



Maryland
Department of
the Environment

The Trappe East Wastewater Facility Groundwater Discharge Permit Renewal Application 19-DP-3460

Presented at the public hearing on 11/19/2019



Outline

1. Introduction
2. Project Summary by Permittee
3. Summary of the Proposed Discharge Permit
4. Question and Discussion Session
5. Testimony for the Hearing Record
6. Meeting/Hearing Adjourned



Groundwater Discharge Permit Application Process





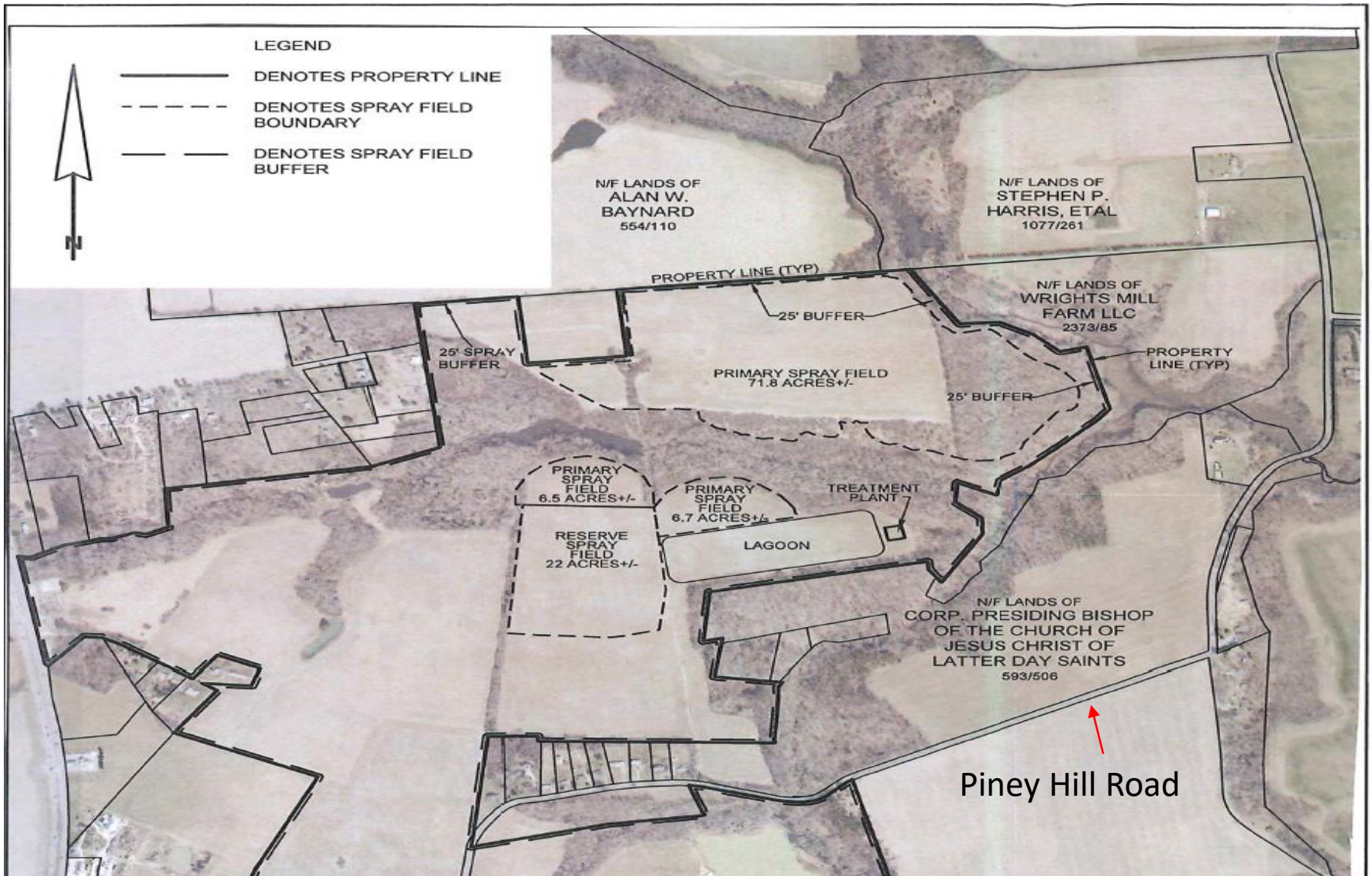
Introduction - Trappe East Permit Renewal Application

- The Trappe East Groundwater Discharge Permit renewal application dated 1/21/2019 was submitted to MDE by the Trappe Town Council.
- The application is for the treatment and disposal of 540,000 gal/day (yearly average flow) via a spray irrigation system.



Introduction -Continued

Location of Spray Field





Introduction - Continued Spray Irrigation System

- Primary Irrigation Area: 85 acres
- Reserved area: 22 acres
- Storage lagoon: 60 days storage capacity
- Project divided into 5 phases



Summary – Groundwater Discharge Permit Effluent Quality Limitations

- **Design Flow: 540,000 gal/day (Annual average)**
Monitoring Frequency: continuous recorded
- **Biochemical Oxygen Demand (BOD₅) :10 mg/l,**
Monitoring Frequency: Weekly
- **Suspended Solids : 10 mg/l, Monitoring Frequency: Weekly**
- **Total Nitrogen: 8 mg/l, Monitoring Frequency: Weekly**
- **Total Phosphorus: 3 mg/l, Monitoring Frequency: Weekly**
- **Fecal coliform: 3 MPN/100ml, Monitoring Frequency : Weekly**
- **pH : 6.5 -8.5, Monitoring Frequency : Daily**



Summary – Groundwater Discharge Permit Wastewater System Operational Requirements

- **The wastewater treatment plant (WWTP) and the spray irrigation system shall be operated by a Maryland State Certified Operator.**
- **Permit condition I.C.1 on Page 6 stipulates that the hydraulic loading rates of the spray irrigation area shall not exceed 2 inches/week (annual average). Permit Condition I.C.2 on Page 6 specifies the operation restrictions of the spray irrigation system including no spray irrigation on saturated soil, bare ground, during precipitation, freezing conditions and high wind. Excessive irrigation causing surface runoff and ponding is prohibited.**



Summary – Groundwater Discharge Permit Groundwater Quality Monitoring Requirements

- **The Permittee is responsible for the installation, operation and maintenance of eleven (11) monitoring wells to be used for obtaining samples of groundwater.**
- **The Permittee shall take and analyze one water sample every three months from each monitoring well after the start-up of the spray irrigation system.**
- **The groundwater sample shall be analyzed for pH, Total Nitrogen , Nitrate, Nitrite, TKN, Total Phosphate, Chloride, Total Dissolved Solids and Fecal coliform.**



Summary – Groundwater Discharge Permit Reporting Requirements

- **Discharge monitoring results obtained each month shall be summarized on a Discharge Monitoring Report form (EPA No. 3320-1) and submitted to MDE monthly.**
- **The permittee shall submit the monthly operating reports to MDE monthly.**
- **Groundwater monitoring data required by this permit shall be summarized on a Discharge Monitoring report form and submitted to MDE yearly.**



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Question and Discussion Session