduce some interesting stories like local taverns and other businesses, relationships between neighbors, legal claims to land, prominent families and more! Chester County Archives is administered by Chester County Historical Society in cooperation with the County of Chester.

### Penn and the Lenape

SUNDAY,  
OCTOBER 20



Join us for an interesting presentation by Doug Miller, Director of Pennsbury Manor—William and Hannah Penn's home on the Delaware. Doug works for the Pennsylvania

Historical and Museum Commission. He'll tell us about the dispute between the Susquehannock and Lenape Indians over land in East Brandywine in the early 18th century. The land in question was at the eastern edge of the Lenape territory. There is a Lenape burial ground in Wallace Township near Glenmoore. Doug will tell us what happened in this area at that time.

### History of the American Flag

SUNDAY,  
NOVEMBER 17



We see our flag all the time, everywhere, but how much do we know about this important part of our nation's history? This program will enlighten us with the evolution of the US flag (1777 to present) and the historical events that transpired during that time. We'll also review flag etiquette and how to show respect for the US flag.

The speaker is Michael Rapp. Michael and his wife Jeanne owned Brandywine Flags from 1995 until 2017. They are active in the Marine Corps League of Chester County and the Warrior Watch Riders.

## TOWN HALL MEETING FOR AREA BUSINESSES

SPECIAL SESSION ON SEPTEMBER 17

Do you own or run a business in East Brandywine? Mark your calendars for a special Town Hall Meeting hosted by the Township Board of Supervisors. This event is your opportunity to meet Township leadership, share your ideas and concerns, network with other area businesses, and learn about current initiatives and developments in the Township. **The meeting will be in the Meeting Hall of the Township Building on Tuesday, September 17. A meet and greet begins at 5:30 PM and the program begins at 6:00 PM. Please RSVP to (610) 269-8230 or EBTWP@EBRANDYWINE.ORG by September 13.**

## Parks & Rec Fall Events

### *Fall Harvest Festival*

OCTOBER 13, 12-3 PM AT COMMUNITY PARK



**G**RAB THE KIDS, neighbors and friends for a fun afternoon at our Fall Harvest Festival held at the Community Park. Last year's event was a great success! Costume parade (for children age 12 and under) begins at 12 noon sharp. Arrive a few minutes early to line up and participate. If you want to build a scarecrow, please bring your own child-sized clothing—all other materials will be supplied. A minimal fee may be charged for some activities.

- Costume parade
- Pumpkin Painting
- Rides
- Scarecrow Building
- Food Trucks
- Music
- Trunk or Treat
- Face Painting
- Games

### *Tree Lighting Ceremony*

DECEMBER 1, 3-5 PM AT COMMUNITY PARK



**G**ET INTO THE spirit of the season when you attend our Tree Lighting Ceremony at the Community Park. Please bring donations for Lord's Pantry (hats, mittens, socks, nonperishable food items) and receive a chance to 'Flip the Switch' and light the tree. Make an ornament for the tree or play a game while caroling along with the Hopewell UMC Singers. Homemade cookies, hot chocolate and all the ornament making supplies are provided by the Parks and Recreation Board and their families.

- Ornament Making
- Cookies
- Hot Chocolate
- Lord's Pantry
- Caroling
- Games
- Face Painting

## Open Space

[CONTINUED FROM PAGE 2]

accounts for \$238 million in spending and \$69 million in salaries earned through 1,800 jobs.

- Agriculture on protected farmland puts about \$135 million back into the economy each year.
- Developing open space into housing can be costly for municipalities and school districts. For every \$1 received from residential developments through taxes, local governments spend \$1.11 on services, whereas only 7 cents are spent on services for each dollar in tax received from farmland and preserved open space.

The report was prepared by Chester County departments, land conservancies, municipal representatives, economic development agencies, and Econsult Solutions, Inc., an economic consulting firm that provides econometric and analytic expertise to businesses and policymakers nationwide.

View the report and video:

[CHESCOPLANNING.ORG/OPENSOURCE/ROE.CFM](http://CHESCOPLANNING.ORG/OPENSOURCE/ROE.CFM)

East Brandywine Township residents overwhelmingly approved a referendum in 2002 supporting a dedicated Earned Income Tax increase of 0.125 mills for open space acquisitions. As of July of 2018, the Township had secured 146 parcels of open space totaling 1,873 acres, or 24.9% of 7,146 total acres in East Brandywine Township.

A report on the parcels secured as open space is available at [WWW.CHESCO.ORG/DOCUMENTCENTER/VIEW/46085/EAST-BRANDYWINE-TOWNSHIP?BIDID=](http://WWW.CHESCO.ORG/DOCUMENTCENTER/VIEW/46085/EAST-BRANDYWINE-TOWNSHIP?BIDID=).

## Volunteer Spotlight—Jay Fischer

*Contributing & Volunteering—It's Just What Jay Does*

**WHEN JAY FISCHER** and his family moved into East Brandywine Township in 1991, he asked Hud Voltz how he might be able to contribute. Little did he know that his appointment to the Planning Commission in 1993 would evolve and grow into 26 continuous years of contribution and service.

Contributing to his community is just what Jay does. He has served as president of the Chester County SPCA and the Downingtown Area Chamber of Commerce. He was Assistant Scout Master of the Hopewell Boy Scout Troop 8 for 14 years. In East Brandywine Township he contributed his time on the Planning Commission, Ordinance Task Force and both the Trails and Open Space Committees.

And for three 6-year terms, he has been elected to and served on the East Brandywine Township Board of Supervisors.

Said Manager Scott Piersol, “Jay learned about East Brandywine Township through his eight years serving on the Planning Commission. When then-Township Supervisor Jim Charley, Jr. decided to run for District Justice, Jay was asked to run for the position of Township Supervisor. He has been a tremendous asset to the Township during the period of growth experienced by the Township in the past 15 years. He is an excellent listener, and has used his

education to benefit the Township during this period. I will miss working with him greatly.”

“I do it to contribute,” says Jay, “But the community has given so much back to me in growth and development. I’ve learned to see things from a different perspective.”

As Jay approaches his retirement from the Board of Supervisors at the end of his term in December, he recently reflected on his years as a Board member.

Development of the Open Space program in East Brandywine is one of the highlights of his tenure with the Township. He admits, however, with an undergraduate degree in community development and urban planning, open space was not exactly what he was thinking back then.

“There was a group of very dedicated individuals who came to the Board with a plan to preserve open space,” shared Jay. “I was very skeptical. Very! Their presentation, enthusiasm, and plan of approach, however, made me a total convert. I think it is important for a public official to have an open mind to new ideas. And be willing to embrace them.”

Working with the volunteers and staff at the Township, was another highlight of his time on the Board.

“East Brandywine is unique. There was a culture in existence when I arrived that nurtured volunteerism. Treat

people with respect, support them in their specific task, and let them do their work. They’ll stick with it.”



It was this culture, feels Jay, that supported the dedicated volunteers who created the Community Park, Bondsville Mill Park, Trails, and Open Space.

He also credits the hardworking staff of the Township who did the hard work of looking at every penny spent and keeping tax increases to a minimum. “We were fiscally conservative through tough economic times and came through with a much better balance sheet than when we started,” reflects Jay.

Of his time on the Board of Supervisors, Jay says, “I am proud to think we have kept the essential character of East Brandywine Township while accommodating the inevitable growth because of where we are located in Chester County.”

Jay is looking forward to having a few more free evenings each week but is not yet retiring from his law practice. And we’ll likely still see him volunteering within the Township.

Thank you, Jay Fischer, for doing what you do and your years of service to East Brandywine Township.



# Can I Recycle This?

Take Our Quiz to Learn about Stuff You're Not Sure about (Answers on Page 6)

**E**VER HESITATE WHEN throwing something in the trash, wondering if it could go in the recycling bin instead? It's usually something unusual; something not explicitly on the list provided by the Township. Many of us, while motivated to do the right thing for the environment, are actually contaminating our recycle stream by putting inappropriate items in our recycle carts. Take our quiz to see if you know which items can go in your single-stream recycle cart and which need to be recycled elsewhere or thrown in the trash. **Remember: When in doubt, throw it out!**



1. Envelope With Bubble Wrap



2. Film Plastic Bag



3. Paper Plates



4. Cardboard Rolls



5. Shredded Paper



6. Plastic Lids



7. Unopened Junk Mail



8. Paper Coffee Cups



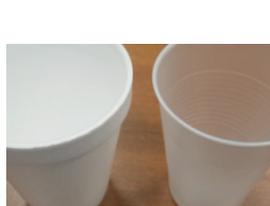
9. Can With Lid Attached



10. Formed Metal Can



11. Cartons



12. Number 6 Plastics

## ON THE MOVE

### RECENTLY SOLD HOMES IN EAST BRANDYWINE TOWNSHIP

407 Echo Dell Road .....	\$695,000
501 Pinebrook Circle .....	\$255,000
335 Dawson Place .....	\$350,000
49 Butterworth Court .....	\$620,000
423 Mercer Drive .....	\$695,000
35 Emma Court .....	\$625,340
142 Brookfield Court .....	\$280,900
27 Windemere Court .....	\$277,500
330 Dawson Place .....	\$374,378
7 Sussex Place .....	\$580,000
151 Crawford Road .....	\$398,100
33 Par Lane .....	\$399,990
14 Cumberland Drive .....	\$740,000
109 Helm Way .....	\$410,000
52 Mulligan Court .....	\$424,000
5 Clayton Lane .....	\$521,040
131 Dowlin Forge Road .....	\$485,000
130 Randolph Drive .....	\$672,656
1190 Hopewell Road .....	\$650,000
105 Great Oak Drive .....	\$506,000
221 Lenora Lane .....	\$515,000
121 Aspen Drive .....	\$685,000
351 Rock Raymond Road .....	\$392,500
110 Firethorn Drive .....	\$371,000
305 S. Caldwell Circle .....	\$465,900
102 Elmwood Drive .....	\$411,000
269 N. Caldwell Circle .....	\$328,000
741 Corner Ketch Road .....	\$205,000
17 Kestrel Drive .....	\$720,000
1634 Bondsville Road .....	\$349,900
501 Rock Raymond Road .....	\$156,000
83 Locks Farm Lane .....	\$449,841
430 Little Washington Road .....	\$384,000
107 Clearview Drive .....	\$407,000

Source: [ZILLOW.COM](http://ZILLOW.COM)



## EAST BRANDYWINE FIRE COMPANY INCREASES MEMBERSHIP

### FUNDS ARE NEEDED FOR GEAR TO PROTECT VOLUNTEERS

The East Brandywine Fire Company active membership continues to grow. This year, EBFC has been averaging three to four new members a month.

Seven of our new members have received certification requiring over 150 hours of formal training.

While the Company officers are ecstatic with all the new help, we are facing some serious challenges. The Fire Company is in desperate need of new protective clothing (turn-out gear) to adequately outfit our newly certified members.

We currently are trying to “gear share” between day-time responders and evening responders. This is not an ideal situation. Without turnout gear, response times are delayed and lives of volunteers and residents are put in danger.

A complete set of this protective clothing costs nearly \$4,000 per firefighter. This includes helmet, coat, boots, pants, gloves, and a fire hood. We are hopeful to raise an additional \$40,000 to purchase 10 sets of turnout gear for our active members.

If you are an East Brandywine Township resident and have not submitted your 2019 donation to EBFC, please consider doing so soon. The Fire Company and community greatly appreciate your support.

## After You Take the Quiz on Page 5...

### *Answers to Can I Recycle This?*

1. **NO.** The material you place by the curb in the blue cart is routed to a materials recovery center operated by Republic Services, our current contract waste hauler. Materials recovery centers are highly automated and cannot separate the paper envelope from the glued-on bubble wrap. This packaging belongs in the trash.
  2. **NO.** Film plastic, the thin flexible stuff they make grocery bags out of, can cause serious damage to the sorting equipment at the materials recovery facility. If you want to keep film plastic out of the landfill, take your bags back to the drop-off boxes offered at many local retailers.
  3. **NO.** Used paper plates are food contaminated and belong in the trash.
  4. **YES.** While this old roll can be recycled, the Township can't help you settle that age-old argument about which direction to install the next roll of toilet paper!
  5. **NO.** While the assorted paper can be recycled, the loose shredded stuff just falls through the sorting equipment at the materials recovery center and contributes to litter in your neighborhood. Consider recycling your shredded paper at the Township's annual shredding event.
  6. **NO.** Just like the shredded paper, this little lid is too small to be processed by the sorting equipment. Put the rinsed, dry, and loose bottle this lid came off of in the recycle cart, and chuck this lid in the trash.
  7. **YES.** Put the unwanted junk mail straight in your recycle cart. Get extra planet-saving points for using the OptOutPrescreen.com site to make sure you never get those unsolicited offers again!
  8. **NO.** Remember the paper plate? These cups are food-contaminated and belong in the trash.
  9. **YES.** Put this rinsed, dry, and loose can in the recycle cart. Also, get a Band-Aid for your finger.
  10. **YES.** Put this rinsed, dry, and loose container in the recycle cart. Throw that plastic lid in the trash.
  11. **NO.** These soft containers made of plastic-coated paper and used for ice cream, juice boxes, and milk cannot be recycled.
  12. **YES and NO.** Trick question—both of these cups are marked with a number 6 recycling logo indicating that they are made of polystyrene. The cup on the left is made of lightweight foam and cannot be recycled. The cup on the right is a dense plastic and can be recycled.
- Special thanks to resident Tom Bottiger for some of the pictures and the article idea. For more information on recycling in E. Brandywine Township go to: [EBRANDYWINE.ORG/243/TRASH-RECYCLING-CHIPPING-YARD-WASTE](http://EBRANDYWINE.ORG/243/TRASH-RECYCLING-CHIPPING-YARD-WASTE)



# Latest Giant Decisions

## PA Commonwealth Court Affirms County Court Dismissal of Case

ON JULY 9, 2019 the PA Commonwealth Court issued an Opinion in one of multiple cases related to the proposed Giant project. Brandywine Village Associates (BVA) instituted a lawsuit in June 2017 in the Chester County Court requesting an injunction prohibiting the Board of Supervisors from voting on the 2017 Plan under consideration at that time. The Board of Supervisors on June 21, 2017 voted to approve the Plan. The Township filed Preliminary Objections challenging the Complaint on various legal grounds. The County Judge agreed with the Township's contentions and dismissed the Township from the case.

BVA subsequently appealed both the Plan approval and the dismissal of the Complaint seeking injunctive relief. The Commonwealth Court affirmed the County Court Decision on the narrow basis that since the 2017 Plan was no longer under consideration (having been replaced by a subsequent Plan), the matter was moot.

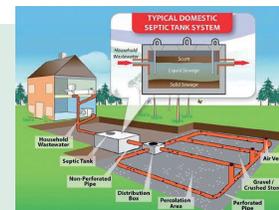
In an unusual footnote the Commonwealth Court stated, "... this Court is... familiar with the prior litigation involving the proposed development. We believe that BVA's failure to disclose prior litigation and pertinent facts established therein in its amended complaint is disingenuous bordering on deception .... BVA's attempts to restyle and relitigate issues previously decided could be deemed to be vexatious litigation." A full copy of the Opinion can be found at [EBRANDYWINE.ORG/DOCUMENT-CENTER/VIEW/1070](http://EBRANDYWINE.ORG/DOCUMENT-CENTER/VIEW/1070)

On June 6, 2019 the Board of Supervisors granted preliminary/final plan approval to the latest plan proposed for the Giant. An appeal was filed by BVA and L & R Partners and is currently pending in the County Court.

### GREAT RESPONSE TO TIER I SURVEY

East Brandywine Township would like to thank those who participated in the **Tier I: Sewage Needs Survey** in Spring 2019. There was an *exceptional* response rate to the survey which is a great testament to the character of the community and the willingness of its residents to protect the water resources and help the Township to grow in a healthy direction. There were several frequently asked questions and common comments in the Tier I Survey responses. To learn more about common sewage disposal systems, visit the Township website link [WWW.EBRANDYWINE.ORG/299/2426/ACT-537-UPDATEPROJECT-PAGE](http://WWW.EBRANDYWINE.ORG/299/2426/ACT-537-UPDATEPROJECT-PAGE)

These responses and the upcoming Tier II Survey (see sidebar) will provide a clearer understanding of the condition of OLDS throughout the Township, and the potential need for public sewer. Homeowners are reminded that the Township has not made any decisions at this time regarding public sewer extensions.



### SEWAGE SURVEY

#### TIER II: FIELD VERIFICATION

In an effort to continue proactive steps to preserve and protect the groundwater in our community, the Township would like to inform you of the upcoming Tier II Survey. This is the second phase of the Sewage Needs Analysis, is required by Pennsylvania Department of Environmental Protection, and is very important to the completion of our Act 537 Sewage Facilities Plan.

A number of homeowners in the Township will be randomly chosen and will receive a letter in the mail explaining this phase in greater detail. All homeowners that receive this letter are encouraged to participate. Participation will include authorizing an East Brandywine Township representative to visit the randomly selected homes to observe conditions and talk to participants about their On-Lot Sewage Disposal System.



FALL 2019

Volume 26, Number 4

EDITOR

Diane Sweeney, *Editor*

DESIGN

Look Loud Creative Services

Send community news to:

[EBTMILEMARKER@GMAIL.COM](mailto:EBTMILEMARKER@GMAIL.COM)



# THE Milemarker

1214 Horseshoe Pike  
Downingtown, PA 19335-1153

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## SAVE THE DATE

### Historical Commission Fall Series (see p. 2)

SEP 15 — PROPERTY RESEARCH IN EBT  
OCT 20 — PENN AND THE LENAPE  
NOV 17 — HISTORY OF THE AMER. FLAG  
3:30PM, TOWNSHIP BUILDING

### Fall Harvest Festival

OCT 13, 12-3PM, COMMUNITY PARK

### Tree Lighting Ceremony

DEC 1, 3-5PM, COMMUNITY PARK

## FALL 2019 CALENDAR OF EVENTS

FOR MORE INFORMATION ON ANY EVENT, SEE [WWW.EBRANDYWINE.ORG](http://WWW.EBRANDYWINE.ORG)

### SEP 2019

2	<b>Labor Day (observed)—Administrative Offices Closed</b>		
3	Zoning Hearing Board Meeting	Township Bldg	7:30pm
4	Planning Commission Meeting	Township Bldg	7:30pm
5	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
5	Open Space Committee Meeting	Township Bldg	7:30pm
9	Parks & Rec Board Meeting	Township Bldg	7:00pm
10	Municipal Authority Regular Meeting	Township Bldg	7:30am
10	Trails Committee Meeting	Township Bldg	7:00pm
11	Historical Commission Meeting	Township Bldg	7:00pm
15	<b>Historical Commission Fall Speaker Series—Property Research in East Brandywine Township</b>	Township Bldg	3:30pm
18	Ordinance Task Force Meeting	Township Bldg	7:30pm
19	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
26	Bondsville Mill Committee	Township Bldg	8:00am
27	Municipal Authority Work Session	Township Bldg	8:00am

### OCT 2019

1	Zoning Hearing Board Meeting	Township Bldg	7:30pm
2	Planning Commission Meeting	Township Bldg	7:30pm
3	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
3	Open Space Committee Meeting	Township Bldg	7:30pm
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8	Trails Committee Meeting	Township Bldg	7:00pm
9	Historical Commission Meeting	Township Bldg	7:00pm
13	<b>Fall Harvest Festival</b>	Community Park	12 noon
16	Ordinance Task Force Meeting	Township Bldg	7:30pm
17	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
20	<b>Historical Commission Fall Speaker Series—Penn and the Lenape</b>	Township Bldg	3:30pm
24	Bondsville Mill Committee	Township Bldg	8:00am
25	Municipal Authority Work Session	Township Bldg	8:00am

### NOV 2019

4	Parks & Rec Board Meeting	Township Bldg	7:00pm
5	Zoning Hearing Board Meeting	Township Bldg	7:30pm
6	Planning Commission Meeting	Township Bldg	7:30pm
7	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
7	Open Space Committee Meeting	Township Bldg	7:30pm
12	Municipal Authority Regular Meeting	Township Bldg	7:30am
12	Trails Committee Meeting	Township Bldg	7:00pm
13	Historical Commission Meeting	Township Bldg	7:00pm
17	<b>Historical Commission Fall Speaker Series—History of the American Flag</b>	Township Bldg	3:30pm
20	Ordinance Task Force Meeting	Township Bldg	7:30pm
21	Bondsville Mill Committee	Township Bldg	8:00am
21	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
22	Municipal Authority Work Session	Township Bldg	8:00am
28	<b>Thanksgiving Holiday—Administrative Offices Closed</b>		
29	<b>Thanksgiving Holiday (observed)—Administrative Offices Closed</b>		

### DEC 2019

1	<b>Tree Lighting Ceremony</b>	Community Park	3:00pm
2	Parks & Rec Board Meeting	Township Bldg	7:00pm
3	Zoning Hearing Board Meeting	Township Bldg	7:30pm
4	Planning Commission Meeting	Township Bldg	7:30pm
5	<b>Board of Supervisors Work Session</b>	Township Bldg	8:00am
5	Open Space Committee Meeting	Township Bldg	7:30pm
10	Municipal Authority Regular Meeting	Township Bldg	7:30am
10	Trails Committee Meeting	Township Bldg	7:00pm
11	Historical Commission Meeting	Township Bldg	7:00pm
18	Ordinance Task Force Meeting	Township Bldg	7:30pm
19	Bondsville Mill Committee	Township Bldg	8:00am
19	<b>Board of Supervisors Regular Session</b>	Township Bldg	7:30pm
24	<b>Christmas Holidays—Administrative Offices Closed</b>		
25	<b>Christmas Holidays—Administrative Offices Closed</b>		
27	Municipal Authority Work Session	Township Bldg	8:00am

**Appendix - K**

**Tier I Sewage Needs Survey Documents**

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# EAST BRANDYWINE TOWNSHIP

Board of Supervisors  
Kyle P. Scribner

Jay G. Fischer, Esq. Jason R. Winters

E. Brandywine Homeowner  
Address Line 1  
Downingtown, PA 19335

Your Parcel ID Number (UPI):

**30-X-XXX**

East Brandywine Neighbor,

East Brandywine Township has begun the process of gathering information about the current condition of sewage On-Lot Disposal Systems (OLDS) within the Township. The Township will use this information to update our Pennsylvania Sewage Facilities Act 537 Plan. We need your help! Please complete the enclosed Sewage Needs Survey by MM/DD/YYYY.

Your participation in this survey will allow the Township to:

- Become familiar with current methods of sewage disposal used in the township to assure that these methods do not impact the quality and safety of our community's drinking water.
- Determine if sewage problems exist, and develop the most efficient and economical way of planning for future sewage needs of the Township.

The Sewage Needs Survey may be completed one of two ways: mail response or online survey.

For mail responses. Your completed Sewage Needs Survey (the enclosed yellow sheet) can be returned via the enclosed postage-paid reply envelope. For your convenience, the back of this letter contains a reference guide to common types of on-lot disposal tanks and absorption areas referenced in the survey.

For online responses. Please visit [www.surveymonkey.com/r/EBTSewerSurvey](http://www.surveymonkey.com/r/EBTSewerSurvey) to complete the Sewage Needs Survey. More information related to survey questions can be obtained by clicking the link to the East Brandywine Township website located next to that question.

**Whichever method you choose, please be sure to provide your UPI number when prompted! This number can be found in the box near the top of this letter.**

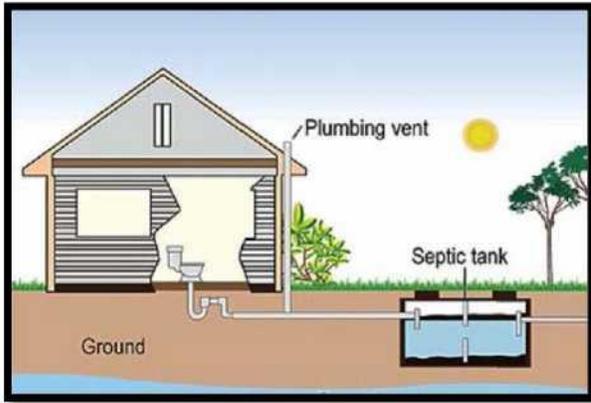
Your complete and prompt response is very important. This is a fact-finding mission for future planning and will not be used for enforcement actions. Part of the process of "verifying the survey" requires that a certain percent of survey forms sent must be returned. Should the number of returned surveys not meet this requirement; the Township may have to complete a door-to-door survey to acquire this information. This would result in an additional expense to the Township and ultimately to you, the Township's property owners.

Should you have any questions, please contact Lisa Taraschi at the East Brandywine Township Building at (610) 269-8230.

**Thank you for participating in this important survey effort!**

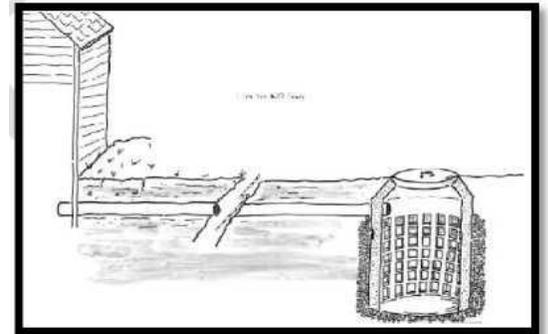
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## ON- LOT DISPOSAL SYSTEMS AND ABSORPTION AREAS



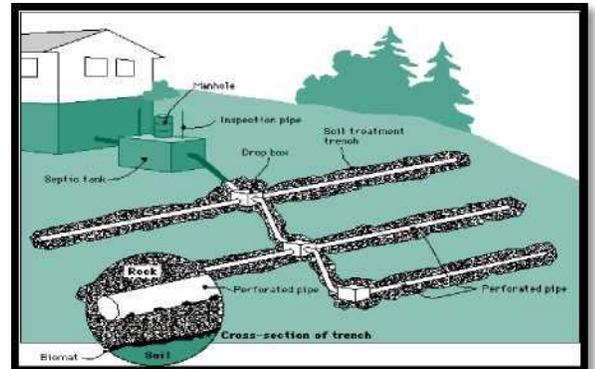
**Septic Tank** - This system is a large concrete watertight “box” also known as a treatment tank; with an inlet and outlet pipe. The septic tank treats the wastewater naturally by holding it in the tank long enough for solids and liquids to separate, forming three layers inside the tank. Fats, Oils, and Greases float to the top, solids heavier than water settle at the bottom of the tank, and a middle layer is partially clarified wastewater. The top and bottom layers remain in the septic tank where natural bacteria continue to break the solids down. The sludge and scum that cannot be broken down are retained in the tank and build up until it is pumped. The middle layer of partially clarified wastewater is sent to an additional septic tank or to the absorption area.

**Cesspools / Seepage Pit** - This system is a cylindrical excavation with an open bottom and walls lined with unmortared stone or concrete block. Raw sewage is discharged into the cesspool from a sewer pipe connected to the building drain and settles to the bottom. The remaining liquid sewage waste (effluent) is absorbed into the soil through the open bottom and porous sides of the structure. A seepage pit is similar to a cesspool, but wastewater flows first into a septic tank, and then into a seepage pit which is a porous block or stone.

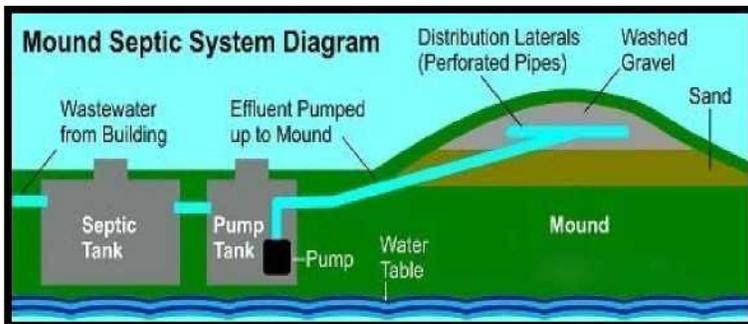


**In- Ground Bed** - This system is used when the property provides gentle slopes (less than 8%). An in-ground bed resembles an air mattress and includes a header. This area receives the liquid effluent from the septic tanks and distributes it over a rectangular area(s). The effluent then filters through the soil under the pipes and is treated chemically and bacterially by the components of the soil. In-ground gravity absorption areas can be placed on sites that have soils with percolation rates between 6 and 60 minutes per inch. To provide adequate treatment of the liquid discharged from your treatment tank, 4 feet of suitable soil is required under the soil absorption area.

**In-Ground Trench** - This system is used on properties that have a maximum slope of 25%. A standard trench absorption area consists of two or more excavated linear trenches in which perforated pipes or laterals distribute effluent into a layer of crushed stone under the pipes.



**Holding Tank** - This watertight system is used for sewage collection and storage. No treatment is provided with a holding tank. Pumping and hauling to an off-site location is required.



**Elevated Sand Mound** - This system is typically used in circumstances with reduced permeability; when rock or a water table is too close to the ground surface to allow for an in-ground system. This design utilizes a soil absorption system constructed above grade. Sand is placed on top of the ground to make up for the lack of soil depth, and the stone and pipe are placed on top of the sand. Sand fill is used to enhance treatment of the wastewater prior to entering the natural soil at the site. Sites that may be unsuitable for a conventional leaching system may be suitable for a mound system.

**SEWAGE NEEDS SURVEY****EAST BRANDYWINE TOWNSHIP**

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ TELEPHONE NUMBER: \_\_\_\_\_  
 \_\_\_\_\_ UPI# (FOUND ON COVER LETTER): \_\_\_\_\_

PLEASE CHECK THE APPROPRIATE BOXES AND/OR FILL-IN ANSWERS AS NEEDED ON BOTH SIDES OF THIS SURVEY. RETURN THIS SHEET IN THE ENCLOSED POSTAGE-PAID RETURN ENVELOPE. ADDITIONAL REFERENCE MATERIALS MAY BE FOUND AT: [WWW.EBRANDYWINE.ORG/299](http://WWW.EBRANDYWINE.ORG/299). FOR YOUR CONVENIENCE, AN ELECTRONIC VERSION OF THIS SURVEY IS AVAILABLE AT: [WWW.SURVEYMONKEY.COM/R/EBTSEWERSURVEY](http://WWW.SURVEYMONKEY.COM/R/EBTSEWERSURVEY). PLEASE COMPLETE EITHER THE PAPER OR ELECTRONIC SURVEYS ONCE. **NOTE: IDK = "I DON'T KNOW."**

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE?  1  2  3  4  5  MORE THAN 5
2. IS YOUR HOME OCCUPIED?  ALL YEAR  SEASONAL  VACANT
3. HOW LARGE IS YOUR LOT?  
 ¼ ACRE  ½ ACRE  ¾ ACRE  1 ACRE  2 ACRES  MORE THAN 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? (SEE ENCLOSED INFORMATION)  
 INDIVIDUAL ON-LOT DISPOSAL  COMMUNITY ON-LOT DISPOSAL  IDK  
 PUBLIC SEWER (IF YOU USE PUBLIC SEWER, STOP NOW AND DO NOT RETURN SURVEY)
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
 SEPTIC TANK  CESSPOOL  HOLDING TANK  PRIVY  IDK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? (*ON CHESTER COUNTY HEALTH DEPT. PERMIT*)  
 <900 GAL.  900 GAL.  1,000 GAL.  1,250 GAL.  1,500 GAL.  > 1,500 GAL.  IDK
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?  1  2  3  4  5  IDK
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?  
 LESS THAN 1 YEAR AGO  1-3 YEARS AGO  3-5 YEARS AGO  MORE THAN 5 YEARS AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED?  
 ANNUALLY  EVERY 1-3 YEARS  EVERY 3-5 YEARS  LESS FREQUENTLY THAN EVERY 5 YEARS
10. WAS YOUR TANK EVER INSPECTED?  YES  NO  IDK IF YES, WHEN (YEAR)? \_\_\_\_\_
11. WAS YOUR TANK EVER REPAIRED?  YES  NO  IDK IF YES, WHEN (YEAR)? \_\_\_\_\_
12. HOW OLD IS YOUR TANK(S)?  LESS THAN 1 YEAR  1-5 YEARS  5-10 YEARS  MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?  YES  NO  IDK
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? (*SEE ENCLOSED INFORMATION*)  
 IN GROUND BED  IN GROUND TRENCH  PRESSURE DOSED IN GROUND BED  
 ELEVATED SAND MOUND  SEEPAGE PIT  PIPE TO DITCH/STREAM/SURFACE  IDK

**QUESTIONS CONTINUE ON REVERSE**

**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

- 15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA?  YES  NO  IDK
- 16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
 GREEN LUSH GRASS  WET OR SPONGY AREAS  WETNESS OR WATER AT THE SURFACE  
 ODORS  NONE OF THESE
- 17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?  
 SLOW DRAINING PLUMBING FIXTURES  OVERFLOWING FIXTURES  
 SEWAGE BACKUP INTO THE HOUSE  NONE OF THESE  
PLEASE LIST ANY OTHER MALFUNCTIONS: \_\_\_\_\_
- 18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?  
 LESS THAN 1 YEAR  1-5 YEARS  5-10 YEARS  MORE THAN 10 YEARS
- 19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?  
 YES  NO  IDK IF YES, WHEN (YEAR)? \_\_\_\_\_
- 20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA?  
 YES  NO IF YES, WHAT? \_\_\_\_\_
- 21. WHAT KIND OF WATER SUPPLY DO YOU USE?  
 PRIVATE WELL  PUBLIC  SPRING  IDK  OTHER: \_\_\_\_\_
- 22. IF YOU HAVE A WELL, WAS IT:  DUG  DRILLED  IDK  I DON'T HAVE A WELL
- 23. IF YOU HAVE A WELL, HOW DEEP IS IT?  
 LESS THAN 50 FEET  50-200 FEET  MORE THAN 200 FEET  IDK  I DON'T HAVE A WELL
- 24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER?  YES  NO  IDK
- 25. IS THE WELL HEAD CASED?  YES  NO  IDK  I DON'T HAVE A WELL
- 26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA?  
 0-50 FEET  50-100 FEET  100-200 FEET  200+ FEET  IDK  I DON'T HAVE A WELL  
IS THE WELL UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? \_\_\_\_\_
- 27. HAVE YOU EVER HAD YOUR WATER TESTED?  YES  NO  IDK IF YES, HOW LONG AGO (YEARS)? \_\_\_\_\_
- 28. DO YOU TEST YOUR WATER PERIODICALLY?  YES  NO  IDK
- 29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL INFORMATION. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PLEASE RETURN THIS SHEET IN THE ENCLOSED POSTAGE-PAID RETURN ENVELOPE – THANK YOU!**

**Appendix - L**

**Tier II Sewage Needs Survey Documents**

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# EAST BRANDYWINE TOWNSHIP

## Board of Supervisors

Kyle P. Scribner

Jay G. Fischer, Esq.

Jason R. Winters

EAST BRANDYWINE HOMEOWNER  
ADDRESS LINE 1  
DOWNTOWN, PA 19335

**In Regard to Your Property at:**  
**ADDRESS**  
**Parcel ID Number (UPI):**  
**30-X-XXX**

East Brandywine Neighbor,

East Brandywine Township would like to thank you for participating in the 'Tier I: Sewage Needs Survey' that you completed earlier this year. You have been randomly selected to help in the next phase of the project, the 'Tier II: Door-to-Door Survey'. This phase of the needs assessment is required by the Pennsylvania Department of Environmental Protection (PADEP) as part of the Act 537 planning process, and will provide a confidence level regarding the completed surveys. By volunteering for this phase, you will be granted relief from any Township enforcement of your on-lot disposal system.

The Township has authorized local consultants Hydraterra Professionals (HtP) to administer this project, and would like you to grant HtP permission to enter your property to make the required visual observations. Your participation and attendance during the visual observation would be appreciated and will help the Township meet the PADEP Guidelines in the program and help keep program costs at a minimum.

Enclosed are three pages and one postage-paid envelope:

- This Cover Letter.
- Survey Responses. A copy of the responses provided to the Tier I "Sewage Needs Survey" completed for your property.
- Permission to Enter Property & Sketch of On-Lot Disposal System (Yellow Sheet). Please complete both sides of this page and return to it to HtP. The "Consent to Enter" as form which will grant permission to enter your property. Please provide your UPI number along with your signature. This UPI number can be found in the box near the top of this letter. The reverse of the "Consent to Enter" contains a box for you to sketch the features of your property, including your on-lot disposal system, as indicated on the directions at the top of the page.

If you choose to participate in this effort, please complete the yellow sheet and send it directly to HtP in the enclosed postage-paid reply envelope. If you will not be home during the visit, please indicate this when scheduling the time and date of your site visit.

Flags (5 green and 1 blue) will be dropped off by the Township at your residence prior to the site visit, please use these to mark the border of your on-lot disposal system as indicated on your sketch. Please use one of the five green flags to show where your tank is located, and use the other four to outline the boundary of the disposal field. Use the one blue flag to indicate the location of the water well. Doing this will greatly help HtP to locate the system and reduce project costs.

We anticipate that the visit at your home will last less than one hour. The Township has scheduled the dates of August 26 through September 7 to visit your area. **To schedule a site visit, please call Joe Borgioni (HtP) at 610-942-3000 Monday-Friday, from 8:00 AM to 4:30 PM, or email him at [jborgioni@hydraterrapro.com](mailto:jborgioni@hydraterrapro.com).** We invite you to visit the website <http://www.ebrandywine.org/299/Act-537-Update-Project-Page> where you may find answers to questions you may have about the project.

**Please Note:** Granting permission to inspect your on-lot system will NOT lead to enforcement for your individual septic system from the Township.

Date of my scheduled visit: \_\_\_\_\_

**Thank you for participating in this important survey effort!**

**Appendix - M**  
**EBT Code 213**

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ARTICLE I  
**Sewage Management**  
**[Adopted 7-17-2002 by Ord. No. 02-03]**

**§ 213-1. Legislative authority.**

Pursuant statutory authority granted the municipality in the Pennsylvania Sewage Facilities Act, 35 P.S. 750. 1 et seq., ("the Act"), as implemented by and through the regulations issued by the Pennsylvania Department of Environmental Protection, Title 25, Chapters 71, 72 and 73, to take actions necessary to assure continued compliance of sewage facilities with the Act, the Clean Streams Law and regulations promulgated hereunder, the Board of Supervisors (the Board) of East Brandywine Township, Chester County, Pennsylvania (the municipality) do hereby ordain as follows.

**§ 213-2. Title.**

This article shall be known as and may be referred to as the "Sewage Management Program Ordinance."

**§ 213-3. Purpose.**

The purpose of this article includes:

- A. The requirement for the registration of all businesses and persons that install, repair, inspect, evaluate, operate, maintain (including removal and disposal of septage), or otherwise service on-site systems within the municipality;
- B. The requirement for the municipality to establish a routine inspection and reporting program of all sewage facilities within the municipality;
- C. The establishment of a continuing education program to promote the proper use, operation, and maintenance of all sewage facilities; and
- D. The requirement for the owners of sewage facilities to properly operate and maintain their sewage facility.

**§ 213-4. Terms and definitions.**

The following words and terms, when used in this article, shall have the following meanings:

**ABSORPTION AREA** — The component of the on-site system that disperses partially treated sewage into the ground subsurface for

final renovation by the soil and recycling of the treated wastewater into the groundwater.

**AUTHORIZED AGENT** — A Certified Sewage Enforcement Officer, qualified registered professional engineer, or any other person or firm designated by the Board of Supervisors to carry out the provisions of this article as the agent for the Board.

**LOCAL AGENCY** — The Chester County Health Department.

**MALFUNCTION** — The condition that occurs when any sewage facility pollutes ground or surface waters; contaminates private or public drinking water supplies; creates a nuisance or a hazard to public health.

**OWNER** — Any person, corporation, partnership, etc. holding deed, or title to lands within the municipality.

**ON-SITE SYSTEM** — An individual or a community sewage facility that recycles treated wastewater into the groundwater at or near the site of generation.

**ON-SITE SYSTEM SERVICE PROVIDER** — Any individual, agent, or employee of any proprietorship, partnership, or corporation that installs, evaluates, services, maintains, or operates an on-site system including those who pump, or transports septage from an on-site system.

**PA DEP/THE DEPARTMENT** — The Department of Environmental Protection for the Commonwealth of Pennsylvania.

**QUALIFIED ON-SITE SYSTEM INSPECTOR** — An individual who has specialized training in the evaluation of on-site systems with one or more of the following accreditations:

- A. Advanced On-lot Wastewater Treatment System Inspector issued by the Pennsylvania Septage Management Association;
- B. Accredited On-site Water and Wastewater Inspector issued by the National Sanitation Foundation;
- C. Professional engineer registered in the Commonwealth of Pennsylvania; or
- D. Any other certification program acceptable to the municipality.

**REPAIR** — Work done to modify, alter, rehabilitate or enlarge an on-site system

**SEPTAGE** — The scum, sludge, liquid, and other material pumped from a septic tank, or any other treatment tank.

SEWAGE — A substance that contains waste products or excrement or other discharge from the bodies of human beings or animals and noxious or deleterious substances being harmful to the public health, or to animal or aquatic life, or to the use of water for domestic water supply or for recreation. The term includes any substance which constitutes pollution to the waters of the commonwealth under the Clean Streams Law (35 P.S. §§ 691.1 through 691.1001).

SEWAGE ENFORCEMENT OFFICER (SEO) — The official of the local agency who reviews permit applications and sewage facility planning modules, issues permits as authorized under the Act, and conducts the investigations and inspections that are necessary to implement the Act.

SEWAGE FACILITY/FACILITIES — Any method of sewage collection, conveyance, treatment, and disposal that will prevent the discharge of untreated or inadequately treated sewage into the waters of this commonwealth, or otherwise provide for the safe treatment and disposal of sewage or other waste. Sewage facilities include both on-site systems and those systems that convey sewage across municipal boundaries for ultimate treatment by others.

TREATMENT TANK — A watertight tank designed to retain sewage long enough for satisfactory bacterial decomposition of the solids to take place. The term includes the following:

- A. SEPTIC TANK — A treatment tank that provides solids separation and anaerobic decomposition of sewage solids prior to discharge to the absorption area.
- B. AEROBIC SEWAGE TREATMENT TANK/AEROBIC TREATMENT UNIT (ATU) — A mechanically aerated tank that provides aerobic biochemical treatment and solids separation of sewage prior to discharge to the absorption area.

**§ 213-5. Coordination with building permits and occupancy permits.**

- A. All building permit applications shall include evidence of satisfactory compliance with the Pennsylvania Sewage Facilities Act (35 P.S. §§ 750.1 through 750.20).
- B. Building permit applications for any new building or addition to an existing building served or proposed to be served by an on-site system shall include a site plan showing the proposed and existing locations of all sewage facility components, including absorption areas and replacement absorption areas.

- C. Building permit applications for buildings served by an existing on-site system shall also include an inspection report by a qualified on-site system inspector indicating that the existing on-site system is adequate and sized for the use and function of the proposed building.
- D. Occupancy permits shall not be issued until an "as-built" record drawing showing the type, size, capacity, and location of all on-site system components. An "as-built" record drawing shall be drawn to scale and provide two measured distances between each component and a property or building corner is provided to the municipality.

**§ 213-6. On-site system service providers responsibilities.**

- A. All on-site system service providers shall be registered with the municipality.
- B. All on-site system service providers shall pay an annual registration fee in an amount as shall be set from time to time by resolution of the Board of Supervisors.<sup>1</sup>
- C. On-site system service providers shall file individual reports within two working days in a form acceptable to the municipality after performing any type of service, installation, repair, maintenance, operation, or inspection (including evaluations of on-site systems for real estate transactions).

**§ 213-7. Sewage facility owner's responsibilities.**

Sewage facilities with operating permits issued by the Pennsylvania Department of Environmental Protection and sewage pumping systems, including sewage pumping systems that convey sewage across municipal boundaries for ultimate treatment by others, require frequent and routine service in order to assure proper operation. Owners of all such sewage facilities shall file reports on the operation and maintenance of the sewage facility on a monthly basis within 28 days after the last day of the reporting month in a matter acceptable to the municipality.

**§ 213-8. On-site system owner's responsibilities.**

- A. General responsibilities. The owner of a property served by an on-site system shall be solely responsible:

---

1. Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. II).

- (1) For any and all costs associated with the operation of their on-site system;
  - (2) To assure that the on-site system is operated in the manner for which it was designed and intended;
  - (3) To assure that there is no discharge or disposal of any material or substance into the system in any quantity or concentration that would cause the system harm or to otherwise not function as intended;
  - (4) To maintain the on-site system in such a condition as will permit it to function and prevent the unlawful discharge of sewage; and
  - (5) To maintain the area around such system so as to provide convenient access for inspection, maintenance, and pumping, and divert surface water and downspouts away from the absorption area and other system components.
- B. Minimum operation and maintenance requirements shall be included but are not limited to:
- (1) The removal of septage or other solids from treatment and other storage tanks once every three years, or when notified after an inspection of the on-site system that it appears that settled or floatable solids are in excess of 1/3 the storage capacity of the tank; and
  - (2) The recommendations of the manufacturer of any system component.

### **§ 213-9. Inspection of on-site systems.**

- A. Within 24 months after the adoption of this article, all property owners with on-site systems in the municipality shall be notified by the municipality to have their on-site system inspected.
- B. After the initial inspection:
- (1) Property owners of residential on-site systems shall be notified biennially (every two years) by the municipality to have a follow-up inspection unless a prior inspection indicates a different inspection interval of not less than three years.
  - (2) Property owners of nonresidential systems shall be notified by the municipality to have three follow-up inspections every 90 days. After the fourth inspection, a schedule of follow-up

inspections will be determined by the municipality of not less than one follow-up inspection every 12 months.

- C. Inspections of residential systems shall be inspected either by the municipality or qualified on-site system inspector of the property owner's choosing.
  - (1) Inspections performed by the municipality will be conducted at a reduced charge to the property owner, based on the actual cost of the inspection less any reimbursable amount by PA DEP.
  - (2) A qualified on-site system inspector of the property owner's choosing shall conduct inspections of residential systems at the property owner's sole expense.
- D. A qualified on-site system inspector of the property owner's choosing shall conduct inspections of nonresidential systems at the property owner's sole expense.
- E. Property owners shall be notified by U.S. Mail at the address indicated on the records from the County Tax Assessment Office or Township address records that they have 30 days to have their on-site systems inspected.

#### **§ 213-10. Inspection requirements.**

All qualified on-site system inspectors performing on-site system inspections under this article shall file a completed report to the municipality within five business days in a manner acceptable to the municipality, upon completion of such service. The report shall contain, at a minimum, the following:

- A. The observation of any untreated or partially treated sewage being discharged into waters of the commonwealth, on to the ground, or backing up into a structure.
- B. The depth of settled and floatable solids in each compartment of each tank within the system. If solids are in excess of one-third of the available storage volume, the property owner shall be notified that the tank(s) are recommend to be pumped.
- C. Verification and recording of the operational function of all chemical, mechanical, and electrical components of the sewage facility; collection and conveyance piping, pressure lines and manholes, alarm and flow recorder devices, pumps, disinfection equipment, and related safety items.

- D. Verification and recording that surface contouring and other measures are consistent with 25 Pa. Code Chapter 73, to divert stormwater away from treatment facilities and absorption areas and to protect absorption areas from physical damage. Identify and report any inconsistency.
- E. The recording of any other observations made associated with the proper operation and maintenance of the on-site system.
- F. A recommendation when the next inspection should be performed (not less than three years).

**§ 213-11. Pumper requirements.**

- A. All on-site system service providers who provide septage pumping services in the municipality shall also be licensed by the Chester County Health Department.
- B. The pumping of on-site systems in the municipality shall be done in accordance with the Pennsylvania Septage Management Association's Tank Pumping protocol.

**§ 213-12. Continuing education.**

- A. The municipality shall mail annually general information on the proper operation and maintenance of on-site system to all property owners with on-site systems in the municipality.
- B. The municipality shall inform property owners of additional maintenance and service recommendations based on the observations made during the inspection.
- C. The municipality shall annually publish and distribute a list of all registered on-site system service providers.

**§ 213-13. Initial funds to implement the Sewage Management Program.**

The Board shall establish a Sewage Management Program fund from the municipality's general fund with an initial balance not greater than \$75,000. From time to time, the municipality shall apply to Pennsylvania Department of Environmental Protection (DEP) for partial reimbursement of expenses related to the Sewage Management Program. The reimbursed expenses will be used to replenish the Sewage Management Program fund.

**§ 213-14. Fees.**

The Board may, by resolution, establish a fee schedule and collection program to cover the municipality's costs of administering this article that are not eligible for reimbursement from PA DEP.

**§ 213-15. Violations and penalties; suspensions.**

- A. It shall be illegal for any on-site system service provider to fail to file the necessary reports in the manner previously specified.
- B. Any person who violates any of the provisions of this article commits a summary offense and shall be subject to prosecution by the municipality, and, upon conviction before a Magisterial District Judge, shall be subject to a fine of not less than \$300 nor more than \$1,000, plus costs of prosecution for each violation.
- C. Each day of a continuing violation shall be considered a new and separate violation of this article and shall be subject to a separate penalty.
- D. Any business which has been convicted on two previous occasions for violations of this article, or which fails to comply with any of the provisions of this article, or which violates the conditions of its DEP permit relating to the handling, treatment or disposition of septage materials, or of any state law or municipal ordinance governing its operation, shall be barred from operating within the municipality for a period of not less than six months nor more than two years, as determined by the Board of Supervisors or their authorized agent.
- E. In addition to any other actions to obtain compliance, the municipality may assess civil penalties as described in the PA Sewage Facilities Act.

