

401 KAR 5:037. Groundwater protection plans.

RELATES TO: KRS 151.110, Chapter 224

STATUTORY AUTHORITY: KRS 224.10-100, 224.70-100, 224.70-110

CERTIFICATION STATEMENT:

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 and 70-100 require the cabinet to provide for the prevention, abatement, and control of all water pollution. KRS 224.10-100 authorizes the cabinet to promulgate administrative regulations to achieve the objectives of KRS Chapter 224. This administrative regulation establishes the requirement to prepare and to implement groundwater protection plans to ensure protection for all current and future uses of groundwater and to prevent groundwater pollution.

Section 1.

(1) Applicability. Except for activities established in subsections (2) and (3) of this section, a person responsible for conducting any of the activities listed in paragraphs (a) through (p) of this subsection shall prepare and implement a groundwater protection plan:

- (a) Storing or related handling of bulk quantities of pesticides or fertilizers for commercial purposes;
- (b) Storing or related handling of bulk quantities of pesticides or fertilizers for the purpose of distribution to a retail sales outlet;
- (c) Applying of pesticides or fertilizers for commercial purposes;
- (d) Applying of fertilizers or pesticides for public right-of-way maintenance or institutional lawn care;
- (e) Land treatment or land disposal of a pollutant;
- (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;
- (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;
- (h) Transmission in pipelines of raw materials, intermediate substances or products, finished products, or other pollutants;
- (i) Installation or operation of on-site sewage disposal systems;
- (j) Storing or related handling of road oils, dust suppressants, or deicing agents at a central location;
- (k) Application or related handling of road oils, dust suppressants or deicing materials;
- (l) Mining and associated activities;
- (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes;
- (n) Collection or disposal of pollutants in an industrial or commercial facility through the use of floor drains not connected to on-site sewage disposal systems, closed-loop collection or recovery systems, or a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System;
- (o) Impoundment or containment of pollutants in surface impoundments, lagoons, pits, or ditches; or
- (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.

(2) General exclusion. A person who conducts an activity established in subsection (1) of this section shall not be required to prepare or to implement a groundwater protection plan for that activity if that person can demonstrate by substantial evidence based on the factors established in this subsection, the activity has no reasonable potential of altering

the physical, thermal, chemical, biological, or radioactive properties of the groundwater in a manner, condition, or quantity that will be detrimental to the public health or welfare, to animal or aquatic life, to the use of groundwater as present or future sources of public water supply or to the use of groundwater for recreational, commercial, industrial, agricultural, or other legitimate purposes. The demonstration shall at a minimum consider:

- (a) Hydrogeologic sensitivity at or near the location of the activity;
 - (b) Quantity of the pollutants, including the cumulative potential to pollute from small discharges, spills, or releases that individually would not have the potential to pollute;
 - (c) Physical, chemical, and biological characteristics of the pollutants such as solubility, mobility, toxicity, concentration, and persistence;
 - (d) Use of the pollutants at the locations of the activities; and
 - (e) Present and potential uses of the groundwater.
- (3) Specific exclusions. The provisions of this administrative regulation shall not apply to:
- (a) Normal use or consumption of products sized and packaged for personal use by individuals;
 - (b) Retail marketing of products sized and packaged for personal use or consumption by individuals;
 - (c) Activities conducted entirely inside enclosed buildings if:
 - 1. The building has a floor sufficient to prevent the release of pollutants to groundwater; and
 - 2. There are no floor drains, or all floor drains within the building are connected to an on-site sewage disposal system, closed-loop collection or recovery system or a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System;
 - (d) Storing, related handling, or transmission in pipelines of pollutants that are gases at standard temperature and pressure;
 - (e) Storing municipal solid waste in a container located on property where the municipal solid waste is generated and that is used solely for the purpose of collection and temporary storage of that municipal solid waste prior to off-site disposal;
 - (f) Installing and operating sewer lines or water lines approved by the cabinet pursuant to 401 KAR 5:005 or 8:100;
 - (g) Storing water in ponds, lakes, or reservoirs;
 - (h) Impounding stormwater, silt, or sediment in surface impoundments;
 - (i) Application of chloride-based deicing materials used on roads or parking lots;
 - (j) Emergency response activities conducted in accordance with local, state, or federal law;
 - (k) Fire fighting activities;
 - (l) Conveyance or related handling by motor vehicle, rolling stock, vessel, or aircraft;
 - (m) Agricultural activities at agriculture operations; or
 - (n) Application by commercial applicators of fertilizers or pesticides on lands used for agriculture operations.
- (4) Relationship to other programs. Nothing in this administrative regulation shall abrogate the duty of a person to comply with the statutes and other administrative regulations administered by the cabinet, with the statutes and administrative regulations administered by other state and federal agencies, or with statutes and ordinances administered by a local government.

