

PREPARING A GROUNDWATER PROTECTION PLAN FOR WASTEWATER TREATMENT PLANTS

Kentucky Division of Water
Watershed Management Branch
Groundwater Protection Program
300 Sower Blvd, 3rd Floor
Frankfort, KY 40601
(502) 564-3410

[Groundwater Protection Webpage](#)

The Groundwater Protection Plan Regulation, 401 KAR 5:037, requires anyone who conducts any of the following activities to have a GPP:

- (1)(f). “Storing, treating, disposing, or related handling of hazardous waste, solid waste, or special waste in landfills, incinerators, surface impoundments, tanks, drums or other containers, or in piles”;
- (1)(g) “Commercial or industrial storing or related handling in bulk quantities of raw materials, intermediate substances or products, finished products, substances held for recycling, or other pollutants held in tanks, drums or other containers, or in piles”;
- (1)(o) “Impoundment or containment of pollutants in surface impoundments, lagoons, pits, or ditches...”
- (1)(p) “Commercial or industrial transfer, including loading and unloading, in bulk quantities of raw materials, intermediate substances or products, finished products, substances held for recycling, or other pollutants.”

The GPP must include all activities being conducted at a site that are subjected to 401 KAR 5:037. And, to be in compliance with 401 KAR 5:037, the GPP must be implemented when the activities commence.

The following is a suggested outline for a Wastewater Treatment GPP:

GROUNDWATER PROTECTION PLAN FOR (NAME OF FACILITY)

Section A. GENERAL INFORMATION

- Name, Address, and Location of Facility
- Name and contact information of Person Developing GPP
- Name(s) and contact information of Person(s) Responsible for Implementing GPP
- Brief Description of Facility Operation: The description must include:

1. Type of Treatment

- If activated sludge, state whether it is extended aeration, sequencing batch reactors, or oxidation ditches.
- If sand filter, state whether it is a buried sand filter, open sand filter, or recirculating sand filter.
- If a lagoon(s) is (are) utilized, state whether it is an anaerobic, aerobic (sewage), aerated, or facultative lagoon.

2. Treatment Capacity of Plant (GPD)

3. Brief description of treatment process.

Section B. ACTIVITIES THAT HAVE THE POTENTIAL TO POLLUTE GROUNDWATER

- **List** all the activities that are conducted at your facility that require a GPP.
- Give complete details about aboveground and underground tanks, including:
 - Number of each type tank.
 - Capacity of each tank.
 - Identification of contents of each tank.

Section C. PRACTICES SELECTED TO PROTECT GROUNDWATER FROM POLLUTION

--For all wastewater treatment plants:

--State that a certified operator runs the plant. Provide the name and certification number of all certified operators.

--If an AST is in use, state its purpose (fuel vehicles or run generator). If purpose is to fuel vehicles, provide type of surface over which refueling occurs (concrete, asphalt, gravel, dirt).

Provide information on secondary containment. Include the kind of material (metal, concrete, asphalt, compacted clay or dirt) making up the floor and berms (sides) of the containment area. Double walled tanks are considered secondarily contained. If there is no secondary containment for the AST, state so.

--State whether the treatment basins are concrete or metal.

--State exactly where the contractor disposes of the biosolids/sludge.

--If the biosolids or sludge is land applied, additional information is required.

--Provide protective practices for all regulated activities listed under Section B.

--State what will be done in event of an overflow, or a spill during loading of biosolids or

sludge. Include the spill clean-up materials that will be used, and exactly what will be done with the contaminated material.

--For plants using sand filters, lagoons, or wetlands:

- Provide information on liners; if none are used, state so.
- Provide maintenance practices to assure system functions properly and leaks can be detected.
- Provide information on frequency of pumping of septic tank or other sedimentation tank or maintenance on aerobic unit.
- Provide information on maintenance performed on sand filters.

Section D. IMPLEMENTATION SCHEDULE

The GPP must be implemented immediately upon commencement of activities

Section E. EMPLOYEE TRAINING

- Training must include all aspects of the GPP. Training required for Operator Certification may be included.
- State frequency of training sessions—initial and refresher sessions. Be specific

Section F. INSPECTION SCHEDULE

- State the frequency of the inspections (daily, monthly, quarterly, etc.) and what is to be inspected.
- Include an Inspection Checklist. The checklist is documentation that you are implementing the GPP.

Section G. CERTIFICATION STATEMENT

I _____ certify that this Groundwater Protection Plan complies with the requirements of 401 KAR 5:037. I have read the terms of the plan and will implement its provisions.

Signature

Date

Section H. RECORD RETENTION REQUIREMENT

- Specify how public requests for viewing the GPP will be handled, as per Section 4(7) of 401 KAR 5:037
- Retain the GPP and all compliance records for 6 years

- State that if the property or facility is sold or transferred that the GPP and copies of the inspection checklists and training forms will be provided to the new owner.

Note - Remember to review your entire GPP every 3 years. If no changes have occurred in responsible personnel, activities, or protective practices, you may recertify the plan by signing and dating a new certification statement under Section G. You must revise your plan at the time any changes occur, even if it has been less than 3 years since your last review.