**Appendix -N**  
**CCHD OLDS Permits 1997-2022**

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**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

No.	Permit No.	Date Issued	Date Approved	Date Expired	Parcel No.	Permit Type	Municipality	Repair Reason
1	N12532	6/24/1997		6/24/2000	30-5C-8	Repair	East Brandywine Township	
2	O62247	10/14/1997		10/14/2000	30-2-26	Repair	East Brandywine Township	
3	O56393	5/29/1998		5/29/2001	30-6-5.15	Repair	East Brandywine Township	
4	Q19675	9/10/1998	5/5/1999		30-5-213	Repair	East Brandywine Township	Malfunction
5	Q15129	9/23/1998	8/19/1999		30-5-162.1	Repair	East Brandywine Township	
6	O21846	11/30/1998	6/15/1999		30-2-57.4	Repair	East Brandywine Township	Malfunction
7	Q16829	12/24/1998	1/4/1999		30-2-43	Repair	East Brandywine Township	Malfunction
8	O59895	1/20/1999	3/10/1999		30-3-40.2	Repair	East Brandywine Township	Malfunction
9	Q20181	3/1/1999	3/18/1999		30-2-86.1E	Repair	East Brandywine Township	Unsatisfactory Certification
10	Q32996	4/1/1999	4/21/1999		30-5G-5	Repair	East Brandywine Township	Unsatisfactory Certification
11	N13998	4/22/1999		4/22/1999	30-5-37	Repair	East Brandywine Township	
12	Q15762	4/27/1999	5/25/1999		30-2N-192	Repair	East Brandywine Township	Unsatisfactory Certification
13	Q20032	5/6/1999	8/23/1999		30-2-52.45	Repair	East Brandywine Township	Unsatisfactory Certification
14	Q29661	5/10/1999	6/14/1999		30-2-14.1	Repair	East Brandywine Township	Malfunction
15	O63466	5/12/1999	6/16/1999		30-2-94.4	Repair	East Brandywine Township	Malfunction
16	Q21275	5/24/1999	7/15/1999		30-5-212.1	Repair	East Brandywine Township	Malfunction
17	Q21277	6/4/1999	6/10/1999		30-6-126	Repair	East Brandywine Township	Unsatisfactory Certification
18	R09065	6/16/1999	7/12/1999		30-2-52.9	Repair	East Brandywine Township	Unsatisfactory Certification
19	Q21256	6/22/1999	7/28/1999		30-2-69.3	Repair	East Brandywine Township	Malfunction
20	Q16877	6/28/1999	7/15/1999		30-2-68	Repair	East Brandywine Township	Malfunction
21	Q15217	7/20/1999	9/2/1999		30-5L-40	Repair	East Brandywine Township	Unsatisfactory Certification
22	R01606	7/29/1999	7/29/1999		30-6-135	Repair	East Brandywine Township	Malfunction
23	R01663	8/30/1999	10/26/1999		30-2-46.6	Repair	East Brandywine Township	Malfunction
24	R35402	8/30/1999	11/10/1999		30-2-69.1	Repair	East Brandywine Township	Malfunction
25	R35404	8/31/1999	9/2/1999		30-5-153.1	Repair	East Brandywine Township	Unsatisfactory Certification
26	R35451	8/31/1999	9/10/1999		30-5L-8	Repair	East Brandywine Township	Unsatisfactory Certification
27	R35045	9/27/1999	10/29/1999		30-5L-20	Repair	East Brandywine Township	Malfunction
28	R30291	10/14/1999	10/25/1999		30-2-8.2	Repair	East Brandywine Township	Unsatisfactory Certification
29	R34672	10/27/1999	11/10/1999		30-5L-51	Repair	East Brandywine Township	
30	R01567	10/29/1999	2/1/2000		30-2-98.1	Repair	East Brandywine Township	Unsatisfactory Certification
31	R34745	12/14/1999	12/17/1999		30-5-166.41	Repair	East Brandywine Township	Unsatisfactory Certification
32	R34674	12/23/1999	2/23/2000		30-5L-4	Repair	East Brandywine Township	Malfunction
33	Q16863	1/14/2000	3/10/2000		30-5-17	Repair	East Brandywine Township	Unsatisfactory Certification
34	R35409	3/22/2000	4/13/2000		30-2-75	Repair	East Brandywine Township	Malfunction
35	R31323	4/3/2000	8/14/2000		30-2-30.5	Repair	East Brandywine Township	Malfunction
36	R35011	5/8/2000		5/8/2003	30-6-25	Repair	East Brandywine Township	
37	R02949	5/12/2000	5/16/2000		30-3-48	Repair	East Brandywine Township	Unsatisfactory Certification
38	R35118	5/22/2000	6/5/2001		30-5L-50	Repair	East Brandywine Township	Unsatisfactory Certification
39	R02964	5/30/2000	11/1/2000		30-2-52.41	Repair	East Brandywine Township	Malfunction
40	R36333	6/7/2000	6/8/2000		30-2-74.18	Repair	East Brandywine Township	Unsatisfactory Certification
41	R35556	7/31/2000	11/16/2000		30-1R-32	Repair	East Brandywine Township	Malfunction
42	R35412	8/9/2000	1/4/2001		30-3-26	Repair	East Brandywine Township	Unsatisfactory Certification
43	O62411	8/16/2000	8/25/2000		30-6-59	Repair	East Brandywine Township	
44	R02651	8/17/2000	10/12/2000		30-1R-16	Repair	East Brandywine Township	Unsatisfactory Certification
45	R36132	8/23/2000	11/17/2000		30-2-52.48	Repair	East Brandywine Township	Malfunction
46	R02026	9/6/2000	11/3/2000		30-2-52.56	Repair	East Brandywine Township	
47	R31202	9/14/2000	9/22/2000		30-2-52.7	Repair	East Brandywine Township	Unsatisfactory Certification
48	Q19699	9/19/2000	10/11/2000		30-2-52.91	Repair	East Brandywine Township	Malfunction
49	R09738	9/19/2000	12/5/2000		30-6-25	Repair	East Brandywine Township	Unsatisfactory Certification
50	R36413	9/25/2000	10/4/2000		30-2-52.64	Repair	East Brandywine Township	Malfunction
51	R36418	9/26/2000	10/23/2000		30-2-52.26	Repair	East Brandywine Township	Malfunction
52	R14321	10/19/2000	11/8/2000		30-5L-38	Repair	East Brandywine Township	
53	R14963	10/25/2000	10/31/2000		30-6-1.2	Repair	East Brandywine Township	
54	R35413	11/13/2000	12/13/2000		30-5-200.2	Repair	East Brandywine Township	Unsatisfactory Certification
55	R35414	12/5/2000	3/21/2001		30-5K-9	Repair	East Brandywine Township	Malfunction
56	R01740	4/2/2001	6/18/2001		30-5-164	Repair	East Brandywine Township	Malfunction
57	R01780	5/14/2001	5/30/2001		30-5-3.2	Repair	East Brandywine Township	Malfunction

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

<b>No.</b>	<b>Permit No.</b>	<b>Date Issued</b>	<b>Date Approved</b>	<b>Date Expired</b>	<b>Parcel No.</b>	<b>Permit Type</b>	<b>Municipality</b>	<b>Repair Reason</b>
58	O60204	5/18/2001		5/18/2001	30-5C-20	Repair	East Brandywine Township	
59	R37712	6/11/2001	6/28/2001		30-5K-6	Repair	East Brandywine Township	Unsatisfactory Certification
60	R02176	6/18/2001	11/27/2001		30-2-18	Repair	East Brandywine Township	
61	R02179	6/18/2001	6/20/2001		30-3-48.4	Repair	East Brandywine Township	Unsatisfactory Certification
62	R14397	6/26/2001	9/24/2001		30-3-32.1	Repair	East Brandywine Township	Unsatisfactory Certification
63	R35996	7/17/2001	11/16/2001		30-6-138	Repair	East Brandywine Township	Malfunction
64	R02178	7/18/2001	11/2/2001		30-2N-9	Repair	East Brandywine Township	Malfunction
65	R02175	8/2/2001	8/30/2001		30-5-31	Repair	East Brandywine Township	Malfunction
66	R14735	8/21/2001	5/30/2002		30-3-77.4	Repair	East Brandywine Township	Malfunction
67	R35460	8/21/2001		8/21/2004	30-5-166	Repair	East Brandywine Township	Malfunction
68	R14547	8/22/2001	9/27/2001		30-5-219	Repair	East Brandywine Township	Malfunction
69	R14345	8/31/2001	9/27/2001		30-5L-39	Repair	East Brandywine Township	
70	R36221	8/31/2001	11/15/2001		30-5K-15	Repair	East Brandywine Township	Malfunction
71	Q44566	11/13/2001	10/1/2003		30-5-108	Repair	East Brandywine Township	
72	R14149	11/27/2001	12/17/2001		30-6-167	Repair	East Brandywine Township	Unsatisfactory Certification
73	O21348	1/11/2002	1/24/2002		30-5-43.9	Repair	East Brandywine Township	Unsatisfactory Certification
74	T000020	1/25/2002	8/13/2002		30-6-15	Repair	East Brandywine Township	Malfunction
75	R30931	3/6/2002	3/7/2002		30-2-137	Repair	East Brandywine Township	
76	T015073	5/28/2002	6/11/2002		30-6-61	Repair	East Brandywine Township	Malfunction
77	R37464	6/10/2002	7/1/2002		30-6-162	Repair	East Brandywine Township	Unsatisfactory Certification
78	T008567	7/25/2002	8/2/2002		30-2-43	Repair	East Brandywine Township	Unsatisfactory Certification
79	R02186	7/26/2002	11/19/2002		30-6-20.7	Repair	East Brandywine Township	Malfunction
80	T000046	7/26/2002	9/24/2002		30-2-42.1	Repair	East Brandywine Township	Malfunction
81	Q21265	8/8/2002	9/16/2002		30-2-30.12	Repair	East Brandywine Township	Malfunction
82	T022052	10/9/2002	10/25/2002		30-2N-8	Repair	East Brandywine Township	
83	R19638	10/10/2002	11/21/2002		30-5-82.3	Repair	East Brandywine Township	Malfunction
84	R35579	10/17/2002	8/27/2003		30-5L-86	Repair	East Brandywine Township	Malfunction
85	T018811	12/12/2002	9/4/2003		30-2-58.4	Repair	East Brandywine Township	Malfunction
86	R14085	2/13/2003	2/25/2003		30-2-52.20	Repair	East Brandywine Township	Unsatisfactory Certification
87	R02190	2/25/2003	9/9/2003		30-2-86.1F	Repair	East Brandywine Township	
88	R30947	2/26/2003	7/17/2003		30-5-122.1A	Repair	East Brandywine Township	Unsatisfactory Certification
89	R02192	5/19/2003	6/9/2003		30-3-37.2	Repair	East Brandywine Township	Unsatisfactory Certification
90	R74283	5/22/2003		5/22/2006	30-2-86.20	Repair	East Brandywine Township	
91	T008919	6/12/2003	8/27/2003		30-5-105.15	Repair	East Brandywine Township	Unsatisfactory Certification
92	T022092	6/23/2003	7/29/2003		30-2N-6	Repair	East Brandywine Township	
93	R14683	7/15/2003	11/5/2003		30-2-57.18	Repair	East Brandywine Township	Unsatisfactory Certification
94	T008358	7/25/2003	7/30/2003		30-5-101	Repair	East Brandywine Township	Unsatisfactory Certification
95	R35584	7/29/2003	8/15/2003		30-5-166.31	Repair	East Brandywine Township	Unsatisfactory Certification
96	T008069	8/8/2003	8/20/2003		30-2-86.31	Repair	East Brandywine Township	Unsatisfactory Certification
97	R02193	8/13/2003	10/22/2003		30-5-97	Repair	East Brandywine Township	Malfunction
98	T008959	9/16/2003	9/26/2003		30-5-208	Repair	East Brandywine Township	Unsatisfactory Certification
99	T018249	9/16/2003	2/2/2004		30-2-14.1	Repair	East Brandywine Township	
100	R03385	9/19/2003	8/5/2005		30-2-86.20	Repair	East Brandywine Township	Malfunction
101	R38592	10/23/2003	12/1/2003		30-2-52.49	Repair	East Brandywine Township	Unsatisfactory Certification
102	R18355	10/24/2003	12/30/2003		30-2-28.1	Repair	East Brandywine Township	Malfunction
103	T008072	11/12/2003	5/18/2004		30-3-74.3	Repair	East Brandywine Township	Malfunction
104	R36483	11/14/2003	12/3/2003		30-5-43.15	Repair	East Brandywine Township	Malfunction
105	T022191	11/20/2003	12/23/2003		30-5-43.18	Repair	East Brandywine Township	Unsatisfactory Certification
106	T008376	11/21/2003	12/11/2003		30-5G-35	Repair	East Brandywine Township	Malfunction
107	T008215	12/3/2003	1/16/2004		30-5-48	Repair	East Brandywine Township	Unsatisfactory Certification
108	R31287	1/20/2004	5/18/2004		30-5-211.7	Repair	East Brandywine Township	Unsatisfactory Certification
109	T019208	1/21/2004	3/30/2004		30-2-30.2	Repair	East Brandywine Township	Unsatisfactory Certification
110	T023031	1/28/2004	7/27/2004		30-6-34.2	Repair	East Brandywine Township	Unsatisfactory Certification
111	R18365	2/13/2004	3/26/2004		30-3-31	Repair	East Brandywine Township	Unsatisfactory Certification
112	T019207	2/26/2004	10/12/2004		30-5-113	Repair	East Brandywine Township	
113	T008221	4/8/2004	4/22/2004		30-6-106	Repair	East Brandywine Township	Unsatisfactory Certification
114	T019206	4/19/2004	4/5/2005		30-3-58.1	Repair	East Brandywine Township	Malfunction

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

<b>No.</b>	<b>Permit No.</b>	<b>Date Issued</b>	<b>Date Approved</b>	<b>Date Expired</b>	<b>Parcel No.</b>	<b>Permit Type</b>	<b>Municipality</b>	<b>Repair Reason</b>
115	T008396	6/3/2004	9/21/2004		30-5-166	Repair	East Brandywine Township	Unsatisfactory Certification
116	T023556	6/4/2004	6/28/2004		30-1R-31	Repair	East Brandywine Township	Unsatisfactory Certification
117	T023413	6/10/2004	7/9/2004		30-2-97	Repair	East Brandywine Township	Unsatisfactory Certification
118	T022854	6/30/2004	8/16/2004		30-2-67	Repair	East Brandywine Township	Malfunction
119	T022621	7/6/2004	8/13/2004		30-6-64.1	Repair	East Brandywine Township	Malfunction
120	R18392	7/15/2004	7/28/2004		30-5-89.1	Repair	East Brandywine Township	Unsatisfactory Certification
121	T023122	7/20/2004	10/13/2004		30-5L-88	Repair	East Brandywine Township	Unsatisfactory Certification
122	R36489	7/21/2004		7/21/2007	30-5-210.1	Repair	East Brandywine Township	Unsatisfactory Certification
123	T019202	7/22/2004	7/22/2004		30-3-53.1	Repair	East Brandywine Township	Malfunction
124	T008849	7/27/2004	8/4/2004		30-2-11.5	Repair	East Brandywine Township	Unsatisfactory Certification
125	T023423	7/28/2004	10/20/2004		30-2-33	Repair	East Brandywine Township	Malfunction
126	T023561	7/28/2004	11/19/2004		30-5-183	Repair	East Brandywine Township	Malfunction
127	T023420	8/6/2004	8/18/2004		30-5G-24	Repair	East Brandywine Township	Unsatisfactory Certification
128	T022855	8/11/2004	8/26/2004		30-2N-179	Repair	East Brandywine Township	Unsatisfactory Certification
129	T019201	9/2/2004	2/21/2006		30-5-106.10	Repair	East Brandywine Township	Malfunction
130	R18403	10/13/2004	1/19/2005		30-6-151	Repair	East Brandywine Township	Malfunction
131	T022882	10/15/2004	10/22/2004		30-2N-169	Repair	East Brandywine Township	Malfunction
132	R18440	10/21/2004	10/27/2004		30-2-52.16	Repair	East Brandywine Township	Unsatisfactory Certification
133	T023708	10/29/2004	3/10/2005		30-2-57.9	Repair	East Brandywine Township	Unsatisfactory Certification
134	T023415	11/3/2004	5/12/2005		30-1-3	Repair	East Brandywine Township	Unsatisfactory Certification
135	T019094	11/23/2004	8/15/2005		30-5-122.1	Repair	East Brandywine Township	Malfunction
136	T008386	12/23/2004	3/28/2006		30-2-52.19	Repair	East Brandywine Township	Malfunction
137	T079269	3/3/2005	4/15/2005		30-6-121	Repair	East Brandywine Township	Unsatisfactory Certification
138	T018622	4/28/2005	6/30/2005		30-5-120.5	Repair	East Brandywine Township	Unsatisfactory Certification
139	T079274	5/5/2005	6/16/2005		30-6-193	Repair	East Brandywine Township	Unsatisfactory Certification
140	T015066	5/26/2005	3/23/2006		30-2-82	Repair	East Brandywine Township	Malfunction
141	U002121	6/6/2005	8/4/2005		30-2-52.31	Repair	East Brandywine Township	Unsatisfactory Certification
142	T015113	6/28/2005	7/28/2005		30-3-48.12	Repair	East Brandywine Township	Malfunction
143	T079288	7/15/2005	8/2/2005		30-2-52.2	Repair	East Brandywine Township	Unsatisfactory Certification
144	T023433	8/4/2005	12/2/2005		30-5L-30	Repair	East Brandywine Township	Malfunction
145	R19358	8/10/2005	4/21/2006		30-3-50	Repair	East Brandywine Township	
146	W018689	8/11/2005	12/8/2005		30-6-82	Repair	East Brandywine Township	Malfunction
147	T018678	10/25/2005	9/18/2006		30-5-166.10	Repair	East Brandywine Township	Unsatisfactory Certification
148	T007697	11/9/2005	5/16/2006		30-5-124	Repair	East Brandywine Township	
149	W004028	12/29/2005	1/23/2006		30-2-64.8	Repair	East Brandywine Township	
150	W004049	2/2/2006	9/7/2006		30-1R-23	Repair	East Brandywine Township	Unsatisfactory Certification
151	Z008498	3/30/2006	5/31/2006		30-5-122.2	Repair	East Brandywine Township	Malfunction
152	Z008571	4/4/2006	4/25/2006		30-2N-178	Repair	East Brandywine Township	Malfunction
153	T008679	5/3/2006		5/3/2009	30-5-211.3	Repair	East Brandywine Township	Unsatisfactory Certification
154	W002987	5/17/2006	6/21/2006		30-2P-277	Repair	East Brandywine Township	Malfunction
155	R35482	7/6/2006	9/15/2006		30-3-48.1	Repair	East Brandywine Township	Unsatisfactory Certification
156	Z011496	7/17/2006	8/16/2006		30-5L-32	Repair	East Brandywine Township	Unsatisfactory Certification
157	R35478	7/21/2006	12/8/2006		30-5Q-1	Repair	East Brandywine Township	Unsatisfactory Certification
158	W003823	7/25/2006	11/1/2006		30-2-95.3	Repair	East Brandywine Township	Unsatisfactory Certification
159	Z011203	8/10/2006	11/27/2006		30-5M-3	Repair	East Brandywine Township	Unsatisfactory Certification
160	Z014415	8/14/2006	1/26/2007		30-2-56	Repair	East Brandywine Township	Malfunction
161	T079296	8/25/2006	8/31/2009		30-5-150.4	Repair	East Brandywine Township	Malfunction
162	T018273	9/15/2006	11/30/2006		30-5-180.2	Repair	East Brandywine Township	Malfunction
163	T079341	10/25/2006	11/2/2006		30-2-52.58	Repair	East Brandywine Township	Unsatisfactory Certification
164	Z011210	10/26/2006	1/29/2007		30-5M-4	Repair	East Brandywine Township	Malfunction
165	T008690	11/14/2006	11/21/2006		30-6-192	Repair	East Brandywine Township	Unsatisfactory Certification
166	Z015435	12/8/2006	8/3/2007		30-5L-46	Repair	East Brandywine Township	Malfunction
167	Z011530	12/19/2006	4/26/2007		30-5-216	Repair	East Brandywine Township	Malfunction
168	Z015133	1/10/2007	11/7/2007		30-5-104.1	Repair	East Brandywine Township	Malfunction
169	Z008768	1/30/2007	4/9/2007		30-2-64.7	Repair	East Brandywine Township	Malfunction
170	T008692	1/31/2007	7/15/2008		30-6-202	Repair	East Brandywine Township	Malfunction
171	T023975	2/12/2007	4/12/2007		30-1R-34	Repair	East Brandywine Township	Malfunction

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

<b>No.</b>	<b>Permit No.</b>	<b>Date Issued</b>	<b>Date Approved</b>	<b>Date Expired</b>	<b>Parcel No.</b>	<b>Permit Type</b>	<b>Municipality</b>	<b>Repair Reason</b>
172	Z011553	2/28/2007		2/18/2010	30-3-15	Repair	East Brandywine Township	Malfunction
173	Z056135	3/15/2007	3/23/2007		30-5-43.10	Repair	East Brandywine Township	
174	Z011551	4/6/2007	5/24/2007		30-5-214	Repair	East Brandywine Township	Malfunction
175	T008693	4/13/2007	5/22/2007		30-2-8	Repair	East Brandywine Township	Unsatisfactory Certification
176	Z011595	5/10/2007	7/2/2007		30-5-3.1A	Repair	East Brandywine Township	
177	Z011014	5/25/2007	6/8/2007		30-6-122	Repair	East Brandywine Township	Unsatisfactory Certification
178	Z014431	6/11/2007	6/18/2007		30-5-166.35	Repair	East Brandywine Township	Malfunction
179	Z056440	6/21/2007	7/13/2007		30-5-102	Repair	East Brandywine Township	Unsatisfactory Certification
180	Z011018	8/7/2007		1/10/2019	30-5-211.16	Repair	East Brandywine Township	Malfunction
181	Z011740	9/18/2007	9/28/2007		30-5-211.23	Repair	East Brandywine Township	Malfunction
182	Z062577	9/24/2007	10/18/2007		30-2N-188	Repair	East Brandywine Township	Unsatisfactory Certification
183	Z063564	10/5/2007	11/1/2007		30-2-79.1	Repair	East Brandywine Township	Unsatisfactory Certification
184	Z063555	12/4/2007	5/22/2008		30-2-79.2	Repair	East Brandywine Township	Malfunction
185	Z063768	1/10/2008	5/22/2008		30-2-98.2	Repair	East Brandywine Township	Malfunction
186	Z030770	2/7/2008	3/17/2008		30-2N-180	Repair	East Brandywine Township	Unsatisfactory Certification
187	Z056726	2/7/2008	3/19/2008		30-2-102	Repair	East Brandywine Township	Unsatisfactory Certification
188	T078486	3/18/2008	4/22/2008		30-2-78.3	Repair	East Brandywine Township	Unsatisfactory Certification
189	Z014439	3/21/2008	4/1/2008		30-2-119	Repair	East Brandywine Township	Unsatisfactory Certification
190	Z008215	4/15/2008	4/21/2008		30-5-208.1A	Repair	East Brandywine Township	Unsatisfactory Certification
191	Z056844	5/9/2008	5/15/2008		30-2N-167	Repair	East Brandywine Township	Malfunction
192	Z063785	5/14/2008	2/11/2009		30-2-86.32	Repair	East Brandywine Township	Malfunction
193	Z057228	6/18/2008	8/14/2008		30-2N-194	Repair	East Brandywine Township	Unsatisfactory Certification
194	Z82054	7/2/2008	7/30/2009		30-2-70	Repair	East Brandywine Township	Malfunction
195	W003145	7/3/2008	8/26/2008		30-6-181	Repair	East Brandywine Township	Malfunction
196	Z011000	7/3/2008	8/27/2008		30-2-111	Repair	East Brandywine Township	Unsatisfactory Certification
197	Z057208	7/22/2008	9/22/2008		30-2-86.1	Repair	East Brandywine Township	Malfunction
198	Z82091	9/8/2008	2/19/2009		30-2-129	Repair	East Brandywine Township	Unsatisfactory Certification
199	Z008445	10/8/2008	10/17/2008		30-5-106.3	Repair	East Brandywine Township	Unsatisfactory Certification
200	Z64658	10/8/2008	10/21/2008		30-3-52	Repair	East Brandywine Township	Malfunction
201	Z014443	10/28/2008	12/5/2008		30-2-57.11	Repair	East Brandywine Township	
202	Z047460	11/20/2008	7/31/2009		30-2-32.3A	Repair	East Brandywine Township	Malfunction
203	Z011085	11/21/2008	5/19/2009		30-6-59.7	Repair	East Brandywine Township	Malfunction
204	Z047684	2/6/2009	2/19/2009		30-3-79	Repair	East Brandywine Township	Malfunction
205	Z063588	3/20/2009	4/13/2009		30-5G-36	Repair	East Brandywine Township	Malfunction
206	Z65460	5/21/2009	6/5/2009		30-5L-92	Repair	East Brandywine Township	Unsatisfactory Certification
207	Z086809	6/12/2009	6/25/2009		30-5-43.15	Repair	East Brandywine Township	Malfunction
208	Z65708	6/12/2009	9/14/2009		30-2-52.18	Repair	East Brandywine Township	Malfunction
209	Z64623	7/1/2009	7/2/2009		30-2-94.17	Repair	East Brandywine Township	
210	Z64643	7/24/2009	8/12/2009		30-2-86.14	Repair	East Brandywine Township	Malfunction
211	Z011027	7/29/2009	8/11/2009		30-5G-21	Repair	East Brandywine Township	Malfunction
212	Z66053	7/29/2009		1/10/2019	30-5K-15	Repair	East Brandywine Township	Malfunction
213	Z65473	8/21/2009	12/4/2009		30-5L-49	Repair	East Brandywine Township	Malfunction
214	Z087029	8/24/2009	4/15/2011		30-3-52	Repair	East Brandywine Township	Malfunction
215	Z65478	9/16/2009	10/9/2009		30-1R-26	Repair	East Brandywine Township	Unsatisfactory Certification
216	Z086531	9/30/2009	3/24/2010		30-5-173	Repair	East Brandywine Township	Malfunction
217	Z087052	10/1/2009		10/9/2019	30-3-48.7	Repair	East Brandywine Township	Unsatisfactory Certification
218	Z014447	10/28/2009	11/16/2009		30-2-143	Repair	East Brandywine Township	
219	Z086327	1/4/2010	2/25/2010		30-5-107	Modification	East Brandywine Township	Malfunction
220	Z65789	3/23/2010	4/21/2010		30-6-11	Repair	East Brandywine Township	Unsatisfactory Certification
221	Z65753	4/8/2010	11/19/2010		30-5-224.1	Repair	East Brandywine Township	Malfunction
222	Z096555	5/6/2010	5/26/2010		30-6-64.2	Repair	East Brandywine Township	Unsatisfactory Certification
223	Z056925	5/26/2010	6/11/2010		30-2-52.6	Repair	East Brandywine Township	Unsatisfactory Certification
224	Z086965	5/28/2010	6/17/2010		30-5-166.40	Repair	East Brandywine Township	Unsatisfactory Certification
225	Z106657	5/28/2010	12/8/2011		30-6-43	Modification	East Brandywine Township	Unsatisfactory Certification
226	Z047598	6/21/2010	9/7/2010		30-2N-187	Repair	East Brandywine Township	Malfunction
227	Z106711	7/2/2010	8/12/2010		30-6-133	Repair	East Brandywine Township	Malfunction
228	Z106715	7/26/2010	8/16/2010		30-5-52	Repair	East Brandywine Township	Malfunction

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

<b>No.</b>	<b>Permit No.</b>	<b>Date Issued</b>	<b>Date Approved</b>	<b>Date Expired</b>	<b>Parcel No.</b>	<b>Permit Type</b>	<b>Municipality</b>	<b>Repair Reason</b>
229	Z056938	8/13/2010	9/30/2010		30-6-152	Repair	East Brandywine Township	Malfunction
230	Z096606	8/16/2010	9/9/2010		30-5-177	Repair	East Brandywine Township	Malfunction
231	Z106843	10/6/2010	7/28/2014		30-5G-28	Repair	East Brandywine Township	Malfunction
232	Z097346	10/22/2010	3/31/2011		30-6-5.21	Modification	East Brandywine Township	Unsatisfactory Certification
233	Z097020	11/22/2010	11/29/2011		30-3-31	Repair	East Brandywine Township	Malfunction
234	Z097004	12/3/2010	12/13/2011		30-3-77.4A	Repair	East Brandywine Township	Unsatisfactory Certification
235	Z106834	2/3/2011	7/3/2012		30-5-166.8	Repair	East Brandywine Township	Malfunction
236	Z111862	2/7/2011	3/31/2011		30-6-198	Modification	East Brandywine Township	
237	Z106835	3/8/2011	12/15/2011		30-6-21.1	Repair	East Brandywine Township	Unsatisfactory Certification
238	Z086954	3/28/2011	5/5/2011		30-5-119	Repair	East Brandywine Township	Unsatisfactory Certification
239	Z111938	4/22/2011	12/13/2011		30-5-165	Repair	East Brandywine Township	Malfunction
240	Z111853	4/27/2011	5/5/2011		30-5-126.1	Repair	East Brandywine Township	Malfunction
241	Z105892	6/20/2011	6/22/2011		30-2-30.6	Repair	East Brandywine Township	Malfunction
242	Z111558	6/23/2011	10/26/2011		30-3-3	Repair	East Brandywine Township	Malfunction
243	Z097378	7/29/2011	10/21/2011		30-5-106.5	Repair	East Brandywine Township	Malfunction
244	Z111976	9/2/2011	10/27/2011		30-6-179	Repair	East Brandywine Township	Unsatisfactory Certification
245	Z097093	9/27/2011	11/1/2012		30-5-34	Repair	East Brandywine Township	Malfunction
246	Z112346	11/10/2011	12/12/2011		30-5-155	Repair	East Brandywine Township	Unsatisfactory Certification
247	Z112344	1/27/2012	2/24/2012		30-3-13.2	Repair	East Brandywine Township	Unsatisfactory Certification
248	Z097233	3/2/2012	4/3/2012		30-2-52.35	Repair	East Brandywine Township	Malfunction
249	Z097236	3/7/2012	3/23/2012		30-5-156.2	Repair	East Brandywine Township	Unsatisfactory Certification
250	Z105897	4/5/2012	6/28/2012		30-5L-79	Repair	East Brandywine Township	Malfunction
251	Z131098	4/30/2012	5/21/2012		30-6-166	Repair	East Brandywine Township	Malfunction
252	Z096542	5/8/2012	6/6/2012		30-2-27.4	Repair	East Brandywine Township	Malfunction
253	Z112741	5/25/2012	1/8/2013		30-5-120.7	Repair	East Brandywine Township	Unsatisfactory Certification
254	Z112211	6/6/2012	7/18/2012		30-2-58.1	Repair	East Brandywine Township	Malfunction
255	Z112452	6/6/2012	6/28/2012		30-5-43.11	Repair	East Brandywine Township	Unsatisfactory Certification
256	Z112733	6/13/2012	7/16/2012		30-5L-69	Repair	East Brandywine Township	Unsatisfactory Certification
257	Z112486	7/16/2012	7/27/2012		30-2-88	Repair	East Brandywine Township	Malfunction
258	Z126447	12/5/2012	12/21/2012		30-6-20.7	Repair	East Brandywine Township	Malfunction
259	Z126058	12/19/2012	1/8/2016		30-2-137	Repair	East Brandywine Township	Malfunction
260	Z042722	3/20/2013	7/14/2014		30-5-214.6	Repair	East Brandywine Township	Malfunction
261	Z125819	3/22/2013	5/6/2013		30-5L-71	Repair	East Brandywine Township	Malfunction
262	Z125824	4/9/2013	11/12/2013		30-5-57	Repair	East Brandywine Township	Malfunction
263	Z112220	4/10/2013	11/8/2013		30-2N-6	Repair	East Brandywine Township	Malfunction
264	Z011263	4/18/2013	5/22/2013		30-5-96	Repair	East Brandywine Township	Malfunction
265	Z126382	4/18/2013	5/6/2013		30-5-166.22	Repair	East Brandywine Township	Malfunction
266	Z042719	4/19/2013	5/14/2013		30-2-74.14	Repair	East Brandywine Township	Malfunction
267	Z112446	4/22/2013	6/4/2013		30-5-76	Repair	East Brandywine Township	Malfunction
268	Z126296	5/8/2013	7/22/2013		30-6-21	Repair	East Brandywine Township	Malfunction
269	Z160359	6/6/2013	8/26/2013		30-6-200	Repair	East Brandywine Township	Malfunction
270	Z043025	7/17/2013	3/28/2014		30-5-106.8	Repair	East Brandywine Township	Malfunction
271	Z160923	7/17/2013	8/29/2013		30-6-50.26	Repair	East Brandywine Township	Component Replacement
272	Z131090	7/25/2013	8/2/2013		30-6-25.1	Repair	East Brandywine Township	Malfunction
273	Z160951	8/1/2013	9/16/2013		30-2N-170	Repair	East Brandywine Township	Malfunction
274	Z014449	9/6/2013	9/19/2013		30-5-106.9	Repair	East Brandywine Township	Unsatisfactory Certification
275	Z042723	9/9/2013	10/28/2013		30-2-52.93	Repair	East Brandywine Township	Malfunction
276	Z161424	10/17/2013	11/7/2013		30-6-190	Modification	East Brandywine Township	Malfunction
277	Z160478	10/21/2013	11/19/2013		30-6-57	Repair	East Brandywine Township	Malfunction
278	Z051162	10/25/2013	1/27/2014		30-2-94.13	Repair	East Brandywine Township	Malfunction
279	Z160996	10/25/2013	8/24/2015		30-2-86.3	Repair	East Brandywine Township	Unsatisfactory Certification
280	Z160494	11/15/2013	12/9/2013		30-6-51.2	Repair	East Brandywine Township	Malfunction
281	Z161237	1/21/2014	6/13/2014		30-2-23.1	Repair	East Brandywine Township	Malfunction
282	Z162304	2/27/2014	3/20/2014		30-6-190	Repair	East Brandywine Township	Unsatisfactory Certification
283	Z159465	6/20/2014			30-2-29	Repair	East Brandywine Township	Malfunction
284	Z162402	9/2/2014	10/30/2014		30-6-59.4	Repair	East Brandywine Township	Malfunction
285	Z162431	9/11/2014	10/10/2014		30-5-155.1	Repair	East Brandywine Township	Malfunction

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

<b>No.</b>	<b>Permit No.</b>	<b>Date Issued</b>	<b>Date Approved</b>	<b>Date Expired</b>	<b>Parcel No.</b>	<b>Permit Type</b>	<b>Municipality</b>	<b>Repair Reason</b>
286	Z161972	9/16/2014	10/15/2015		30-6-35	Repair	East Brandywine Township	Malfunction
287	Z162451	10/3/2014	10/30/2014		30-5-43.12	Repair	East Brandywine Township	Malfunction
288	Z162116	10/21/2014	6/10/2015		30-6-53	Repair	East Brandywine Township	Malfunction
289	Z162635	11/17/2014	11/19/2014		30-2-97.1	Repair	East Brandywine Township	Unsatisfactory Certification
290	Z74112	11/17/2014	6/22/2015		30-5-84	Repair	East Brandywine Township	Malfunction
291	Z126153	11/20/2014	12/4/2014		30-5-214.2	Repair	East Brandywine Township	Unsatisfactory Certification
292	Z162647	12/4/2014	10/14/2015		30-3-29	Modification	East Brandywine Township	Component Replacement
293	Z162513	12/9/2014	9/30/2016		30-5-121.1	Repair	East Brandywine Township	Malfunction
294	Z162570	12/19/2014	1/28/2016		30-2-11.1	Repair	East Brandywine Township	Malfunction
295	Z159913	3/12/2015	4/22/2015		30-6-149	Repair	East Brandywine Township	Malfunction
296	Z159930	3/23/2015	4/1/2015		30-5-4	Repair	East Brandywine Township	Malfunction
297	Z161805	3/30/2015	4/7/2015		30-5-73	Modification	East Brandywine Township	Malfunction
298	Z157425	4/13/2015	10/15/2015		30-6-70	Repair	East Brandywine Township	Malfunction
299	Z157299	4/15/2015	4/21/2015		30-6-50.24	Repair	East Brandywine Township	Malfunction
300	Z157364	4/21/2015	5/22/2015		30-5G-6	Repair	East Brandywine Township	Malfunction
301	Z123380	5/5/2015	9/30/2015		30-5-211.18	Repair	East Brandywine Township	Malfunction
302	Z162545	5/23/2015	4/15/2016		30-3-54	Repair	East Brandywine Township	Malfunction
303	Z150829	6/1/2015	6/12/2015		30-5-197	Repair	East Brandywine Township	Malfunction
304	Z157136	7/1/2015	7/20/2015		30-2-30.15	Repair	East Brandywine Township	Malfunction
305	Z150869	7/2/2015	7/9/2015		30-5-156.5	Repair	East Brandywine Township	Malfunction
306	Z157336	7/2/2015	7/7/2015		30-2-6.2	Repair	East Brandywine Township	Unsatisfactory Certification
307	Z159715	9/3/2015	10/22/2015		30-2-57.23	Modification	East Brandywine Township	
308	Z150833	9/11/2015	11/20/2015		30-6-88	Repair	East Brandywine Township	Unsatisfactory Certification
309	Z151227	9/25/2015	10/9/2015		30-1R-3	Repair	East Brandywine Township	Malfunction
310	Z157320	10/15/2015	10/22/2015		30-3-21.1	Repair	East Brandywine Township	Unsatisfactory Certification
311	Z190071	10/16/2015	11/6/2015		30-5-106.6	Repair	East Brandywine Township	Malfunction
312	Z190126	10/19/2015	10/28/2015		30-5-74	Modification	East Brandywine Township	Malfunction
313	Z157420	10/26/2015	1/19/2016		30-2-52.22	Repair	East Brandywine Township	Malfunction
314	Z189021	11/23/2015	8/5/2016		30-5L-52	Repair	East Brandywine Township	
315	Z191775	11/23/2015	12/30/2015		30-5-72	Repair	East Brandywine Township	Malfunction
316	Z190145	12/28/2015		12/12/2019	30-2-69.3	Repair	East Brandywine Township	Unsatisfactory Certification
317	Z157264	1/12/2016	1/14/2016		30-5-183.1	Repair	East Brandywine Township	Malfunction
318	Z159612	1/28/2016	7/14/2016		30-6-125	Repair	East Brandywine Township	Malfunction
319	Z188875	2/26/2016	3/11/2016		30-5-168	Repair	East Brandywine Township	Malfunction
320	Z165323	3/28/2016	7/20/2016		30-5-166.45	Repair	East Brandywine Township	Malfunction
321	Z165324	4/4/2016	4/13/2016		30-5L-78	Repair	East Brandywine Township	Unsatisfactory Certification
322	z151248	5/9/2016	5/12/2016		30-2-59	Modification	East Brandywine Township	
323	Z189483	6/1/2016	6/5/2016		30-3-18.4	Repair	East Brandywine Township	Unsatisfactory Certification
324	Z151293	6/6/2016	6/17/2016		30-2-140	Repair	East Brandywine Township	
325	Z189375	6/20/2016	7/29/2016		30-5M-10	Repair	East Brandywine Township	
326	Z189376	6/30/2016	8/10/2016		30-5-106.2	Repair	East Brandywine Township	
327	Z189876a	6/30/2016			30-5-106.2	Repair	East Brandywine Township	Component Replacement
328	Z189181	7/6/2016	7/15/2016		30-5-207	Repair	East Brandywine Township	
329	Z165143	7/8/2016	8/2/2016		30-5-105.3	Repair	East Brandywine Township	Unsatisfactory Certification
330	Z151250	7/13/2016	8/16/2016		30-2-52.37	Repair	East Brandywine Township	Unsatisfactory Certification
331	Z189489	7/26/2016	8/5/2016		30-2-52.30	Repair	East Brandywine Township	Malfunction
332	Z191711	8/8/2016	6/12/2017		30-3-21	Repair	East Brandywine Township	Malfunction
333	Z189274	8/18/2016	9/22/2016		30-5G-23	Repair	East Brandywine Township	Unsatisfactory Certification
334	Z189180	8/23/2016	11/4/2016		30-2-52.66	Repair	East Brandywine Township	Malfunction
335	Z190040	8/23/2016	9/22/2016		30-5M-10	Repair	East Brandywine Township	Component Replacement
336	Z189535	10/3/2016	10/10/2016		30-3-23.1A	Repair	East Brandywine Township	Unsatisfactory Certification
337	Z191831	1/19/2017	2/23/2017		30-6-64	Repair	East Brandywine Township	Component Replacement
338	Z192843	3/2/2017	3/31/2017		30-2-85	Repair	East Brandywine Township	Component Replacement
339	Z192175	4/5/2017	4/13/2017		30-2-31	Repair	East Brandywine Township	Component Replacement
340	Z192746	4/24/2017	6/9/2017		30-5L-60	Repair	East Brandywine Township	Malfunction
341	Z189540	4/25/2017	5/2/2017		30-6-87	Repair	East Brandywine Township	Malfunction
342	Z151027	5/1/2017	6/26/2017		30-5-125.3	Repair	East Brandywine Township	Unsatisfactory Certification

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

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343	Z192708	5/3/2017	5/19/2017		30-5L-64	Repair	East Brandywine Township	Unsatisfactory Certification
344	Z157563	5/19/2017	6/16/2017		30-5-166.34	Repair	East Brandywine Township	Malfunction
345	Z192915	5/22/2017	3/13/2018		30-2-94.2	Repair	East Brandywine Township	Component Replacement
346	Z192559A	6/26/2017	10/4/2017		30-6-199	Repair	East Brandywine Township	Malfunction
347	Z189931	7/12/2017	9/14/2017		30-5-105	Repair	East Brandywine Township	
348	Z189122	9/7/2017	9/29/2017		30-2-52.81	Repair	East Brandywine Township	Malfunction
349	Z189308	10/31/2017	12/5/2017		30-5-63	Repair	East Brandywine Township	Malfunction
350	Z157530	11/2/2017	4/9/2019		30-2-57.12	Repair	East Brandywine Township	Unsatisfactory Certification
351	Z151426	11/29/2017	3/3/2020		30-5-148.1	Repair	East Brandywine Township	Malfunction
352	Z192903	1/5/2018	11/1/2019		30-5-186.1	Repair	East Brandywine Township	Malfunction
353	Z192855	1/16/2018	2/22/2018		30-2-52.62	Repair	East Brandywine Township	Malfunction
354	Z200685	2/20/2018	3/8/2018		30-5-199	Repair	East Brandywine Township	Malfunction
355	Z157606	3/23/2018	1/10/2022		30-2-29	Repair	East Brandywine Township	Malfunction
356	Z200827	4/4/2018	8/13/2018		30-3-73	Repair	East Brandywine Township	Malfunction
357	Z197875	6/7/2018	6/15/2018		30-3-48.3	Repair	East Brandywine Township	Unsatisfactory Certification
358	Z200835	6/11/2018	8/1/2018		30-2-90	Repair	East Brandywine Township	Unsatisfactory Certification
359	Z151051A	6/27/2018	7/3/2018		30-5-92.4	Repair	East Brandywine Township	Malfunction
360	Z200895	7/23/2018	5/30/2019		30-5-126	Repair	East Brandywine Township	Malfunction
361	Z200707	9/7/2018	12/24/2018		30-6-50.53	Repair	East Brandywine Township	Unsatisfactory Certification
362	Z198117	9/18/2018	1/28/2020		30-5-106.5A	Repair	East Brandywine Township	Malfunction
363	Z188723	9/19/2018	2/28/2020		30-2-52.44	Repair	East Brandywine Township	Unsatisfactory Certification
364	Z161171	10/9/2018	1/2/2019		30-5L-73	Repair	East Brandywine Township	Unsatisfactory Certification
365	Z151357	10/11/2018	11/20/2018		30-2-74.12	Repair	East Brandywine Township	Malfunction
366	Z207909	10/29/2018	7/30/2019		30-2-52.1G	Repair	East Brandywine Township	Malfunction
367	Z193100	10/31/2018	10/30/2019		30-5-166.18	Repair	East Brandywine Township	Unsatisfactory Certification
368	Z201346	12/19/2018	8/6/2019		30-1R-29	Repair	East Brandywine Township	Malfunction
369	Z216122	2/11/2019	5/7/2019		30-6-110	Repair	East Brandywine Township	Component Replacement
370	Z216084	4/1/2019	4/12/2019		30-2-74.11	Repair	East Brandywine Township	Unsatisfactory Certification
371	Z216121	4/1/2019	5/3/2019		30-2-57.3	Repair	East Brandywine Township	Unsatisfactory Certification
372	Z216081	4/26/2019	2/28/2020		30-6-171	Repair	East Brandywine Township	Malfunction
373	Z208569	5/20/2019	10/14/2019		30-5-106.5C	Repair	East Brandywine Township	Malfunction
374	Z216030	6/4/2019			30-5-176	Repair	East Brandywine Township	Component Replacement
375	Z197798	6/10/2019	10/1/2019		30-5-159.2	Repair	East Brandywine Township	Malfunction
376	Z216007	6/14/2019	9/23/2019		30-1R-40	Repair	East Brandywine Township	Malfunction
377	Z197701	6/24/2019	6/26/2019		30-3-25	Repair	East Brandywine Township	Malfunction
378	Z135979	7/11/2019			30-5-191	Repair	East Brandywine Township	Malfunction
379	Z216621	9/11/2019	1/24/2020		30-5-166.12	Repair	East Brandywine Township	Malfunction
380	Z66100	10/4/2019		10/4/2019	30-6-51.6	Repair	East Brandywine Township	Malfunction
381	Z213217	10/9/2019	11/7/2019		30-2-52.51	Repair	East Brandywine Township	Malfunction
382	Z216601	10/9/2019	6/10/2020		30-2-42.1A	Repair	East Brandywine Township	Malfunction
383	Z213261	12/11/2019	12/24/2019		30-2-66.3	Repair	East Brandywine Township	Component Replacement
384	Z212683	12/19/2019	2/28/2020		30-6-2.1B	Repair	East Brandywine Township	Malfunction
385	Z200670	12/30/2019	7/13/2020		30-5-83.1	Repair	East Brandywine Township	Unsatisfactory Certification
386	Z213243	1/13/2020	1/22/2020		30-5-166.13	Repair	East Brandywine Township	Malfunction
387	Z212815	2/21/2020	3/5/2020		30-5-43.4	Repair	East Brandywine Township	Malfunction
388	Z212923	3/9/2020	4/17/2020		30-1-1	Repair	East Brandywine Township	Unsatisfactory Certification
389	Z213257	3/13/2020	4/7/2020		30-6-59.2	Repair	East Brandywine Township	Malfunction
390	Z231387	3/30/2020	5/22/2020		30-2-52.39	Repair	East Brandywine Township	Malfunction
391	Z231349	5/8/2020			30-5G-30	Repair	East Brandywine Township	Malfunction
392	Z217678	5/12/2020	6/3/2020		30-3-74	Repair	East Brandywine Township	Malfunction
393	Z212718	6/5/2020			30-6-19	Repair	East Brandywine Township	Malfunction
394	Z217649	6/18/2020	9/15/2020		30-3-1	Repair	East Brandywine Township	Malfunction
395	Z220905	7/1/2020	9/25/2020		30-3-46	Repair	East Brandywine Township	Malfunction
396	Z217684	7/13/2020	7/30/2020		30-3-47	Repair	East Brandywine Township	Malfunction
397	Z217689	7/13/2020	7/16/2020		30-1R-9	Repair	East Brandywine Township	Component Replacement
398	Z160008	7/29/2020	4/5/2021		30-2-52.28	Repair	East Brandywine Township	Malfunction
399	Z221647	9/3/2020	9/4/2020		30-5K-11	Repair	East Brandywine Township	Component Replacement

**CCHD Repairs and Replacement of OLDS in East Brandywine Township (Circa 1997-2022)**

<b>No.</b>	<b>Permit No.</b>	<b>Date Issued</b>	<b>Date Approved</b>	<b>Date Expired</b>	<b>Parcel No.</b>	<b>Permit Type</b>	<b>Municipality</b>	<b>Repair Reason</b>
400	Z243837	9/10/2020	9/29/2020		30-2N-171	Repair	East Brandywine Township	Unsatisfactory Certification
401	Z243872	10/9/2020	11/16/2020		30-6-28	Repair	East Brandywine Township	Component Replacement
402	Z208621	10/28/2020	1/22/2021		30-5-79.3	Repair	East Brandywine Township	Malfunction
403	Z221356	11/19/2020	4/16/2021		30-5-126.3	Repair	East Brandywine Township	Malfunction
404	Z197762	12/14/2020	8/26/2021		30-2-52.43	Repair	East Brandywine Township	Malfunction
405	Z243890	12/14/2020			30-3-22.1	Repair	East Brandywine Township	Malfunction
406	Z190115	3/11/2021	4/28/2021		30-5L-21	Repair	East Brandywine Township	Malfunction
407	Z221465	3/18/2021	3/11/2021		30-5-43.1	Repair	East Brandywine Township	Malfunction
408	Z221097	4/14/2021	4/16/2021		30-6-95	Repair	East Brandywine Township	Component Replacement
409	Z244167	5/5/2021	6/2/2021		30-6-1	Repair	East Brandywine Township	Unsatisfactory Certification
410	Z221449	5/12/2021	5/12/2021		30-1R-15	Repair	East Brandywine Township	Malfunction
411	Z221510	6/1/2021			30-6-169	Repair	East Brandywine Township	Unsatisfactory Certification
412	Z244106	6/14/2021	9/8/2021		30-2-69.3	Repair	East Brandywine Township	Malfunction
413	Z221188	6/25/2021	10/29/2021		30-2-74.6	Repair	East Brandywine Township	Unsatisfactory Certification
414	Z244110	6/28/2021	12/28/2021		30-2-6.1	Repair	East Brandywine Township	Malfunction
415	Z224627	8/16/2021	10/1/2021		30-2-52.12	Repair	East Brandywine Township	Malfunction
416	Z244124	9/13/2021			30-5-165	Repair	East Brandywine Township	Malfunction
417	Z257796	11/22/2021			30-2-46.7	Repair	East Brandywine Township	Unsatisfactory Certification
418	Z224673A	12/8/2021			30-5-95	Repair	East Brandywine Township	Malfunction
419	Z224643	12/28/2021			30-5-51	Repair	East Brandywine Township	Unsatisfactory Certification
420	Z258137	1/19/2022			30-5L-19	Repair	East Brandywine Township	Malfunction

Appendix O: Summary of OLDS Data- Zones 1, 2, & 3

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Sewage Needs Survey: Summary of OLDS Data- Zones 1