Section 2. Preparation of Groundwater Protection Plans.

- (1) General requirements for site-specific and generic groundwater protection plans. The practices established by a groundwater protection plan shall be designed and

implemented in a manner that prevents groundwater pollution. A person conducting an activity established in Section 1(1) of this administrative regulation shall determine if an exclusion of Section 1(2) or (3) of this administrative regulation applies to that activity.

(2) Deadlines for preparation and implementation. Except for activities excluded by Section 1(2) or (3) of this administrative regulation, a person required to prepare and to implement a groundwater protection plan pursuant to Section 1 of this administrative regulation, shall prepare and implement a site-specific or generic groundwater protection plan upon commencement of the regulated activity.

(3) Elements of generic and site-specific groundwater protection plans. Both generic and site-specific groundwater protection plans shall contain:

(a) General information regarding the facility and its operation, including the:

1. Name of the facility;
2. Address of the facility; and
3. Name of the person or persons responsible for implementing the plan;

(b) Identification of all activities established in Section 1(1) of this administrative regulation and not excluded by Section 1(2) or (3) of this administrative regulation;

(c) Identification of all practices chosen for the plan to protect groundwater from pollution;

(d) An implementation schedule for the practices selected for the plan;

(e) A description of and implementation schedule for employee training necessary to ensure implementation of the plan;

(f) An inspection schedule requiring regular inspections as needed to ensure that all practices established are in place and properly functioning;

(g) A certification by the person responsible for implementing the plan or an "authorized representative" as defined by 401 KAR 5:002 that the plan complies with the requirements of this administrative regulation, and that the person responsible for implementing the plan has reviewed the terms of the plan and shall implement its provisions.

(4) Selection of practices for groundwater protection. A person required to prepare a groundwater protection plan pursuant to this section shall evaluate technological means for protection of groundwater from pollution that could result from activities addressed by the plan and shall select practices for the plan that protect groundwater from pollution. The groundwater protection practices chosen for a groundwater protection plan may include:

- (a) Equipment design;
- (b) Operational procedures;
- (c) Preventive maintenance techniques;
- (d) Construction techniques;
- (e) Personnel training;
- (f) Spill response capabilities;
- (g) Alternative materials or processes;
- (h) Implementation of new technology;
- (i) Modification of facility or equipment;
- (j) Spill prevention control and countermeasure plans;
- (k) Best management practices;
- (l) Hazardous waste contingency plans;
- (m) Other plans prepared pursuant to other programs that protect groundwater from pollution;
- (n) Runoff or infiltration control systems;
- (o) Siting considerations; and
- (p) Any other practice which will protect groundwater from pollution.

(5) Specific practices. In selecting practices to protect groundwater for the activities established in Section 1(1) of this administrative regulation and not excluded by Section 1(2) or (3) of this administrative regulation a person preparing a groundwater protection plan shall consider the nature of the pollutant and the hydrogeologic characteristics at or near the location of the activity and shall comply with the requirements established in paragraphs (a) through (e) of this subsection in selecting those practices.

(a) Loading and unloading areas. Loading and unloading areas shall have spill prevention and control procedures and operation procedures designed to prevent groundwater pollution. Spill containment and cleanup equipment shall be readily accessible.

(b) On-site sewage disposal systems. A person shall not install a new or replace an existing on-site sewage disposal system if a publicly or privately owned treatment works capable of treating the pollutants to be discharged is available.

(c) Floor drains.

1. A person using existing floor drains shall evaluate those floor drains to determine if they discharge to an on-site sewage disposal system, to a closed-loop collection or recovery system, or to a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System.

2. If drains are identified that do not discharge to an on-site sewage disposal system, a closed-loop collection or recovery system, or a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System, that person shall terminate the discharge or connect it to an on-site sewage disposal system, a closed-loop collection or recovery system, or a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System.

3. A person shall not install a floor drain unless it is connected to an on-site sewage disposal system, closed-loop collection or recovery system, or a waste treatment system permitted under the Kentucky Pollutant Discharge Elimination System.

(d) Tanks and sumps.