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**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
1	3 E Merion Circle	30-5L-84	1	Septic Tank/ Holding Tank	1000	In-Ground Trench/ Seepage Pit/ Pressure Dosed In-Ground Bed	Yes	<b>Wet or Spongy Areas/ Odors/ Slow draining plumbing fixtures</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Odors are present in the neighborhood occasionally. Could be our neighbors septic. Hard to tell if it's ours. We would love to be able to be on public sewer. Many developments nearby are public sewer.
2	3711 E. FISHERVILLE ROAD	30-5-150.8	1	Septic Tank	Unsure	Unsure	Unsure	<b>Wet or Spongy Areas</b>	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	3745 E FISHERVILLE ROAD	30-5-205	> 2	<b>Cesspool</b>	1000	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PLAN TO UPGRADE OUR SYSTEM WITHIN THE NEXT 5 YEARS
4	4 Raleigh Drive	30-1R-2	1	Septic Tank	1000	In-Ground Bed	No	<b>Green Lush Grass/ Wet or Spongy Areas</b>	Private Well	<b>50-100</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	4 W. MERION CIRCLE	30-5L-65	1	Septic Tank	1000	In-Ground Bed	No	<b>Green Lush Grass</b>	Public	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	5 TRADITION LANE	30-5G-28	1	Septic Tank	Unsure	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	<b>Green Lush Grass</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	THE LOCUST KNOLL DEV. HAS SANITARY INFRASTRUCTURE; HOWEVER, WAS NOT HOOKED UP TO THE PUBLIC SYSTEM. THE PERC RATES ARE LOW. IT IS MY UNDERSTANDING THAT THE SEPTIC SYS WERE PLANNED TO BE A SHORT TERM SOLUTION. THESE PROPERTIES DO NOT SUPPORT LONG TERM SEPTIC USAGE AND SHOULD BE TRANSITIONED TO PUBLIC SEWER.
7	541 HADFIELD ROAD	30-5-111.1	> 2	Septic Tank	1000	Unsure	No	<b>Green Lush Grass</b>	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	9 Raymond Circle	30-5L-77	2	Septic Tank	1000	In-Ground Bed	Yes	<b>Green Lush Grass</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018. Is this a step towards installing a public system? If so, when would this occur?
9	1 W. MERION CIRCLE	30-5L-62	1	Septic Tank	1000	In-Ground Bed	Yes	<b>Green Lush Grass</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ISSUES AFTER PERIODS OF RAIN.
10	100 HADFIELD ROAD	30-5-182	> 2	<b>Septic Tank/ Cesspool</b>	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	102 CONSTITUTION DRIVE	30-5L-55	1	Septic Tank	Unsure	In-Ground Bed	No	<b>Wetness or water at the surface/ Slow draining plumbing fixtures</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WETNESS AND SLOW DRAINING: DO TO THE FACT THAT MORE & MORE RAIN WATER IS BEING DIVERTED TO OUR PROPERTY DUE TO DEVELOPMENT AND ROAD RESURFACING.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
12	102 RIDGEWOOD CIRCLE	30-5K-21	1	Holding Tank	1000	In-Ground Bed	No	Wet or Spongy Areas/ Wetness or water at the surface/ Slow draining plumbing fixtures	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	106 TRADITION LANE	30-5L-92	1	Septic Tank	Unsure	Unsure	Yes	Odors	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	108 CONSTITUTION DRIVE	30-5L-26	1	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	1102 Horseshoe Pike	30-5-145	> 2	Cesspool	Unsure	Unsure	No	None	Public	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
16	117 CLEARVIEW DRIVE	30-2N-171	1	Septic Tank	Unsure	In-Ground Bed	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	118 LOCUST KNOLL ROAD	30-5G-8	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas/ Wetness or water at the surface/ Odors	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OUR NEIGHBORS HAVE PUBLIC SEWAGE CAPABILITY BUT ALL PARCEL LOTS ARE ON PRIVATE SEWER, PUBLIC WATER. WHEN WILL THIS BE UPDATED.
18	121 CLEARVIEW ROAD	30-2N-176	1	Septic Tank	Unsure	In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	121 E REECEVILLE ROAD	30-5-18	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	122 CLEARVIEW DRIVE	30-2N-182	1	Septic Tank	Unsure	In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PLEASE - bring public sewers and water to Clearview Drive.
21	1222 Horseshoe Pike	30-5-7	< 1	Cesspool	Unsure	Seepage Pit	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Hoping for more info on public sewer. we plan to stay on our well
22	125 CLEARVIEW DRIVE	30-2N-174	1	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	Wet or Spongy Areas	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	13 Gloucester Drive	30-1R-34	1	Septic Tank	1000	In-Ground Bed/ Seepage Pit/ Pressure Dosed In-Ground Bed	Yes	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	141 BOLLINGER ROAD	30-5-3.2	< 1	Septic Tank	Unsure	Unsure	Unsure	Wetness or water at the surface	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	1431 N. BAILEY ROAD	30-5-186.1	> 2	Septic Tank	1500	In-Ground Bed	Yes	Green Lush Grass/ Wet or Spongy Areas/ Wetness or water at the surface/ Odors	Private Well	N/A	N/A	X	Z192903	1/5/2018	Repair	Alternate	Malfunction	N/A

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 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
26	1481 N. BAILY ROAD	30-5-184.3	1	Septic Tank	1250	In-Ground Bed	Yes	Green Lush Grass/ Wet or Spongy Areas/ Wetness or water at the surface/ Odors, Sewage backup into house	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD LIKE TO CONNECT TO PUBLIC SEWER. FEELS IT WOULD BE IN THE BEST INTEREST TO PUBLIC HEALTH. ODORS NEAR DRAINAGE AREA. We are aware of other sewage problems in the area. Had absorption area repaired between 2013 and 2018.
27	151 Bollinger Road	30-5-3.3	< 1	Cesspool	1250	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #9 (Zone 1) on 12/6/19. No Malfunction
28	161 Bollinger Road	30-5-3.5	< 1	Cesspool	> 1500	Seepage Pit	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	1654 BONDSVILLE ROAD	30-5-191	< 1	Septic Tank	1000	In-Ground Trench	No	Odors	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	"We are aware of other sewage problems in the area. THE ROW HOME ON BONDSVILLE HAVE ISSUES. PUBLIC ACCESS WOULD ENSURE THE PROSPERITY OF THE HISTORIC SITE.. MAYBE A GROUP SYSTEM ACROSS THE STREET IN THE MILL LOT AREA. BIO MATTE BUILD UP." CONFIRMED MALFUNCTION by HtP ON 2/18/20.
30	185 Hadfield ROAD	30-5-124.3	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	Green Lush Grass	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	could not understand hand writing. 2 absorption areas one pump one down slope???
31	197 Newlin Drive	30-5-166.47	> 2	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	Sewage backup into house	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I like the possibility of city sewer but not sure what that means financially if we have the opportunity to tie into it.
32	2 BERKLEY DRIVE	30-1R-41	1	Septic Tank	Unsure	In-Ground Trench	Unsure	Green Lush Grass	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	2 WEST MERION CIRCLE	30-5L-63	1	Septic Tank	Unsure	Unsure	Unsure	Odors, Slow draining plumbing fixtures	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	220 Lenora Lane	30-5-166.26	2	Septic Tank	Unsure	In-Ground Bed	No	Green Lush Grass	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #4 (Zone 1) on 9/3/19. Suspected Malfunction.
35	221 REECEVILLE ROAD	30-5-2	1	Cesspool	Unsure	Seepage Pit	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD LIKE TO KNOW IF PLANS FOR PUBLIC SEWER ALONG REECEVILLE RD ARE GOING TO BE INPLACE IN THE NEXT 3-5 YEARS. Had absorption area repaired between 2013 and 2018.
36	345 ZYNN ROAD	30-5-176	> 2	Holding Tank	1250	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
37	385 Zynn Road	30-5-168	< 1	<b>Holding Tank</b>	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	X	Z188875	3/11/2016	Repair	Conventional	<b>Malfunction</b>	Would like to convert to public sewer and water.	
38	411 ZYNN ROAD	30-5-166.5	1	I Don't Know	Unsure	In-Ground Bed	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WOULD LIKE TO HOOK UP TO THE PUBLIC IF EVER COMES TO THE AREA.
39	421 ZYNN ROAD	30-5-166.3	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
40	450 HADFIELD ROAD	30-5-159	2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
41	7 Gloucester Drive	30-2N-8	1	Septic Tank	1000	In-Ground Trench	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
42	7 Raymond Circle	30-5L-76	1	Septic Tank	Unsure	In-Ground Bed	Yes	<b>Slow draining plumbing fixtures</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43	850 Horseshoe Pike	30-6-38	> 2	<b>Holding Tank</b>	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	870 HORSESHOE PIKE	30-6-36	< 1	Septic Tank	< 900	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
45	886 HORSESHOE PIKE	30-5-221	< 1	Septic Tank	< 900	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46	914 HORSESHOE PIKE	30-5-224.1	< 1	Septic Tank	1500	In-Ground Trench	Yes	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	99 CONSTITUTION DRIVE	30-5M-2	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area, neighbors had issues. COLDS SYSTEM
48	1 RALEIGH DRIVE	30-2N-1	1	Septic Tank	< 900	Pipe to Ditch/Stream/Surface	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	104 TRADITION LANE	30-5L-93	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<b>WHOLE NEIGHBORHOOD SEPTIC SYSTEMS ARE FAILING. BECAUSE OF SLOPES, NO ADDITIONAL SPOTS AVAILABLE FOR SEEPAGE BED. UNSURE WHAT THIS MEANS FOR US WHEN OURS FAILS. We are aware of other sewage problems in the area.</b>

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 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

ZONE 1

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
50	107 CONSTITUTION DRIVE	30-5L-50	1	Septic Tank	Unsure	Elevated Sand Mound, Pressure Dosed In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	FRUSTRATING THAT NEW COMMUNITY JUST ACROSS 322 IS ON PUBLIC YET WE ARE NOT. I WANT TO SEE OFFICIALS BE MORE AGGRESSIVE IN GETTING US ON PUBLIC SEWER. THERE ARE PLENTY OF LAND IN THE AREA I WANT OFFICIALS TO BE MORE PROACTIVE IN GETTING US PUBLIC. I KNOW ITS NOT FREE BUT WE ALSO KNOW THAT PUBLIC SEWER HELPS OUR HOME VALUES AND BRINGS STABILITY. THERE ARE GRANDIOSE PLANS & BRING NEW HOUSING DEVELOPMENTS TO OUR AREA, EACH TIME RESIDENTS IN LOCUST KNOLL FEEL WE GET LEFT OUT OF IMPROVEMENTS, LIKE PUBLIC SEWER THAT NEW COMMUNITIES GET. THERE IS POOR STORMWATER DRAINAGE IN LOCUST KNOLL.PUMP FAILED IN 2018 WAS REPLACED. We are aware of other sewage problems in the area.
51	112 Constitution Drive	30-5G-35	1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #8 on 9/7/19. Potential Malfunction.
52	114 LOCUST KNOLL ROAD	30-5G-10	1	Septic Tank	Unsure	In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018. Tier II Inspection #3 on 9/3/19. Potential Malfunction.
53	118 CONSTITUTION DRIVE	30-5L-32	1	<b>Holding Tank</b>	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
54	119 Clearview Drive	30-2N-172	1	Septic Tank	< 900	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	12 Independence Lane	30-5G-24	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Please connect our neighborhood to public sewer. I have been told that the pipes are already present but we were never connected. Every time somebody tries to sell their house in this neighborhood, the septic system is the prime reason for preventing a sale until they pay thousands of dollars to fix it. It appears these systems were not sized and/or installed properly. Every time somebody wants to sell their house, the septic system is the prime issue preventing the sale. Please connect us to public sewer. We are aware of other sewage problems in the area.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
56	125 RIDGEWOOD CIRCLE	30-5L-18	1	<b>Holding Tank</b>	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WILL SELL BEFORE I EVER HOOK UP.
57	1501 N Bailey ROAD	30-5-184	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
58	1506 N. BAILEY ROAD	30-5K-5	1	I Don't Know	Unsure	Unsure	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
59	18 GLOUCESTER DRIVE	30-1R-20	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60	201 NEWLIN DRIVE	30-5-166	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #2 (Zone 1) on 8/29/19. Potential Malfunction.
61	203 HERITAGE CT	30-5-211.14	1	Septic Tank	< 900	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
62	24 GLOUCESTER DRIVE	30-1R-24	1	Septic Tank	1250	In-Ground Bed	Yes	Overflowing fixtures	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area. WE WOULD WELCOME PUBLIC SEWER & WATER LONG OVERDUE!!
63	25 Gloucester Drive	30-1R-28	1	Septic Tank	1000	Unsure	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We moved here last summer and we have had no problems.
64	258 LENORA LANE	30-5-166.32	2	Septic Tank	< 900	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	109 TRADITION LANE	30-5L-80	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SYSTEM TOO SMALL. We are aware of other sewage problems in the area.
66	3 RAYMOND CIRCLE	30-5L-72	2	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
67	302 TANGLEWOOD TERRACE	30-5-211.6	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
68	303 Tanglewood Terrace	30-5-211.24	1	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
69	310 HADFIELD ROAD	30-5-180.3	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
70	330 ZYNN ROAD	30-5-159.1A	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not that I know of, but everything works well right now so don't mess with it please.
71	350 ZYNN ROAD	30-5-161	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
72	355 ZYNN ROAD	30-5-174	< 1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
73	365 Zynn Road	30-5-172	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
74	3701 E FISHERVILLE ROAD	30-5-150.7	> 2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
75	3709 E FISHERVILLE ROAD	30-5-150	1	Septic Tank	Unsure	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
76	3732 E. FISHERVILLE ROAD	30-5-1125	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3724 East Fisherville Road Downingtown, PA failed cesspool next to Beaver Creek
77	3736 E. FISHERVILLE ROAD	30-5-225	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
78	3740 E. FISHERVILLE ROAD	30-5-1136	< 1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
79	3741 E FISHERVILLE ROAD	30-5-150.2	1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
80	3744 E. FISHERVILLE ROAD	30-5-150.4	1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
81	3747 E Fisherville ROAD	30-5-150.6	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
82	3750 E. FISHERVILLE ROAD	30-5-207.1	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WOULD LIKE TO SEE TOWNSHIP HAVE PUBLIC SEWER. PRICES ARE TO HIGH TO REPAIR ABSORPTION BEDS
83	3770 E. FISHERVILLE ROAD	30-5-207.3	2	Septic Tank	> 1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
84	4 Berkley Drive	30-1R-45	1	Septic Tank	1000	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
85	4 GLOUCESTER DRIVE	30-2N-5	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
86	4 RAYMOND CIRCLE	30-5L-73	1	Septic Tank	1000	In-Ground Trench	No	None	Public	No well	N/A	X	Z161171	10/9/2018	Repair	Alternate	Unsatisfactory Certification	N/A
87	4 Red Maple Drive	30-5-156.3	2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
88	4 TRADITION LANE	30-5G-30	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #7 on 9/6/19. No Malfunction.
89	400 HADFIELD ROAD	30-5-159.1	2	Septic Tank	900	Pressure Dosed In-Ground Bed	Yes	None	Private Well	200+	X	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 3/21/2008 at 1.66 mg/L
90	5 GLOUCESTER DRIVE	30-2N-9	1	Septic Tank	1000	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	REPLACED IN 2001 & NEW BAFFLES 2017
91	5 Independence Lane	30-5L-38	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
92	5 RALEIGH DRIVE	30-1R-12	1	Septic Tank	1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2019 BAFFLE REPLACED
93	5 West Merion Circle	30-5L-66	1	Septic Tank	1000	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
94	500 HADFIELD ROAD	30-5-162.1	2	Septic Tank	Unsure	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
95	550 E. REECEVILLE ROAD	30-4-2	> 2	Septic Tank	1000	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
96	551 Zynn Road	30-5-164	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
97	6 BERKLEY DRIVE	30-1R-44	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
98	6 Raymond Circle	30-5L-75	1	Septic Tank	Unsure	Unsure	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
99	6 Wythe Drive	30-1R-46	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Power Failure caused tank backup into downstairs toilet	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100	7 INDEPENDENCE LANE	30-5L-37	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I LIVED IN HEDGEROW AND THE PUBLIC SEWER RATES WERE RIDICULOUS. I DO NOT WANT OT PAY THOSE PRICES FOR PUBLIC SEWER.
101	7 RALEIGH DRIVE	30-1R-11	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
102	8 Raleigh Drive	30-1R-4	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
103	8 PEACH TAVERN	30-6-35	1	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	X	Z161972	10/15/2015	Repair	Conventional	<b>Malfunction</b>	N/A
104	878 HORSESHOE PIKE	30-5-223.1	1	Septic Tank	1000	In-Ground Trench	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
105	880 HORSESHOE PIKE	30-5-223	> 2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	COMMERCIALY LEASED PROPERTY TO DAYTIME TENANTS
106	888 HORSESHOE PIKE	30-5-221.2	1	I Don't Know	1000	Unsure	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
107	9 Independence Ln	30-5L-36	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
108	9 Red Maple Drive	30-5-156.13	< 1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
109	900 HORSESHOE PIKE	30-5-220.1	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
110	918 HORSESHOE PIKE	30-5-216	< 1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
111	940 HOESHOE PIKE	30-5-214.3	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
112	99 LOCUST KNOLL ROAD	30-5G-38	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
113	135 Ridgewood Circle	30-5k-25	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
114	2 Wythe Drive	30-1R-22	1	Septic Tank	1250	In-Ground Trench	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
115	1 COLONIAL CT	30-5G-16	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116	1 EAST MERION CIRCLE	30-5L-87	1	Septic Tank	900	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
117	1 GLOUCESTER DRIVE	30-2N-11	1	Septic Tank	1000	In-Ground Trench	Yes	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IT WOULD BE GREAT TO BE ABLE TO HOOK UP TO PUBLIC SEWER
118	1 INDEPENDENCE LANE	30-5L-40	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
119	10 BERKLEY DRIVE	30-1R-43	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120	10 GLOUCESTER DRIVE	30-1R-15	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
121	100 CLEARVIEW DRIVE	30-2N-193	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
122	100 CONSTITUTION DRIVE	30-5M-1	1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AQUA PA PROVIDES WATER TEST RESULTS
123	100 TRADITION LANE	30-5M-8	1	Septic Tank	1000	In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
124	101 CONSTITUTION DRIVE	30-5L-53	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
125	101 Lenora Lane	30-5-166.18	2	I Don't Know	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	X	Z193100	10/31/2018	Repair	Conventional	Unsatisfactory Certification	None
126	101 WOODDED ACRES	30-5-211.20	1	Septic Tank	1000	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
127	102 Tradition Lane	30-5M-7	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
128	102 Woodcrest Drvie	30-5L-10	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
129	103 CONSTITUTION DRIVE	30-5L-52	1	Septic Tank	Unsure	Elevated Sand Mound	No	None	Public	No well	N/A	X	Z189021	8/5/2016	Repair	Alternate	Malfunction	N/A
130	103 LOCUST KNOLL ROAD	30-5G-34	1	I Don't Know	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
131	103 TRADITION LANE	30-5M-10	1	Septic Tank	1000	In-Ground Trench	Unsure	None	Public	No well	N/A	X	Z189375, Z190040	7/29/2016, 9/22/2016	Repair x2	Conventionalx2	Component Replacement	N/A

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**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
132	104 Clearview Drive	30-2N-191	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
133	104 CONSTITUTION DRIVE	30-5G-36	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
134	104 LAUREL WOOD DRIVE	30-5L-20	1	Septic Tank	1500	In-Ground Trench	Yes	None	Private Well	100-200	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 5/2/2011 at 1.1 mg/L
135	104 Locust Knoll Road	30-5G-19	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
136	104 RIDGEWOOD CIRCLE	30-5K-20	2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
137	104 WOODCREST DRIVE	30-5K-18	1	Septic Tank	Unsure	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WOULD LIKE TO HAVE PUBLIC SEWER THEN ON SITE SEPTIC
138	105 CONSTITUTION Drive	30-5L-51	1	Septic Tank	Unsure	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WOULD LIKE BETTER STORM WATER MANAGEMENT
139	105 WOODED ACRES	30-5-211.18	2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	200+	N/A	X	Z123380	9/30/2015	Repair	Conventional	Malfunction	N/A	
140	107 Lenora Lane	30-5-166.16	2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 7/18/2016 at < 7.6 mg/L
141	107 Locust Knoll Road	30-5G-32	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
142	107 RIDGEWOOD CIRCLE	30-5K-11	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
143	108 CLEARVIEW DRIVE	30-2N-189	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
144	108 WOODED ACRES	35-5-211.22	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
145	109 CLEARVIEW DRIVE	30-2N-179	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
146	109 Constitution Drive	30-5L-49	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
147	1090 HORSESHOE PIKE	30-5g-20	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
148	11 GLOUCESTER DRIVE	30-1R-35	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
149	110 Constitution Drive	30-5L-27	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
150	110 LOCUST KNOLL ROAD	30-5G-12	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AS WE GET OLDER WE ARE WORRIED THAT MOST BUYERS DONT WANT HOME WITH ON SITE SYSTEMS. We are aware of other sewage problems in the area.
151	110 TRADITION LANE	30-5L-91	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
152	1100 Horseshoe Pike	30-5-146	2	Septic Tank	Unsure	In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
153	111 CLEARVIEW DRIVE	30-2N-178	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
154	111 CONSTITUTION DRIVE	30-5L-48	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WILL WE EVER HAVE PUBLIC SEWER?
155	111 E REECEVILLE ROAD	30-5-17	< 1	Septic Tank	1500	Seepage Pit/ Pressure Dosed In-Ground Bed/ Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
156	111 LENORA LANE	30-5-166.2	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
157	111 Locust Knoll Road	30-5G-29	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I PAID TO PUT SEWER DRAINS WHEN I BOUGHT THE HOUSE 45 YRS AGO AND NOTHING YET.
158	112 Locust Knoll Road	30-5G-11	1	Septic Tank	1000	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	INACTIVE SEWER LINE ON LOCUST KNOLL RD INSTALLED BY DEVELOPER BUT NEVER CONNECTED TO NETWORK.
159	112 TRADITION LANE	30-5L-90	2	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
160	113 Clearview Drive	30-2N-177	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
161	113 CONSTITUTION DRIVE	30-5L-47	1	Septic Tank	1000	In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
162	113 Tradition Lane	30-5I-78	2	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	X	Z165324	4/13/2016	Repair	Alternate	Unsatisfactory Certification	do you plan on adding city sewage to tradition lane?
163	114 CONSTITUTION DRIVE	30-5L-28	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
164	115 CONSTITUTION DRIVE	30-5L-46	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.

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**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
165	115 Locust Knoll Road Road	30-5G-27	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I would like to know if there are plans to hook the Locust Knoll development into EB treatment facilities. Storm water drainage. We are aware of other sewage problems in the area.
166	115 RIDGEWOOD CIRCLE	30-5L-12	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
167	1155 Osborne Road	30-5-208	1	Septic Tank	1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
168	116 CLEARVIEW DRIVE	30-2N-185	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
169	116 Constitution Drive	30-5L-31	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018. Tier II Inspection #6 on 9/5/19. No Malfunction.
170	116 Locust Knoll Road	30-5G-9	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WANT PUBLIC SEWER
171	1160 Osborn Road	30-5-210.1	> 2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
172	1173 OSBORNE ROAD	30-5-208.1	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
173	1177 OSBORNE ROAD	30-5-208.1A	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
174	118 Clearview Drive	30-2N-184	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
175	118 RIDGEWOOD CIRCLE	30-5L-4	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
176	119 Locust Knoll Road	30-5G-25	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
177	120 CONSTITUTION DRIVE	30-5L-33	1	Septic Tank	1000	Unsure	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
178	120 Locust Knoll Road	30-5G-7	1	Septic Tank	900	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
179	1202 OSBORN ROAD	30-5-211.1B	< 1	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
180	1204 OSBORNE	30-5-211.1C	> 2	Septic Tank	1000	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
181	121 RIDGEWOOD CIR	30-5L-16	1	Septic Tank	1250	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
182	<b>1211 OSBORNE ROAD</b>	<b>30-5-148.1</b>	<b>1</b>	<b>Septic Tank</b>	<b>1000</b>	<b>In-Ground Trench</b>	<b>No</b>	<b>None</b>	<b>Private Well</b>	<b>N/A</b>	<b>N/A</b>	<b>X</b>	<b>Z151426</b>	<b>11/29/2017</b>	<b>Repair</b>	<b>Conventional</b>	<b>Malfunction</b>	<b>N/A</b>

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No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
183	122 CONSTITUTION DRIVE	30-5L-34	1	Septic Tank	1000	Unsure	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
184	122 Locust Knoll Road	30-5G-6	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	X	Z157364	5/22/2015	Repair	Conventional	<b>Malfunction</b>	N/A	
185	122 Ridgewood Circle	30-5L-2	1	Septic Tank	1000	In-Ground Bed	No	Sewage backup into house	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
186	1221 Osborne Road	30-5M-4	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
187	1229 Osborne Road	30-5G-39	1	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018. Tier II Inspection #1 (Zone 1) on 8/29/19. No Malfunction.
188	123 Clearview Drive	30-2N-175	1	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Would be willing to hook up to public water and sewer if offered an reasonable cost.
189	123 RIDGEWOOD CIRCLE	30-5L-17	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are concerned that we cannot find public records that document our sewage system.
190	123 TRADITION LANE	30-5L-61	1	Septic Tank	Unsure	Unsure	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
191	1230 OSBORNE ROAD	30-5-212.3	2	Septic Tank	1000	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
192	1235 OSBORNE ROAD	30-5G-21	1	Septic Tank	1500	Unsure	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
193	124 Clearview Drive	30-2N-181	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
194	124 Ridgewood Circle	30-5L-1	1	Septic Tank	900	In-Ground Bed / In-Ground Trench	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
195	126 Locust Knoll Road	30-5G-4	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
196	126 Ridgewood Circle	30-5K-22	1	Septic Tank	1000	In-Ground Trench, Pressure Dosed In-	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
197	128 Locust Knoll Road	30-5g-3	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
198	129 Clearview Drive	30-2N-180	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates Tested: 3/18/2008 at < 5.31 mg/L
199	129 Tradition Lane	30-5L-57	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
200	130 Clearview Drive	30-1R-37	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
201	130 Locust Knoll Road	30-5G-2	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
202	1306 HORSESHOE PIKE	30-2-42.1	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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203	131 BOLLINGER ROAD	30-5-3.4	< 1	Septic Tank	1000	Seepage Pit	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD LIKE A GRAVITY SEWER CONNECTION EITHER W BOLLINGER RD OR THE WEAVER FARM.
204	131 CLEARVIEW DRIVE	30-1R-36	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD ASSUME THE TOWNSHIP IS CONSIDERING RUNNING SEWAGE DOWN CLEARVIEW DR?
205	1322 HORSESHOE PIKE	30-2-41	2	Septic Tank	Unsure	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
206	133 Ridgewood Cir	30-5P-1	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
207	1368 Horseshoe Pike	30-2N-4	1	Septic Tank	1250	In-Ground Trench	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
208	141 Lenora Lane	30-5-166.12	1	Septic Tank	1250	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
209	1451 N BAILEY ROAD	30-5-186.2	> 2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
210	1461 N BAILEY ROAD	30-5-186.3	> 2	Septic Tank	Unsure	In-Ground Trench	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
211	1480 N. BAILEY ROAD	30-5K-23	1	Septic Tank	1000	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
212	1491 N. BAILEY ROAD	30-5-184.4	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
213	15 GLOUCESTER DRIVE	30-1R-33	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 1/29/2013 at 2.52 mg/L
214	150 hadfield	30-5-181.1	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
215	1502 N. BAILEY ROAD	30-5K-7	1	Septic Tank	1000	In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I ASSUME THE TOWNSHIP HAS THE RECORDS OF WHAT THE DEVELOPER BUILT INTO THE SEPTIC & WELL???
216	1504 N. BAILEY ROAD	30-5K-6	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
217	151 LENORA LANE	30-5-166.13	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
218	1511 North Bailey Road	30-5-184.5	1	Septic Tank	Unsure	Unsure	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
219	1521 North Bailey Road	30-5-184.2	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
220	1531 N. Bailey Road	30-5-184.1	> 2	Septic Tank	1000	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
221	1571 CALN MEETINGHOUSE ROAD	30-5-163	1	Septic Tank	1500	In-Ground Trench	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WOULD LIKE TO HOOK UP TO PUBLIC WHEN IT COMES AVAILABLE.
222	1580 Caln Meetinghouse Road	30-5-155	2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Applecross Country Club has a sewage smell that is overwhelming at times, what is being done about this? (within the eagles nest)

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
223	160 HADFIELD ROAD	30-5-181.2	> 2	Septic Tank	1500	In-Ground Trench	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
224	1618 BONDSVILLE ROAD	30-5-201	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
225	1621 CALN MEETING HOUSE ROAD	30-5-154	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
226	1626 Bondsville Road	30-5L-13	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
227	1628 Bondsville Road	30-5-200.1A	< 1	Septic Tank	Unsure	Seepage Pit, Pressure Dosed In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
228	1630 CALN MEETING HOUSE ROAD	30-5-153.8	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
229	1632 Bondsville Road	30-5-200.2	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
230	1634 BONDSVILLE ROAD	30-5-200.1	2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
231	1640 CALN MEETINGHOUSE ROAD	30-5-153.6	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
232	1650 BONDSVILLE ROAD	30-5-192	< 1	Holding Tank	1250	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WHAT IS GREY WATER?
233	1651 Bondsville Road	30-5-126	> 2	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	X	Z200895	7/23/2018	Repair	Conventional	<b>Malfunction</b>	N/A	
234	1657 BONDSVILLE ROAD	30-5-126.1	> 2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
235	166 HADFIELD	30-5-181.3	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
236	1660 Bondsville Road	30-5K-17	1	Septic Tank	1000	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We have been approved and permitted for a stream discharge system, however it has been too wet due to weather conditions to be installed. To date we have no estimated time of install.
237	1660 CALN MEETING HOUSE ROAD	30-5-153.4	2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
238	1680 Caln Meetinghouse Road	30-5-153.2	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I would like to convert to public water and sewer! It would be beneficial to this entire area.
239	17 RED MAPLE DRIVE	30-5-156.11	1	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
240	18 RED MAPLE DRIVE	30-5-156.6	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
241	191 LENORA LANE	30-5-166.42	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
242	2 E MERION CIR	30-5L-85	1	Septic Tank	1250	Elevated Sand Mound, Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
243	2 RAYMOND CIRCLE	30-5L-71	> 2	Septic Tank	> 1500	In-Ground Trench	Yes	None	Public	No well	N/A	X	Z125819	5/6/2013	Repair	Conventional	<b>Malfunction</b>	2013 replaced system
244	2 TRADITION LANE	30-5L-29	1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
245	20 Red Maple Drive	30-5-156.7	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
246	200 Lenora Lane	30-5-166.24	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
247	2004 BONDSVILLE ROAD	30-5-122.1A	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
248	2010 BONDSVILLE ROAD	30-5-122	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
249	2014 Bondsville Road	30-5-122.2A	2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
250	2029 Bondsville Road	30-5-126.2	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
251	2039 Bondsville ROAD	30-5-127	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
252	205 Heritage Court	30-5-211.13	1	Septic Tank	Unsure	In-Ground Trench	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I would like to have our water tested regularly but not by a company trying to sell us equipment. Suggestions? Township should help us with this. Had absorption area repaired between 2013 and 2018.
253	210 E REECEVILLE ROAD	30-5-120.7	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
254	211 Hadfield Road	30-5-124.1	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
255	211 Heritage Ct	30-5-211.10	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Are there thoughts to add public works to all lots?
256	211 Newlin Dr	30-5-166.43	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
257	212 HERITAGE CT	30-5-211.8	< 1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
258	214 HERITAGE CT	30-5-211.9	2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #10. No Malfunction

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 1**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
259	215 Lenora Lane	30-5-166.39	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
260	220 E REECEVILLE ROAD	30-5-119	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
261	220 HADFIELD ROAD	30-5-180.1	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
262	230 Lenora Lane	30-5-166.27	1	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
263	24 Red Maple Drive	30-5-156.8	> 2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #5 (Zone 1) on 9/5/19. No Malfunction
264	240 Lenora Lane	30-5-166.30	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
265	248 Lenora Lane	30-5-166.31	2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
266	249 EAST REECEVILLE ROAD	30-5-3.1A	1	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
267	25 Red Maple Drive	30-5-156.9	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
268	250 Lenora Lane	30-5-166.34	2	Septic Tank	> 1500	In-Ground Bed	Yes	None	Private Well	> 200	N/A	X	Z157563	6/16/2017	Repair	Conventional	<b>Malfunction</b>	Our septic system is brand new. It came at considerable expense and we made certain that we chose a system and location that was safe, and would provide efficient operation for many years to come.	
269	275 Bollinger ROAD	30-5-3.1	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	There are currently no sewage concerns at our location.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

Sewage Needs Survey: Summary of OLDS Data- Zones 2

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**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
1	1101 HORSESHOE PIKE	30-5-85	< 1	Cesspool	> 1500	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2	100 FIRETHORN DRIVE	30-2-52.40	1	Septic Tank	Unsure	Unsure	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3	101 Wildbrier ROAD	30-2-52.14	1	Cesspool	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
4	103 GRANDVIEW DR	30-2-30.9	1	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas	I Don't Know	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5	104 School Lane	30-2-57.5	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Yes	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
6	110 WINDYHILL ROAD	30-2-6.3	< 1	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
7	111 Holly Drive	30-2-52.46	1	Septic Tank	1500	In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
8	111 Wildbrier ROAD	30-2-52.18	1	Septic Tank/ Holding Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	Green Lush Grass/ Wet or Spongy Areas	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9	111 WINDY HILL	30-2-6	2	Septic Tank	1000	In-Ground Trench, Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10	112 HOLLY DRIVE	30-2-52.58	1	Septic Tank	< 900	In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	113 EVERGREEN DRIVE	30-2-52.67	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
12	113 SCHOOL LANE	30-2-57.16	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
13	281 JEFFERIS ROAD	30-2-65.2	> 2	Septic Tank	1000	In-Ground Trench	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I HAVE THE TANK EMPTIED EVERY 2 YEARS, HAVE NEVER HAD ANY PROBLEMS.
14	300 LITTLE WASHINGTON ROAD	30-2-45	> 2	Cesspool	Unsure	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
15	308 Jeffris Road	30-2-27.4	> 2	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	N/A	X	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 5/26/2009 at: < 1.66
16	33 N. TERRALEE	30-5-82.23	2	Holding Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
17	341 MARSHALL ROAD	30-2-9.4	> 2	Septic Tank	Unsure	Unsure	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
18	416 Dilworth Road	30-5C-31	2	Cesspool	Unsure	Seepage Pit	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
19	422 DILWORTH ROAD	30-5C-29.1	1	Septic Tank	Unsure	Unsure	Unsure	Wet or Spongy Areas	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Previous owners tapped into public sewer. we have not hooked up yet, are still using septic system. wet ground where neighbors clean out. We are aware of other sewage problems in the area.
20	455 Dilworth Road	30-2-57.22	> 2	Cesspool	Unsure	Seepage Pit	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	458 Dilworth Road	30-2-56	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	So far as sewage, is the Township concerned about the higher levels of rain that we are getting?
22	475 HOPEWELL ROAD	30-5-79.3	> 2	Cesspool	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	501 DILWORTH ROAD	30-2-58.2	1	Cesspool	Unsure	Seepage Pit	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #4 on 10/24/19. Suspected Malfunction.
24	561 N. GUTHRIESVILLE	30-2-52.2	2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
25	8 KELLER WAY	30-5-43.18	< 1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	80 HIGHSPIRE ROAD	30-2-14.1	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DONT CHANGE MY SYSTEM
27	111 ASPEN DRIVE	30-2-138	2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	Odors, Slow draining plumbing fixtures	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	116 School Lane	30-2-57.11	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	Green Lush Grass/ Wetness or water at the surface/ Odors	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area. Septic Systems are installed without any warranty or protection for the homeowner. If it fails to work properly, the health department who issues the permit and the contractor have no
29	12 Rolling Glen Lane	30-2-78	2	Septic Tank	1500	Pressure Dosed In-Ground Bed	Unsure	Green Lush Grass	Private well fed off Natural Spring	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	121 Windy Hill Road	30-2-6.8	2	Septic Tank	Unsure	In-Ground Trench	No	Wetness or water at the surface	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31	125 WINDY HILL	30-2-6.6	> 2	Septic Tank	1250	In-Ground Bed	Yes	Green Lush Grass	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32	131 HIGHSPIRE ROAD	30-2-22	1	Septic Tank	1000	In-Ground Bed	Yes	Green Lush Grass/ Wet or Spongy Areas	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	1387 HORSESHOE PIKE	30-1-1	> 2	Cesspool	1500	Seepage Pit	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ATTACHED SEPTIC CLEANING INVOICE DATED 4/20/18
34	225 Jefferis Road	30-2-66.2	> 2	Cesspool	1500	In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018. Is there a future for public sewerage? We love EBT

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**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
35	24 KELLER WAY	30-5-43.8	1	Septic Tank	< 900	In-Ground Trench	No	Sewage backup into house	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
36	103 ASPEN DRIVE	30-2-142	2	Septic Tank/ Holding Tank	> 1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37	105 SCHOOL LANE	30-2-57.20	1	Septic Tank/ Holding Tank	1000	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WANT TO STAY SEPTIC SYSTEM, i DONT WANT PUBLIC SEWER. Had absorption area repaired between 2013 and 2018.
38	106 BRIARWOOD DRIVE	30-2-52.95	1	Septic Tank	1500	In-Ground Bed	No	Slow draining plumbing fixtures	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	UNDERGROUND STREAM RUNS ACROSS PROPERTY, FARMERS FIELD OVERFLOWS ONTO PROPERTY. Had absorption area repaired between 2013 and 2018.
39	109 BRIARWOOD DRIVE	30-2-52.60	1	Septic Tank	< 900	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
40	11 Keller Way	30-5-43.12	1	Septic Tank	1250	In-Ground Bed	Yes	None	Private Well	50-100	N/A	X	Z162451	10/30/2014	Repair	Conventional	Malfunction	We are aware of other sewage problems in the area. The treatment facility between Culbertson run development and Little Washington Rd smells bad at times. Is this facility being properly managed?
41	115 School Lane	30-2-57.15	1	Septic Tank	1000	Unsure	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
42	115 WINDY HILL ROAD	30-2-6.1	> 2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43	384 Corner Ketch Road.	30-5-75	1	Holding Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	390 Corner Ketch Road	30-5-74	< 1	Septic Tank	< 900	In-Ground Bed	No	None	Private Well	N/A	N/A	X	Z190126	10/28/2015	Modification	Conventional	Malfunction	Public water access would be ideal! If there was ability to hook up to public water, I would do it. Having a well is a burden.

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ZONE 2

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
45	405 Dilworth Road	30-5-38	1	Septic Tank	> 1500	In-Ground Bed	No	Slow draining plumbing fixtures	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	As a younger homeowner in the township I am in favor of public septic and water for that matter. I currently cannot drink or cook with my well water and pay for spring water delivery due to the water testing high for nitrates. My neighbors drain field comes down the bank and has most likely contaminated my well. Additionally, while our septic has worked fine for many years, it is old and things do not last forever. I would rather spend money to tie into public septic then to spend money on my current septic system. I know that it is only a matter of time before this will be necessary. Also, I know that the wells in this area are mostly contaminated. I would say 90% of our neighbors don't drink water either due to contamination issues. The drainage fields for the onsite septic systems are WAY too close to the wells. I really hope that people respond to this survey and that public sewer/water come quickly. Our neighbors behind us have experience septic issues and the neighbor across the street had to replace the septic to sell the house. We are aware of other sewage problems in the area. Tier II Inspection #1 on 9/26/19. Potential Malfunction.
46	415 DILWORTH ROAD	30-5-33	1	Septic Tank	< 900	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	420 LITTLE WASHINGTON ROAD	30-2-52.4	> 2	Septic Tank	900	Pressure Dosed In-Ground Bed	Unsure	Slow draining plumbing fixtures	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48	18 KELLER WAY	30-5-43.5	1	Septic Tank	< 900	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	201 SILVER FOX LANE	30-2-74.7	> 2	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #6 on 11/5/19. Potential Malfunction.
50	210 BIRCH LANE	30-2-30.12	1	Septic Tank	< 900	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
	100 Wildbrier ROAD	30-2-52.13	1	Septic Tank	1250	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area. I'm concerned that my drain field will need replaced in the upcoming years, like many of my neighbors. Also that my neighbors will need theirs replaced as well. It would be nice to tap into the sewer system being installed literally across the street from me. Many of my neighbors have needed their drain fields replaced recently.

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**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
51	1 WILLIAM PENN DRIVE	30-2-64.2	> 2	I Don't Know	Unsure	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HOW DO I LEARN MORE ABOUT WHAT SYSTEM I HAVE OR ANSWERS TO ALL OF THE IDK QUESTIONS I GAVE.
52	10 Heatherwyn Farm Blvd.	30-5-82	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
53	10 KELLER WAY	30-5-43.1	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
54	10 Kestrel Dr	30-2-8.7	2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	100 Evergreen Drive	30-2-52.91	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
56	100 GREAT OAK DRIVE	30-2-74.14	2	Septic Tank	> 1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
57	100 WINDY HILL ROAD	30-2-6.2	2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	X	X	Z157336	7/7/2015	Repair	Conventional	Unsatisfactory Certification	Had absorption area repaired between 2013 and 2018. SECOND PUMP ADDED IN 2015. Nitrates Tested: 9/22/2015 at < 6.61
58	101 ASPEN DRIVE	30-2-110	1	Septic Tank	Unsure	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MARTIN WATER TESTS ANNUALLY, SEPTIC PUMPED EVERY 2 YEARS
59	102 ELMWOOD DRIVE	30-2-52.77	1	Septic Tank	1000	In-Ground Bed/ In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
60	102 GRANDVIEW DRIVE	30-2-30.13B	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
61	102 School Lane	30-2-57.4	1	Septic Tank	1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	"Has a grinder system" #24 "Having treatment installed" #26 "opposite sides of house" #29 How about the yard chemicals emptying on to our property via the Township culvert that floods our property leaving it a swamp last year? If it ain't broke don't mess with it.
62	103 FIRETHORN DRIVE	30-2-52.38	1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
63	103 GREAT OAK LANE	30-2-74.12	1	Septic Tank	> 1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	X	Z151357	11/20/2018	Repair	Conventional	Malfunction	SECOND DRAINAGE FIELD ADDED 2018
64	103 School Lane	30-2-57.21	1	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We would welcome the opportunity for a cost effective public sewer tap in on School Lane.
65	104 GRANDVIEW DRIVE	30-2-30.13A	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MY NEIGHBORS SEPTIC IS UPSLOPE FROM MINE. NOT SURE IF THAT MAY BE AN ISSUE.
66	104 GREAT OAK DRIVE	30-2-74.16	1	I Don't Know	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
67	104 Holly Drive	30-2-52.33	1	Septic Tank	Unsure	Unsure	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
68	104 Rosewood court	30-2-52.86	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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69	105 WILDBRIER ROAD	30-2-52.24	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PROPERTY HAS WELL, HOWEVER WE ARE ON PUBLIC WATER.
70	106 FIRETHORN DRIVE	30-2-52.42	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
71	106 ROSEWOOD CT	30-2-52.85	< 1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
72	107 GRANDVIEW DR	30-2-30.14	1	Septic Tank	1000	In-Ground Trench	Yes	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	concerns where new planned developments will obtain their water and process sewer.
73	108 Briarwood Drive	30-2-52.94	1	Septic Tank	> 1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
74	108 Great Oak Drive	30-2-74.18	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
75	108 Holly Drive	30-2-52.9	1	Septic Tank	1500	Elevated Sand Mound, Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Our system is in proper working order and is well maintained and functions as designed. Neighboring systems are also well maintained and no upgrades or new regulations are necessary and there is no need for the township to develop a new treatment plant and system to for the purposes of connecting this development to a public system.
76	108 School Lane	30-2-57.7	2	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
77	109 GRANDVIEW DR	30-2-30.15	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	200+	N/A	X	Z157136	7/20/2015	Repair	Conventional	Malfunction	N/A
78	109 SCHOOL LANE	30-2-57.18	< 1	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
79	109 WILDBRIER ROAD	30-2-52.12	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
80	110 Aspen Drive	30-2-116	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
81	110 BRIARWOOD DRIVE	30-2-52.93	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	X	Z042723	10/28/2013	Repair	Conventional	Malfunction	N/A
82	110 HIGHSPIRE ROAD	30-2-17.2	> 2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PUMPED OUT IN 2018, BY ENVIRONMENTAL SERVICES. SAID LOOK GREAT CALL BACK IN 5 YRS, TREAT W/ RID-X REGULARLY.
83	110 ROSEWOOD CT	30-2-52.83	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
84	110 Wildbrier ROAD	30-2-52.20	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	my septic system works well for us. Had absorption area repaired between 2013 and 2018.
85	1107 Horseshoe Pike	30-5-82.2	> 2	Septic Tank	> 1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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86	111 EVERGREEN	30-2-52.66	1	I Don't Know	1250	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	X	Z189180	11/4/2016	Repair	Alternate	<b>Malfunction</b>	REPLACED SYSTEM IN 2016. SPENT 50k. WILL NOT BE HAPPY IF PUBLIC IS NOT REQUIRED. OTHER HOMES REPLACING SEPTIC. We are aware of other sewage problems in the area. Had absorption area repaired between 2013 and 2018.	
87	111 Firethorn dr	30-2-52.34	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
88	111 GREAT OAK DRIVE	30-2-74.8	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
89	111 School Lane	30-2-57.17	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
90	112 ROSEWOOD CT	30-2-52.82	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
91	112 WILDBRIAR ROAD	30-2-52.25	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
92	1121 Horseshoe Pike	30-5-62.1	< 1	Septic Tank	Unsure	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
93	113 FIRETHORN DRIVE	30-2-52.35	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	COMPLAINTS OF FAILED DRAINAGE FIELDS. We are aware of other sewage problems in the area.
94	113 HOLLY DRIVE	30-2-52.47	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
95	113 WILDORIER ROAD	30-2-52.15	1	Septic Tank	1000	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
96	114 SCHOOL LANE	30-2-57.10	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
97	115 EVERGREEN DRIVE	30-2-52.68	1	I Don't Know	Unsure	Pressure Dosed In-Ground Bed	Unsure	None	I Don't Know	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
98	115 FIRETHORN Dr	30-2-52.36	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
99	280 CORNER KETCH ROAD	30-5-79.2A	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
100	288 JEFFERIS ROAD	30-2-28.4	2	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101	3 William Penn Drive	30-2-64.3	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No.
102	300 N. GUTHRIESVILLE ROAD	30-2-48.2	< 1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
103	301 Marshall Road	30-2-9	> 2	Septic Tank	900	Elevated Sand Mound	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104	302 JEFFERIS ROAD	30-2-27.2	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
105	304 JEFFERIS ROAD	30-2-27.1	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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 \*= Tier II Site Visit

**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
106	306 JEFFERIS ROAD	30-2-27.5	> 2	Unsure	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IM CONCERNED TO KEEP BOTH SYSTEMS IN GOOD CONDITION AND WORKING ORDER. Had absorption area repaired between 2013 and 2018.
107	310 JEFFERIS ROAD	30-2-27.3	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
108	310 Marshall Road	30-2-11.3	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
109	312 JEFFERIS ROAD	30-2-27.6	> 2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
110	314 JEFFERIS ROAD	30-2-27.8	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
111	325 JEFFERIS ROAD	30-2-63	> 2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
112	331 MARSHALL ROAD	30-2-9.3	> 2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
113	350 CORNER KETCH ROAD	30-5-79.1	1	Septic Tank	1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
114	350 MARSHALL ROAD	30-2-11.2	1	Septic Tank	1000	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
115	351 Marshall Road	30-2-8	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
116	360 Marshall Road	30-2-11.1	2	Septic Tank	Unsure	Unsure	No	None	Private Well	N/A	N/A	X	Z162570	1/28/2016	Repair	Conventional	Malfunction	N/A
117	371 MARSHALL ROAD	30-2-8.5	> 2	Septic Tank	1500	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
118	39 N. TERRALEE	30-5-82.18	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #5 on 10/24/19. No Malfunction.
119	40 HIGHSPIRE ROAD	30-2-14.10	> 2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120	400 N. GUTHRIESVILLE ROAD	30-2-46.11	1	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
121	406 Dilworth Road	30-5C-11	< 1	Septic Tank	1000	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Septic tank 1000 gallons, cesspool approx 1000 gallons, seepage pit
122	408 DILWORTH ROAD	30-5C-12	< 1	Septic Tank	1000	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
123	408 HOPEWELL ROAD	30-5-41	< 1	Septic Tank	1000	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
124	410 DILWORTH ROAD	30-5C-13	1	Septic Tank	1000	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
125	414 HOPEWELL ROAD	30-5-42	< 1	Septic Tank	Unsure	In-Ground Bed / In-Ground Trench	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
126	420 CORNER KETCH ROAD	30-2-79.1	1	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
127	420 HOPEWELL ROAD	30-5-43.17	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
128	422 CORNER KETCH ROAD	30-2-79.2	1	Unsure	Unsure	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
129	426 CORNER KETCH ROAD	30-2-79	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
130	430 CORNER KETCH ROAD	30-2-79.3	1	Unsure	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
131	435 DILWORTH ROAD	30-2-57.1	> 2	Septic Tank	> 1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	COLDS SYSTEM
132	435 Hopewell Road	30-5-71.2	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Our system is working very well. We pump every 2 years and treat w/ Ridex Type product.
133	440 HOPEWELL ROAD	30-5-44	< 1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
134	441 DILWORTH ROAD	30-2-57.2	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
135	450 HOPEWELL ROAD	30-5-45	< 1	Septic Tank	1000	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
136	470 N GUTHRIESVILLE ROAD	30-2-46.6	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
137	480 CORNER KETCH ROAD	30-2-58.5	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
138	480 N. GUTHRIESVILLE ROAD	30-2-46.5	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
139	490 Corner Ketch Road	30-2-58.3	1	Septic Tank	1000	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
140	499 DILWORTH ROAD	30-2-58.1	< 1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
141	5 KELLER WAY	30-5-43.15	1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
142	5 QUAIL HILL LANE	30-2-52.1G	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	X	Z207909	10/29/2018	Repair	Alternate	<b>Malfunction</b>	WE ARE IN THE PROCESS OF REPLACING THE SYSTEM- WE HAVE A PERMIT FROM TH COUNTY. PERMIT # 2207909.	
143	50 HIGHSPIRE ROAD	30-2-14.11	> 2	Septic Tank	900	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
144	500 CORNER KETCH	30-2-76	< 1	Septic Tank	1500	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
145	506 CORNER KETCH	30-2-58.7	1	Septic Tank	1000	Seepage Pit	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SEEMS LIKE SEWSGE RUNNING ON STREET NEAR HOPEWELL RD. We are aware of other sewage problems in the area.
146	511 DILWORTH ROAD	30-2-59	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	X	z151248	5/12/2016	Modification	Conventional	<b>Malfunction</b>	N/A
147	521 DILWORTH ROAD	30-2-62.1	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
148	530 N Guthriesville Road	30-2-46.2	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We love our well and septic system and do not want to connect to a sewer system. We are able to properly maintain our system. We do not want the expense or inconvenience of connecting to sewage when our own system works just fine.
149	531 N GUTHRIESVILLE ROAD	30-2-52.6	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	New Onsite Septic System was installed in 2010.
150	540 N. GUTHRIESVILLE ROAD	30-2-46.1	1	Septic Tank	900	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area.
151	550 CORNER KETCH	30-2-71	1	Septic Tank	1000	In-Ground Bed / In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
152	551 N. GUTHRIESVILLE ROAD	30-2-52.8	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
153	570 DILWORTH ROAD	30-2-54	> 2	Septic Tank	1500	In-Ground Trench	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
154	574 CORNER KETCH ROAD	30-2-66.3	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DRAIN BOX WAS FOUND CRACKED WHEN PURCHASED THE PROPERTY IN 2007 AND REPLACED. SEPTIC SYSTEM IS WORKING FINE AND WATER TESTS ARE OK.
155	584 CORNER KETCH ROAD	30-2-69.2	1	Septic Tank	1000	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
156	6 WILLIAM PENN DRIVE	30-2-64.7	2	Septic Tank	1000	In-Ground Trench	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
157	60 HIGHSPIRE ROAD	30-2-14.4	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
158	600 CORNER KETCH ROAD	30-2-69.1	1	Septic Tank	Unsure	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
159	601 Dilworth Road	30-2-27.9	> 2	Septic Tank	1250	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
160	605 Dilworth Road	30-2-27.10	> 2	Septic Tank	1000	In-Ground Trench	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
161	650 LITTLE WASHINGTON ROAD	30-2-28.2	> 2	Septic Tank	> 1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
162	7 KELLER WAY	30-5-43.14	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
163	7 WILLIAM PENN DRIVE	30-2-64.5	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #2 on 10/8/19. No Malfunction.
164	70 HIGHSPIRE ROAD	30-2-14.3	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
165	725 LITTLE WASHINGTON ROAD	30-2-20	> 2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
166	741 LITTLE WASHINGTON ROAD	30-2-19	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
167	745 LITTLE WASHINGTON ROAD	30-2-19.3	2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
168	747 LITTLE WASHINGTON ROAD	30-2-19.2	2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
169	770 CORNER KETCH ROAD	30-2-32.3A	1	Septic Tank	1500	Elevated Sand Mound, Pressure Dosed In-Ground Bed	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
170	798 CORNER KETCH	30-2-32.3D	1	Septic Tank	1000	In-Ground Bed / In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DO NOT MAKE HOMEOWNERS REPLACE SYSTEM IF MORE THAN 10 YRS OLD. OR MAKE HOME OWNERS PAY FOR INSPECTIONS.
171	8 WILLIAM PENN DRIVE	30-2-64.6	2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
172	800 Little Washington Road	30-2-29	> 2	Septic Tank	1500	Unsure	Yes	None	Private Well	N/A	N/A	X	Z159465, Z157606	6/20/2014, 3/23/2018	Repair x2	Conventional x2	Malfunction x2	N/A	
173	820 Little Washington Road	30-2-30.6	> 2	Septic Tank	> 1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
174	840 Little Washington Road	30-2-31.1	2	Septic Tank	> 1500	Seepage Pit	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
175	860 Little Washington Road	30-2-30.17	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
176	9 KELLER WAY	30-5-43.13	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WE ARE MORE CONCERNED ABOUT SEEPAGE FROM LAWN CHEMICALS AND AG USE THAN ABOUT SEWAGE. WE USE BOTTLED SPRING WATER FOR DRINKING AND COOKING.
177	3, 5, 7 HIGHSPIRE ROAD	30-2-23.2	> 2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
178	488 HOPEWELL ROAD	30-5-52.3	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
179	210 Little Washington Road	30-2-44	> 2	Septic Tank	Unsure	In-Ground Trench	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
180	104 ELMWOOD DRIVE	30-2-52.76	1	Septic Tank	Unsure	Seepage Pit	Unsure	None	I Don't Know	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
181	116 ROSEWOOD CT	30-2-52.80	1	Septic Tank	Unsure	In-Ground Trench	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
182	117 ASPEN DRIVE	30-2-135	2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
183	117 SCHOOL LANE	30-2-57.14	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.

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**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/Repair/Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
184	118 FIRETHORN DR	30-2-52.22	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	X	Z157420	1/19/2016	Repair	Alternate	Malfunction	N/A
185	118 HOLLY ROAD	30-2-52.55	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
186	119 Aspen Drive	30-2-134	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Where is a good place for well water testing? Please email me at mccarthy_glenda.j@gmail.com Thank you!
187	12 KELLER WAY	30-5-43.2	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
188	12 PATEROADALE PL	30-2-43.9	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
189	12 Quail Hill Lane	30-2-521.A	> 2	Septic Tank	1250	Seepage Pit	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
190	120 Aspen Dr	30-2-124	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	The secondary treatment options presented don not reflect the options on the PA sewage disposal application
191	120 Windy Hill Road	30-2-6.4	1	Unsure	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
192	122 HOLLY DRIVE	30-2-52.53	1	Septic Tank	1000	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
193	126 Aspen Road	30-2-127	> 2	Septic Tank	> 1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
194	130 WINDY HILL ROAD	30-2-6.5	2	Septic Tank	Unsure	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
195	131 WINDY HILL ROAD	30-2-6.7	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
196	132 Aspen Drive	30-2-130	> 2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
197	134 ASPEN DRIVE	30-2-131	2	Septic Tank	Unsure	Elevated Sand Mound	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
198	138 Aspen Drive	30-2-139	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
199	14 KELLER WAY	30-5-43.3	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
200	14 ROLLING GLEN LANE	30-2-78.1	2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
201	144 Highspire Road	30-2-13	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
202	15 KESTRELL DRIVE	30-2-8.7D	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A
203	15 PATEROADALE PL	30-2-43.3	1	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
204	15 ROLLING GLEN	30-2-78.5	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
205	16 PATEROADALE PLACE	30-2-43.7	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
206	17 kestrel dr	30-2-8.7c	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	would like to see public water through out the township.
207	17 PATEROADALE PL	30-2-43.4	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
208	2 QUAIL HILL LANE	30-2-52.1F	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
209	2 WILLIAM PENN dr	30-2-64.9	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tank replaced in 2013
210	20 HIGHSPIRE ROAD	30-2-14.9	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
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 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 2**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Any noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
211	200 Corner Ketch Road	30-5-81	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
212	200 Foxtail lane	30-2-117	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
213	200 SILVER FOX LANE	30-2-74.4	1	Septic Tank	1500	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
214	202 FOXTAIL	30-2-143	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
215	202 Silver Fox Lane	30-2-74.5	2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
216	204 Foxtail Lane	30-2-118	2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
217	21 HIGHSPIRE ROAD	30-2-23.1	> 2	Septic Tank	> 1500	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
218	210 JEFFERIS ROAD	30-2-30.11	> 2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
219	24 S. TERRALEE LANE	30-5-82.8	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
220	241 Jefferis Road	30-2-66.1	> 2	Septic Tank	1000	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
221	250 JEFFERIS ROAD	30-2-28.3	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
222	270 Jefferis Road	30-2-28.4A	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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Sewage Needs Survey: Summary of OLDS Data- Zones 3

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
1	1 Summerhill Drive	30-6-2.1B	2	Septic Tank	Unsure	In-Ground Bed	No	Wet or Spongy Areas	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	10 Cumberland Drive	30-6-50.1	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Unsure	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No but I am concerned about the levels of ?? in our water that are carcinogenic.
3	107 Helm Way	30-6-169	1	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	108 Governors Circle	30-6-183	1	Septic Tank	< 900	In-Ground Bed	No	Wet or Spongy Areas	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I would be interested in having a sewer in our neighborhood. Our field is on a hill and drains down it, trees in field. We are aware of other sewage problems in the area.
5	109 Governors Circle	30-6-192	1	Cesspool	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	11 Batten Drive	30-6-5.16	< 1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	11 Sussex Place	30-6-108	2	Septic Tank	Unsure	Unsure	Unsure	Odors	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We moved here in 2017 and our previous home had public sewage. This is something we would be interested in having again if it ever became available in EBT
8	1100 HOPEWELL ROAD	30-3-37.1	2	Septic Tank	Unsure	Unsure	Unsure	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	114 HILLTOP DRIVE	30-6-88	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	X	Z150833	11/20/2015	Repair	Conventional	Unsatisfactory Certification	N/A
10	1151 HOPEWELL ROAD	30-3-67.1	> 2	Cesspool	Unsure	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	120 DOWLIN FORGE RD	30-6-20.1	< 1	Cesspool	Unsure	Seepage Pit	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	130 CRAWFORAD ROAD	30-3-23.1	> 2	Cesspool	Unsure	Pipe to Ditch/Stream/Surface	No	None	Spring	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	131 DOWLIN FORGE ROAD	30-6-30.2	> 2	Septic Tank	Unsure	Unsure	No	Wet or Spongy Areas	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	3 Hessian Court	30-6-155	1	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas/ Wetness or water at the surface/ Odors	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Let us know as soon as possible if there are plans to provide public sewage services. Had absorption area repaired between 2013 and 2018.
15	31 BUTTERWORTH CT	30-5-407	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
16	34 BLACKELY ROAD	30-6-84	> 2	Septic Tank	> 1500	Unsure	Yes	<b>Odors</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IT WOULD BE COOL TO HAVE PUBLIC SEWER. DISPOSAL AREA REPAIRED BEFORE WE OWNED THE HOME. Had absorption area repaired between 2013 and 2018.
17	341 Rock Raymond ROAD	30-6-57.1	> 2	<b>Cesspool</b>	> 1500	Seepage Pit	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	35 Butterworth Ct	30-5-406	< 1	Septic Tank	Unsure	In-Ground Bed	No	<b>Green Lush Grass</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	371 Rock Raymond Road	30-6-62	1	Septic Tank	1000	In-Ground Bed	No	<b>Green Lush Grass</b>	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	375 CORNER KETCH ROAD	30-5-100	1	<b>Cesspool</b>	Unsure	Unsure	Unsure	<b>Green Lush Grass</b>	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	397 ROCK RAYMOND ROAD	30-6-63	1	<b>Cesspool</b>	1000	Unsure	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	399 ROCK RAYMOND ROAD	30-6-63.1	< 1	<b>Cesspool</b>	1000	Unsure	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	4 Clover Lane	30-2-86.1K	1	Septic Tank	1000	In-Ground Trench	No	<b>Wet or Spongy Areas</b>	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	4 Hessian Court	30-6-163	1	Septic Tank	Unsure	In-Ground Bed	No	<b>Green Lush Grass</b>	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area. Bryan's House @ 6 Hessian Ct has had several problems that the County Health Dept has had to come out.
25	420 ROCK RAYMOND ROAD	30-6-51.1	< 1	<b>Cesspool</b>	1000	Seepage Pit	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	455 Corner Ketch ROAD	30-2-83	< 1	<b>Septic Tank/ Cesspool</b>	1250	In-Ground Bed/ In-Ground Trench	Unsure	Slow draining plumbing fixtures	Private Well	<b>0-50</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<b>Due to the fact that we all in the area of my home have wells the increasing amount of runoff from the roads and new development can be a concern. Closer to the intersection of Hopewell and CK there is a considerable amount of water that seeps through the road, and ices in the winter, do not know if this is from natural underground sources or developmental impact but it is a bit concerning at times, as to whether or not this could affect the properties of the ground water. Downstairs laundry goes to cesspool and can sometimes linger in downstairs shower which is between laundry and cesspool.</b>
27	5 Bell Ln	30-3-40.2	1	<b>Septic Tank/ Cesspool</b>	1500	Seepage Pit/ Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
28	5 Elston Drive	30-2-86.24	> 2	Cesspool	Unsure	In-Ground Bed	No	Green Lush Grass	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Is it possible to get public sewage
29	504 REEDS ROAD	30-2-98.2	> 2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	Odors	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	508 ROCK RAYMOND ROAD	30-6-12	1	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31	530 ROCK RAYMOND ROAD	30-6-11.1	1	Cesspool	Unsure	Unsure	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32	540 Hopewell Road	30-5-57	< 1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	100-200	N/A	X	Z125824	11/12/2013	Repair	Alternate	Malfunction	I would appreciate it if the township shared the findings of the survey with the community. Thank you
33	540 ROCK RAYMOND ROAD	30-6-10	< 1	Septic Tank/ Cesspool	1000	Seepage Pit	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	568 HOPEWELL ROAD	30-5-60	1	Cesspool	> 1500	Unsure	No	Green Lush Grass	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
35	569 HOPEWELL ROAD	30-5-105.21	1	Septic Tank	900	In-Ground Bed	No	Wetness or water at the surface	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
36	590 ROCK RAYMOND ROAD	30-6-7.1	2	Septic Tank/ Cesspool	Unsure	Seepage Pit	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37	596 ROCK RAYMOND ROAD	30-6-7.1A	2	Septic Tank	Unsure	Unsure	No	Sewage backup into house	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
38	61 MARGIL FARM DRIVE	30-6-50.35	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
39	672 HOPEWELL ROAD	30-2-86.40	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I DONT WANT PUBLIC WATER
40	920 CREEK ROAD	30-2-95.2	1	Cesspool	1000	Seepage Pit	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
41	970 CREEK ROAD	30-2-93.1	> 2	Cesspool	> 1500	In-Ground Trench	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
42	121 Dowlin Forge ROAD	30-6-31	2	Cesspool	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43	20 SPRING MEADOW DRIVE	30-2-94.10	2	Septic Tank	Unsure	Unsure	No	Green Lush Grass	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	200 LA VIDA VIA	30-5-105.6	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	Green Lush Grass	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
45	203 LA VIDA VIA	30-5-105.16	2	Septic Tank	1000	In-Ground Bed	No	Green Lush Grass/ Wet or Spongy Areas	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
46	22 BLAKLEY ROAD	30-6-150	1	Septic Tank	Unsure	Unsure	Unsure	Wet or Spongy Areas/ Wetness or water at the surface	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	23 BLAKLEY ROAD	30-6-139	1	Septic Tank	Unsure	In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48	23 LAMMEY WAY	30-5-419	< 1	Septic Tank	Unsure	In-Ground Bed	No	Green Lush Grass	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	25 Newman Drive	30-3-28.2	1	Septic Tank	1000	In-Ground Bed	No	Wet or Spongy Areas	Private Well	50-100	X	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 10/10/2018 at < 0.56
50	27 Cumberland Drive	30-6-50.23	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	Green Lush Grass, Slow draining plumbing fixtures	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Due to trap build up vice backup. Are there any plans to build public sewers in EBT?
51	1 BELL LANE	30-3-40	1	Septic Tank/ Cesspool	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
52	1061 CREEK ROAD	30-2-34	< 1	Holding Tank	1000	Unsure	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	THIS IS A CHURCH
53	1199 HOPEWELL ROAD	30-3-76	> 2	Septic Tank	Unsure	In-Ground Bed	No	Slow draining plumbing fixtures	Spring	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
54	122 GOVERNORS CIRCLE	30-6-123	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	Slow draining plumbing fixtures	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	13 Cumberland Drive	30-6-50.27	1	Holding Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
56	3 BELL LANE	30-3-40.1	1	Septic Tank	1000	Unsure	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEW CONSTRUCTION WITH IMPACT ON THE WATER TABLE.
57	3 LONGWOOD DRIVE	30-6-57.2	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
58	361 CORNER KETCH ROAD	30-5-98	1	Septic Tank	Unsure	Unsure	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD LIKE TO HAVE PUBLIC SEWAGE AVAILABLE
59	581 HOPEWELL ROAD	30-5-105.19	1	Septic Tank	< 900	In-Ground Bed/ In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60	590 BUCK ROAD	30-6-16	> 2	Septic Tank	< 900	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
61	612 PANCOAST LANE	30-2-86.10	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #6 on 11/22/19. Potential Malfunction.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
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 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
62	745 Creek ROAD	30-3-8	< 1	Septic Tank	< 900	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
63	755 CREEK ROAD	30-3-7	< 1	Septic Tank	< 900	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
64	859 HORSESHOE PIKE	30-6-43.1	< 1	Septic Tank	< 900	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I WOULD LIKE PUBLIC SEWER. WHEN WILL THAT HAPPEN FOR MY ADDRESS?
65	901 CREEK ROAD	30-3-1	2	Septic Tank	1000	In-Ground Trench	Yes	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
66	207 LA VIDA VIA	30-5-105.14	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
67	250 TOWNSHIP ROAD	30-3-56	< 1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #3 on 11/1/19. Potential Malfunction.
68	26 BATTEN DRIVE	30-6-5.9	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	50-100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT SURE AGE OF SEPTIC SYSTEM. BEEN IN THE HOME FOR 2 YEARS
69	270 TOWNSHIP ROAD	30-3-53.1	< 1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	0-50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
70	1 ELSTON DRIVE	30-2-86.26	2	Septic Tank	Unsure	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
71	1 HESSIAN CT	30-6-154	1	Septic Tank	1250	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I empty tank every 3-5 yrs.
72	1 SUSSEX PL	30-6-113	1	Septic Tank	1500	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
73	10 Clover Lane	30-2-86.1G	2	Septic Tank	1000	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
74	10 MARLIN WAY	30-2-94.1C	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
75	10 SPRING MEADOW DRIVE	30-2-94.5	2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
76	10 SUMMERHILL DRIVE	30-6-2.1J	1	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
77	10 SUSSEX PLACE	30-6-145	1	Septic Tank	1000	In-Ground Bed/ In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
78	101 Helm Way	30-6-166	2	Septic Tank	1250	In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
79	102 Helm Way	30-6-165	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
80	102 Hilltop Drive	30-6-92	1	Septic Tank	1000	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
81	1024 HOPEWELL ROAD	30-3-48.3	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	X	Z197875	6/15/2018	Repair	Conventional	Unsatisfactory Certification	TWO LEACHE FIELDS SEPERATED BY BULL RUN VALVE. WE SWITCH BETWEEN PERIODICALLY. ONE IS GRAVITY FED, THE OTHER IS FED BY A PUMP TANK. WHY THERE ARE 2 IN THIS CONFIGURATION WE DO NOT KNOW. ALL PASSED INSPECTIONS AFTER INSTALL OF NEW TANKS JUNE 2018, INCLUDING HYDROLIC LOAD TEST.
82	103 HELM WAY	30-6-167	1	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
83	1034 HOPEWELL ROAD	30-3-48.1	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
84	1035 Hopewell Road	30-3-74	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
85	1037 HOPEWELL ROAD	30-3-74.7	> 2	Septic Tank	1000	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
86	104 Crawford ROAD	30-3-23.1A	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
87	104 HELM WAY	30-6-164	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I HAVE NO ISSUES W MY ON SITE SYSTEM. I HAVE A TANK ALARM ON MY SYSTEM. IT IS TESTED 2X PER YEAR WHEN I REPLACE THE BATTERIES IN MY SMOKE DETECTORS. I AM NOT AWARE OF ANY ISSUES WITH ANY OF MY NEIGHBORS SYSTEMS EITHER.
88	1042 Hopewell Road	30-3-48.7	1	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
89	1046 Hopewell Road	30-3-48.8	1	Septic Tank	1250	In-Ground Trench	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
90	105 HELM WAY	30-6-168	1	Septic Tank	Unsure	Unsure	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
91	1050 Creek ROAD	30-2-92.1	2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
92	1050 HOPEWELL ROAD	30-3-47	> 2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
93	1051 CREEK ROAD	30-2-35	> 2	Septic Tank	900	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
94	1052 HOPEWELL ROAD	30-3-46.1	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
95	1054 Hopewell ROAD	30-3-45	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
96	106 GOVERNORS CIRCLE	30-6-185	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
97	1078 Hopewell ROAD	30-3-46	2	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
98	108 HILLTOP DR	30-6-89	> 2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
99	1080 HOPEWELL ROAD	30-3-43	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WATER TESTED POSITIVE FOR BACTERIA, SO WE HAVE A UV FILTER.
100	109 HILLTOP DR	30-6-159	1	Septic Tank	Unsure	Unsure	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101	11 CLOVER LANE	30-2-86.1D	2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
102	11 Cumberland Dr.	30-6-50.28	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
103	11 SPRING MEADOW DRIVE	30-2-94.16	> 2	I Don't Know	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
104	11 SUMMER HILL DRIVE	30-6-2.1G	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
105	110 GOVERNORS CIRCLE	30-6-182	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
106	110 HELM WAY	30-6-152	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
107	1103 HOPEWELL ROAD	30-3-74.2	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
108	1104 Hopewell Road	30-3-37	> 2	I Don't Know	Unsure	Unsure	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
109	1107 HOPEWELL ROAD	30-3-75.1	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	work on roads not private property
110	1108 Hopewell Road	30-3-39	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
111	111 GOVERNORS CIRCLE	30-6-193	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
112	1111 HOPEWELL ROAD	30-3-75	> 2	Septic Tank	1000	In-Ground Trench	Yes	None	Spring	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
113	1114 HOPEWELL ROAD	30-3-38.1A	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
114	113 Governors Circle	30-6-194	1	Septic Tank	1500	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
115	113 HILL TOP DRIVE	30-6-161	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
116	114 Governors Circle	30-6-180	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
117	115 Hilltop Dr	30-6-149	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	X	Z159913	4/22/2015	Repair	Conventional	Malfunction	N/A	
118	1150 HOPEWELL ROAD	30-3-36.2	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
119	1153 HOPEWELL ROAD	30-3-77.4A	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	200+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
120	116 GOVERNORS CIRCLE	30-6-179	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
121	116 Helm Way	30-6-136	1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
122	116 Hilltop Dr	30-6-87	2+	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	X	Z189540	5/2/2017	Repair	Alternate	Malfunction	N/A	
123	4 CLOVER LANE	30-2-86.1K	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
124	1161 HOPEWELL ROAD	30-3-77.4B	2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
125	1169 HOPEWELL ROAD	30-3-77.1	2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
126	117 Governors Circle	30-6-196	1	Septic Tank	1000	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
127	117 Helm Way	30-6-127	1	Septic Tank	Unsure	Unsure	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
128	1170 HOPEWELL ROAD	30-3-36.5	> 2	Septic Tank	1000	In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
129	119 GOVERNORS CIR	30-6-197	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
130	12 BLAKELY ROAD	30-6-174.1	1	Septic Tank	1500	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
131	12 CLOVER LANE	30-2-86.1F	> 2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
132	12 CUMBERLAND DR	30-6-50.2	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD BE HAPPY TO GO ON PUBLIC SEWER
133	12 Hawk Hill Road	30-3-32.2	> 2	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
134	12 Spring Meadow Drive	30-2-94.6	2	Septic Tank	Unsure	Unsure	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Pump had to be replaced 1 time
135	120 CRAWFOROAD PL	30-3-23.1C	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
136	120 GOVERNORS CIRCLE	30-6-134	< 1	Septic Tank	Unsure	Unsure	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
137	122 CRAWFOROAD ROAD	30-3-23.1D	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
138	123 GOVERNORS CIRCLE	30-6-199	1	Septic Tank	> 1500	Elevated Sand Mound, Pressure Dosed In-Ground Bed	Yes	None	Public	N/A	N/A	X	Z192559A	10/4/2017	Repair	Alternate	Malfunction	N/A	
139	124 Governors Circle	30-6-122	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
140	124 HELM WAY	30-6-115	1	Septic Tank	1000	In-Ground Bed	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
141	126 GOVERNORS CIRCLE	30-6-124	2	Septic Tank	Unsure	Unsure	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
142	126 HELM WAY	30-6-116	1	Septic Tank	1000	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WOULD WELCOME PUBLIC SEWER
143	128 GOVERNORS CIR	30-6-119	2	Septic Tank	Unsure	In-Ground Bed	No	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
144	13 BATTEN DRIVE	30-6-5.17	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
145	13 CLOVER LANE	30-2-86.1E	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HOME HAS DUAL SYSTEMS, SWITCHED ANNUALLY TO REST EACH SYSTEM.
146	130 Governors Circle	30-6-120	1	Septic Tank	1500	Unsure	Unsure	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
147	132 GOVERNORS CIR	30-6-121	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Public	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
148	135 Dowlin Forge Road	30-6-30.3	2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
149	15 CUMBERLAND DRIVE	30-6-50.26	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	N/A	N/A	X	Z160923	8/29/2013	Repair	Conventional	Component Replacement	I DON'T TEST THE WATER BC I DON'T DRINK IT.	
150	28 LAMMY WAY	30-5-417	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WHEN WILL MY ON-LOT FILTRATION TRENCH BE INSPECTED?
151	280 TOWNSHIP ROAD	30-3-52	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
152	29 BLAKELY ROAD	30-6-142	1	Septic Tank	1250	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
153	291 CORNER KETCH ROAD	30-5-96	> 2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	X	Z011263	5/22/2013	Repair	Conventional	Malfunction	N/A	
154	3 BLAKELY ROAD	30-6-133	1	Septic Tank	1250	In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
155	3 CLOVER LANE	30-2-86.1	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
156	3 E. BUCK ROAD	30-6-67.1	> 2	Septic Tank	Unsure	In-Ground Bed/ In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
157	3 Elston Drive	30-2-86.25	> 2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
158	3 Sussex Place	30-6-111	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
159	300 N. Buck ROAD.	30-6-2	> 2	Septic Tank	1000	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
160	301 CORNER KETCH ROAD	30-5-92.1	> 2	Septic Tank	1500	In-Ground Bed	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
161	31 BLAKELY ROAD	30-6-143	< 1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	WHY IS THERE A NEED TO UPDATE ACT 537 FOR AREAS? THERE HAS BEEN NO NEW CONSTRUCTION FOR 25 YEARS.
162	318 N. BUCK ROAD	30-6-1.2	> 2	Septic Tank	Unsure	In-Ground Bed/ In-Ground Trench	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
163	320 N. BUCK ROAD	30-6-1.1	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DUE TO WHERE MY LOT IS I DONT THINK IM AFFECTED, BUT OTHERS WITH WELLS CERTAINLY COULD BE AFFECTED FROM TH ENORMOUS AMT OF LAWN CHEMICALS THAT ARE BEING USED ESPECIALLY IN DEVELOPMENTS. THERE SHOULD BE SOME SORT OF REGULATIONS ABOUT THIS. I NEVER USE CHEMICALS FOR THAT REASON.
164	33 BUCK ROAD	30-6-49.1	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
165	33 Delaney Drive	30-2-96.9	> 2	I Don't Know	Unsure	In-Ground Trench	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
166	338 ROCK RAYMOND	30-6-54.4	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
167	340 ROCK RAYMOND	30-6-54	> 2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
168	341 Corner Ketch Road	30-5-97.1	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	we would love/prefer public sewage!

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
169	342 N. BUCK ROAD	30-5-106.1A	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
170	35 CUMBERLAND DRIVE	30-6-50.14	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
171	350 CREEK ROAD	30-6-70	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	X	Z157425	10/15/2015	Repair	Conventional	<b>Malfunction</b>	Had absorption area repaired between 2013 and 2018.
172	350 N Buck Road	30-5-107	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
173	354 N. BUCK ROAD	30-5-108	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
174	36 BLAKELY ROAD	30-6-97	2	Septic Tank	> 1500	In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEW SYSTEM INSTALLED IN 1991
175	362 N BUCK ROAD	30-5-106.4	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
176	365 ROCK RAYMOND ROAD	30-6-59.4	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	X	Z162402	10/30/2014	Repair	Conventional	<b>Malfunction</b>	WHOLE SYSTEM WAS REPLACED IN 2014. APPROVED BY THE CCHD. THE WORK WAS DONE BY ABBADUSKY ENVIRO SERVICES. Had absorption area repaired between 2013 and 2018.
177	366 N. BUCK ROAD	30-5-106.4B	2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
178	37 BUTTERWORTH CT	30-5-405	< 1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
179	372 North Buck Road	30-5-106.3C	> 2	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
180	374 North Buck ROAD	30-5-106.3D	> 2	Septic Tank	1250	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
181	38 BLAKELY ROAD	30-6-83	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
182	380 ROCK RAYMOND ROAD	30-6-51	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PUMPED OUT EVERY 2 YRS,
183	381 N. BUCK ROAD	30-6-5.11	> 2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #4 on 11/1/19. No Malfunction.
184	384 N Buck ROAD	30-5-106.5D	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
185	386 N Buck ROAD	30-5-106.5C	2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	What needs to be done to bring public sewer to houses on N Buck Rd?
186	391 N. BUCK ROAD	30-6-5.13	1	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
187	395 N. BUCK ROAD	30-6-5.14	2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
188	399 ECHO DELL ROAD	30-2-101.3	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
189	4 Blakely Road	30-6-177	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Our septic tank is also outfitted with an aeration system. The aeration system reportedly assists with microbide activity and breakdown. Also our leaching field is fed by a pump as it is higher on a hill then the house or tank.

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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
190	4 ELSTON DRIVE	30-2-86.22	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
191	4 SUMMERHILL DRIVE	30-6-2.1M	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
192	40 Hilltop Drive	30-6-59.2	1	Septic Tank	1000	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No problems or concerns at this time. Would be interested to know if public sewers are being considered and if so, when?
193	404 CREEK ROAD	30-6-21	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	X	Z126296	7/22/2013	Repair	Alternate	Malfunction	N/A
194	407 CREEK ROAD	30-3-83	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
195	407 ECHO DELL ROAD	30-2-101.6	> 2	Septic Tank	> 1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
196	41 Blakely Road	30-6-104	> 2	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Are there any plans to provide additional Municipal Authority sewage disposal to other areas than presently served. Also when. I would support this.
197	415 ROCK RAYMOND ROAD	30-6-64.4	2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
198	425 ROCK RAYMOND ROAD	30-6-64	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
199	43 MARGIL FARM DRIVE	30-6-50.37	1	Septic Tank	1500	In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
200	44 BLAKELY ROAD	30-6-99	1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
201	445 CORNER KETCH ROAD	30-2-81	< 1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
202	45 BUTTERWORTH CT	30-5-426	< 1	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
203	46 BLAKELY ROAD	30-6-100	1	Septic Tank	Unsure	In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
204	467 Corner Ketch Road	30-2-86.4A	> 2	Septic Tank	1500	In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
205	47 Butterworth Ct.	30-5-425	< 1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
206	470 REEDS ROAD	30-2-98.1A	2	Septic Tank	1500	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
207	475 REEDS ROAD	30-3-14.1	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
208	48 Butterworth Court	30-5-423	1	I Don't Know	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
209	48 MARGIL FARM DRIVE	30-6-50.39	1	Septic Tank	Unsure	In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
210	480 REEDS ROAD	30-2-98.1	> 2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
211	485 REEDS ROAD	30-3-14	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We have never had any problems with our drinking water or sewage system.
212	495 Rock Raymond ROAD	30-6-187	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
213	5 CLOVER LANE	30-2-86.1A	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SECOND SYSTEM INSTALLED IN 1998
214	5 EAST BUCK ROAD	30-6-67	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
215	50 BLAKELY ROAD	30-6-102	1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DONT KNOW IF I HAVE A ABSORPTION OR DISPOSAL, I JUST KNOW I HAVE A SEPTIC AND NEVER HAD A PROBLEM WITH IT.
216	50 MARGIL FARM DRIVE	30-6-50.40	1	Septic Tank	Unsure	Unsure	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
217	500 REEDS ROAD	30-2-98.3	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
218	500 ROCK RAYMOND ROAD	30-6-15.1	< 1	Septic Tank	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
219	501 CORNER KETCH ROAD	30-2-86.5	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed/ In-Ground Trench/ Pipe to Ditch/ Stream/Surface	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
220	502 REEDS ROAD	30-2-98.3A	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
221	505 REEDS ROAD	30-3-15	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
222	51 CORNER KETCH ROAD	30-5-89	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
223	52 BLAKELY ROAD	30-6-81	> 2	Septic Tank	1500	In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I love on site septic. Low maintenance, low cost for the type of system we have.
224	521 OLD HORSESHOE PK	30-6-44.4	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
225	525 ROCK RAYMOND ROAD	30-6-23	1	Septic Tank	1000	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
226	53 CORNER KETCH ROAD	30-5-90	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OUR SYSTEM WORKS WELL WE KEEP EVERYTHING MAINTAINED.
227	530 Creek Road	30-3-36	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We have never had any problems with either our sewage or well.
228	54 BLAKELY ROAD	30-6-80	> 2	Septic Tank	1500	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
229	540 CREEK ROAD	30-3-36.1	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
230	55 Hilltop DRIVE	30-6-59.7	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tanks and drainfield updated within the past 10 years. Up to code. Had absorption area repaired between 2013 and 2018.
231	550 ROCK RAYMOND ROAD	30-6-9	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
232	555 HOPEWELL ROAD	30-5-105.2	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
233	560 REEDS ROAD	30-2-97	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
234	561 Old Horseshoe Pike	30-6-47	> 2	Septic Tank	> 1500	Unsure	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
235	562 REEDS ROAD	30-2-97.2	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
236	564 REEDS ROAD	30-2-97.3	> 2	Septic Tank	Unsure	Unsure	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
237	566 REEDS ROAD	30-2-97.4	> 2	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
238	57 Delaney Drive	30-2-96.7	> 2	Septic Tank	Unsure	In-Ground Trench	Unsure	None	Private Well	> 200	X	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 5/11/2015 at: < 2.25 mg/L
239	570 HOPEWELL ROAD	30-2-86.38	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
240	571 CORNER KETCH ROAD	30-2-94.1	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
241	571 OLD HORSESHOE PK	30-6-46	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
242	575 ROCK RAYMOND ROAD	30-6-24	> 2	Septic Tank	1250	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
243	589 ROCK RAYMOND ROAD	30-6-25.1	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	X	Z131090	8/2/2013	Repair	Conventional	Malfunction	N/A
244	597 REEDS ROAD	30-3-18.4	> 2	Septic Tank	1000	In-Ground Trench	Yes	None	Private Well	100-200	N/A	X	Z189483	6/5/2016	Repair	Alternate	Unsatisfactory Certification	N/A
245	6 BELL LANE	30-3-40.3	1	Septic Tank	Unsure	Seepage Pit	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
246	6 SUMMERHILL DRIVE	30-6-2.1L	1	Septic Tank	1250	In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
247	6 Sussex Place	30-6-147	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
248	600 PANCOAST LANE	30-2-86	> 2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
249	601 PANCOAST LANE	30-2-86.34	2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
250	603 PANCOAST LANE	30-2-86.33	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018. Tier II Inspection #5 on 11/22/19. No Malfunction.
251	608 PANCOAST LANE	30-2-86.9	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
252	616 PANCOAST LANE	30-2-86.11	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
253	620 ROCK RAYMOND ROAD	30-6-7.2	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
254	622 PANCOAST LANE	30-2-86.12	2	Septic Tank	Unsure	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Anticipated cost per household if/when public sewer system is mandated for my neighborhood. Had absorption area repaired between 2013 and 2018.
255	622 ROCK RAYMOND ROAD	30-6-7.3	2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
256	634 PANCOAST LANE	30-2-86.15	> 2	Septic Tank	Unsure	In-Ground Trench	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
257	637 PANCOAST LANE	30-2-86.20	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
258	64 MARGIL FARM DRIVE	30-6-50.47	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
259	640 PANCOAST LANE	30-2-86.16	2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Tier II Inspection #1 on 10/29/19. No Malfunction.
260	65 MARGIL FARM DRIVE	30-6-50.34	1	Septic Tank	1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
261	67 MARGIL FARM DRIVE	30-6-50.33	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
262	675 HOPEWELL ROAD	30-5-106.7	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
263	68 DELANEY DRIVE	30-2-96.5	> 2	Septic Tank	> 1500	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
264	690 ROCK RAYMOND ROAD	30-6-6	2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
265	720 CREEK ROAD	30-3-32.1	> 2	Septic Tank	> 1500	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area. NEIGHBORS DO NOT HAVE A DRAIN FIELD.
266	75 Margil Farm DRIVE	30-6-50.31	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	we would like the township to install public sewer.
267	750 CREEK ROAD	30-3-31	< 1	Holding Tank	> 1500	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
268	76 Margil Farm Drive	30-6-50.50	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
269	765 CREEK ROAD	30-3-6	< 1	Septic Tank	> 1500	Unsure	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
270	770 CREEK ROAD	30-3-30	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
271	780 CREEK ROAD	30-3-29.1	< 1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
272	795 CREEK ROAD	30-3-4	> 2	Septic Tank	> 1500	Elevated Sand Mound	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We are aware of other sewage problems in the area. SOMETIMES SEWAGE WATER IS IN THE STREAM ON OUR PROPERTY.
273	8 Hessian Court	30-6-202	1	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Aging septic systems in vicinity. We are aware of other sewage problems in the area. Had absorption area repaired between 2013 and 2018.
274	8 Summerhill Drive Suspected Malfunction= orange	30-6-2.1K	1	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Potenital Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
275	80 HILLTOP DRIVE	30-6-59.6	1	Septic Tank	1000	In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
276	81 Bowman Court	30-6-50.46	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
277	82 MARGIL FARM DRIVE	30-6-50.52	1	Septic Tank	Unsure	Unsure	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
278	83 BOWMAN CT	30-6-50.45	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
279	830 HOPEWELL ROAD	30-3-12	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
280	84 BOWMAN CT	30-6-45.2	> 2	Septic Tank	1000	In-Ground Trench	Yes	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
281	850 CREEK ROAD	30-3-18.1	> 2	Septic Tank	1000	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
282	851 CREEK ROAD	30-3-3	> 2	Septic Tank	> 1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
283	851 HORSESHOE PIKE	30-6-42	1	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
284	9 SUMMERHILL DRIVE	30-6-2.1F	2	Septic Tank	1000	In-Ground Bed	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
285	9 Sussex Place	30-6-109	2	I Don't Know	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
286	930 CREEK ROAD	30-2-95.3	> 2	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
287	930 HOPEWELL ROAD	30-3-25	1	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
288	960 CREEK ROAD	30-2-94.2	> 2	Septic Tank	1500	In-Ground Trench	No	None	Private Well	100-200	N/A	X	Z192915	3/13/2018	Repair	Conventional	Component Replacement	No community concerns but for clarity Our original 1000 gallon tank installed and in use in 1985 with second down stream 500 gallon tank and extended trench in 2018 for addition project which is presently under construction. Added Second downstream 500 Gallon tank in 2018 Plus extended seepage bed trench with ongoing addition. Had absorption area repaired between 2013 and 2018.
289	980 CREEK ROAD	30-2-93.2	> 2	Septic Tank	1000	Unsure	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
290	990 CREEK ROAD	30-2-91.2	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
291	555 ROCK RAYMOND	30-6-34.2	> 2	Septic Tank	1500	Unsure	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
292	3982 W. LINCOLN HWY (Mt Idy)	30-3-62	> 2	Septic Tank	> 1500	In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	COLDS
293	571 OLD HORSESHOE PIKE	30-6-46	> 2	I Don't Know	900	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	THIS IS A WORKING FARM, NO RESIDENCE. PORT O POTTY
294	5 HESSIAN CT	30-6-156	1	Septic Tank	1000	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
295	121 Governors Circle	30-6-198	1	Septic Tank	Unsure	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
296	151 Dowlin Forge ROAD	30-6-30.7	2	Septic Tank	1250	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
297	1110 Hopewell ROAD	30-3-38	2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Suspected Malfunction= orange  
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**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
298	15 Spring Meadow Dr	30-2-94.14	> 2	Septic Tank	1000	Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
299	150 CRAWFORAD ROAD	30-3-22	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
300	155 Dowlin Forge Road	30-6-30.6	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
301	16 Cumberland Drive	30-6-50.4	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
302	16 HAWK HILL ROAD	30-3-32.4	> 2	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
303	16 SPRING MEADOW	30-2-94.8	> 2	Septic Tank	Unsure	In-Ground Trench	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
304	161 DOWLIN FORGE ROAD	30-6-30.8	2	Septic Tank	Unsure	In-Ground Bed	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
305	165 DOWLIN FORGE ROAD	30-6-30.9	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
306	17 SPRING MEADOW DRIVE	30-2-94.13	2	Septic Tank	Unsure	Unsure	No	None	Private Well	> 200	N/A	X	Z051162	1/27/2014	Repair	Alternate	Malfunction	N/A	
307	170 CRAWFORD ROAD	30-3-21	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 6/12/2017 at: < 0.52
308	171 DOWLIN FORGE RD	30-6-29	> 2	Holding Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Spring	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
309	18 SPRING MEADOW DRIVE	30-2-94.9	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
310	181 DOWLIN FORGE RD	30-6-28	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
311	19 SPRING MEADOW DRIVE	30-2-94.12	2	Septic Tank	> 1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
312	195 DOWLIN FORGE RD	30-6-26	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
313	2 ELESTON DRIVE	30-2-86.21	2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
314	2 Englerth Lane	30-6-50.19	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	COLDS
315	20 BATTEN DRIVE	30-6-5.6	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
316	20 CUMBERLAND	30-6-50.6	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
317	20 Hilltop Drive	30-6-59.1	1	Septic Tank	1500	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
318	20 LAMMEY WAY	30-5-413	< 1	Septic Tank	1500	In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
319	200 N BUCK ROAD	30-6-2.1A	> 2	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
320	201 La Vida Via	30-5-105.5	1	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township
321	202 LA VIDA VIA	30-5-105.17	1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	THE ORIGINAL GROUND TRENCH WAS ABANDONED WHEN THE DOSE SYSTEM WAS INSTALLED IN 95. A BULL HEAD VALVE WAS INSTALLED TO ALLOW FOR A BACK UP SYSTEM, IT HAS NEVER BEEN USED.
322	205 corner ketch ROAD	30-5-94	2	Septic Tank	> 1500	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I use a company to monitor it. They come 3 times a year and do a thorough inspection.
323	205 LA VIDA VIA	30-5-105.13	1	Septic Tank	1000	In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1992 second in ground bed added Chester County Health Dept Permit # K19100. Had absorption area repaired between 2013 and 2018.
324	206 LA VIDA VIA	30-5-105.10	1	Holding Tank	Unsure	In-Ground Bed	No	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
325	21 BATTEN DRIVE	30-6-5.21	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
326	21 LAMMY WAY	30-5-420	1	Septic Tank	Unsure	Elevated Sand Mound	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
327	211 LA VIDA VIA	30-5-105.20	1	Septic Tank	Unsure	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Had absorption area repaired between 2013 and 2018.
328	212 LA VIDA VIA	30-5-92.3	> 2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
329	213 LA VIDA VIA	30-5-105	1	Septic Tank	Unsure	Elevated Sand Mound, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DO NOT WANT PUBLIC WATER OR SEWER
330	214 La Vida Via	30-5-92.4	> 2	Septic Tank	1500	In-Ground Trench	Yes	None	Private Well	100-200	N/A	X	Z151051A	7/3/2018	Repair	Conventional	Malfunction	N/A
331	215 La Vida Via	30-5-105.15	1	Septic Tank	1500	Elevated Sand Mound, Pressure Dosed In-Ground Bed	Yes	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	We paid a lot for our septic and do not want public.
332	23 Spring Meadow Drive	30-2-94.17	> 2	Septic Tank	1250	In-Ground Trench	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	my tank didn't need repair but replaced my distribution box
333	24 Batten Drive	30-6-5.8	2	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Issues. Both systems run well.
334	24 Spring Meadow Dr	30-2-94.18	> 2	Septic Tank	1250	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
335	240 TOWNSHIP ROAD	30-3-58	2	Septic Tank	1000	In-Ground Bed	No	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
336	25 BLAKELY ROAD	30-6-140	1	Septic Tank	1250	In-Ground Bed	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
337	25 CUMBERLAND DRIVE	30-6-50.24	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Unsure	None	Public	No well	N/A	X	Z157299	4/21/2015	Repair	Conventional	Malfunction	N/A
338	25 Hilltop Drive	30-6-59.5	1	Septic Tank	Unsure	Unsure	Unsure	None	Private Well	Unsure	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
339	26 Blakely Road	30-6-95	1	Septic Tank	1500	In-Ground Trench	No	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	I have no additional comments or concerns.
340	26 NEWMAN DRIVE	30-3-28.1	1	Septic Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	No	None	Private Well	> 200	X	N/A	N/A	N/A	N/A	N/A	N/A	Nitrates tested: 9/4/2018 at < 0.23

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**ZONE 3**

No.	Address (All in Downingtown, PA 19335)	UPI #	Lot Size (acres)	Sewage Tank Type	Capacity of Sewage Tank(s) (Gal.)	Disposal Area Type	More than one absorption area?	Noted malfunctions?	Water Supply Type	Distance of well from disposal area (feet)	Nitrates Tested (CCHD)	Replacement/ Repair/ Malfunction (CCHD)	Permit No. (CCHD)	Date Approved: 2013-2018 (CCHD)	Permit Type (CCHD)	System Classification (CCHD)	Repair Reason (CCHD)	Additional comments regarding sewage in East Brandywine Township	
341	260 Township Road	30-3-54	< 1	Septic Tank	1500	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	X	Z162545	4/15/2016	Repair	Conventional	<b>Malfunction</b>	N/A	
342	277 CORNER KETCH Road	30-5-92.2	> 2	Septic Tank	1500	In-Ground Bed	No	None	Private Well	> 200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
343	28 BATTEN DRIVE	30-6-5.10	1	Septic Tank	Unsure	Pressure Dosed In-Ground Bed	Yes	None	Private Well	100-200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
344	28 CUMBERLAND DRIVE	30-6-50.10	1	Holding Tank	Unsure	In-Ground Trench, Pressure Dosed In-Ground Bed	Unsure	None	Public	No well	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Suspected Malfunction= orange  
 Potential Malfunction= yellow  
 Regulatory Malfunction (CCHD)= red text  
 Reason for Malfunction= bold text  
 \*= Tier II Site Visit

**Appendix - P**  
**Tier II Site Visit Notes**

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**Tier II Site Visit Notes: Zone 1**

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**Field Verification #1: Thursday August 29, 2019 at 9:00 AM**

Address: 1229 Osborne Road, Downingtown, PA 19335

Homeowners: Harold & Ann Wood

Phone: 610-296-7090

Email Address: halwood0318@comcast.net

UPI# 30-5G-39

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners:           **N**          .

**OLDS**

- Conveyance
  - Any broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? Y / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? Y / N **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y/**N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

One vertical cleanout pipe cap broken for in-ground trench system. No malfunctions noted.

**Field Verification #1: Thursday August 29, 2019 at 9:00 AM**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Thursday 8/29/19 at 9:00 AM

Zone 1 - Inspection #1

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

HAROLD R & ANN E WOOD OWNER NAME(S) PRINTED

30-56-39 UPI (FOUND ON COVER LETTER)

1229 OSBORNE RD STREET ADDRESS

DOWNINGTOWN, PA 19335

8/25/2019 DATE

Harold R Wood Ann E Wood OWNER SIGNATURE(S)

Contact Information:

Phone: 610-296-7090

Email: halwood0318@comcast.net

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AUG 27 2019

HtP, LLC

Conveyance



Treatment



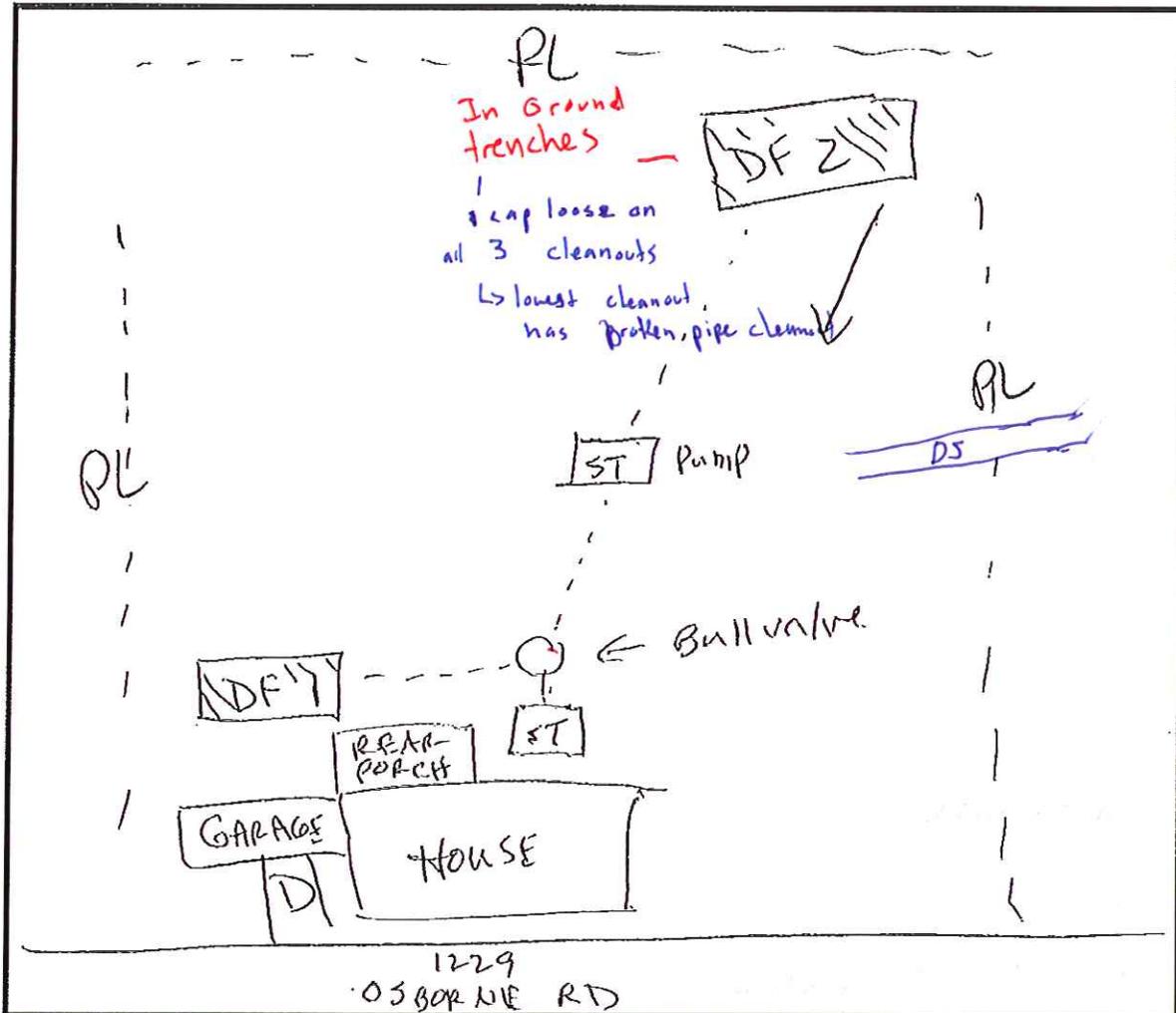
Disposal



### Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line	-----PL-----	Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

EAST BRANDYWINE TOWNSHIP

NAME: HAROLD &amp; ANN WOOD

ADDRESS: 1229 OSBORNE RD, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610-269-7090

UPI#: 30-5G-39

- 
1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2
  2. IS YOUR HOME OCCUPIED? ALL YEAR
  3. HOW LARGE IS YOUR LOT? 1 ACRE
  4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
  5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
  6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? 1250 GALLONS
  7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 1
  8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 1- 3 YEARS AGO
  9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 3- 5 YEARS
  10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2016
  11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
  12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
  13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES
  14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED; IN-GROUND TRENCH
  15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? YES
  16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
  17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
  18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
  19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? YES; 1998
  20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
  21. WHAT KIND OF WATER SUPPLY DO YOU USE? PUBLIC
  22. IF YOU HAVE A WELL, WAS IT: I DON'T HAVE A WELL
  23. IF YOU HAVE A WELL, HOW DEEP IS IT? I DON'T HAVE A WELL
  24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? I DON'T KNOW
  25. IS THE WELL HEAD CASED? I DON'T HAVE A WELL
  26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? I DON'T HAVE A WELL
  27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? I DON'T KNOW
  28. DO YOU TEST YOUR WATER PERIODICALLY? I DON'T KNOW
  29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

Field Verification #2: Thursday August 29, 2019 at 1:00 PM

Address: 201 Newlin Drive, Downingtown, PA 19335

Homeowners: Frank & Patricia Newlin

Phone: 610-384-0490

Email Address: [frank\\_newlin@verizon.net](mailto:frank_newlin@verizon.net)

UPI# 30-5G-166

Malfunction: No / **Potential** / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: drain field moved from gravity to pressure in 1990s.

**OLDS**

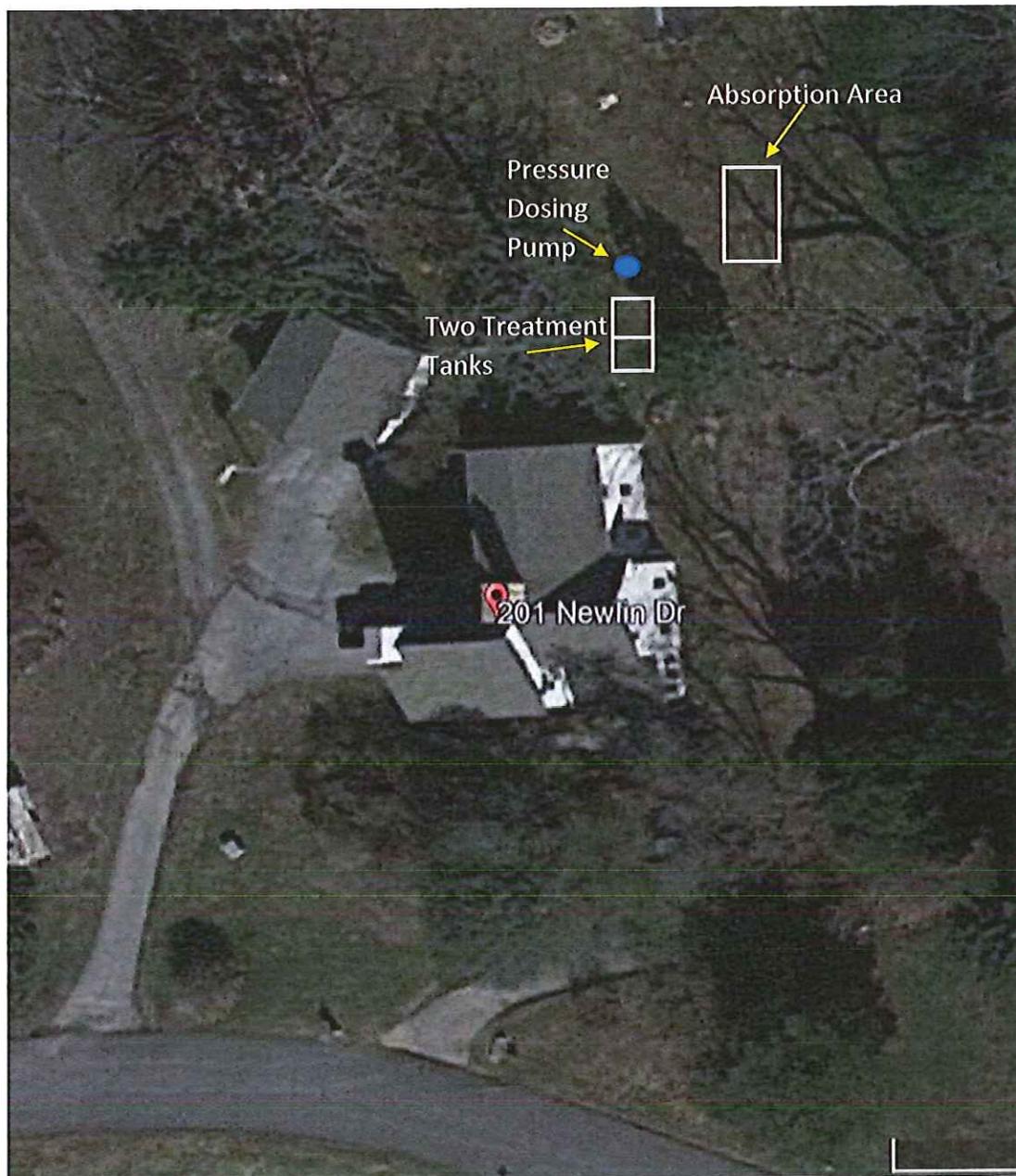
- Conveyance
  - Any broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? Y / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? Y / N **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / **N**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N** Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N** Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: Y / **N**

Additional Comments:

No malfunctions noted. Possible Potential Malfunction- undersized absorption field based on PA Code: Chapter 73 standards.

Field Verification #2: Thursday August 29, 2019 at 1:00 PM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Thursday 8/29/19 at 1:00 PM

Zone 1 - Inspection #2

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Frank & PATRICIA NEWLIN OWNER NAME(S) PRINTED

30-5-166 UPI (FOUND ON COVER LETTER)

201 NEWLIN DR. STREET ADDRESS

August 22, 2019 DATE

Frank Newlin / Patricia K. Newlin OWNER SIGNATURE(S)

RECEIVED

RECEIVED

AUG 27 2019

HtP, LLC

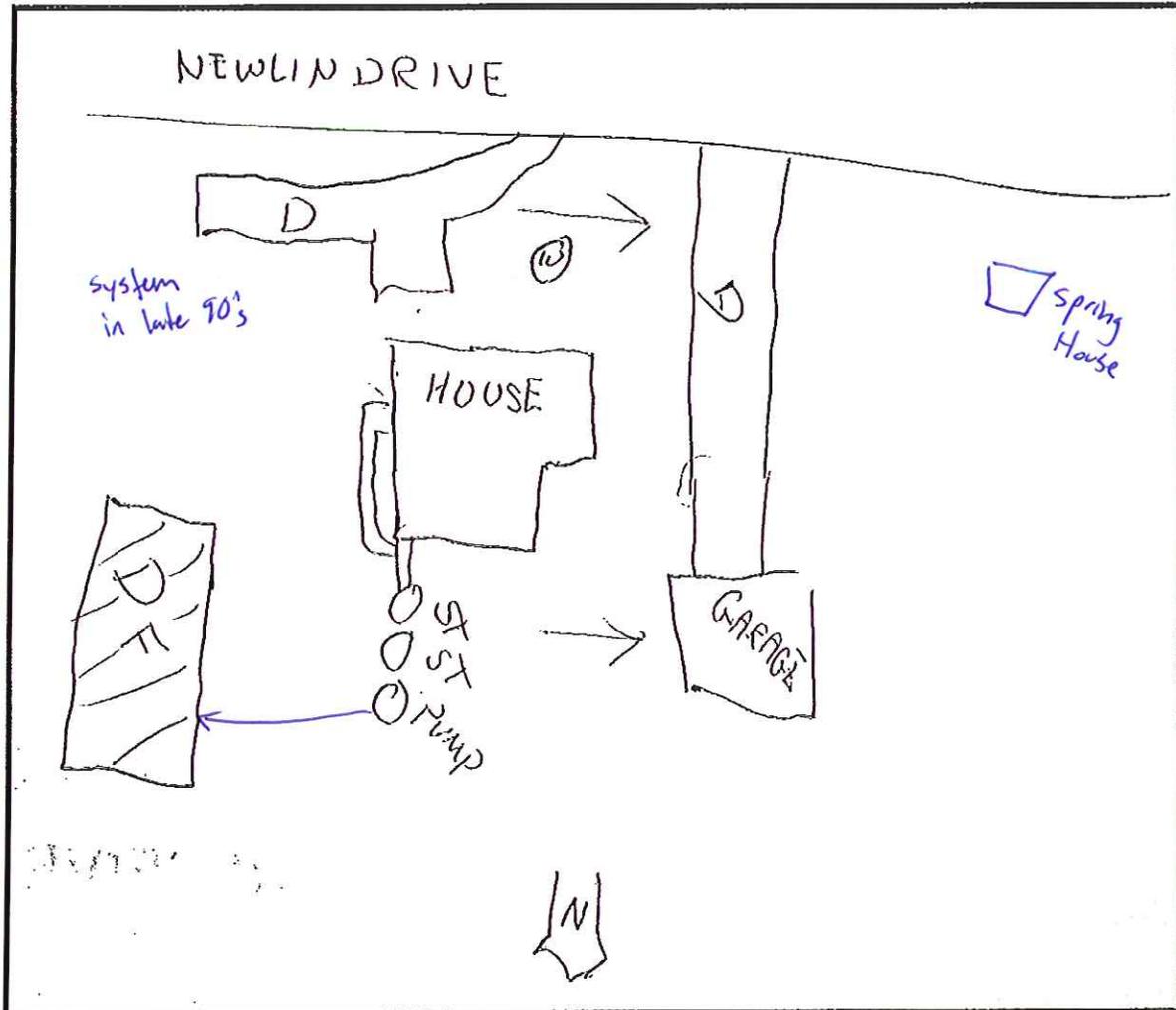
Contact Info:  
Phone: 610-384-0490  
Email: frank\_newlin@verizon.net

frank\_newlin@verizon.net

### Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

EAST BRANDYWINE TOWNSHIP

NAME: FRANK NEWLIN

ADDRESS: 201 NEWLIN DR, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610-384-0490

UPI#: 30-5-166

- 
1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 4
  2. IS YOUR HOME OCCUPIED? ALL YEAR
  3. HOW LARGE IS YOUR LOT? 2 ACRES
  4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
  5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK; I DON'T KNOW
  6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
  7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 3
  8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
  9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
  10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? NO
  11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
  12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
  13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES
  14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED
  15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? YES
  16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
  17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
  18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
  19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
  20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
  21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
  22. IF YOU HAVE A WELL, WAS IT: DRILLED
  23. IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET
  24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO
  25. IS THE WELL HEAD CASED? YES
  26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 100-200 FEET; LEVEL
  27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? NO
  28. DO YOU TEST YOUR WATER PERIODICALLY? NO
  29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

Field Verification #3: Tuesday September 3, 2019 at 9:00 AM

Address: 114 Locust Knoll Road, Downingtown, PA 19335

Homeowners: Claude & Janet Mackenzie

Phone: 610-269-7658

Email Address: [claudemackenzie@aol.com](mailto:claudemackenzie@aol.com)

UPI# 30-5G-10

Malfunction: No / Potential / Suspected

- Are homeowners present? Y / N
- Any evidence of apparent malfunction? Y / N
  - If so, what/where: tree on top of secondary absorption field
- Any additional information offered by the homeowners: A secondary drainage field was added in the 1990s, homeowners get system pumped every 4 years (approx.), & has broken baffle that will be replaced next scheduled pumping.

### OLDS

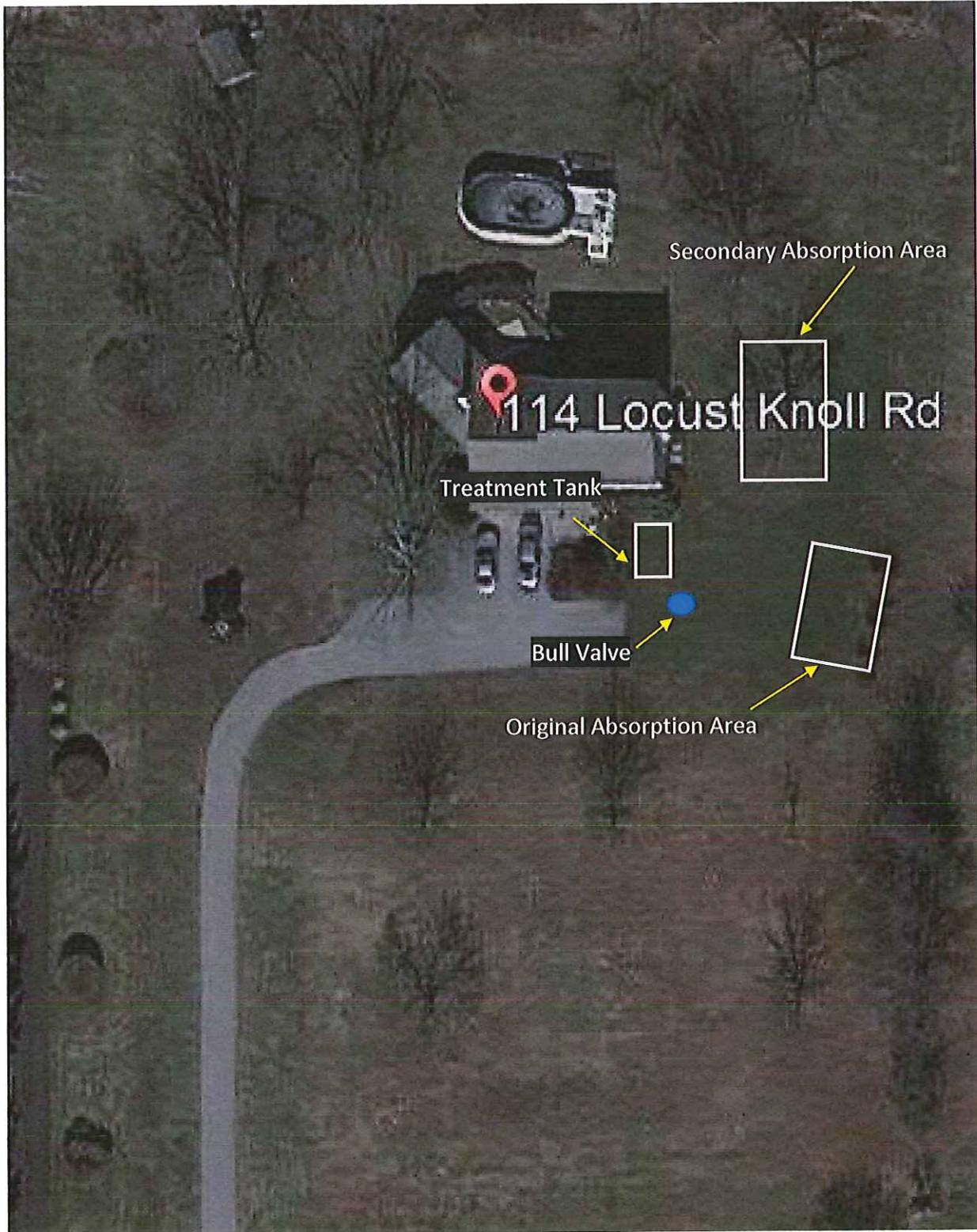
- Conveyance
  - Any broken pipes? Y / N
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N N/A
  - Was the liquid depth above the outlet pipe? Y / N N/A
  - Tank Lid intact? Y / N N/A
  - Effluent filter? Y / N N/A
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N N/A
  - Is tank structurally sound, no evidence of leaks or cracks? Y / N N/A
- Disposal
  - Did it rain in last 24 hours? Y / N
  - Does greywater discharge to the ground surface? Y / N
  - Is there a pressure dosing tank? Y / N
  - If exposed, is distribution box outlets level? Y / N N/A
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / N Open Pipe Discharge Y / N
    - Wet/Spongy Areas Y / N Lush Green Grass Y / N

### Additional Comments:

Homeowner suggested that he planted a Maple tree that is possibly located directly on top of the secondary drainage field. Baffle broken, will have to be replaced when pumper returns.

\*Contact CCHD for any records on this property regarding tree.

Field Verification #3: Tuesday September 3, 2019 at 9:00 AM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED

AUG 30 2019

HIP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

CLAUDE & JAYDE MACKENZIE OWNER NAME(S) PRINTED

30-56-10 UPI (FOUND ON COVER LETTER)

114 LOCUST KNOLL RD. STREET ADDRESS

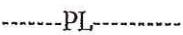
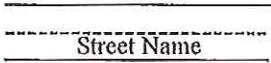
DOWNTOWN PA

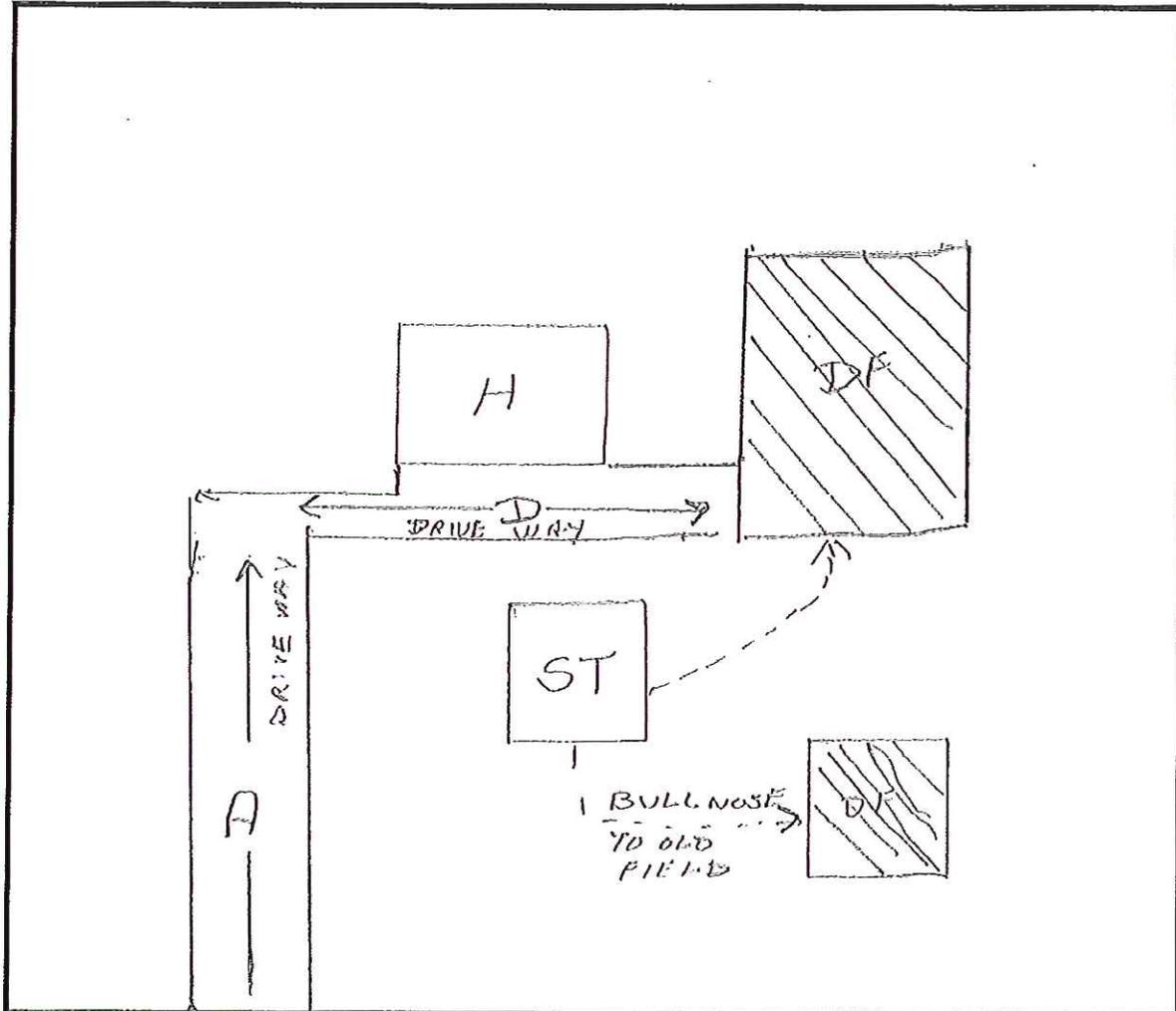
8/30/2019 DATE

Claude Mackenzie OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



DUSTY VOLT ROAD

**SEWAGE NEEDS SURVEY**

EAST BRANDYWINE TOWNSHIP

NAME: CLAUDE &amp; JANET MACKENZIE

ADDRESS: 114 LOCUST KNOLL RD, DOWNINGTOWN, PA 1935

TELEPHONE NUMBER: 610-269-7658

UPI#: 30-5G-10

- 
1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2
  2. IS YOUR HOME OCCUPIED? ALL YEAR
  3. HOW LARGE IS YOUR LOT? 1 ACRE
  4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
  5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
  6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
  7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 1
  8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 1- 3 YEARS AGO
  9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
  10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2017
  11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
  12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
  13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
  14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND TRENCH
  15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? YES
  16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
  17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
  18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
  19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? YES; IDK
  20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
  21. WHAT KIND OF WATER SUPPLY DO YOU USE? PUBLIC
  22. IF YOU HAVE A WELL, WAS IT: I DON'T HAVE A WELL
  23. IF YOU HAVE A WELL, HOW DEEP IS IT? I DON'T HAVE A WELL
  24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO
  25. IS THE WELL HEAD CASED? I DON'T HAVE A WELL
  26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? I DON'T HAVE A WELL
  27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; AQUA SENDS RPTS
  28. DO YOU TEST YOUR WATER PERIODICALLY? NO
  29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

**Field Verification #4: Tuesday September 3, 2019 at 2:00 PM**

Address: 220 Lenora Lane, Downingtown, PA 19335

Homeowners: Ricardo & Rosemary Cornielle

Phone: 610-316-8180

Email Address: racornielle@comcast.net

UPI# 30-5-166.26

Malfunction: No / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: **N/A**

**OLDS**

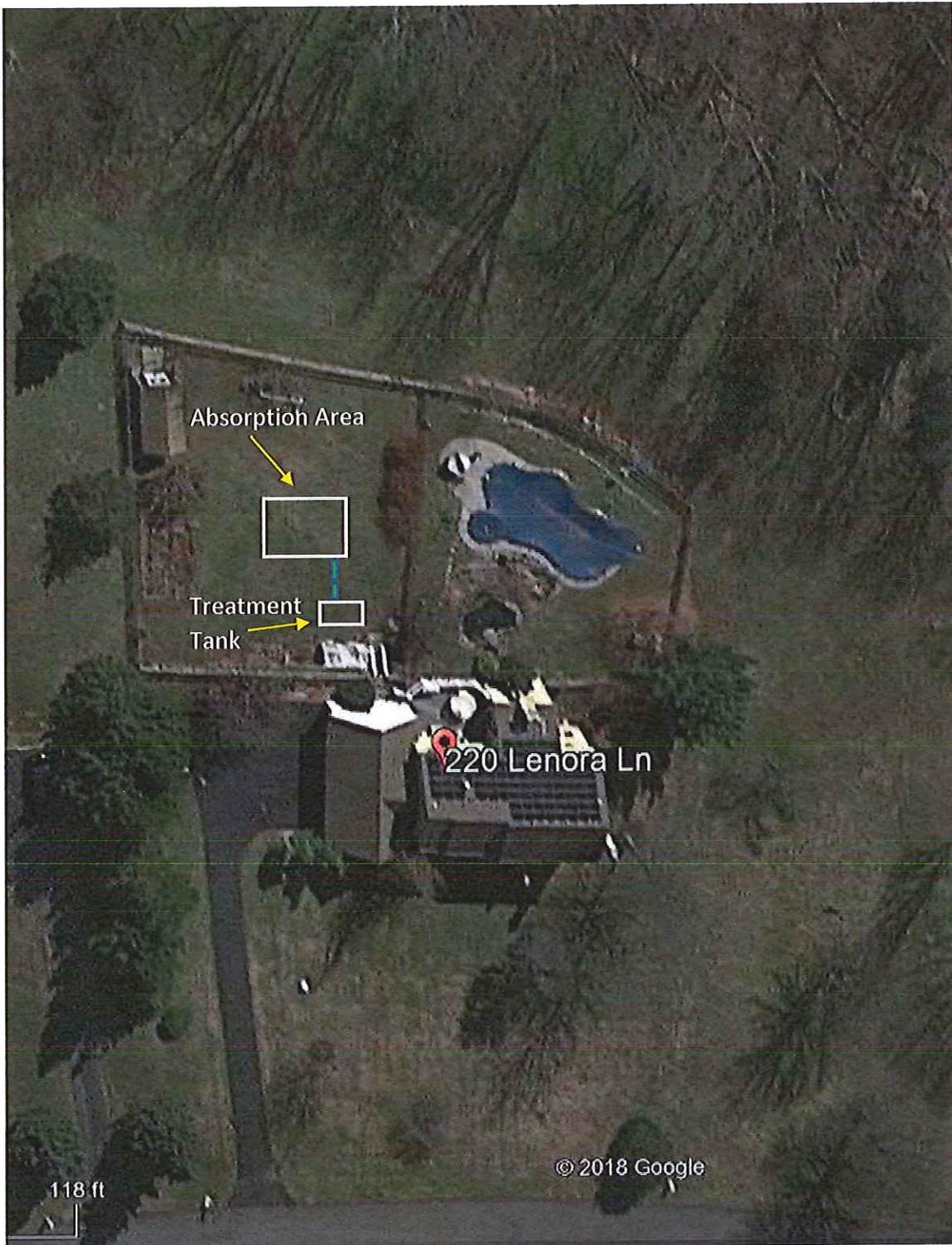
- Conveyance
  - Any broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank (2 compartments)
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / N **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y** / N
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? Y / **N**
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: Y / **N** - no lush green grass in absorption field.

Additional Comments:

No Malfunctions noted on site, takes care of system.

Field Verification #4: Tuesday September 3, 2019 at 2:00 PM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Tuesday 9/3 at 2:00 PM

Zone 1 - Inspection #4

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

RIZCARTO + ROSAMARIA  
CORNIELLO OWNER NAME(S) PRINTED  
30-5-166.26 UPI (FOUND ON COVER LETTER)  
220 LENORA LANE STREET ADDRESS  
DOWNTOWN PA 19335  
08/27/2019 DATE  
 OWNER SIGNATURE(S)

RECEIVED  
AUG 28 2019  
HtP, LLC

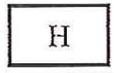
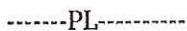
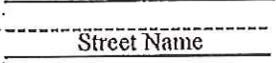
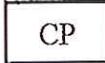
Contact Info:

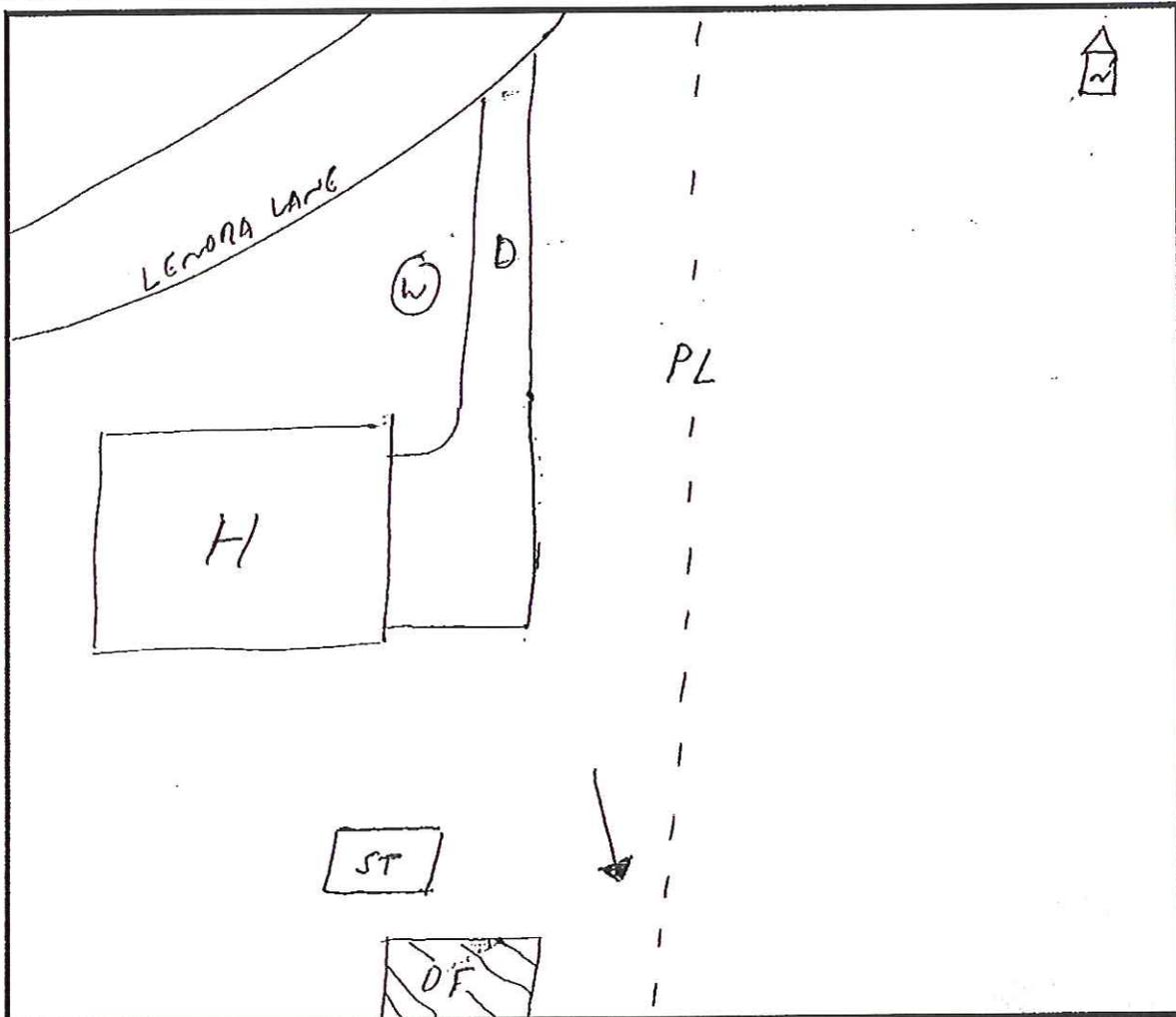
Phone: 610-316-8180

Email: racornielle@comcast.net

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



## SEWAGE NEEDS SURVEY

EAST BRANDYWINE TOWNSHIP

NAME: RICARDO CORNIELLE

ADDRESS: 220 LENORA LANE, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610316-8180

UPI#: 30-5-166.26

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 4
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 2
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2016
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
GREEN LUSH GRASS
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: DRILLED
23. IF YOU HAVE A WELL, HOW DEEP IS IT? MORE THAN 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? YES
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 200+ FEET
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; 0
28. DO YOU TEST YOUR WATER PERIODICALLY? YES
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. N/A

**Field Verification #5: Thursday September 5, 2019 at 9:00 AM**

Address: 24 Red Maple Drive, Downingtown, PA 19335

Homeowners: Cathleen & Allen Weisser

Phone: 610-466-0384

Email Address: N/A

UPI# 30-5-156.8

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: The homeowner said that geothermal wells were installed recently, and water backwashes into septic system.

**OLDS**

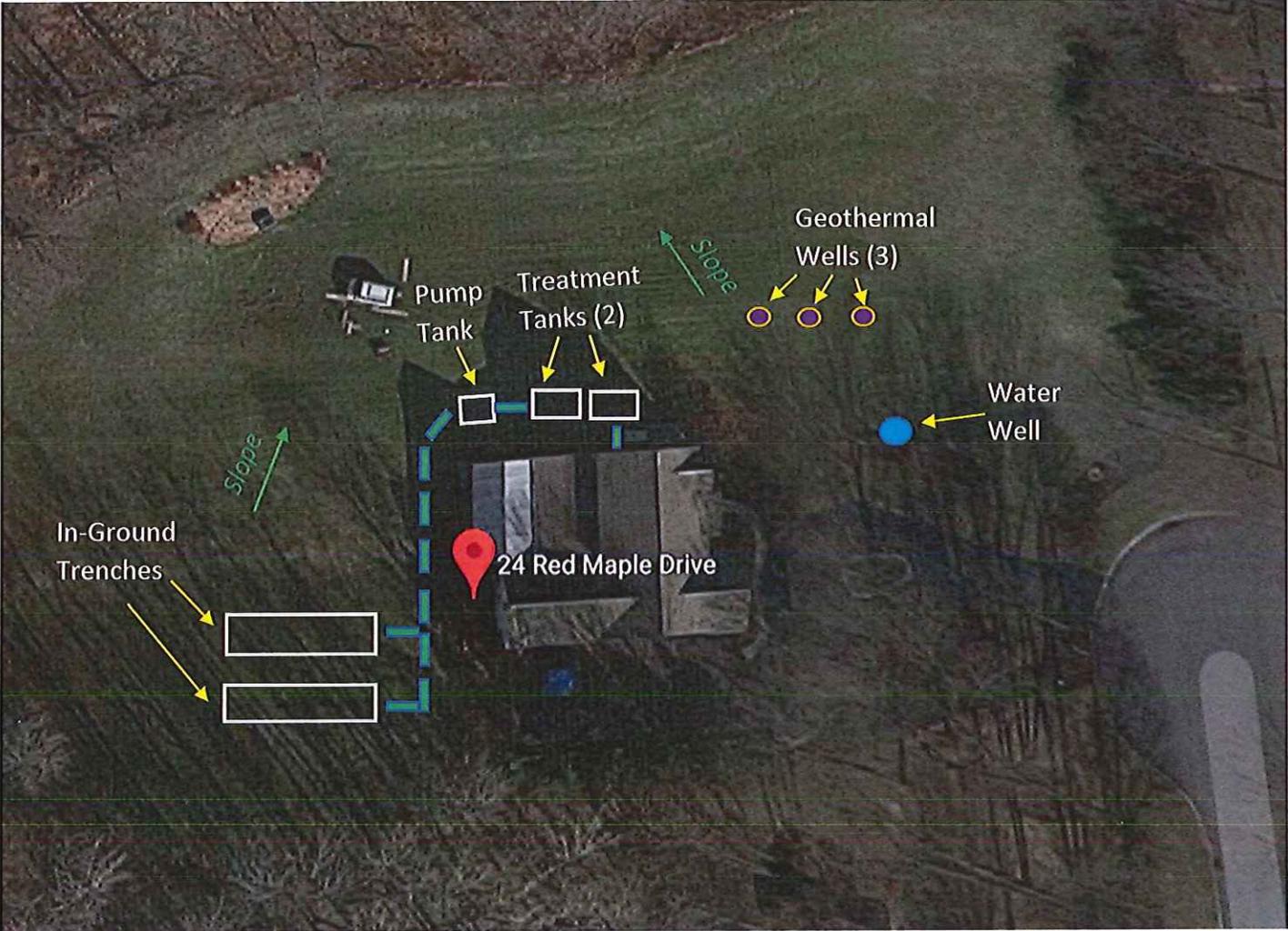
- Conveyance
  - Any broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank (2) & Pump Tank (1)
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / N **N/A**
- Disposal
  - Disposal Field Type: In-Ground Trenches (2)-pressure dosed
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / N    Open Pipe Discharge Y / **N**    Broken Cleanout Pipe **Y** / N
    - Wet/Spongy Areas Y / **N**    Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

No Malfunctions noted. Homeowner should be aware of backwashed water running into system and overloading beds. Make cleanout of trench watertight.

**Field Verification #5: Thursday September 5, 2019 at 9:00 AM**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED

AUG 30 2019

HtP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

*Allen M. Weisser, Trustee*  
*Cathleen C. Weisser, Trustee*

OWNER NAME(S) PRINTED

*30-5-156.8*

UPI (FOUND ON COVER LETTER)

*24 Red Maple Dr.*

STREET ADDRESS

*Downingtown, PA 19335-4916*

*8/28/2019*

DATE

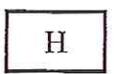
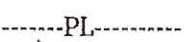
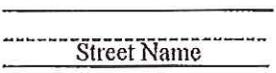
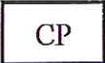
*Allen M. Weisser, Trustee*

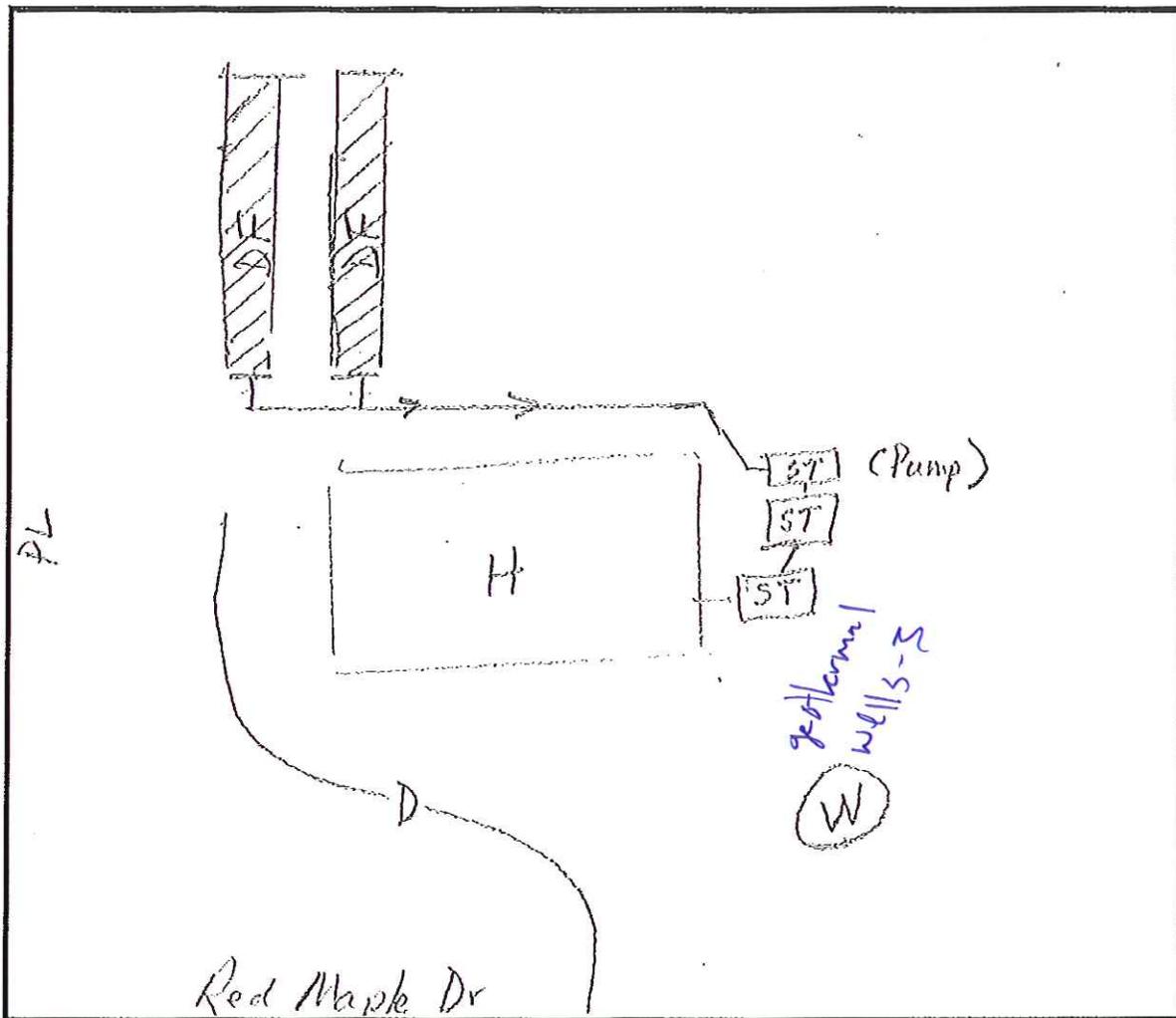
OWNER SIGNATURE(S)

*Cathleen C. Weisser Trustee*

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** ALLEN & CATHLEEN WEISSER

**ADDRESS:** 24 RED MAPLE DRIVE, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610-466-0384

**UPI#:** 30-5-156.8

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 4
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? MORE THAN 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? 1500 GALLONS
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 3
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 1999
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND TRENCH
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? YES
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: DRILLED
23. IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? YES
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 200+ FEET
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; 15 YEARS
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NOT AT THIS TIME.

**Field Verification #6: Thursday September 5, 2019 at 1:00 PM**

Address: 116 Constitution Lane, Downingtown, PA 19335

Homeowners: Richard & Dianne Rittenhouse

Phone: 610-873-1293

Email Address: N/A

UPI# 30-5L-31

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners? **Y** / N
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: The homeowner said they had their drainage field extended by about 50% in the mid 1980's and they pump their tank every 10-15 years.

**OLDS**

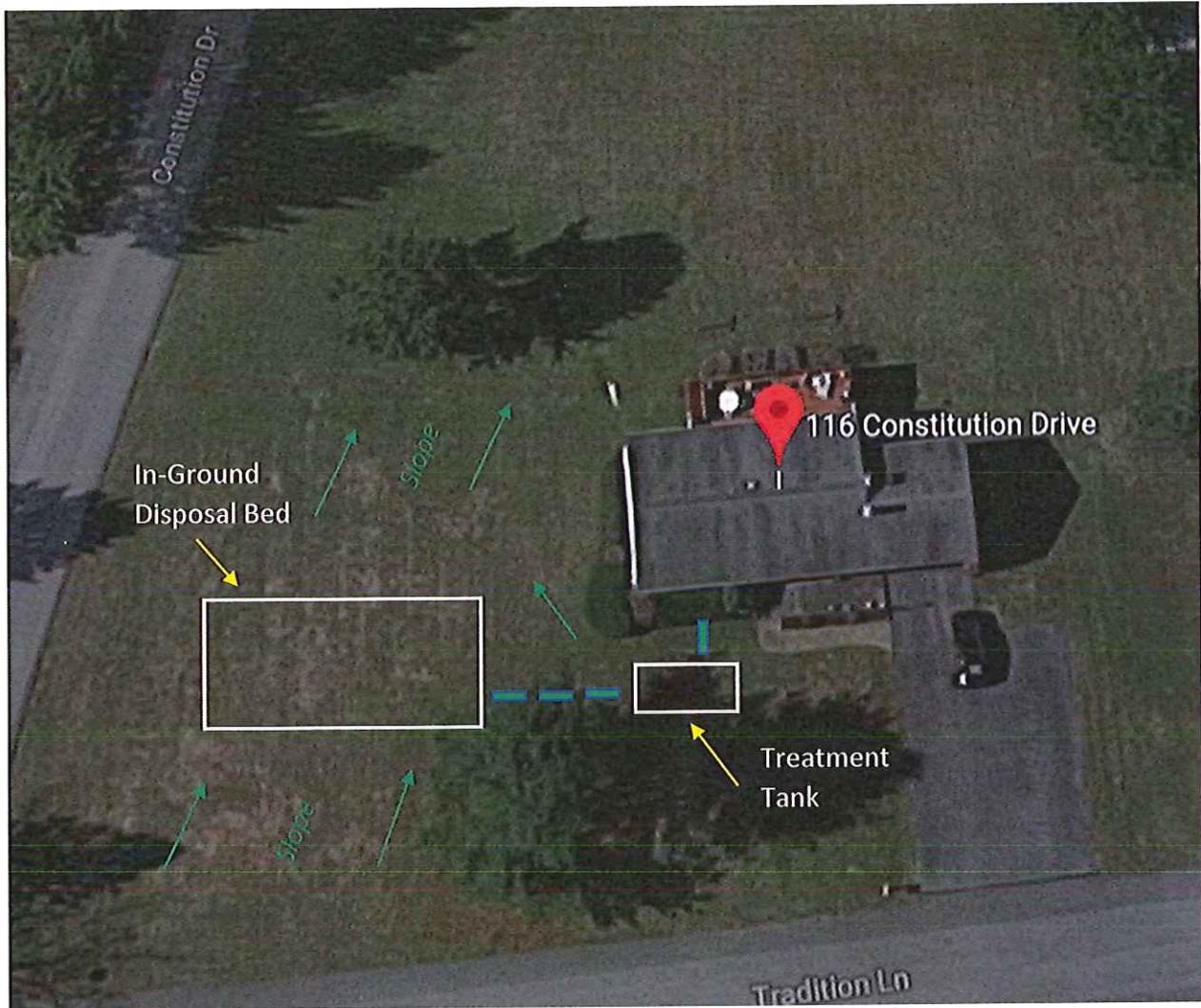
- Conveyance
  - Any broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: **Y** / **N** Inlet: **Y** / **N** Outlet: **Y** / **N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? **Y** / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Disposal Area Type: In-Ground Bed (gravity)
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N** **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**      Broken Cleanout Pipe **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

No malfunctions noted. Homeowner should have treatment tank pumped at earliest convenience.

Field Verification #6: Thursday September 5, 2019 at 1:00 PM



\*All locations are approximate based on homeowner's recollection and are not scaled to size.

RECEIVED

AUG 30 2019

HtP, LLC

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Richard Ritterhouse

Dianne Ritterhouse

OWNER NAME(S) PRINTED

30-5L-31

UPI (FOUND ON COVER LETTER)

116 Constitution Drive

Dowlingtown, PA 19335

STREET ADDRESS

8/29/2019

DATE

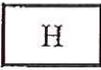
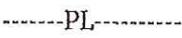
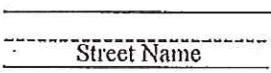
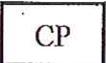
Richard Ritterhouse

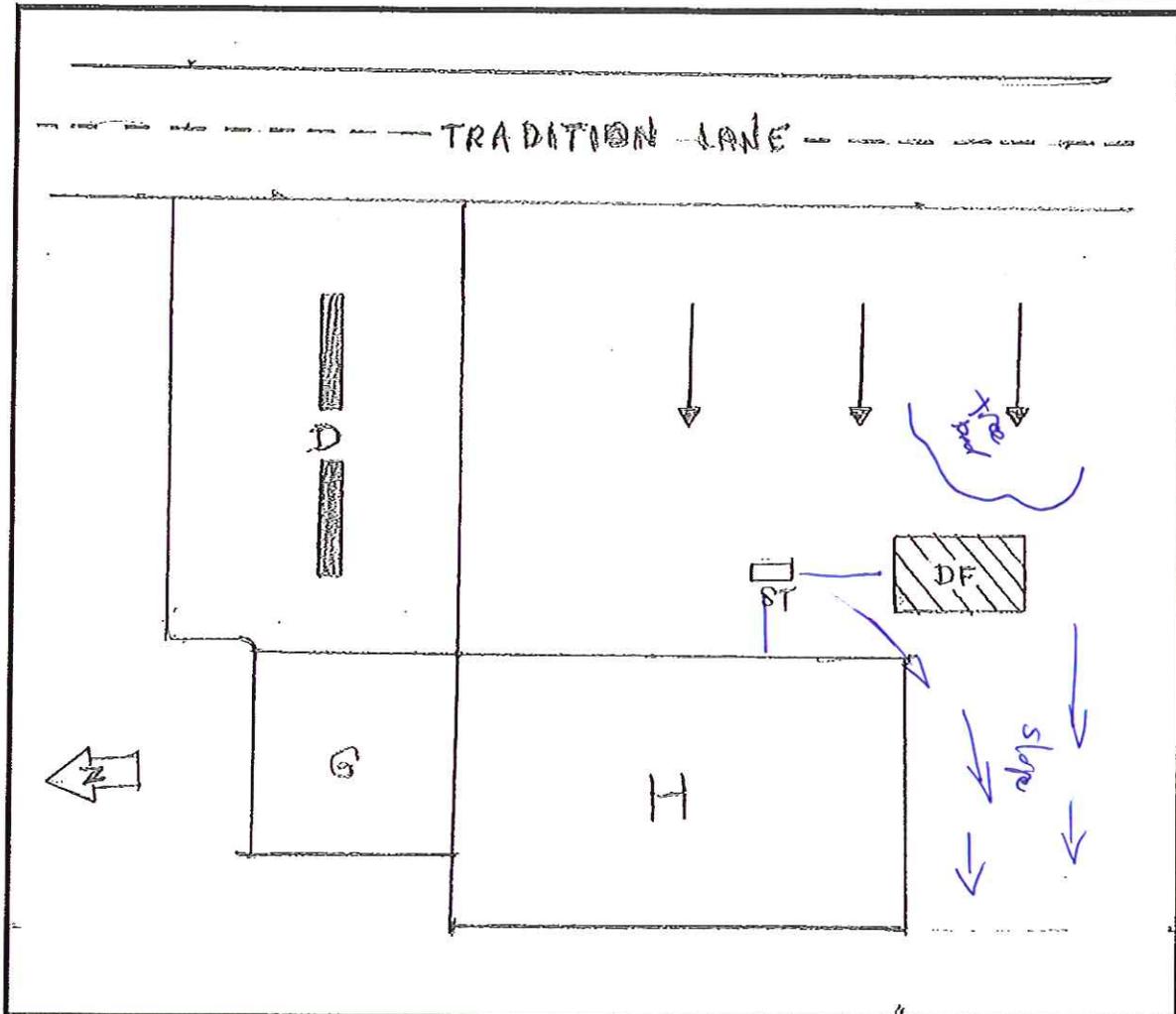
Dianne Ritterhouse

OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

EAST BRANDYWINE TOWNSHIP

NAME: RICHARD RITTENHOUSE

ADDRESS: 116 CONSTITUTION DRIVE, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610-873-1293

UPI#: 30-5L-31

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 1 ACRE
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 1
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 3- 5 YEARS AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? LESS FREQUENTLY THAN EVERY 5 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? NO
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? YES; AROUND 1983
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PUBLIC
22. IF YOU HAVE A WELL, WAS IT: I DON'T HAVE A WELL
23. IF YOU HAVE A WELL, HOW DEEP IS IT? I DON'T HAVE A WELL
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO
25. IS THE WELL HEAD CASED? I DON'T HAVE A WELL
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? I DON'T HAVE A WELL
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; AROUND 1980
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NO

**Field Verification #7: Friday September 6, 2019 at 9:00 AM**

Address: 4 Tradition Lane, Downingtown, PA 19335

Homeowners: Patricia Keebler

Phone: 484-999-4308

Email Address: [patkeeb@gmail.com](mailto:patkeeb@gmail.com)

UPI# 30-5G-30

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners? **Y** / N
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners:     No    .

**OLDS**

- Conveyance
  - Any broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type:     Septic Tank
  - Baffles Intact: Y / N    Inlet: Y / N    Outlet: Y / N    **N/A**
  - Was the liquid depth above the outlet pipe? Y / N    **N/A**
  - Tank Lid intact? **Y** / N    **N/A**
  - Effluent filter? Y / N    **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N    **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? Y / N    **N/A**
- Disposal
  - Disposal Area Type:     In-Ground Bed (gravity)
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? Y / **N**
  - If exposed, is distribution box outlets level? Y / N    **N/A**
  - Absorption Area observations:  

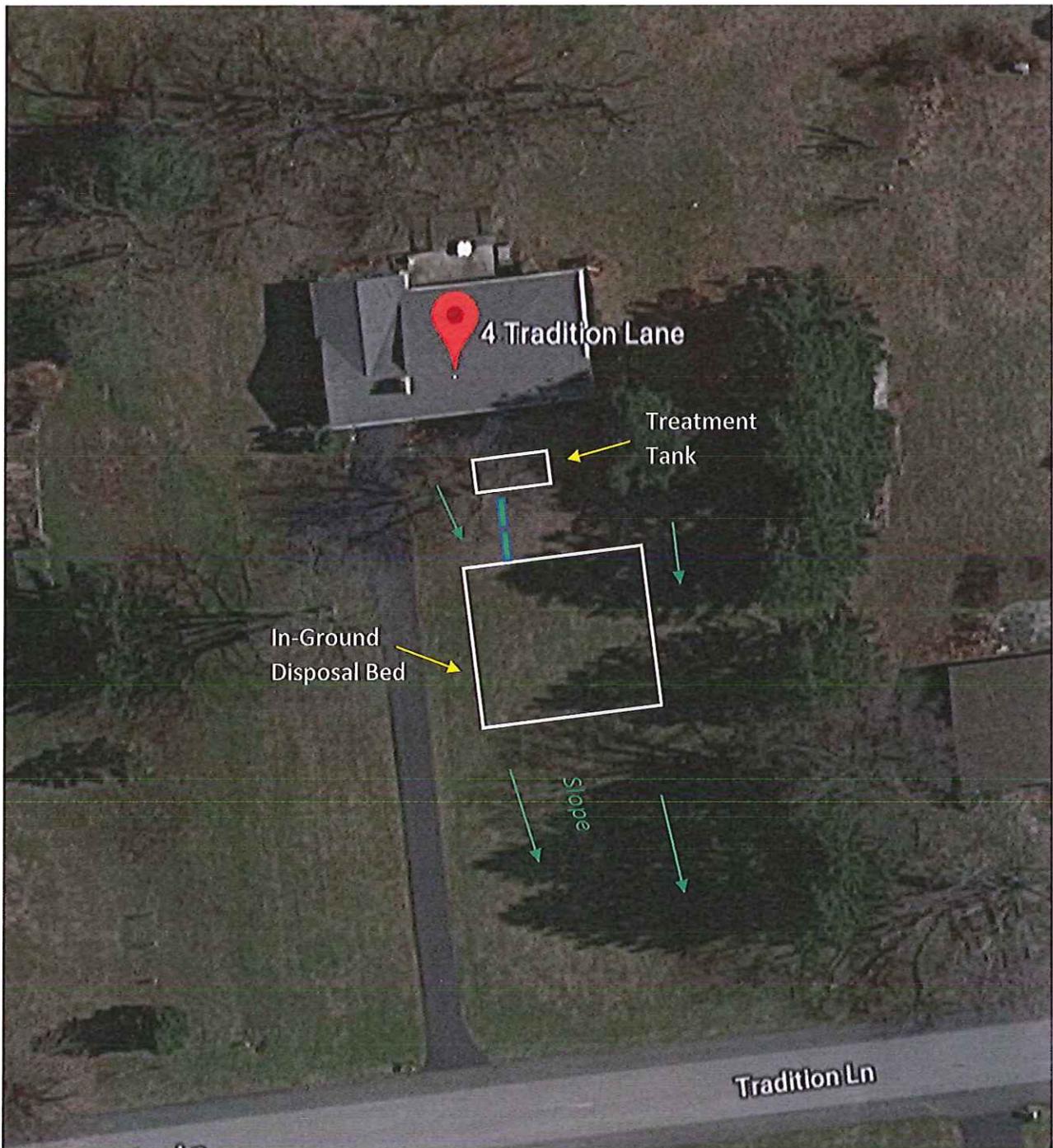
Water Ponding or Surfacing Y / <b>N</b>	Open Pipe Discharge Y / <b>N</b>	Broken Cleanout Pipe Y / <b>N</b>
Wet/Spongy Areas Y / <b>N</b>	Lush Green Grass Y / <b>N</b>	

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

No malfunctions noted. Should be pumped every 3-5 years.

Field Verification #7: Friday September 6, 2019 at 9:00 AM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Friday 9/6/19 at 9:00 AM

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

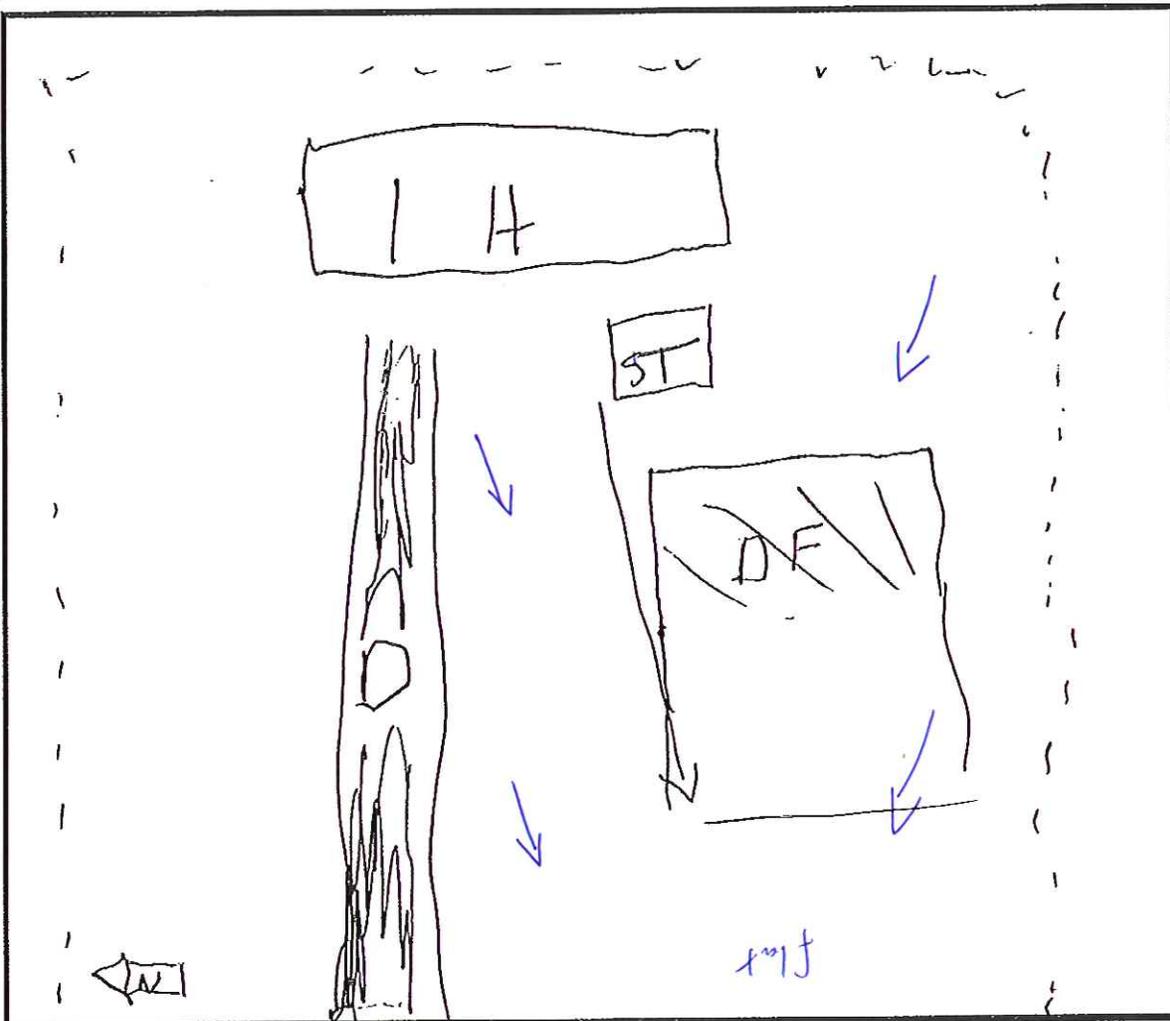
Patricia Keebler OWNER NAME(S) PRINTED  
30-56-30 UPI (FOUND ON COVER LETTER)  
4 Tradition Lane STREET ADDRESS  
Downingtown PA 19335  
8/26/19 DATE  
~~Patricia~~ Keebler OWNER SIGNATURE(S)

RECEIVED  
AUG 27 2019  
HtP, LLC

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	[ H ]	Driveway	— D —
Property Line	- - - - PL - - - -	Street	===== Street Name =====
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	[ DF ]
Septic Tank(s)	[ ST ]	Cesspool	[ CP ]



4 TRADITION

**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** P. KEEBLER

**ADDRESS:** 4 TRADITION LN, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 484-999-4308

**UPI#:** 30-5G-30

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 1
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 1 ACRE
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 1
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 3- 5 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2019
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? YES; 2019
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? YES
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PUBLIC
22. IF YOU HAVE A WELL, WAS IT: I DON'T HAVE A WELL
23. IF YOU HAVE A WELL, HOW DEEP IS IT? I DON'T HAVE A WELL
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO
25. IS THE WELL HEAD CASED? I DON'T HAVE A WELL
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? I DON'T HAVE A WELL
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? NO
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

**Field Verification #8: Saturday September 7, 2019 at 9:00 AM (anytime)**

Address: 112 Constitution Drive, Downingtown, PA 19335

Homeowners: Bartholomew (Bart) & Joanne Marie Cecala

Phone: N/A

Email Address: [tioga1985@gmail.com](mailto:tioga1985@gmail.com)

UPI# 30-5G-35

Malfunction: No / Potential / Suspected

- Are homeowners present? Y / N
- Review Sewage Needs Survey with homeowners? Y / N
- Any evidence of apparent malfunction? Y / N
  - If so, what/where: not clear where Absorption Field was located
- Any additional information offered by the homeowners: N/A

**OLDS**

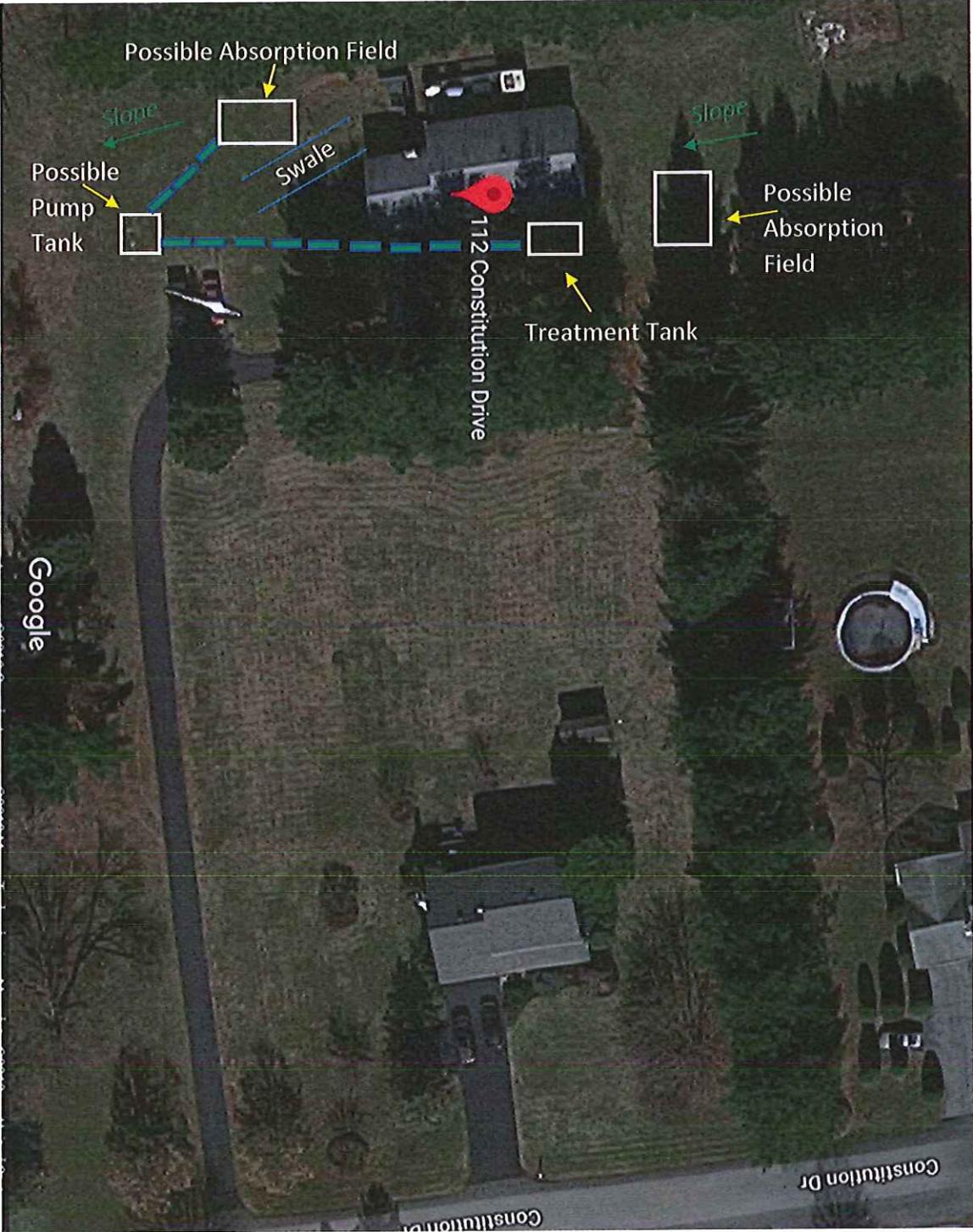
- Conveyance
  - Any broken pipes? Y / N
- Treatment
  - Treatment Tank Type: Septic Tank & Pump Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N N/A
  - Was the liquid depth above the outlet pipe? Y / N N/A
  - Tank Lid intact? Y / N N/A
  - Effluent filter? Y / N N/A
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N N/A
  - Tank structurally sound, no evidence of leaks or cracks? Y / N N/A
- Disposal
  - Disposal Area Type: Possible In-Ground Trenches and/or In-Ground Bed
  - Did it rain in last 24 hours? Y / N
  - Does greywater discharge to the ground surface? Y / N
  - Is there a pressure dosing tank? Y / N
  - If exposed, is distribution box outlets level? Y / N N/A
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / N      Open Pipe Discharge Y / N
    - Wet/Spongy Areas Y / N                      Lush Green Grass Y / N

Confirmation of Tier I Sewage Needs Survey: Y / N

**Additional Comments:**

No homeowners on site. Most locations on sketch sheet look incorrect. There is a history of a CCHD malfunction (repair) from 2003 the cause of the malfunction is currently unknown.

**Field Verification #8: Saturday September 7, 2019 at 9:00 AM (anytime)**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Saturday 9/7/19 at (any time)

Permission to Enter Property ON 9-7-19  
To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

BARTHOLOMEW JOYANNE MARIE CECALA OWNER NAME(S) PRINTED

30-56-35 UPI (FOUND ON COVER LETTER)

112 CONSTITUTION DRIVE STREET ADDRESS

DOWNING TOWN

8-24-2019 DATE

Bartholomew Cecala OWNER SIGNATURE(S)

Joanne Marie Cecala

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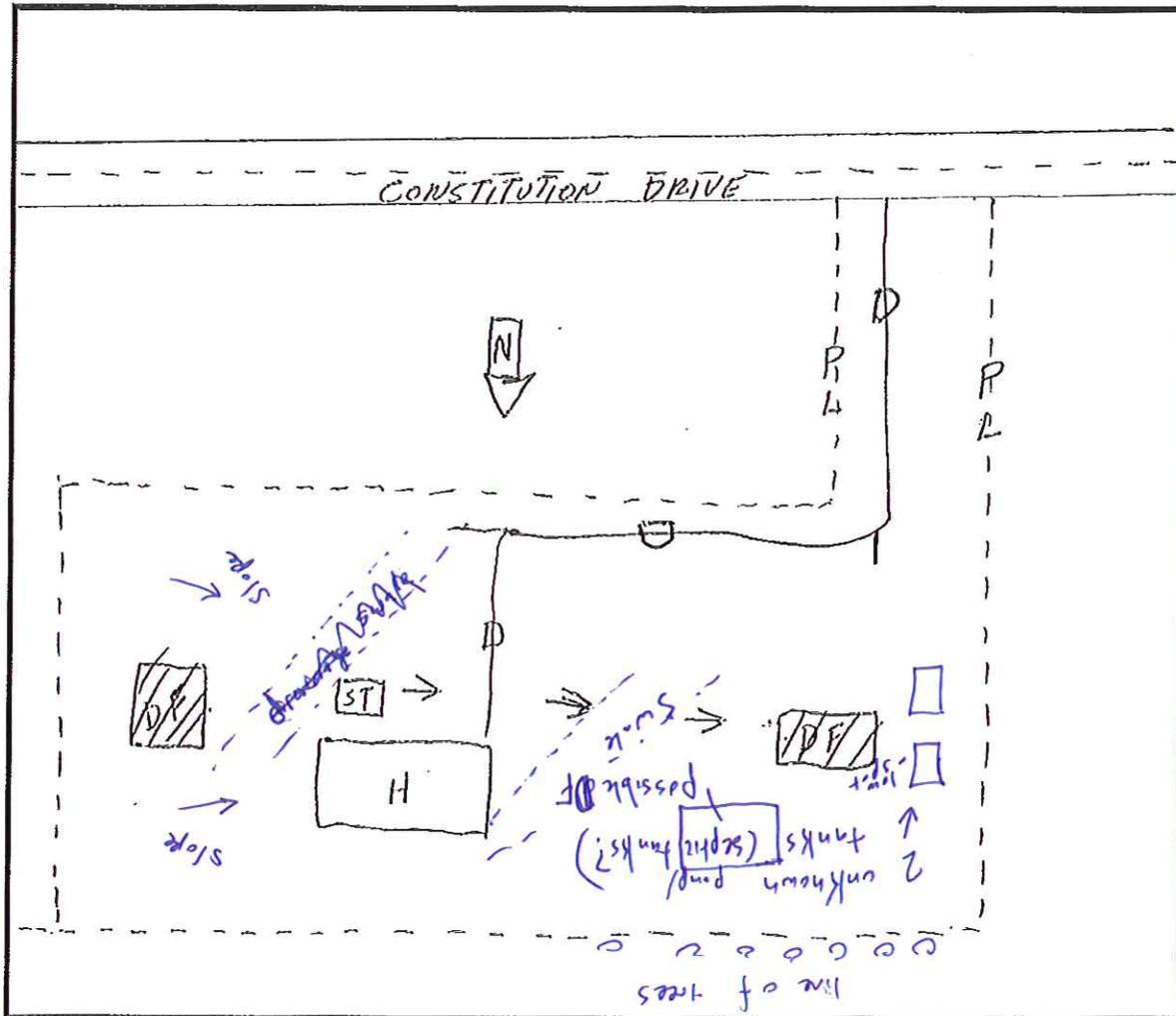
AUG 27 2019

HtP, LLC

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	[ H ]	Driveway	— D —
Property Line	- - - - PL - - - -	Street	===== Street Name =====
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	▨ DF
Septic Tank(s)	[ ST ]	Cesspool	[ CP ]



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** CECALA

**ADDRESS:** 112 CONSTITUTION DRIVE, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610.873.2371

**UPI#:** 30-5G-35

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1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 2
2. **IS YOUR HOME OCCUPIED?** ALL YEAR
3. **HOW LARGE IS YOUR LOT?** 1 ACRE
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** 1500 GALLONS
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 3
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** LESS THAN 1 YEAR AGO
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY 1- 3 YEARS
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** YES; 2017
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** NO
12. **HOW OLD IS YOUR TANK(S)?** MORE THAN 10 YEARS
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** YES
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND TRENCH
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** YES
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** NO
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PUBLIC
22. **IF YOU HAVE A WELL, WAS IT:** I DON'T HAVE A WELL
23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** I DON'T HAVE A WELL
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** NO
25. **IS THE WELL HEAD CASED?** I DON'T HAVE A WELL
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** I DON'T HAVE A WELL
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** NO
28. **DO YOU TEST YOUR WATER PERIODICALLY?** NO
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.**

**Zone 1- Field Verification #9: Friday December 6, 2019 at 12:30 PM**

Address: 151 Bollinger Road, Downingtown, PA 19335

Homeowners: Dorothy Poland

Phone: 610-269-8073

Email Address: N/A

UPI# 30-5-3.3

Malfunction: **No** / Potential / Suspected

- Are homeowners present? Y / N
- Review Sewage Needs Survey with homeowners? Y / N
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: N/A
- Any additional information offered by the homeowners: Has not had any problems with system, looking to sell soon.

**OLDS**

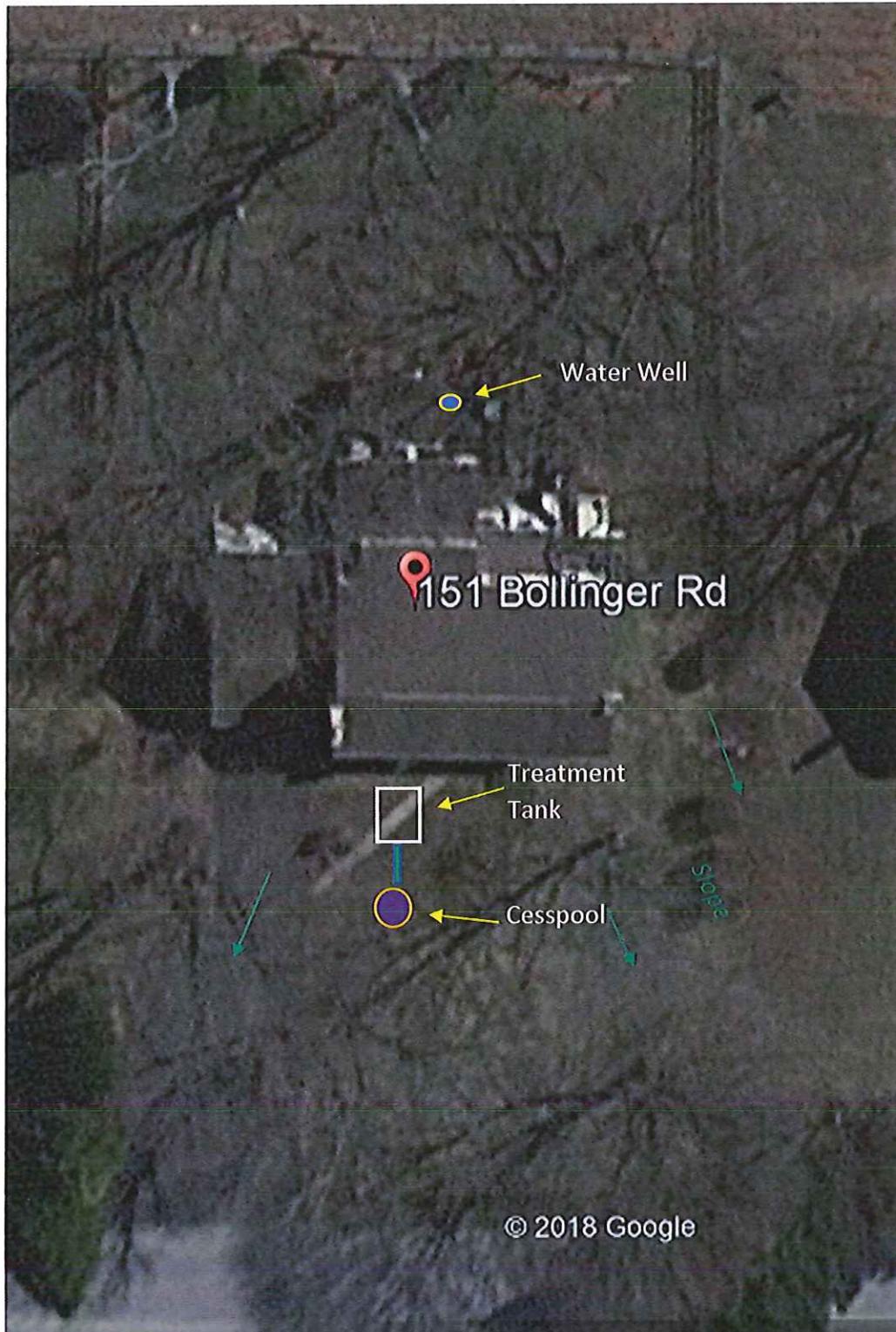
- Conveyance
  - Any broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N N/A
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? Y / N **N/A**
- Disposal
  - Disposal Area Type: Cesspool
  - Did it rain in last 24 hours? **Y** / N
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? Y / **N**
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

**Additional Comments:**

No Malfunction Noted.

Zone 1- Field Verification #9: Friday December 6, 2019 at 12:30 PM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED

NOV 05 2019

HtP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Dorothy J. Poland OWNER NAME(S) PRINTED

30-5-3.3 UPI (FOUND ON COVER LETTER)

151 Bollinger Rd STREET ADDRESS

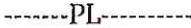
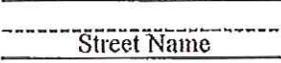
Downingtown, PA 19335

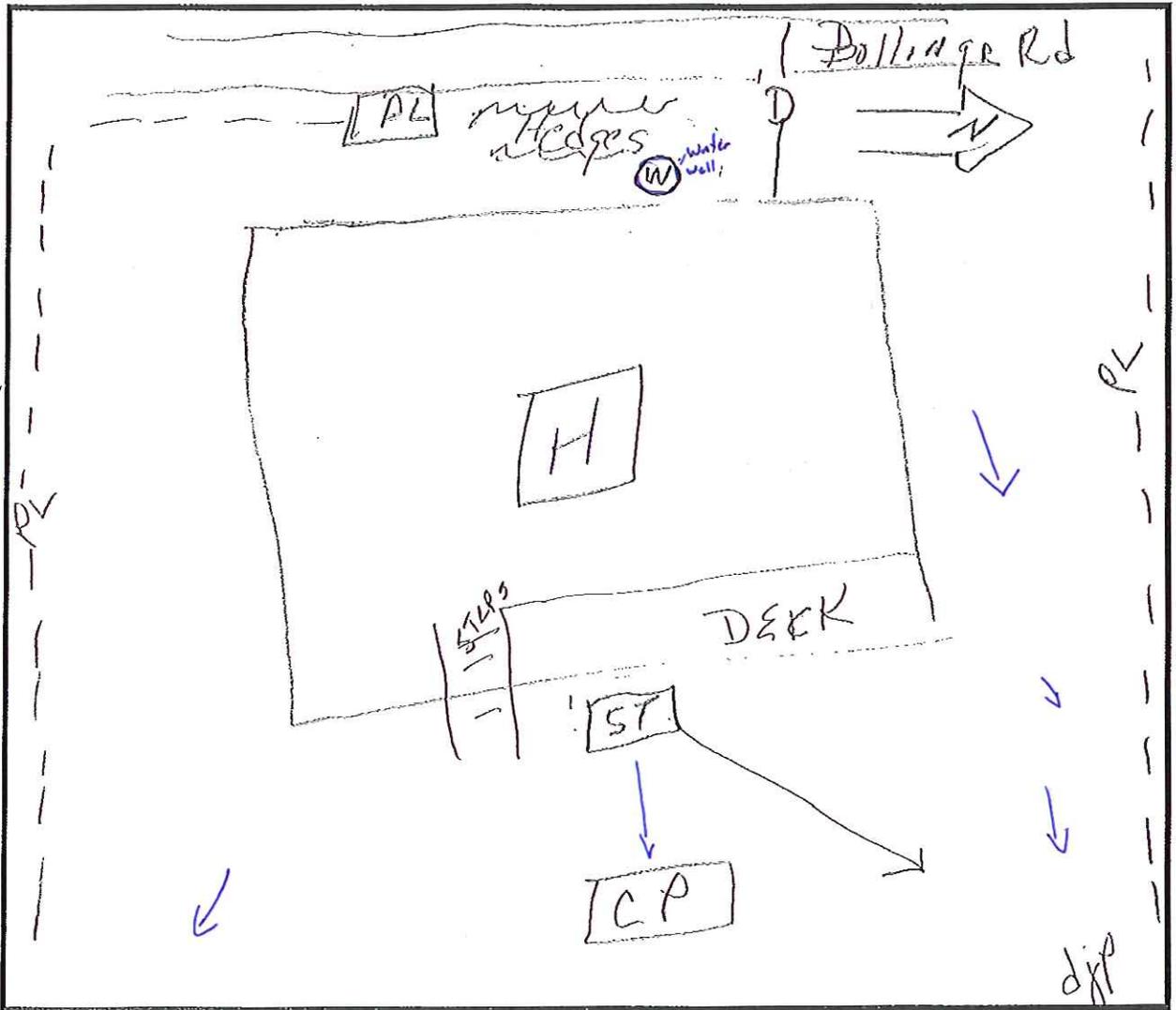
11-14-2019 DATE

Dorothy J. Poland OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY****EAST BRANDYWINE TOWNSHIP****NAME: DOROTHY POLAND****ADDRESS: 151 BOLLINGER ROAD, DOWNINGTOWN, PA 19335****TELEPHONE NUMBER: 610.269.8073****UPI#: 30-5-3.3**

---

1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2**
2. **IS YOUR HOME OCCUPIED? ALL YEAR**
3. **HOW LARGE IS YOUR LOT? 1/2 ACRE**
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM**
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? CESSPOOL**
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? 1250 GALLONS**
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? I DON'T KNOW**
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 1- 3 YEARS AGO**
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS**
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? I DON'T KNOW**
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? I DON'T KNOW**
12. **HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS**
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO**
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
I DON'T KNOW**
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA? I DON'T KNOW**
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE**
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE**
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS**
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? I DON'T KNOW**
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO**
21. **WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL**
22. **IF YOU HAVE A WELL, WAS IT: DRILLED**
23. **IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET**
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO**
25. **IS THE WELL HEAD CASED? YES**
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 100-200 FEET; UPSLOPE**
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; 10+**
28. **DO YOU TEST YOUR WATER PERIODICALLY? NO**
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NONE**

**Zone 1-Field Verification #10: Friday December 6, 2019 at 1:00 PM**

Address: 214 Heritage Court, Downingtown, PA 19335

Homeowners: Hudson & Kathleen Voltz

Phone: 610-269-8073

Email Address: N/A

UPI# 30-5-3.3

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners? **Y** / **N**
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where:           N/A
- Any additional information offered by the homeowners:           N/A

**OLDS**

- Conveyance
  - Any broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type:           Septic Tank
  - Baffles Intact: **Y** / **N**    Inlet: **Y** / **N**    Outlet: **Y** / **N**    **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N**    **N/A**
  - Tank Lid intact? **Y** / **N**    **N/A**
  - Effluent filter? **Y** / **N**    **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N**    **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N**    **N/A**
- Disposal
  - Disposal Area Type:           Gravity fed Disposal Field
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N**    **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**    Open Pipe Discharge **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**    Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / **N**

Additional Comments:

No Malfunction noted.

Zone 1-Field Verification #10: Friday December 6, 2019 at 1:00 PM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

HANSON & KATHLEEN VOLZ OWNER NAME(S) PRINTED

30-5-21.9 UPI (FOUND ON COVER LETTER)

214 HERITAGE CT STREET ADDRESS

D TOWN

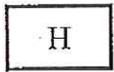
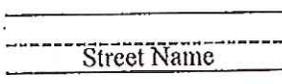
8/22/19 DATE

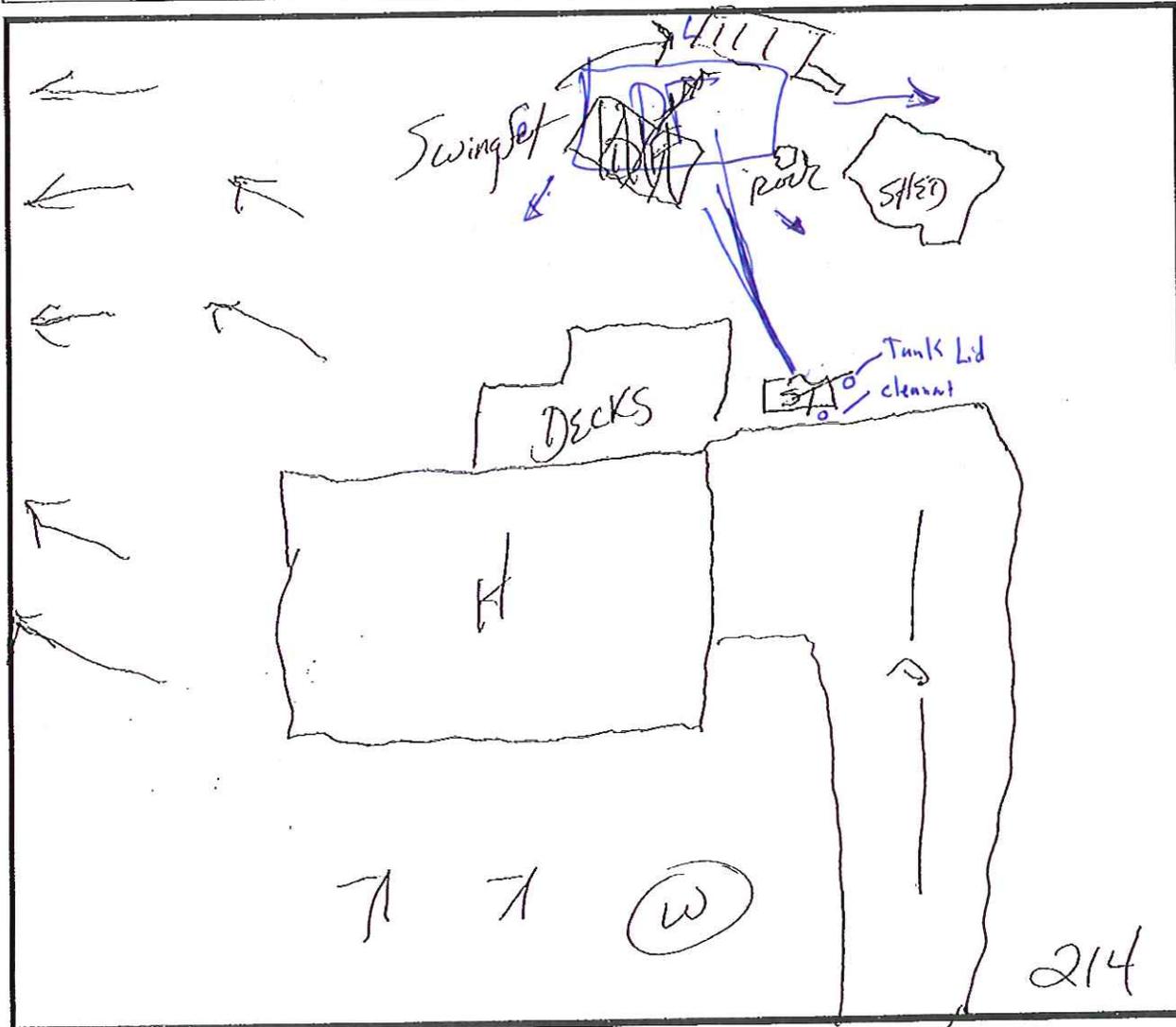
[Signature] OWNER SIGNATURE(S)

RECEIVED  
AUG 28 2019  
HTP, LLC

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



*Handwritten signature/initials*

**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** VOLTZ

**ADDRESS:** 214 HERITAGE CT, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610-269-6835

**UPI#:** 30-5-211.9

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1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 4
2. **IS YOUR HOME OCCUPIED?** ALL YEAR
3. **HOW LARGE IS YOUR LOT?** 2 ACRES
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** MORE THAN 1500 GALLONS
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 1
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** LESS THAN 1 YEAR AGO
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY YEAR
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** YES; 2019
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** NO
12. **HOW OLD IS YOUR TANK(S)?** MORE THAN 10 YEARS
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** NO
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND BED
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** NO
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** NO
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PRIVATE WELL
22. **IF YOU HAVE A WELL, WAS IT:** DRILLED
23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** MORE THAN 200 FEET
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** YES
25. **IS THE WELL HEAD CASED?** YES
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** 200+ FEET; UPSLOPE
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** YES
28. **DO YOU TEST YOUR WATER PERIODICALLY?** YES
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.** NA

**Tier II Site Visit Notes: Zone 2**

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**Field Verification #1: Thursday September 26, 2019 at 1:00 PM**

Address: 405 Dilworth Road, Downingtown, PA 19335

Homeowners: Keith & Lindsay Miller

Phone: 484-437-0374

Email Address: keithmiller319@gmail.com

UPI# 30-5-38

Malfunction: No / **Potential** / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? Y / N
  - If so, what/where: N/A
- Any additional information offered by the homeowners: **Home was built in 1950s and system was over 5000 gal**.

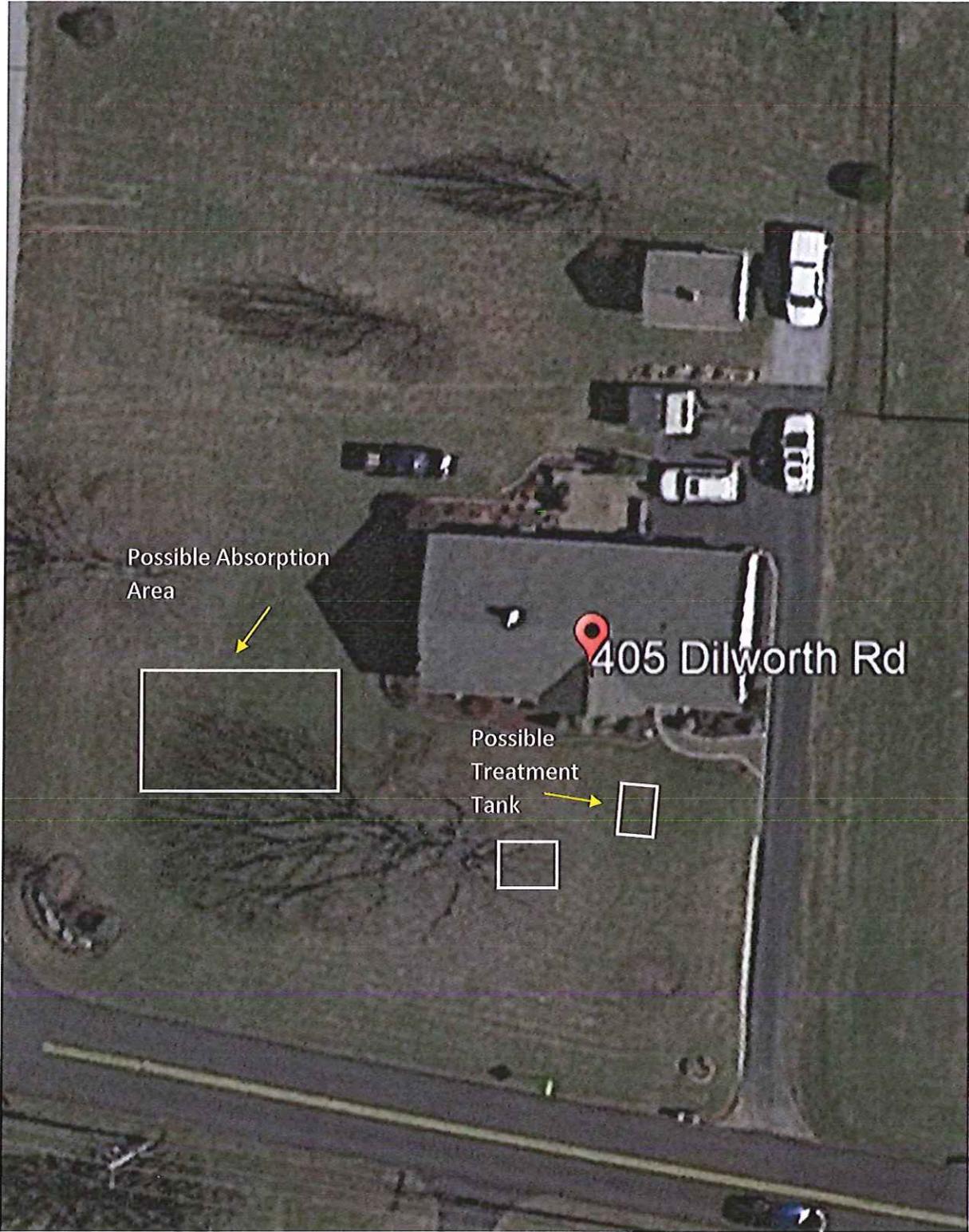
**OLDS**

- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: **Septic Tank**
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N N/A
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? Y / N **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? Y / **N**
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: Y / **N**

Additional Comments:

**House built in the 1950s, no clear absorption field or location of possible secondary tank. This is a potential malfunction because there is a large tree that could possibly be directly on top of the drainage field. Based on the possible date of the installed system, it could be a cesspool.**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

**RECEIVED**  
SEP 27 2019  
**HtP, LLC**

Permission to Enter Property  
*To Field Verify Sewage Needs*

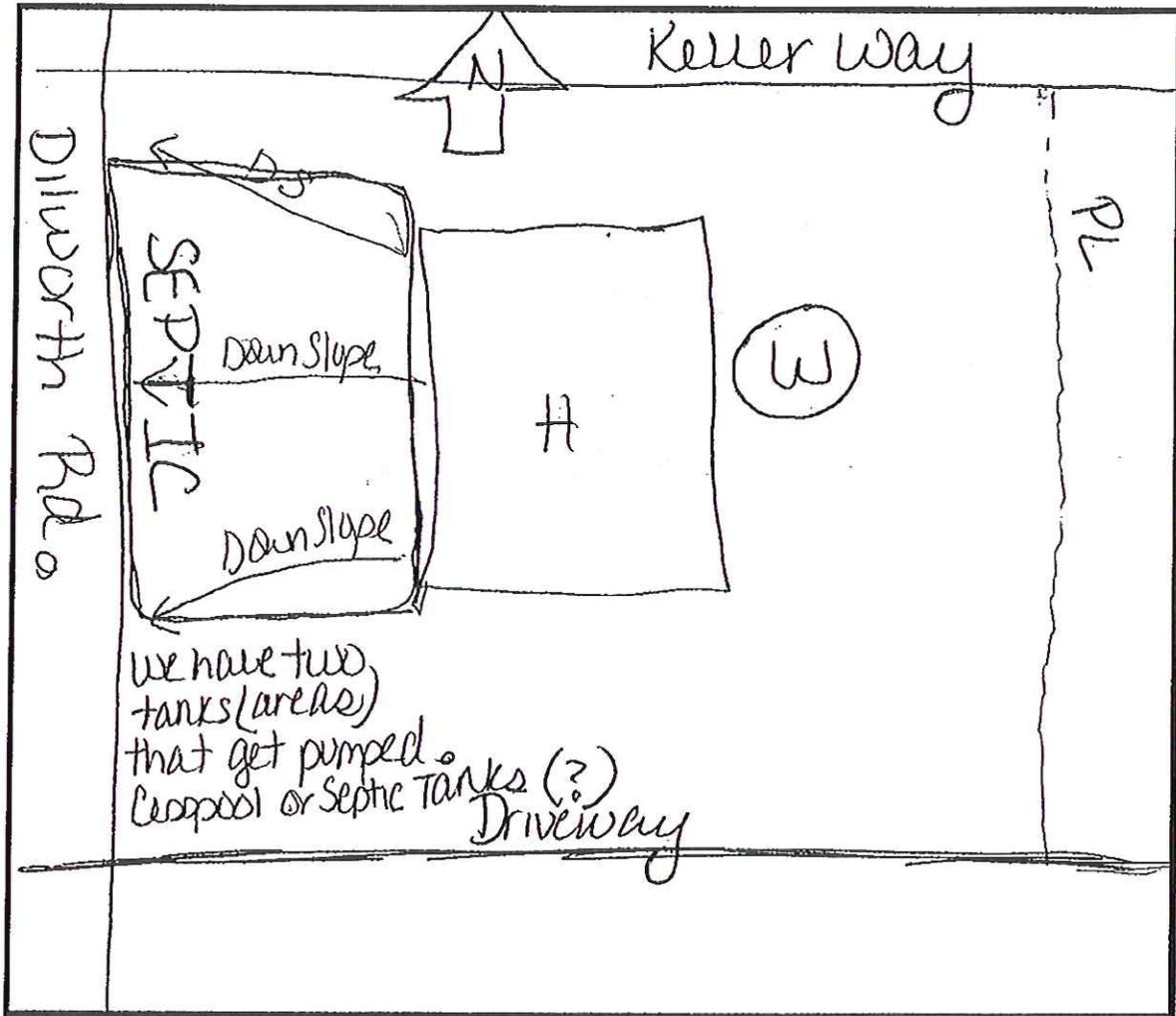
I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Keith + Lindsay Miller OWNER NAME(S) PRINTED  
30-5-38 UPI (FOUND ON COVER LETTER)  
465 DuLuxeth Rd. STREET ADDRESS  
Downingtown PA 19335  
9/24/2019 DATE  
Keith + Lindsay Miller OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	□ H	Driveway	— D —
Property Line	- - - - PL - - - -	Street	===== Street Name
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	▨ DF
Septic Tank(s)	□ ST	Cesspool	□ CP



**SEWAGE NEEDS SURVEY**

EAST BRANDYWINE TOWNSHIP

NAME: LINDSAY MILLER

ADDRESS: 405 DILWORTH ROAD, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 484-437-0374

UPI#: 30-5-38

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 1 ACRE
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? MORE THAN 1500 GALLONS
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 2
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY YEAR
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2007
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? I DON'T KNOW
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? IN-GROUND BED
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)? NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? SLOW DRAINING PLUMBING FIXTURES
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? YES; OUR NEIGHBORS BEHIND US HAVE EXPERIENCE SEPTIC ISSUES AND THE NEIGHBOR ACROSS THE STREET HAD TO REPLACE THE SEPTIC TO SELL THE HOUSE.
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: DRILLED
23. IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? YES
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 0-50 FEET; UPSLOPE
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; 2007
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
- \* 29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL INFORMATION. I KNOW THAT YOU HAVE RECEIVED A LOT OF GRIEF ABOUT THIS SURVEY AND AS A YOUNGER HOMEOWNER IN THE TOWNSHIP I AM IN FAVOR OF PUBLIC SEPTIC AND WATER FOR THAT MATTER. I CURRENTLY CANNOT DRINK OR COOK WITH MY WELL WATER AND PAY FOR SPRING WATER DELIVERY DUE TO the water testing high for nitrates. My neighbors drain field comes down the bank and has most likely contaminated my well. I would rather spend money to tie into public sewers than spend money on my current OLDS system...

Read comment

... I know that the wells in this area are mostly contaminated. I would say 90% of our neighbors don't drink water either due to contamination issues. The Drainage Fields for the onsite septic systems are WAY too close to the wells. I really hope that people respond to this Survey and public sewer/water come quickly.

**Zone 2- Field Verification #2: Tuesday October 8, 2019 at 2:00 PM**

Address: 7 William Penn Drive, Downingtown, PA 19335

Homeowners: Alan & Janna Sherrill

Phone: 610-812-6372

Email Address: N/A

UPI# 30-5-38

Malfunction: **No** / Potential / Suspected

- Are homeowners present? Y / **N**
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / N
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: "We wonder how the kennel/farm next door might affect our water system. Dog/ animal waste, farm waste, and chemical use?" - from the survey

**OLDS**

- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / N **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? Y / **N**
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments: Water Well is approximately 80' away from the Septic Tank. According to Chapter 73 of Pennsylvania Code Title 25 it is required to be at minimum 50' from the tank to water disposal. It should also be noted that the downspout from the roof of the house on the side is going directly towards the lid of the tank. This should be moved. No malfunctions noted.



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Zone 2 - Inspection #2

RECEIVED

OCT 02 2019

HtP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

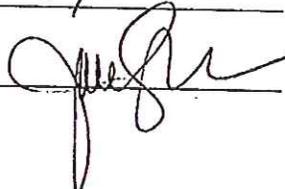
ALAN + JANNA SHERRILL OWNER NAME(S) PRINTED

30-2-64.5 UPI (FOUND ON COVER LETTER)

7 William Penn Dr. STREET ADDRESS

Downingtown, PA 19335

9-30-19 DATE

Alan W. Sherrill  OWNER SIGNATURE(S)



SEWAGE NEEDS SURVEY

EAST BRANDYWINE TOWNSHIP

NAME: ALAN SHERRILL

ADDRESS: 7 WILLIAM PENN DR, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610-505-7984

UPI#: 30-2-64.5

*copy*

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? 1250 GALLONS
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 1
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? I DON'T KNOW
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? IN-GROUND BED
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)? NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: DRILLED
23. IF YOU HAVE A WELL, HOW DEEP IS IT? MORE THAN 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? YES
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 200+ FEET
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES
28. DO YOU TEST YOUR WATER PERIODICALLY? YES
- \* 29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL INFORMATION. NA

*Additional comment/concern:*  
 We wonder how the Kennel / "farm" next door might affect our water system. Dog / animal waste, farm waste, chemical use?

*10-8-19* 

HISTORIC RESOURCE NO. 13  
IS LOCATED ON THIS PARCEL.

LAND OF  
ALLEN D. AND MARJORIE JOYCE RUESS  
N - 37 - 19

S 81 - 22 - 18 E  
516.28  
PARCEL "A"  
284.91

N 81 - 22 - 18 W

270.87  
1234.69  
S 09 - 26 - 28 W  
171.10  
203.94  
(TOTAL)  
32.84  
MATCH LINE

PLANTED  
STONE FND

3  
50 FT.  
59 AC.

N 65 - 15 - 35 W  
286.94

4

91,822 SQ. FT.  
2.108 AC.

PROPOSED  
WELL

Well

THERE ARE NO WELLS OR SEWAGE SYSTEMS  
WITHIN 100 FT. OF THIS PROPERTY LINE

N 81 - 22 - 18 W

MARYLAND L. DILWORTH  
BK. 2635 PG. 463

LAND OF  
BEATRICE J. DANKANICH  
BK. 2528 PG. 104

367.70

AXLE FND  
WEST SIDE  
LARGE WHITE OAK

R = 50.00  
ARC = 55.40

S 65 - 15 - 35 E  
286.94

T.P. 1-7-4

175 FT. ARC AT  
MINIMUM SETBACK  
LINE

ARC R = 50.00  
ARC = 87.50

20 FT. WIDE DRAINAGE  
EASEMENT

175.00

N 04 - 00 - 08 E

R = 25.00  
ARC = 21.03  
EXISTING  
WELL

R = 50.00  
ARC = 98.28

N 35 - 00 - 28 E  
87.29  
S 35 - 00 - 28 W  
87.29

LAND OF

Zone 2- Field Verification #3: Thursday October 24, 2019 at 9:00 AM

Address: 103 Aspen Drive, Downingtown, PA 19335

Homeowners: Gregory & Kathy Merso

Phone: 610-942-7995

Email Address: N/A

UPI# 30-2-142

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: **No backups in house, or cracks in tank/pipes. Pump tank is replaced every 2-3 years.**

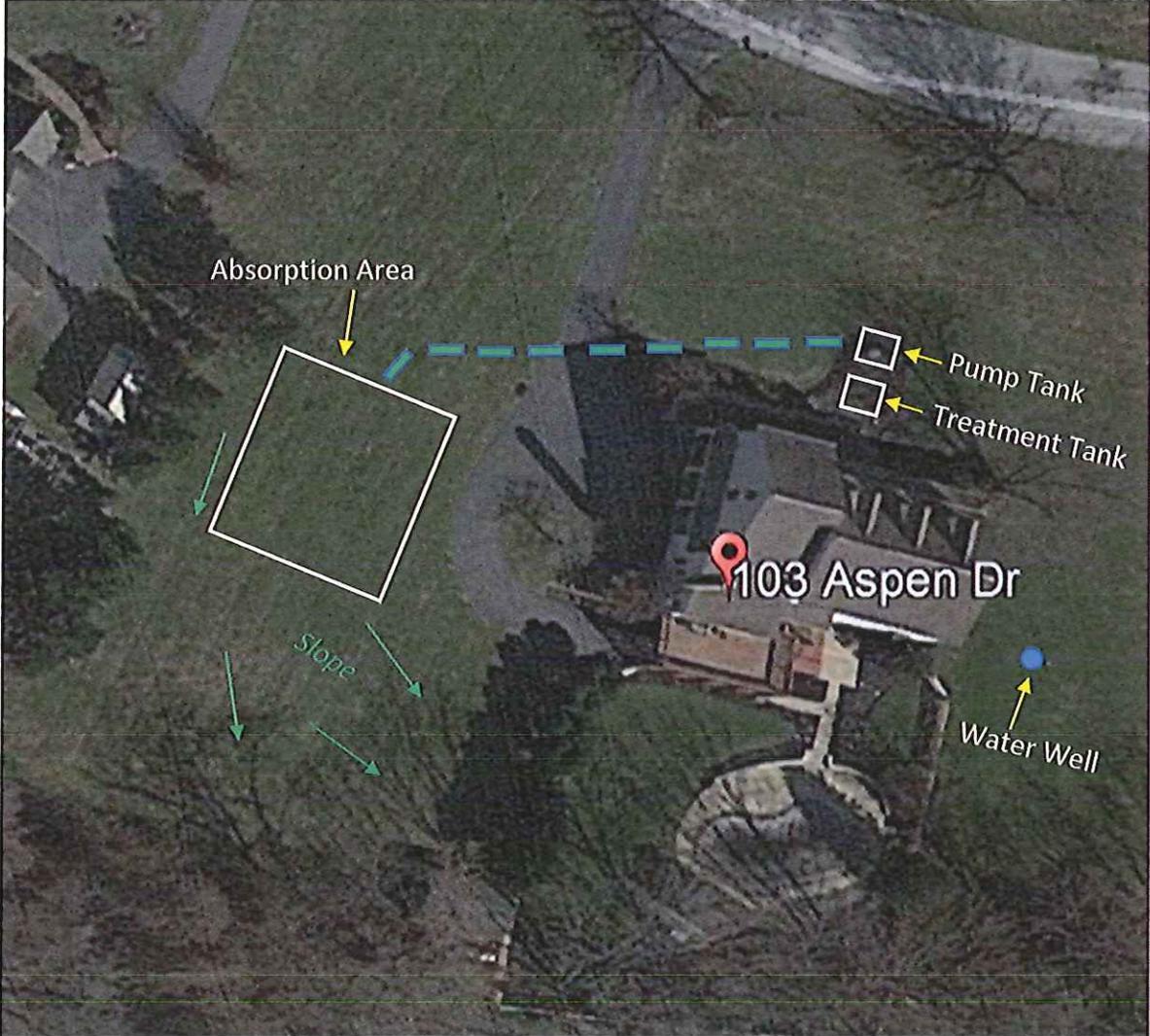
**OLDS**

- Conveyance
  - Any visible broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type: Septic Tank & Pump Tank
  - Baffles Intact: **Y** / **N** Inlet: **Y** / **N** Outlet: **Y** / **N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? **Y** / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N** **N/A**
  - Absorption Area observations:  
  
Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**  
  
Wet/Spongy Areas **Y** / **N**                      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / **N**

Additional Comments:

No malfunction noted.



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Zone 2

-

Inspection #3

-

10/22 @ 9AM

RECEIVED

OCT 02 2019

HtP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Gregory Mels0

OWNER NAME(S) PRINTED

30-2-142

UPI (FOUND ON COVER LETTER)

103 ASPEN DR.

STREET ADDRESS

DOWNINGTOWN, PA

9/21/19

DATE

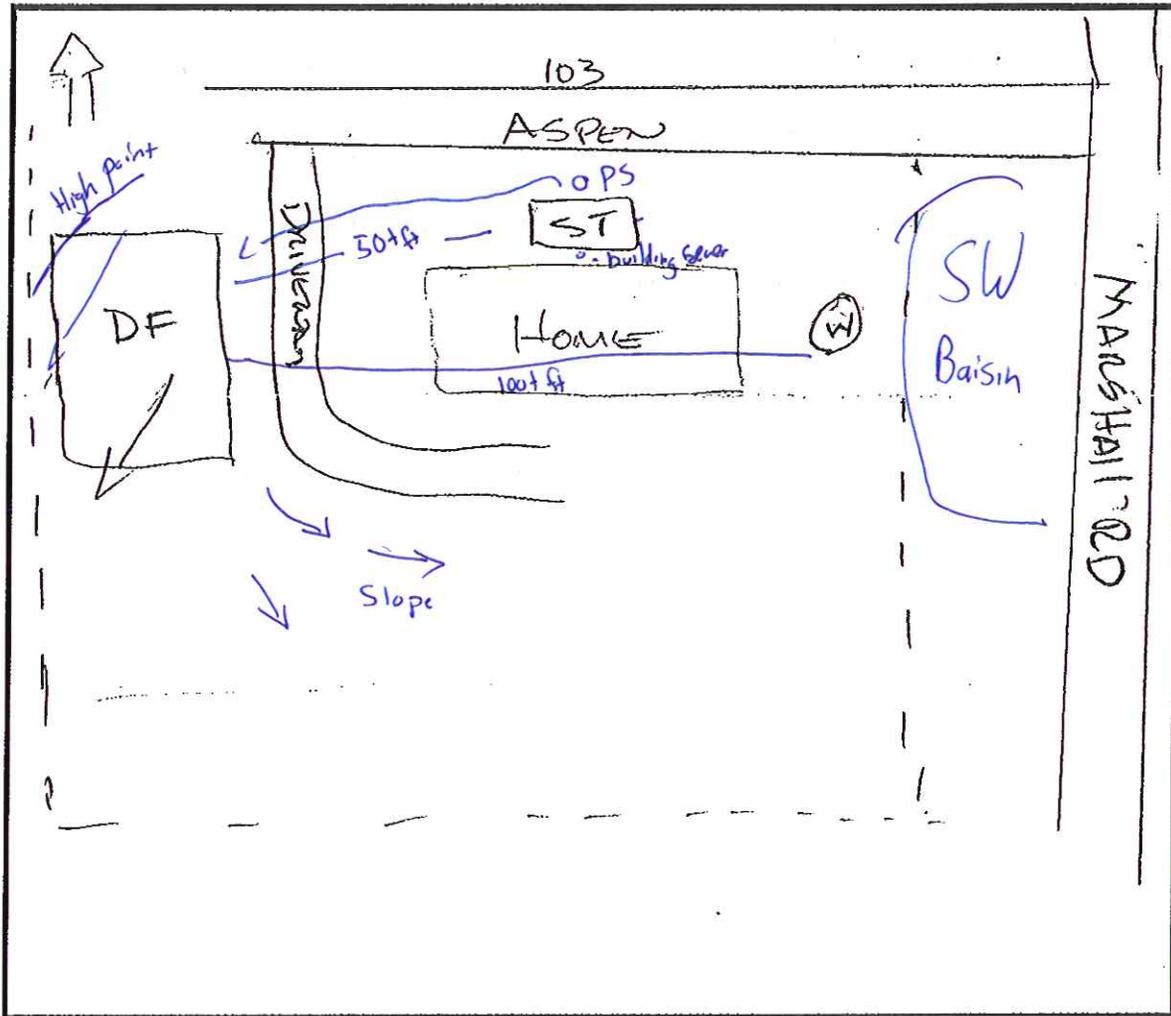
*Greg Mels0*

OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	□ H	Driveway	— D —
Property Line	- - - PL - - -	Street	===== Street Name
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	▧ DF
Septic Tank(s)	□ ST	Cesspool	□ CP



SEWAGE NEEDS SURVEY

EAST BRANDYWINE TOWNSHIP

NAME: GREG MELSO

ADDRESS: 103 ASPEN DR, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610-942-7995

UPI#: 30-2-142

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK; HOLDING TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? MORE THAN 1500 GALLONS
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? I DON'T KNOW (2)?
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1-~~X~~ YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? NO YES 2017
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO YES (PUMP REPLACED) 2017
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES in front of house
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND TRENCH - no cleanouts visible
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: I DON'T KNOW
23. IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? YES
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 100-200 FEET
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES; 1
28. DO YOU TEST YOUR WATER PERIODICALLY? I DON'T KNOW YES
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. QUESTION 28-IDK- LT

Zone 2- Field Verification #4: Thursday October 24, 2019 at 10:00 AM

Address: 501 Dilworth Road, Downingtown, PA 19335

Homeowners: Hayes & Helen Carr

Phone: N/A

Email Address: N/A

UPI# 30-2-58.2

Malfunction: No / Potential / **Suspected**

- Are homeowners present? **Y / N**
- Review Sewage Needs Survey with homeowners **Y / N**
- Any evidence of apparent malfunction? **Y / N**
  - If so, what/where: Cesspool
- Any additional information offered by the homeowners: Cesspool from original building of house in 1961. First Absorption area replaced in 1970s, second absorption area good. They separate the wash water (greywater) from the sewage water. The water well is less than 100' from the Cesspool.

**OLDS**

- Conveyance
  - Any visible broken pipes? **Y / N**
- Treatment
  - Treatment Tank Type: Cesspool
  - Baffles Intact: **Y / N** Inlet: **Y / N** Outlet: **Y / N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y / N** **N/A**
  - Tank Lid intact? **Y / N** **N/A**
  - Effluent filter? **Y / N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y / N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y / N** **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y / N**
  - Does greywater discharge to the ground surface? **Y / N**
  - Is there a pressure dosing tank? **Y / N**
  - If exposed, is distribution box outlets level? **Y / N** **N/A**
  - Absorption Area observations:  

Water Ponding or Surfacing <b>Y / N</b>	Open Pipe Discharge <b>Y / N</b>
Wet/Spongy Areas <b>Y / N</b>	Lush Green Grass <b>Y / N</b>

Confirmation of Tier I Sewage Needs Survey: **Y / N**

Additional Comments:

Suspected malfunction with the Cesspool, no indications of problems with it however. But the Cesspool being under 100' from the water well is a PA Chapter 73 violation.



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Zone 2 - Inspection #4 - 10/24 @ 10 AM

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

HAYES + HELEN CARR OWNER NAME(S) PRINTED

50-2-58.2 UPI (FOUND ON COVER LETTER)

501 DILWORTH RD STREET ADDRESS

DOWNTOWN, PA 19335

10-1-19 DATE

Helen P. Carr OWNER SIGNATURE(S)

Hayes R. Carr

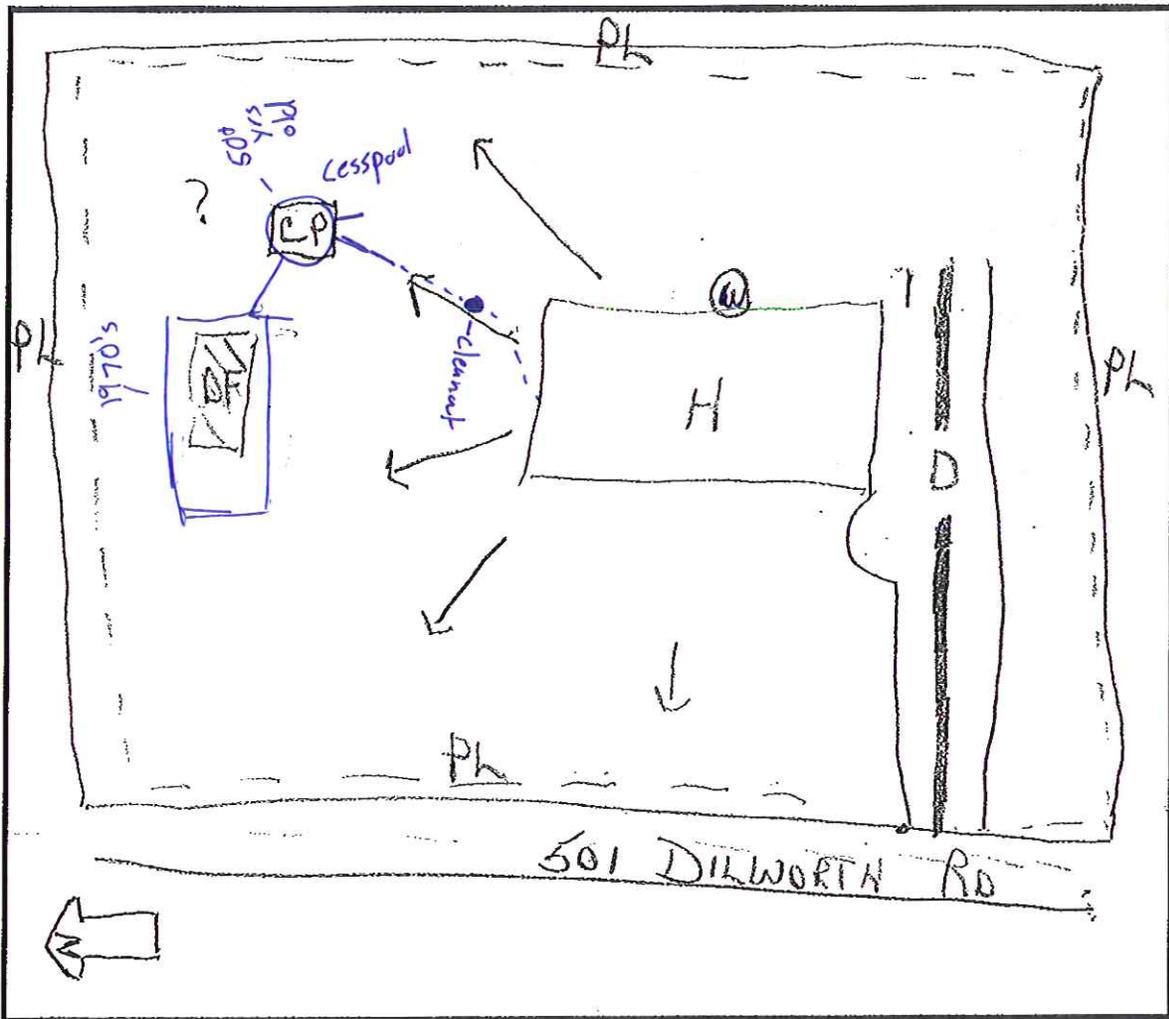
## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	□ H	Driveway	— D —
Property Line	- - - PL - - -	Street	===== Street Name
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	▧ DF
Septic Tank(s)	□ ST	Cesspool	□ CP

Original DF

Separate streets from backwater



SEWAGE NEEDS SURVEY

EAST BRANDYWINE TOWNSHIP

NAME: HELEN & HAYES CARR

ADDRESS: 501 DILWORTH RD, DOWNINGTOWN, PA 19335

House

TELEPHONE NUMBER:

built 1961

UPI#: 30-2-58.2

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 3
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 1 ACRE
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? CESSPOOL
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? I DON'T KNOW
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 1- 3 YEARS AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? I DON'T KNOW
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
SEEPAGE PIT
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: DRILLED
23. IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO
25. IS THE WELL HEAD CASED? I DON'T KNOW
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 50-100 FEET; UPSLOPE
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? NO
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

less than 100' separation  
distance

Zone 2- Field Verification #5: Thursday October 24, 2019 at 11:00 AM

Address: 39 North Terralee Lane, Downingtown, PA 19335

Homeowners: Kevin & Megan Hickey

Phone: 610-213-2370

Email Address: N/A

UPI# 30-5-82.18

Malfunction: **No** / Potential / Suspected

- Are homeowners present? Y / **N**
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners:           **N/A**

**OLDS**

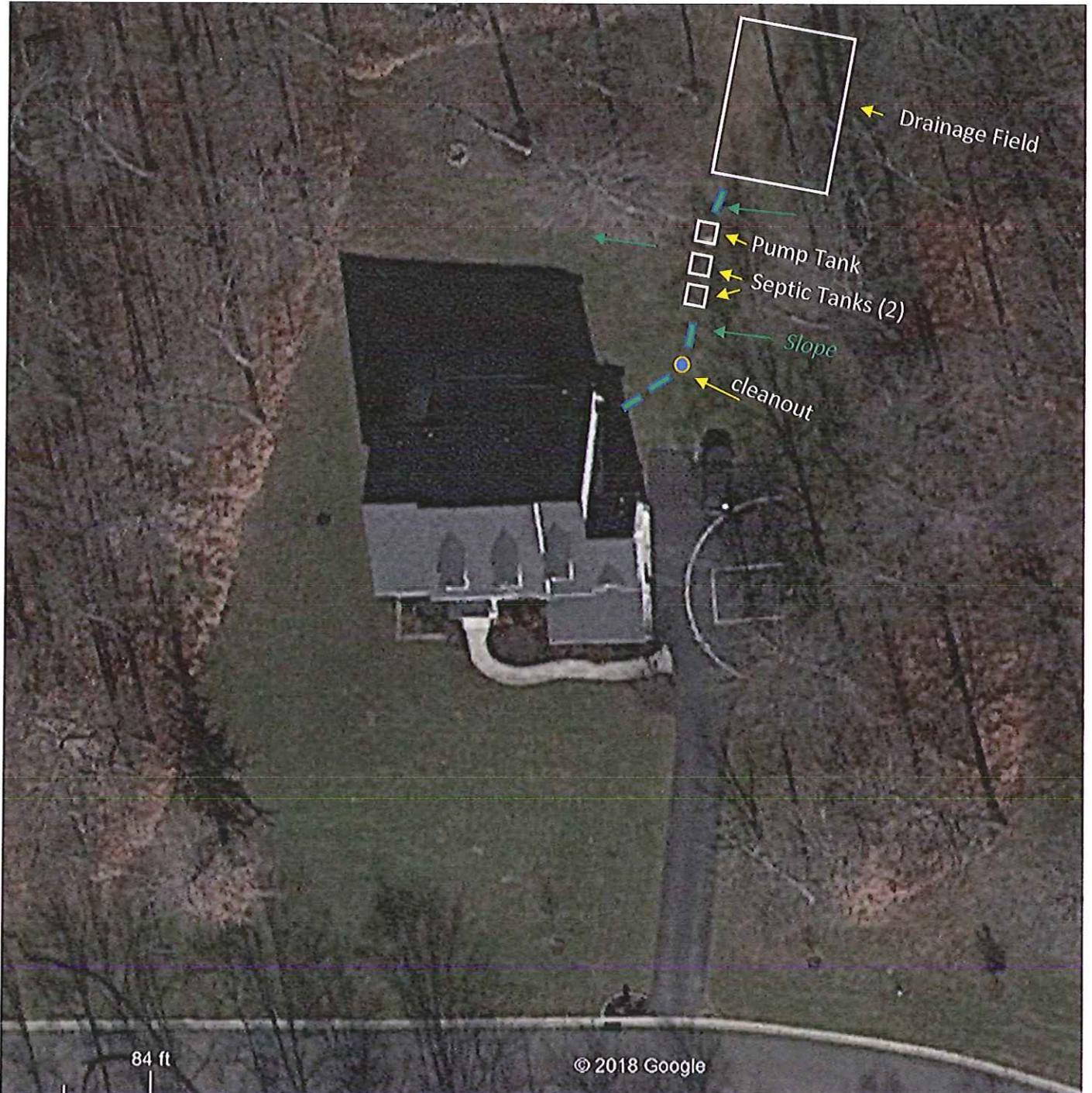
- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type:           **Septic Tanks (2) & Pump Tank**
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? Y / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:  

Water Ponding or Surfacing Y / <b>N</b>	Open Pipe Discharge Y / <b>N</b>
Wet/Spongy Areas Y / <b>N</b>	Lush Green Grass Y / <b>N</b>

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

**Positive drainage from stormwater should be graded away from the tank lids, where there is evidence of storm water infiltration to tank.**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED  
OCT 02 2019  
HtP, LLC

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

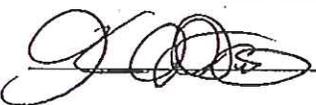
KEVIN & MEGAN HICKEY OWNER NAME(S) PRINTED

30-5-82.18 UPI (FOUND ON COVER LETTER)

39 N. TERRALÉE LN STREET ADDRESS

DOWNINGTOWN, PA 19335

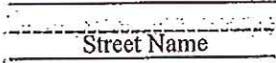
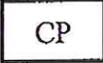
9/29/19 DATE

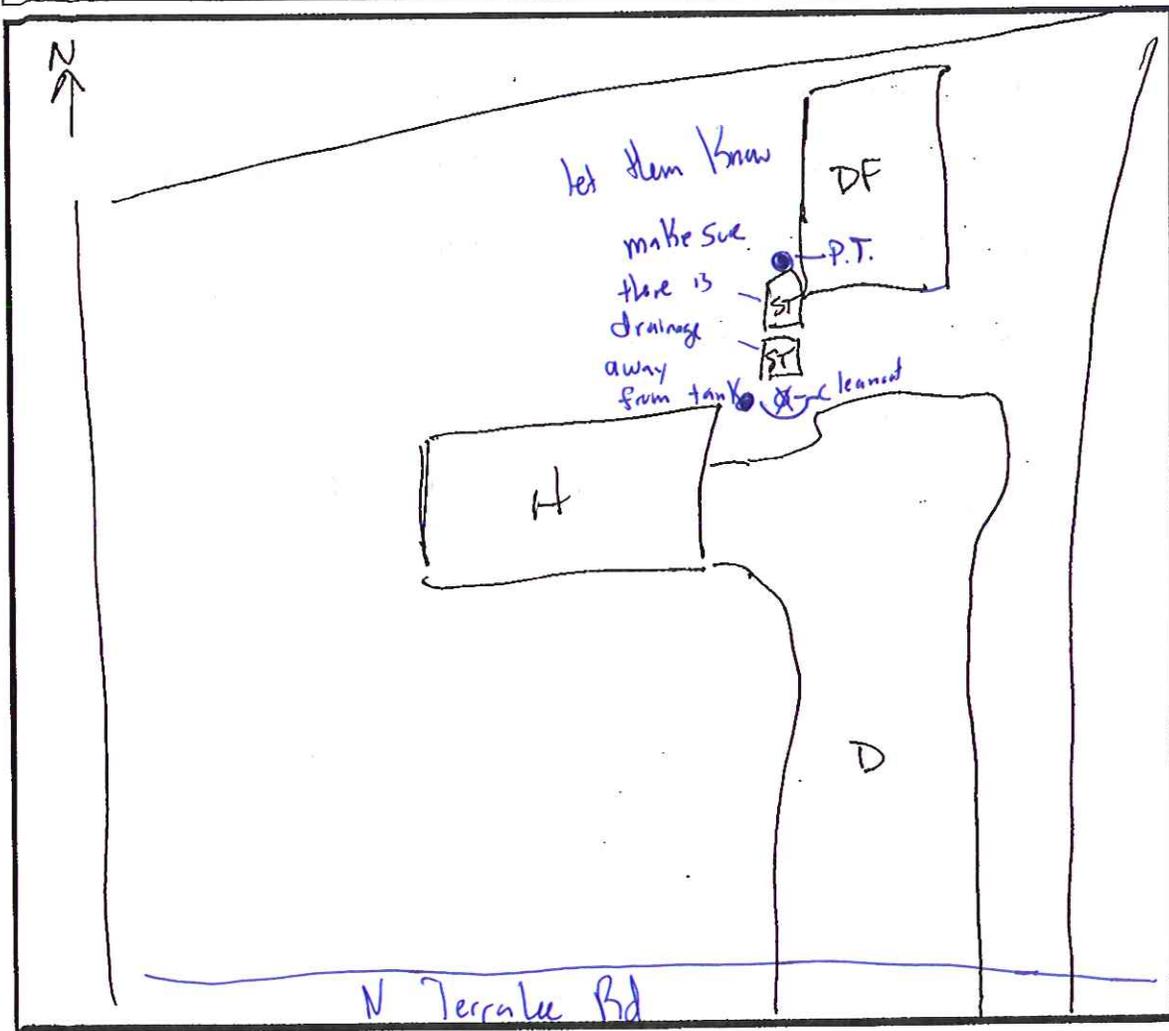
 OWNER SIGNATURE(S)

17 3 7 1 8

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** K. HICKEY

**ADDRESS:** 39 N. TERRALEE, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610-213-2370

**UPI#:** 30-5-82.18

---

1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 5
2. **IS YOUR HOME OCCUPIED?** ALL YEAR
3. **HOW LARGE IS YOUR LOT?** 1 ACRE
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** I DON'T KNOW
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 2
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** LESS THAN 1 YEAR AGO
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY YEAR
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** YES; 2010
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** NO
12. **HOW OLD IS YOUR TANK(S)?** 5- 10 YEARS
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** I DON'T KNOW
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND BED
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** NO
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** NO
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PUBLIC
22. **IF YOU HAVE A WELL, WAS IT:** I DON'T HAVE A WELL
23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** I DON'T HAVE A WELL
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** I DON'T KNOW
25. **IS THE WELL HEAD CASED?** I DON'T HAVE A WELL
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** I DON'T HAVE A WELL
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** NO
28. **DO YOU TEST YOUR WATER PERIODICALLY?** NO
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.** NA

Zone 2- Field Verification #6: Tuesday November 5, 2019 at 9:30 AM

Address: 201 Silver Fox Lane, Downingtown, PA 19335

Homeowners: James Freeman

Phone: 202-251-7391

Email Address: N/A

UPI# 30-2-74.7

Malfunction: **No** / Potential / Suspected

- Are homeowners present? Y / **N**
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: N/A
- Any additional information offered by the homeowners: No problems with system, has been pumped every 2-3 years.

**OLDS**

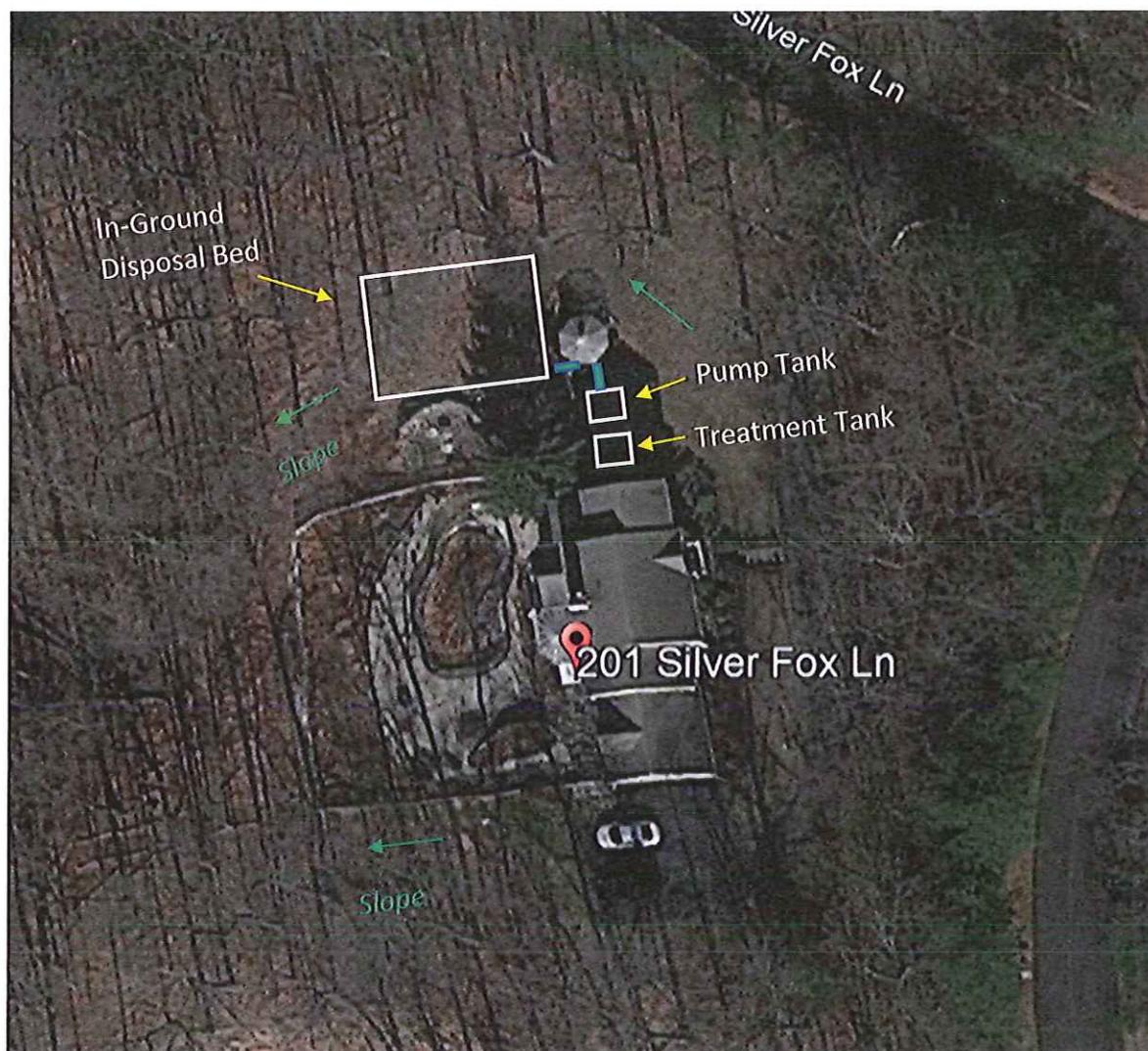
- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank & Pump Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N N/A
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / N N/A
- Disposal
  - Did it rain in last 24 hours? Y / N
  - Does greywater discharge to the ground surface? Y / N
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

No apparent malfunction, no evidence of ponding or broken pipes/ lids to tanks.

Zone 2- Field Verification #6: Tuesday November 5, 2019 at 9:30 AM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

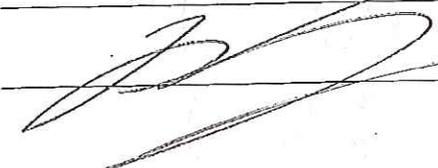
Zone 2 - Inspection #6 - 11/5 @ 9:30 AM

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OCT 15 2019  
HtP, LLC

Permission to Enter Property

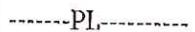
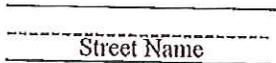
To Field Verify Sewage Needs

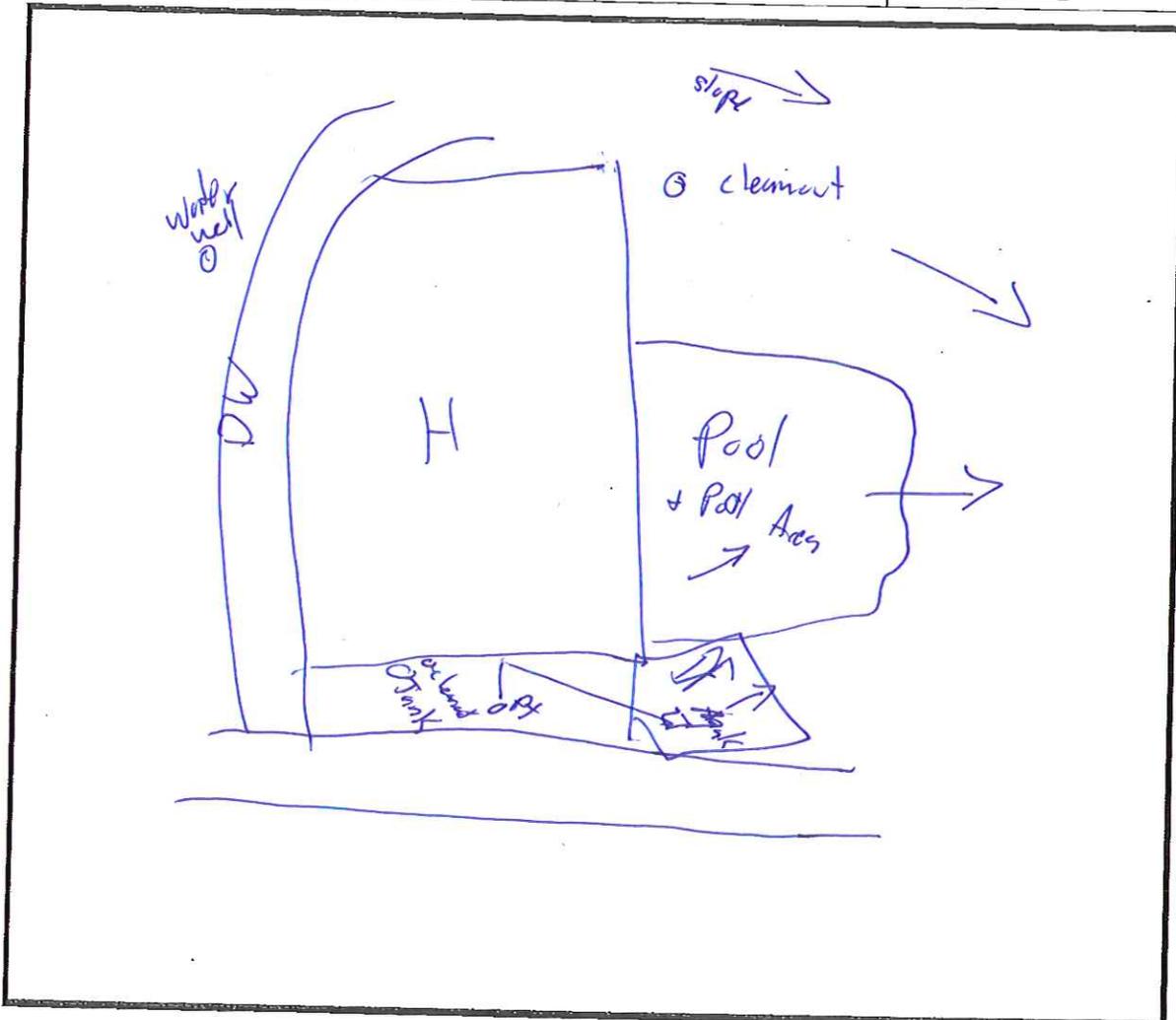
I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

James Freeman OWNER NAME(S) PRINTED  
30-2-74.7 UPI (FOUND ON COVER LETTER)  
201 Silver Fox LN STREET ADDRESS  
Downingtown PA 19335  
10-8-2019 DATE  
 OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** J. FREEMAN

**ADDRESS:** 201 SILVER FOX LANE, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 202-251-7391

**UPI#:** 30-2-74.7

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 4
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? MORE THAN 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 2
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2012
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? I DON'T KNOW
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND TRENCH
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? I DON'T KNOW
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: I DON'T KNOW
23. IF YOU HAVE A WELL, HOW DEEP IS IT? I DON'T KNOW
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? I DON'T KNOW
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 50-100 FEET; UPSLOPE
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? I DON'T KNOW
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

**Tier II Site Visit Notes: Zone 3**

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Zone 3- Field Verification #1: Tuesday October 29, 2019 at 9:00 AM

Address: 640 Pancoast Lane, Downingtown, PA 19335

Homeowners: Francis & Valerie Behan

Phone: 610-269-7541

Email Address: N/A

UPI# 30-2-86.16

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: **No ponding whatsoever, no cracks in tank or running water into system.**

**OLDS**

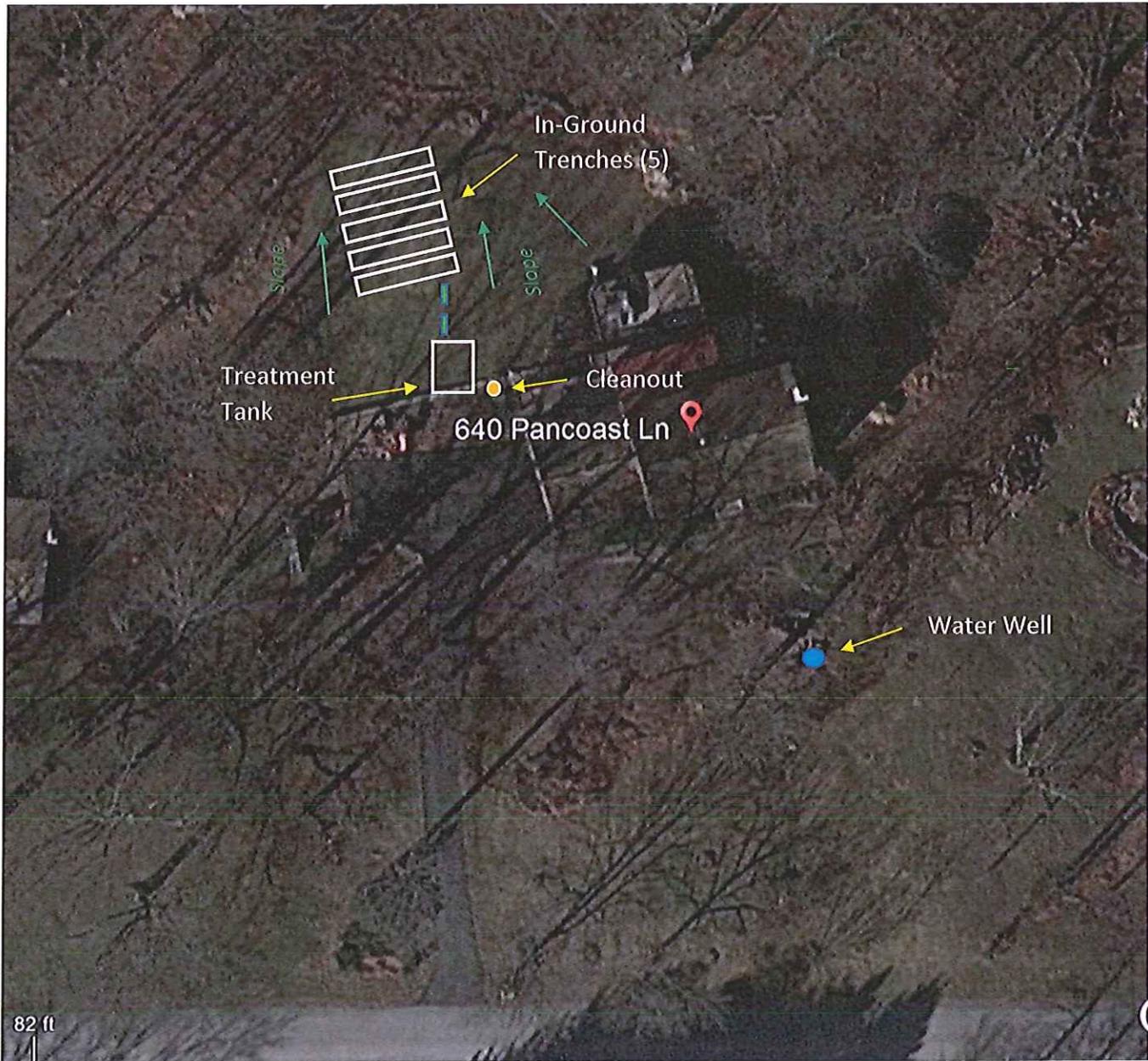
- Conveyance
  - Any visible broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type: **Septic Tank**
  - Baffles Intact: **Y** / **N** Inlet: **Y** / **N** Outlet: **Y** / **N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? **Y** / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N** **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**                      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

**Approximately 5-6 In-ground trenches on a slope. No apparent malfunctions.**

**Zone 3- Field Verification #1: Tuesday October 29, 2019 at 9:00 AM**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED

OCT 22 2019

Permission to Enter Property

HtP, LLC

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

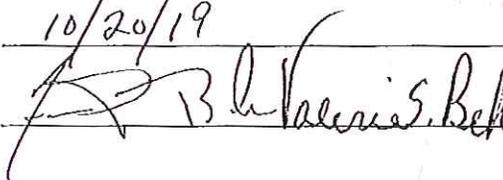
FRANCIS/VALERIE BEHAN OWNER NAME(S) PRINTED

30-2-86.16 UPI (FOUND ON COVER LETTER)

640 PANCOAST LANE STREET ADDRESS

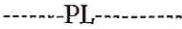
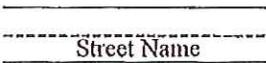
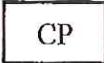
DOWNTOWN

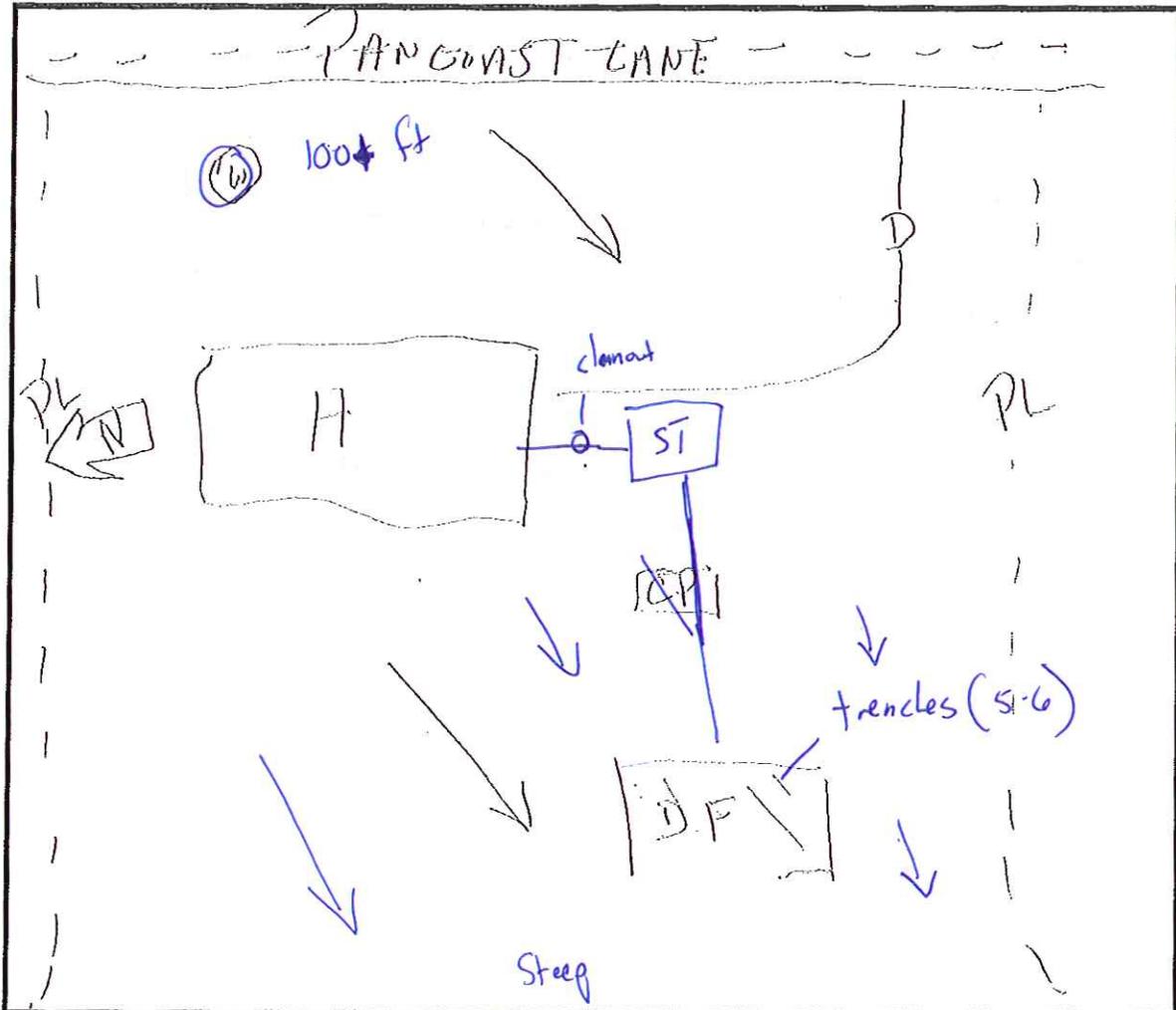
10/20/19 DATE

 OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** FRANCIS BEHAN

**ADDRESS:** 640 PANCOAST LN, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610-269-7541

**UPI#:** 30-2-86.16

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 3
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 2 ACRES
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? 1500 GALLONS
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 1
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 1- 3 YEARS AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND TRENCH (6)
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
22. IF YOU HAVE A WELL, WAS IT: DRILLED
23. IF YOU HAVE A WELL, HOW DEEP IS IT? MORE THAN 200 FEET
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? YES
25. IS THE WELL HEAD CASED? I DON'T KNOW
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 200+ FEET; UPSLOPE
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? YES
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

Zone 3- Field Verification #2: Tuesday October 29, 2019 at 10:00 AM

Address: 122 Governors Circle, Downingtown, PA 19335

Homeowners: Matthew & Joleene Kinneman

Phone: 732-778-5198

Email Address: [matt.kinneman@gmail.com](mailto:matt.kinneman@gmail.com)

UPI# 30-6-123

Malfunction: **No** / Potential / Suspected

- Are homeowners present? Y / **N**
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: **N/A**

**OLDS**

- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: **Septic Tank & Pump Tank**
  - Baffles Intact: Y / **N** Inlet: Y / **N** Outlet: Y / **N** **N/A**
  - Was the liquid depth above the outlet pipe? Y / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? Y / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? Y / **N** **N/A**
  - Absorption Area observations:  

Water Ponding or Surfacing Y / <b>N</b>	Open Pipe Discharge Y / <b>N</b>
Wet/Spongy Areas Y / <b>N</b>	Lush Green Grass Y / <b>N</b>

Confirmation of Tier I Sewage Needs Survey: **Y** / **N**

Additional Comments:

**No cleanouts seen on site. An original Drainage Field was used prior to current homeowners moving in. The original Drainage Field is no longer in use. No apparent malfunctions.**

**Zone 3- Field Verification #2: Tuesday October 29, 2019 at 10:00 AM**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED

OCT 22 2019

HtP, LLC

Permission to Enter Property

To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

MATTHEW + JOLEENE KINNEAR OWNER NAME(S) PRINTED

30-6-123

UPI (FOUND ON COVER LETTER)

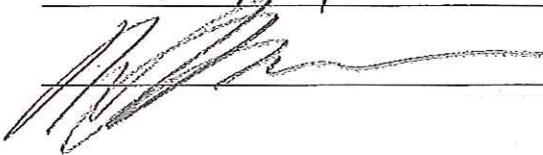
122 GOVERNORS CIR

STREET ADDRESS

Downingtown PA 19335

10/18/19

DATE

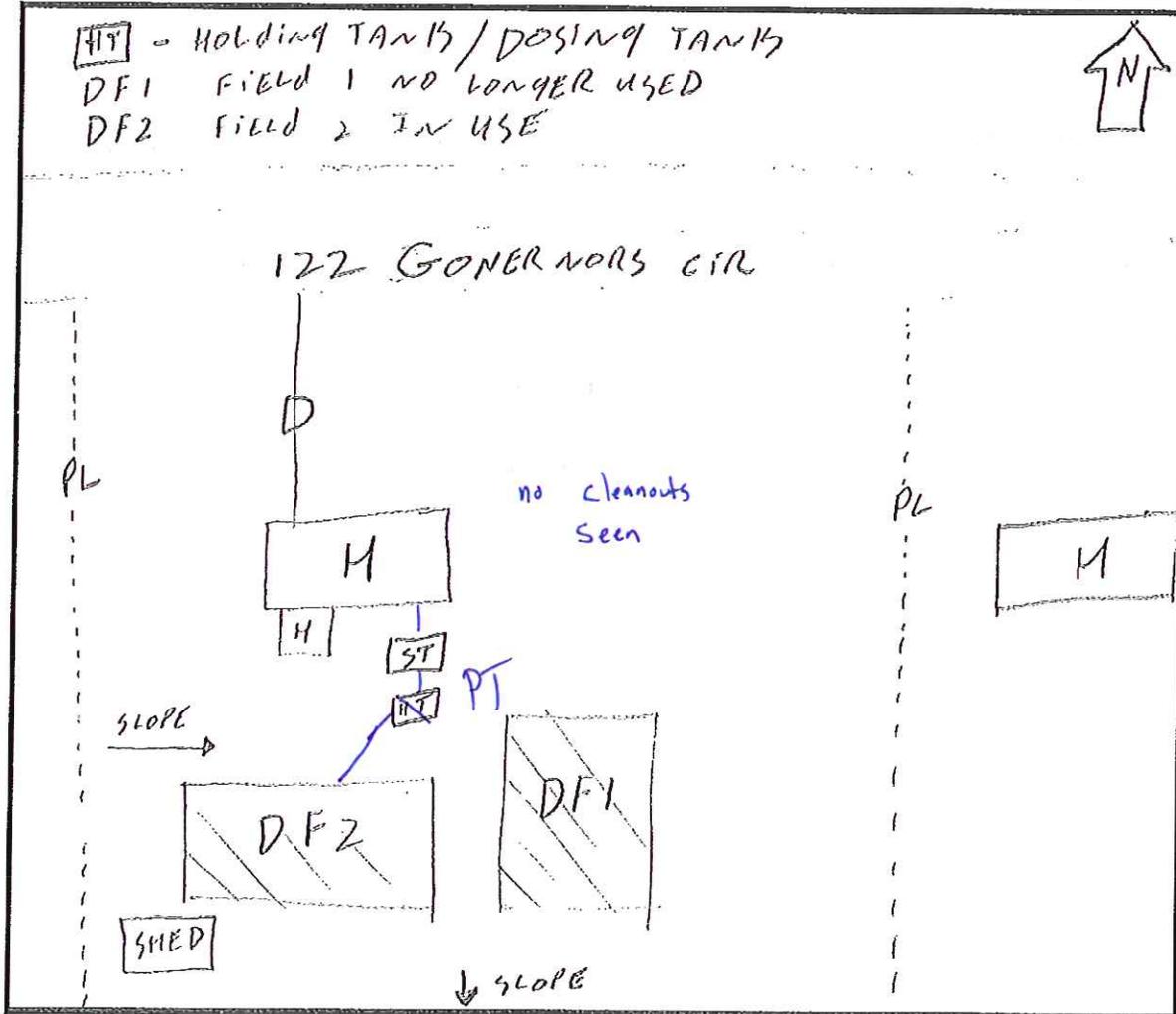


OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	[ H ]	Driveway	— D —
Property Line	- - - - PL - - - -	Street	===== - - - - Street Name - - - - =====
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	▧ DF
Septic Tank(s)	[ ST ]	Cesspool	[ CP ]



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** MATT KINNEMAN

**ADDRESS:** 122 GOVERNORS CIR, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 732-778-5198

**UPI#:** 30-6-123

---

1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 4
2. IS YOUR HOME OCCUPIED? ALL YEAR
3. HOW LARGE IS YOUR LOT? 1 ACRE
4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? I DON'T KNOW
7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? I DON'T KNOW
8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? 1- 3 YEARS AGO
9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? YES; 2012
11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? YES
14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED
15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? YES
16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? SLOW DRAINING PLUMBING FIXTURES
18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
21. WHAT KIND OF WATER SUPPLY DO YOU USE? PUBLIC
22. IF YOU HAVE A WELL, WAS IT: I DON'T HAVE A WELL
23. IF YOU HAVE A WELL, HOW DEEP IS IT? I DON'T HAVE A WELL
24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? I DON'T KNOW
25. IS THE WELL HEAD CASED? I DON'T HAVE A WELL
26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? I DON'T HAVE A WELL
27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? NO
28. DO YOU TEST YOUR WATER PERIODICALLY? NO
29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

Zone 3- Field Verification #3: Friday November 1, 2019 at 1:00 PM

Address: 250 Tradition Lane, Downingtown, PA 19335

Homeowner: Susan Roth

Phone: 610-269-8405

Email Address: [slagpile@verizon.net](mailto:slagpile@verizon.net)

UPI# 30-3-56

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: The homeowner stated that the system is from the mid-1970s and have not had any problems.

**OLDS**

- Conveyance
  - Any visible broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type: Septic Tank (2)
  - Baffles Intact: **Y** / **N** Inlet: **Y** / **N** Outlet: **Y** / **N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? **Y** / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N** **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**                      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / **N**

Additional Comments:

Homeowner stated that they have two tanks, one gravity fed drainage field.



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

Zone 3 - Inspection # 3 @ 1 PM on 11/1/19

Permission to Enter Property

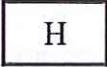
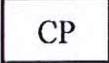
*To Field Verify Sewage Needs*

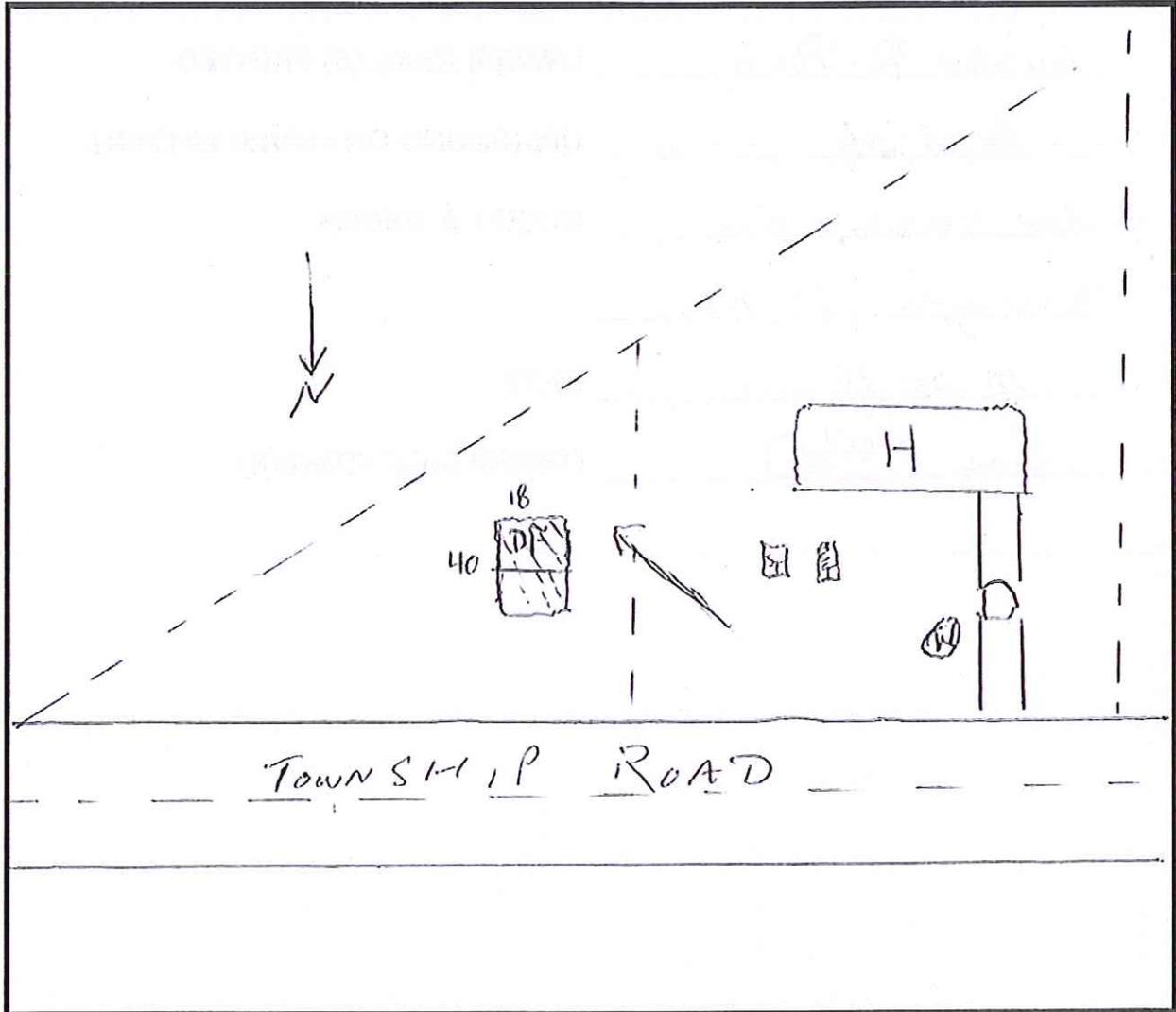
I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

SUSAN R. ROTH OWNER NAME(S) PRINTED  
30-3-56 UPI (FOUND ON COVER LETTER)  
250 Township RD STREET ADDRESS  
Downingtown, PA 19335  
10-25-19 DATE  
Susan R Roth OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



SEWAGE NEEDS SURVEY

EAST BRANDYWINE TOWNSHIP

NAME: SUSAN ROTH

ADDRESS: 250 TOWNSHIP RD, DOWNINGTOWN, PA 19335

TELEPHONE NUMBER: 610-269-8405

UPI#: 30-3-56

- 
1. HOW MANY PEOPLE LIVE IN YOUR HOUSE? 2 1973 house & system
  2. IS YOUR HOME OCCUPIED? ALL YEAR
  3. HOW LARGE IS YOUR LOT? 3/4 ACRE
  4. WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE? INDIVIDUAL ON-LOT DISPOSAL SYSTEM
  5. WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM? SEPTIC TANK
  6. WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)? 1500 GALLONS
  7. HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE? 2
  8. WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED? LESS THAN 1 YEAR AGO
  9. HOW OFTEN IS YOUR SEWER TANK PUMPED? EVERY 1- 3 YEARS
  10. WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)? I DON'T KNOW
  11. WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)? NO
  12. HOW OLD IS YOUR TANK(S)? MORE THAN 10 YEARS
  13. DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK? NO
  14. WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?  
IN-GROUND BED
  15. DO YOU HAVE MORE THAN ONE ABSORPTION AREA? NO
  16. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?  
NONE OF THESE
  17. HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE? NONE OF THESE
  18. HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA? MORE THAN 5 YEARS
  19. WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED? NO
  20. ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT? NO
  21. WHAT KIND OF WATER SUPPLY DO YOU USE? PRIVATE WELL
  22. IF YOU HAVE A WELL, WAS IT: DRILLED
  23. IF YOU HAVE A WELL, HOW DEEP IS IT? 50- 200 FEET
  24. IF NOT PUBLIC, DO YOU TREAT YOUR WATER? NO
  25. IS THE WELL HEAD CASED? YES
  26. HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA? 50-100 FEET; UPSLOPE
  27. HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)? NO
  28. DO YOU TEST YOUR WATER PERIODICALLY? NO
  29. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION. NA

**Zone 3- Field Verification #4: Friday November 1, 2019 at 1:00 PM**

Address: 381 North Buck Road, Downingtown, PA 19335

Homeowners: Bill & Laurie Short

Phone: 610-524-4701

Email Address: [bill.short@consolidatedpower.com](mailto:bill.short@consolidatedpower.com)

UPI# 30-6-5.11

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: Homeowner selling house in Spring, had certified PSMA inspectors recently inspect and pass OLDS.

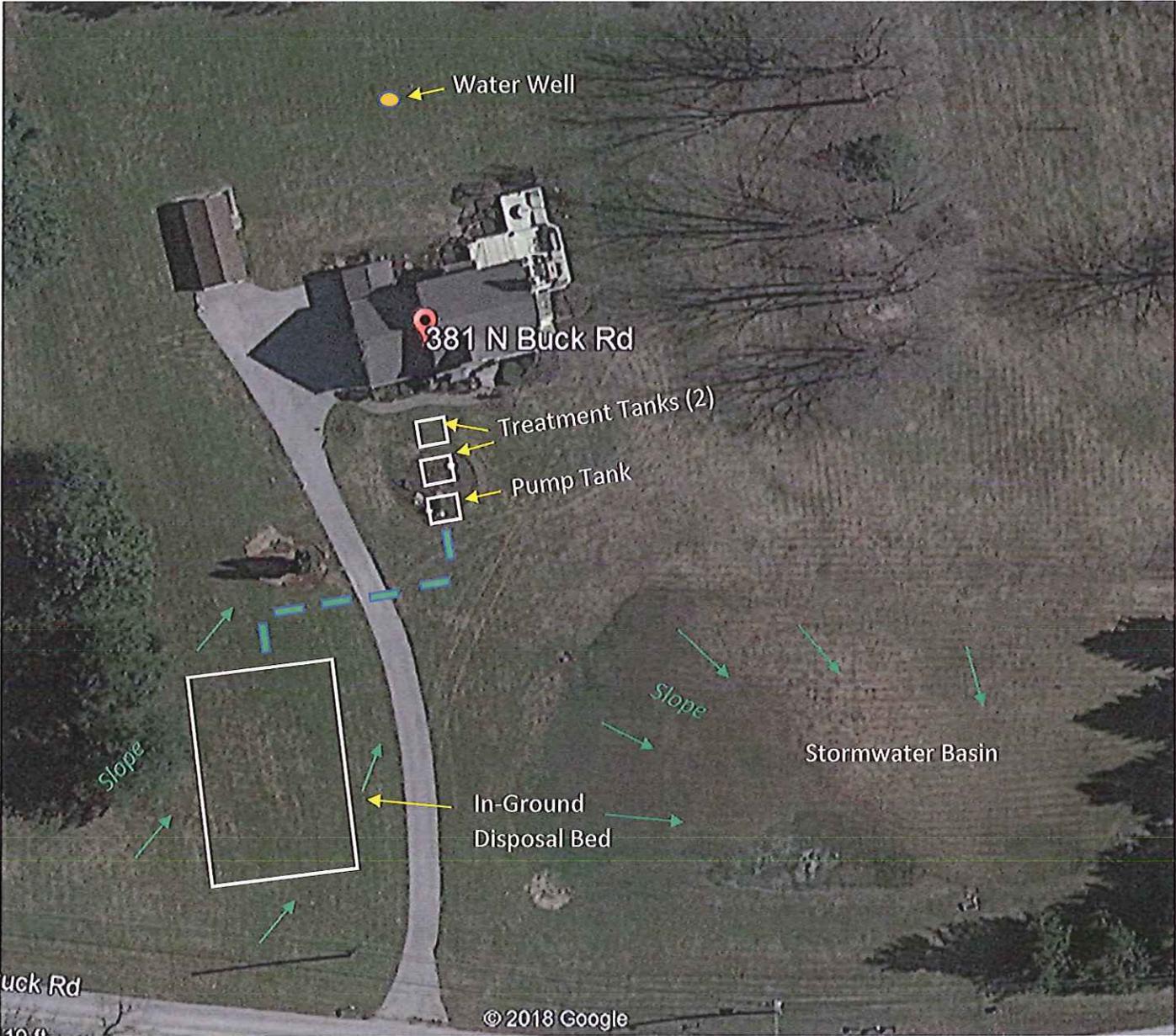
**OLDS**

- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tanks (2) & Pump Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N **N/A**
  - Effluent filter? Y / N **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / N **N/A**
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**                      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

No Malfunctions noted.



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED  
OCT 28 2019  
HtP, LLC

Permission to Enter Property  
To Field Verify Sewage Needs

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

William & Laurie Short OWNER NAME(S) PRINTED

30-6-5.11 UPI (FOUND ON COVER LETTER)

381 N Buck Rd STREET ADDRESS

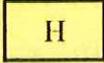
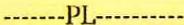
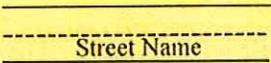
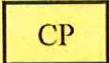
Downingtown PA

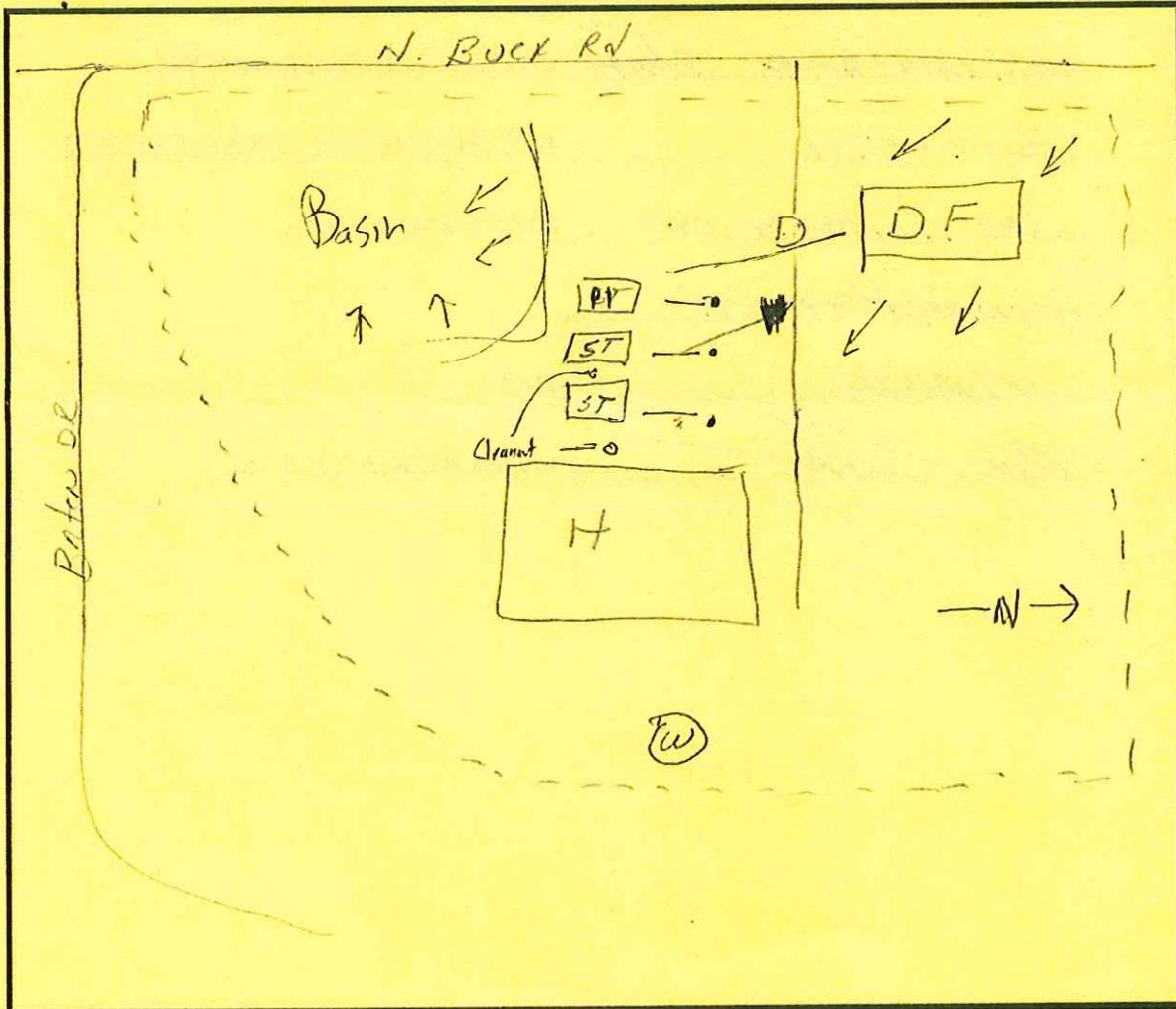
10/28/19 DATE

Wm Short OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** B. SHORT

**ADDRESS:** 381 N. BUCK RD, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610-873-7437

**UPI#:** 30-6-5.11

---

1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 2
2. **IS YOUR HOME OCCUPIED?** ALL YEAR
3. **HOW LARGE IS YOUR LOT?** MORE THAN 2 ACRES
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** 1000 GALLONS
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 2
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** 1- 3 YEARS AGO
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY 1- 3 YEARS
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** YES; 2018
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** NO
12. **HOW OLD IS YOUR TANK(S)?** MORE THAN 10 YEARS
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** YES
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND BED
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** NO
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** NO
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PRIVATE WELL
22. **IF YOU HAVE A WELL, WAS IT:** DRILLED
23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** MORE THAN 200 FEET
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** YES
25. **IS THE WELL HEAD CASED?** YES
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** 200+ FEET; UPSLOPE
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** YES; 15
28. **DO YOU TEST YOUR WATER PERIODICALLY?** NO
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.** NA



November 15, 2017

Bill Short  
381 N. Buck Road  
Downingtown, PA 19335

Re: On-site septic system

Thank you for allowing Eldredge to inspect the septic system at the above captioned address on November 9, 2017.

This four bedroom house was reportedly built in 1995. It is currently occupied by two occupants. The septic system appears to be original to the house. The septic system is comprised of two septic tanks followed by an absorption system. The effluent is conveyed to the absorption system by means of a pump contained in a dosing tank.

The septic tanks are constructed of concrete and appear to be in satisfactory structural condition. Their combined capacity is approximately 1500 gallons. The main access on the first septic tank has been extended to within 6" of the surface of the ground with a 24" diameter concrete riser. The main access on the second septic tank has been extended to the surface of the ground with a 24" diameter plastic riser. There are 4" diameter inspection ports over the inlet baffles of both septic tanks. Both the inlet and outlet baffles are satisfactory. The amount of accumulated solids in the septic tank has not yet reached the point of necessitating pumping.

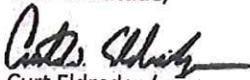
The dosing tank appears to be in satisfactory structural condition. The components of the dosing tank, including the pump, floats, alarm and wiring appear to be satisfactory.

The absorption system consists of a sand lined trench system. We located four trenches. The total absorption area is approximately 840 square feet. The liquid level in the absorption system is satisfactory.

Based on the preliminary information provided and our findings during this inspection, we are able to state that the wastewater treatment system is presently in satisfactory working condition for its current occupancy. The future condition will depend on the number of occupants in the prospective buyer's household, their water use, and maintenance. Even the weather can impact the operation of a wastewater treatment system.

Again, thank you for allowing us the opportunity to be of service. Our mission is to become Chester County's most preferred septic inspection provider by our uncompromising commitment to service, quality, integrity, and value. If you are not completely satisfied with any aspect of our inspection, we will make it right or refund your money. If you have any additional questions, please do not hesitate to call.

With Gratitude,

  
Curt Eldredge/amo  
Wastewater Consultant

520 S. Caln Road  
East Fallowfield, Pa 19320  
610-384-6005 Fax 610-384-3995  
[www.EldredgeSeptic.com](http://www.EldredgeSeptic.com)

**Zone 3- Field Verification #5: Friday November 22, 2019 at 9:30 AM**

Address: 603 Pancoast Lane, Downingtown, PA 19335

Homeowners: Neal & Victoria Stone

Phone: 215-630-0689

Email Address: N/A

UPI# 30-2-86.33

Malfunction: **No** / Potential / Suspected

- Are homeowners present? Y / **N**
- Review Sewage Needs Survey with homeowners Y / **N**
- Any evidence of apparent malfunction? Y / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: Pump Tank not found, but there is one on site according to homeowner.

**OLDS**

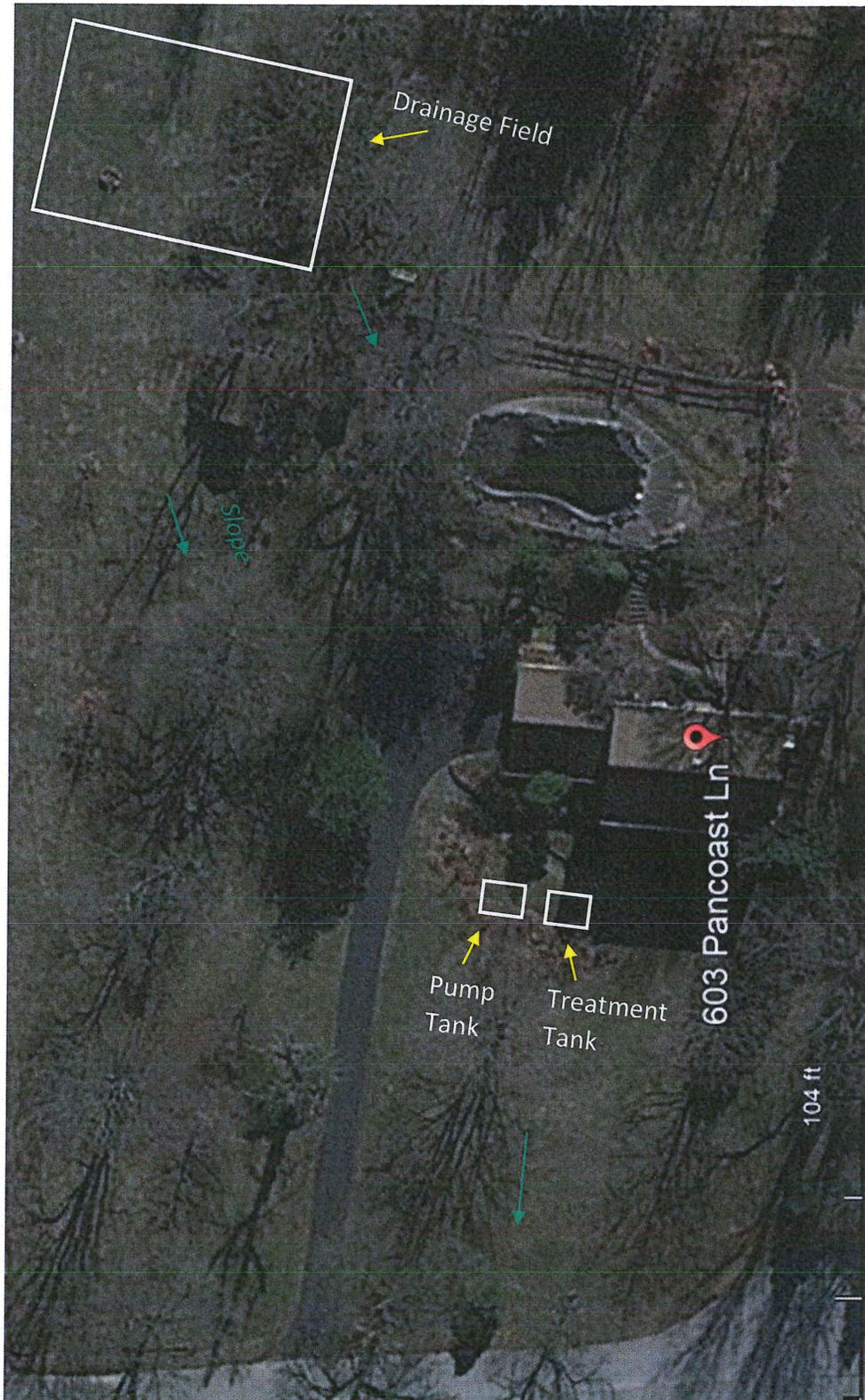
- Conveyance
  - Any visible broken pipes? Y / **N**
- Treatment
  - Treatment Tank Type: Septic Tank & Pump Tank
  - Baffles Intact: Y / N Inlet: Y / N Outlet: Y / N **N/A**
  - Was the liquid depth above the outlet pipe? Y / N **N/A**
  - Tank Lid intact? **Y** / N N/A
  - Effluent filter? Y / N N/A
  - Depth of scum and sludge > than 1/3 liquid depth of tank? Y / N **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / N N/A
- Disposal
  - Did it rain in last 24 hours? Y / **N**
  - Does greywater discharge to the ground surface? Y / **N**
  - Is there a pressure dosing tank? **Y** / N
  - If exposed, is distribution box outlets level? Y / N **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing Y / **N**      Open Pipe Discharge Y / **N**
    - Wet/Spongy Areas Y / **N**                      Lush Green Grass Y / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

Additional Comments:

No malfunctions noted.

**Zone 3- Field Verification #5: Friday November 22, 2019 at 9:30 AM**



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

RECEIVED

NOV 14 2019

HtP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Neal and Victoria Stone OWNER NAME(S) PRINTED

30-2-86.33 UPI (FOUND ON COVER LETTER)

603 Pancoast Ln. STREET ADDRESS

Downingtown PA 19335

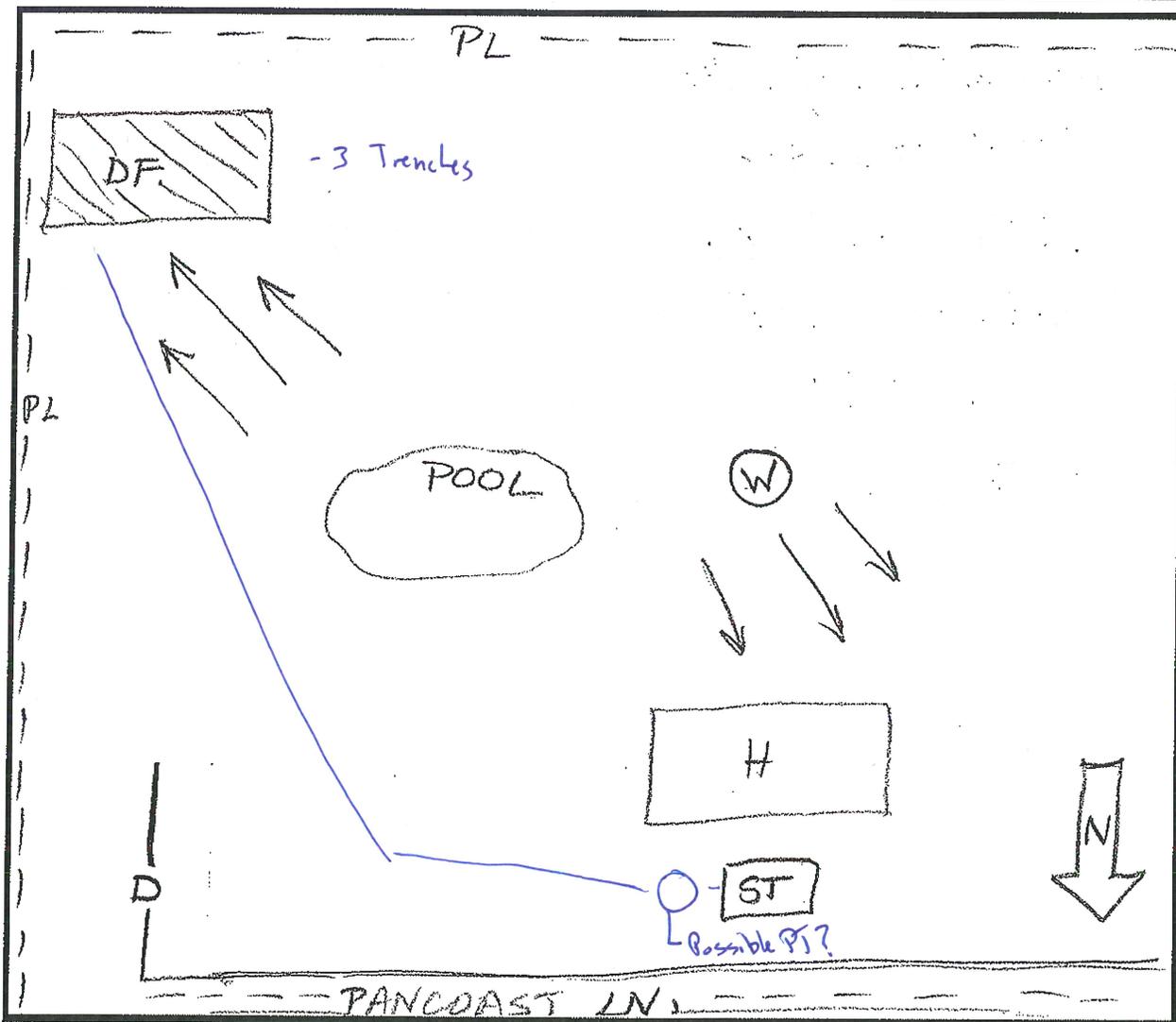
11/10/19 DATE

Victoria Stone OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow	↑ N	Water Well	⊙ W
House	□ H	Driveway	— D —
Property Line	- - - - PL - - - -	Street	===== Street Name =====
Arrows showing Slope (pointing down slope)	→	Disposal Field or Sand Mound Boundary	▨ DF
Septic Tank(s)	□ ST	Cesspool	□ CP



**SEWAGE NEEDS SURVEY****EAST BRANDYWINE TOWNSHIP****NAME:** NEAL AND VICKI STONE**ADDRESS:** 603 PANCOAST LANE, DOWNINGTOWN, PA 19335**TELEPHONE NUMBER:** 215.630.0689**UPI#:** 30-2-86.33

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1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 2
2. **IS YOUR HOME OCCUPIED?** ALL YEAR
3. **HOW LARGE IS YOUR LOT?** 2 ACRES
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** 1000 GALLONS
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 1
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** LESS THAN 1 YEAR AGO
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY 1- 3 YEARS
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** YES; 2009
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** NO
12. **HOW OLD IS YOUR TANK(S)?** MORE THAN 10 YEARS
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** I DON'T KNOW
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND BED
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** NO
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** YES
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PRIVATE WELL
22. **IF YOU HAVE A WELL, WAS IT:** I DON'T KNOW
23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** 50- 200 FEET
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** YES
25. **IS THE WELL HEAD CASED?** YES
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** 200+ FEET; DOWNSPLOPE
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** NO
28. **DO YOU TEST YOUR WATER PERIODICALLY?** NO
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.** NONE

**Zone 3- Field Verification #6: Friday November 22, 2019 at 10:00 AM**

Address: 612 Pancoast Lane, Downingtown, PA 19335

Homeowners: Steven Unger

Phone: 484-678-2990

Email Address: N/A

UPI# 30-2-86.10

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: House bought three years ago and had PSMA inspection.

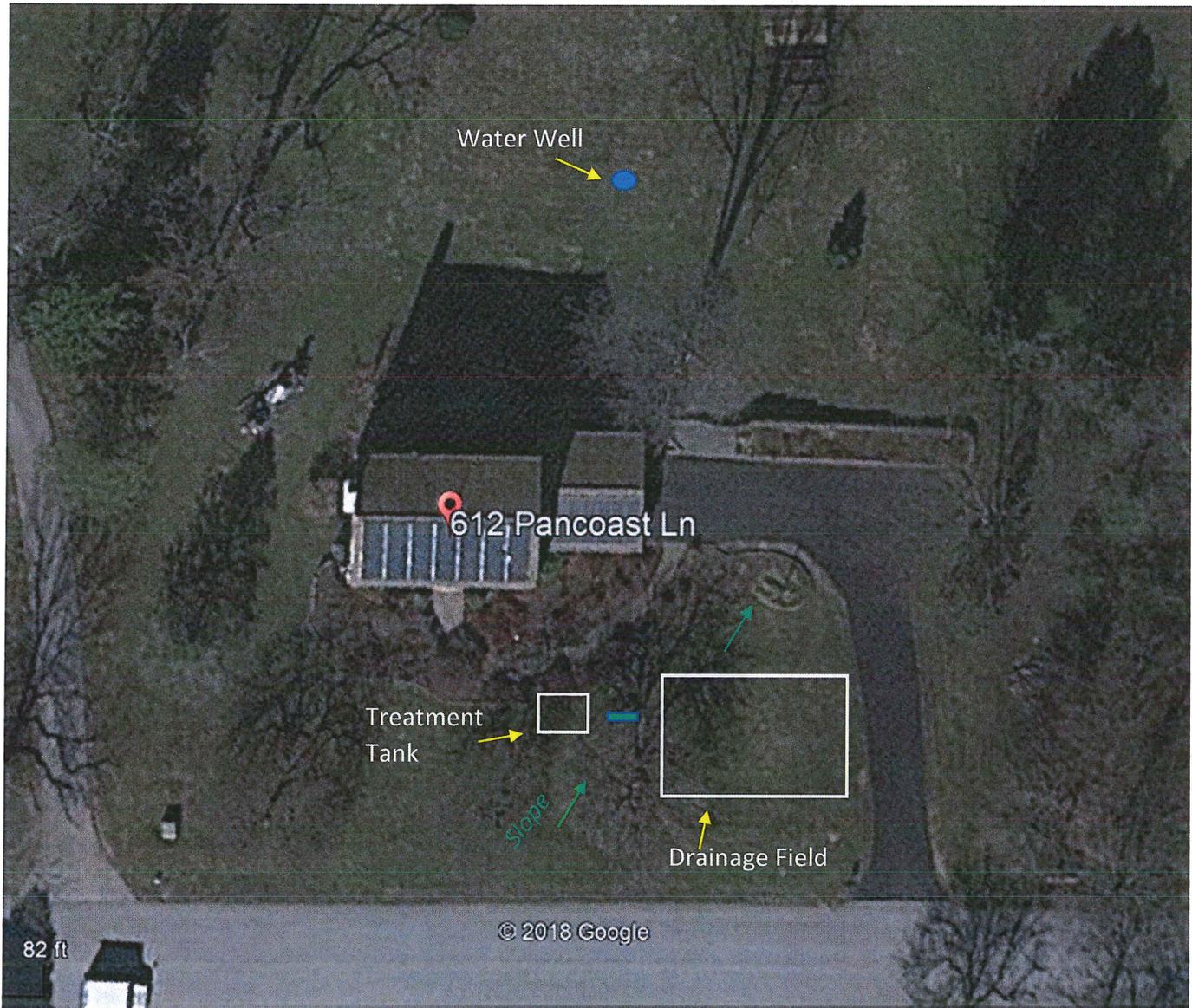
**OLDS**

- Conveyance
  - Any visible broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: **Y** / **N** Inlet: **Y** / **N** Outlet: **Y** / **N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? **Y** / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N** **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**                      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / **N**

Additional Comments:

No malfunctions noted.



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

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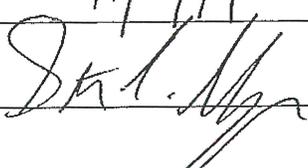
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HtP, LLC

Permission to Enter Property

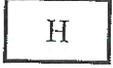
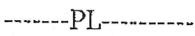
*To Field Verify Sewage Needs*

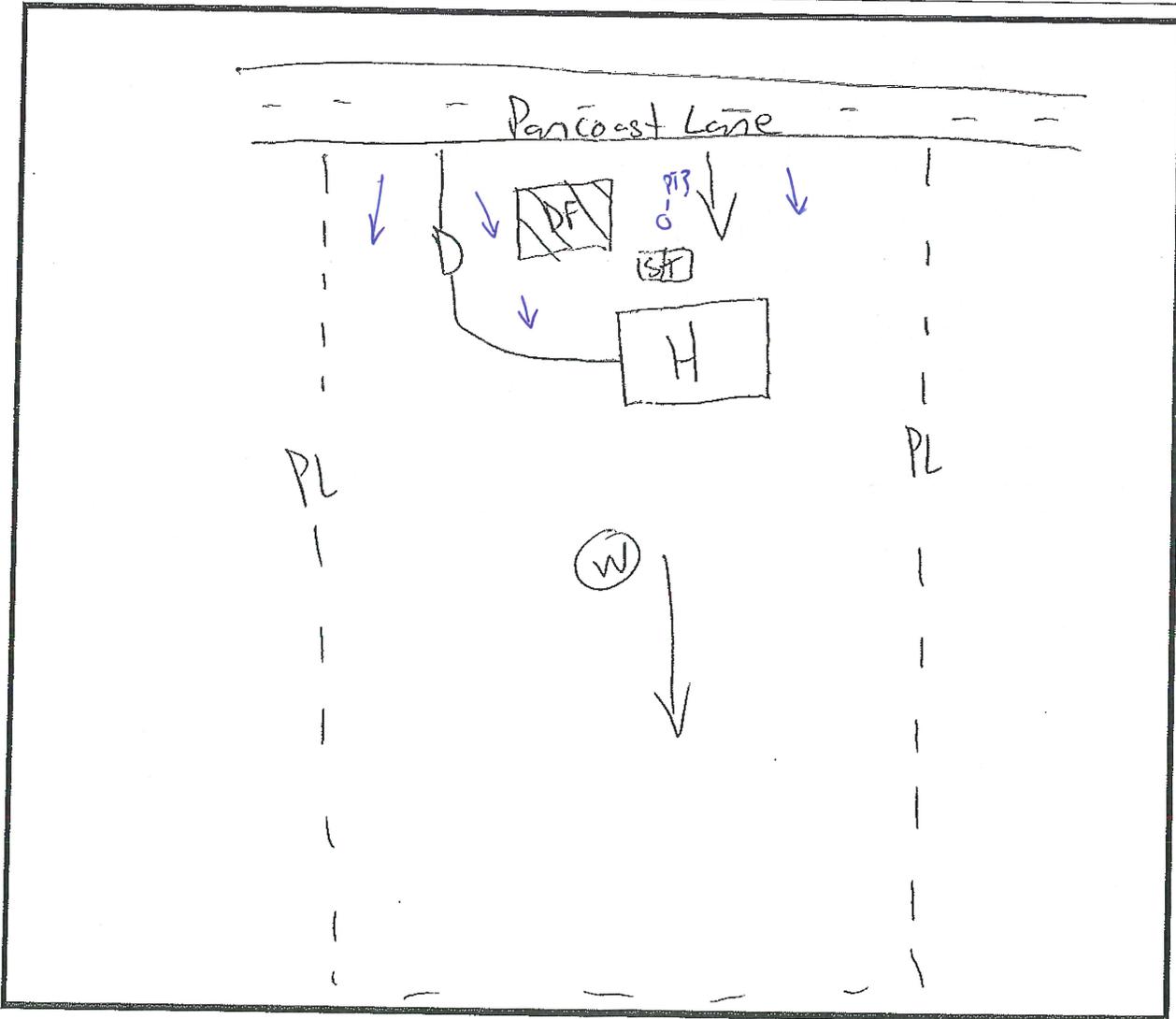
I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Steven Unger OWNER NAME(S) PRINTED  
30-2-86.10 UPI (FOUND ON COVER LETTER)  
612 Pancoast Lane STREET ADDRESS  
Downingtown, PA 19335  
11/2/19 DATE  
 OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** S. UNGER

**ADDRESS:** 612 PANCOAST LANE, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 484-678-2990

**UPI#:** 30-2-86.10

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1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 4
2. **IS YOUR HOME OCCUPIED?** ALL YEAR
3. **HOW LARGE IS YOUR LOT?** 2 ACRES
4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK
6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** 1000 GALLONS
7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 1
8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** LESS THAN 1 YEAR AGO
9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY 1- 3 YEARS
10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** YES; 2018
11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** YES; 2016
12. **HOW OLD IS YOUR TANK(S)?** MORE THAN 10 YEARS
13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** NO
14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND BED
15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** NO
16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** NO
20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PRIVATE WELL
22. **IF YOU HAVE A WELL, WAS IT:** DRILLED
23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** 50- 200 FEET
24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** NO
25. **IS THE WELL HEAD CASED?** YES
26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** 50-100 FEET
27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** YES; ANNUAL
28. **DO YOU TEST YOUR WATER PERIODICALLY?** YES
29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.** NA

**Zone 3- Field Verification #7: Friday November 22, 2019 at 10:30 AM**

Address: 106 Governors Circle, Downingtown, PA 19335

Homeowners: Morris & Ann Farnum

Phone: 610-269-1464

Email Address: N/A

UPI# 30-6-185

Malfunction: **No** / Potential / Suspected

- Are homeowners present? **Y** / N
- Review Sewage Needs Survey with homeowners **Y** / N
- Any evidence of apparent malfunction? **Y** / **N**
  - If so, what/where: **N/A**
- Any additional information offered by the homeowners: On public water, no well.  
Homeowner also clarified two answers on Sewage Needs Survey.

**OLDS**

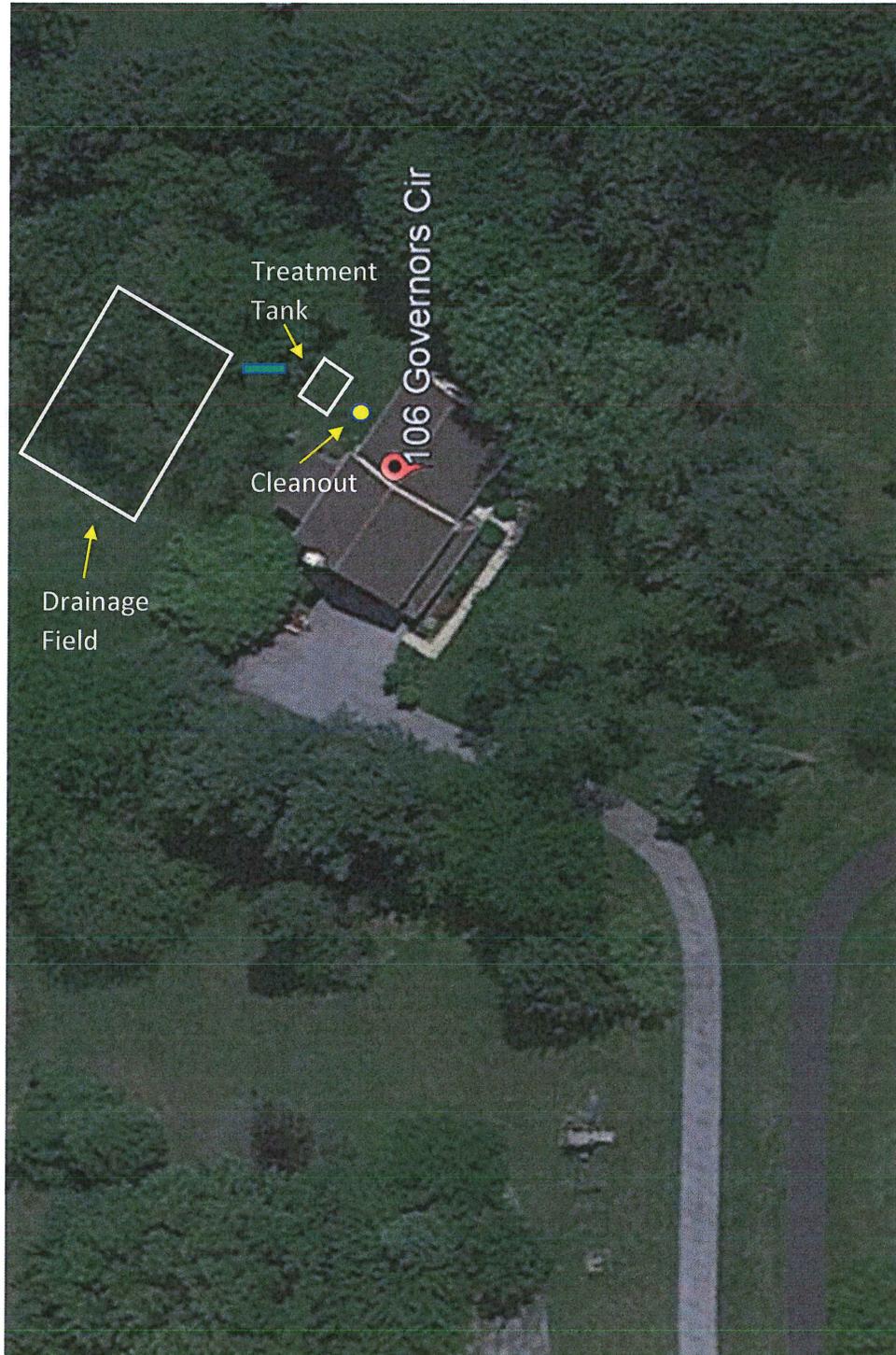
- Conveyance
  - Any visible broken pipes? **Y** / **N**
- Treatment
  - Treatment Tank Type: Septic Tank
  - Baffles Intact: **Y** / **N** Inlet: **Y** / **N** Outlet: **Y** / **N** **N/A**
  - Was the liquid depth above the outlet pipe? **Y** / **N** **N/A**
  - Tank Lid intact? **Y** / **N** **N/A**
  - Effluent filter? **Y** / **N** **N/A**
  - Depth of scum and sludge > than 1/3 liquid depth of tank? **Y** / **N** **N/A**
  - Tank structurally sound, no evidence of leaks or cracks? **Y** / **N** **N/A**
- Disposal
  - Did it rain in last 24 hours? **Y** / **N**
  - Does greywater discharge to the ground surface? **Y** / **N**
  - Is there a pressure dosing tank? **Y** / **N**
  - If exposed, is distribution box outlets level? **Y** / **N** **N/A**
  - Absorption Area observations:
    - Water Ponding or Surfacing **Y** / **N**      Open Pipe Discharge **Y** / **N**
    - Wet/Spongy Areas **Y** / **N**                      Lush Green Grass **Y** / **N**

Confirmation of Tier I Sewage Needs Survey: **Y** / N

**Additional Comments:**

No malfunctions noted. Informed homeowner that slope should be graded away from tank lids.

Zone 3- Field Verification #7: Friday November 22, 2019 at 10:30 AM



\*All locations are approximate, based on homeowner's recollection and are not scaled to size.

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NOV 14 2019

HtP, LLC

Permission to Enter Property

*To Field Verify Sewage Needs*

I/WE HAVE READ THE ATTACHED TOWNSHIP LETTER AND HEREBY GRANT PERMISSION TO EAST BRANDYWINE TOWNSHIP AND REPRESENTATIVES FROM HYDRATERRA PROFESSIONALS TO ENTER THE PROPERTY TO CONDUCT A SURVEY OF THE ON-LOT SEPTIC SYSTEM(S).

Morris & Ann Farnum OWNER NAME(S) PRINTED

730-6-185 UPI (FOUND ON COVER LETTER)

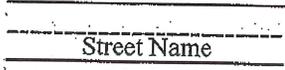
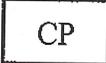
106 Governors Circle STREET ADDRESS

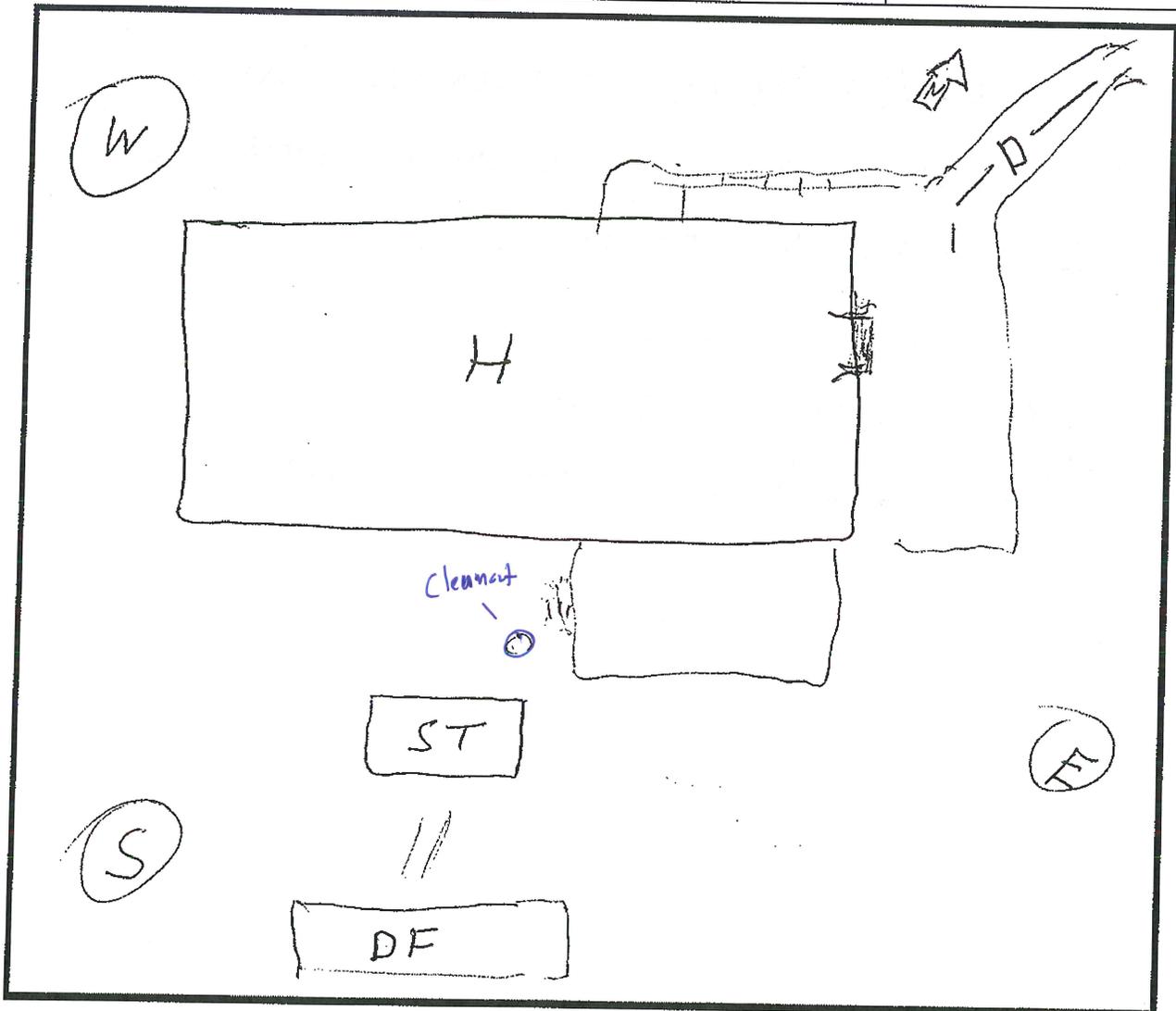
11-14-2019 DATE

Morris J. Farnum OWNER SIGNATURE(S)

## Sketch of On-Lot Disposal System

Please draw a diagram of your property in the box provided below. Please include the following items in sketch:

Please Show:	Symbol	Please Show:	Symbol
North Arrow		Water Well	
House		Driveway	
Property Line		Street	
Arrows showing Slope (pointing down slope)		Disposal Field or Sand Mound Boundary	
Septic Tank(s)		Cesspool	



**SEWAGE NEEDS SURVEY**

**EAST BRANDYWINE TOWNSHIP**

**NAME:** M. FARNUM

**ADDRESS:** 106 GOVERNORS CIR, DOWNINGTOWN, PA 19335

**TELEPHONE NUMBER:** 610-269-1464

**UPI#:** 30-6-185

- 
1. **HOW MANY PEOPLE LIVE IN YOUR HOUSE?** 2
  2. **IS YOUR HOME OCCUPIED?** ALL YEAR
  3. **HOW LARGE IS YOUR LOT?** 1 ACRE
  4. **WHAT KIND OF SEWER SERVICE SYSTEM DO YOU USE?** INDIVIDUAL ON-LOT DISPOSAL SYSTEM
  5. **WHAT TYPE OF SEWAGE TANK(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?** SEPTIC TANK *1000 gal*
  6. **WHAT IS THE TOTAL CAPACITY OF YOUR SEWAGE TANK(S)?** I DON'T KNOW *new inlet baffle (2012)*
  7. **HOW MANY TANKS/ TANK COMPARTMENTS DO YOU HAVE?** 1
  8. **WHEN WAS THE LAST TIME YOUR SEWER TANK WAS PUMPED?** LESS THAN 1 YEAR AGO
  9. **HOW OFTEN IS YOUR SEWER TANK PUMPED?** EVERY 1- 3 YEARS
  10. **WAS YOUR TANK EVER INSPECTED? IF YES, WHEN (YEAR)?** I DON'T KNOW
  11. **WAS YOUR TANK EVER REPAIRED? IF YES, WHEN (YEAR)?** I DON'T KNOW
  12. **HOW OLD IS YOUR TANK(S)?** MORE THAN 10 YEARS
  13. **DOES YOUR SEPTIC SYSTEM INCLUDE A PUMP TANK?** NO
  14. **WHAT TYPE OF ABSORPTION / DISPOSAL AREA(S) ARE USED FOR YOUR ON-LOT DISPOSAL SYSTEM?**  
IN-GROUND BED
  15. **DO YOU HAVE MORE THAN ONE ABSORPTION AREA?** NO
  16. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING NEAR YOUR ABSORPTION/DISPOSAL AREA(S)?**  
NONE OF THESE
  17. **HAVE YOU EVER NOTICED ANY OF THE FOLLOWING IN YOUR HOUSE?** NONE OF THESE
  18. **HOW OLD IS YOUR ABSORPTION / DISPOSAL AREA?** MORE THAN 5 YEARS
  19. **WAS YOUR ABSORPTION / DISPOSAL AREA EVER REPAIRED?** NO
  20. **ARE YOU AWARE OF ANY OTHER SEWAGE PROBLEMS IN THE AREA? IF YES, WHAT?** NO
  21. **WHAT KIND OF WATER SUPPLY DO YOU USE?** PUBLIC
  22. **IF YOU HAVE A WELL, WAS IT:** I DON'T HAVE A WELL
  23. **IF YOU HAVE A WELL, HOW DEEP IS IT?** I DON'T HAVE A WELL
  24. **IF NOT PUBLIC, DO YOU TREAT YOUR WATER?** NO
  25. **IS THE WELL HEAD CASED?** I DON'T HAVE A WELL
  26. **HOW FAR IS THE WATER SOURCE (WELL / SPRING) FROM THE ABSORPTION / DISPOSAL AREA? IS THE WELL  
UPSLOPE OR DOWNSLOPE FROM THE ABSORPTION/ DISPOSAL AREA?** I DON'T HAVE A WELL
  27. **HAVE YOU EVER HAD YOUR WATER TESTED? IF YES, HOW LONG AGO (YEARS)?** NO
  28. **DO YOU TEST YOUR WATER PERIODICALLY?** NO
  29. **DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS REGARDING SEWAGE IN YOUR COMMUNITY OR IN EAST  
BRANDYWINE TOWNSHIP THAT YOU WOULD LIKE TO SHARE? PLEASE FEEL FREE TO ATTACH ANY ADDITIONAL  
INFORMATION.** NA