1. A person using a tank or sump shall prepare and implement good housekeeping practices, operating procedures, operator training, and spill response procedures.

2. A person using a tank or sump shall consider leak control devices, secondary containment, integrity testing, mechanical inspections, and overfill protection devices.

3. Containment additional to subsections (1) and (2) of this subsection shall not be required for sumps and tanks that are used solely to provide secondary containment.

(e) New surface impoundments, lagoons, pits, or ditches.

1. A person who constructs a new surface impoundment, lagoon, pit, or ditch that will contain a pollutant shall evaluate the site's hydrogeology and shall design and operate it to minimize discharges to soil. Soils may be used to construct liners if the soil liner will protect groundwater from pollution.

2. All necessary and appropriate measures shall be taken to prevent groundwater pollution. The person shall consider the use of liners, secondary containment, leak detection devices, and other appropriate and effective control systems that will protect groundwater from pollution.

3. Containment additional to subsections (1) and (2) of this subsection shall not be required for new surface impoundments, lagoons, pits, and ditches that are used solely to provide secondary containment.

(6) Exceptions to specific requirements.

(a) The provisions of subsection (5) of this section shall not apply to activities that are governed by other federal, state, or regulatory programs that comply with the requirements of subsection (7) of this section while the person conducting the activities remains in compliance with the other program.

- (b) Variances from the provisions of subsection (5) of this section may be granted by the cabinet if the applicant for a variance demonstrates that a variance will not result in pollution of groundwater, but a person required to prepare a groundwater protection plan pursuant to this section shall not take any actions contrary to the provisions of subsection (5) of this section without prior written approval of the cabinet.
- (7) Incorporation of requirements of other regulatory programs.
- (a) Groundwater protection activities required by other federal, state, or local regulatory programs may be incorporated into a site-specific or generic groundwater protection plan by reference if the other regulatory program contains:
1. Management and design standards;
 2. Mandatory monitoring for groundwater pollution or methods of detecting discharges, spills, or releases to groundwater; and
 3. Specific corrective action criteria.
- (b)
1. The plan shall identify each activity covered by the other regulatory program. The person responsible for implementing the plan shall certify compliance with the other regulatory program.
 2. The provisions of the other program shall be the groundwater protection plan for purposes of this administrative regulation for the activities covered by the other regulatory program.
 3. If activities identified in Section 1(1) of this administrative regulation and not excluded in Section 1(2) or (3) of this administrative regulation are conducted that are not covered by the other regulatory program, the plan shall contain separate practices designed to protect groundwater from pollution for each activity not covered by the other regulatory program.
- (8) Generic groundwater protection plans. A generic groundwater protection plan shall be prepared in accordance with subsections (1) through (7) of this section and may govern all or part of a person's activities. A generic groundwater protection plan shall not be sufficient by itself if it does not address all activities conducted by the person that are established in Section 1(1) of this administrative regulation and not excluded by Section 1(2) or (3) of this administrative regulation.
- (a)
1. A person responsible for preparing and implementing a groundwater protection plan required by this administrative regulation may apply one (1) provision of the plan to all substantially identical activities if factors established in Section 1(2) of this administrative regulation do not cause substantial differences in the potential to pollute among locations.
 2. If substantial differences do exist, the plan shall provide separate site-specific or region-specific preventive measures, as necessary, for the activities.
- (b) A person responsible for preparing a groundwater protection plan governed by this section may use a generic groundwater protection plan prepared by another person or group, including a trade organization, if:
1. The activities established in the generic groundwater protection plan are substantially identical;
 2. The factors established in Section 1(2) of this administrative regulation do not cause substantial differences in the potentials to pollute among locations; and
 3. The groundwater protection plan has been reviewed and approved by the cabinet as established in this administrative regulation.
- (c) A generic groundwater protection plan may consist of requirements imposed by other regulatory programs designed to protect groundwater or programs offering technical assistance for groundwater protection if the cabinet has approved the requirements of the other program as a generic groundwater protection plan. A person

using a generic groundwater protection plan from another program pursuant to this paragraph as a part of, or all of, the plan shall certify in the plan that the plan is subject to the program and in compliance with its provisions. Any activities that are not addressed by the program shall be addressed separately in the groundwater protection plan.

(d)

1. A person conducting an activity established in this subsection who does not prepare a groundwater protection plan for that activity or does not use another approved generic groundwater protection plan for that activity shall implement the provisions of the generic groundwater protection plan prepared by the cabinet.

2. The cabinet, in cooperation with other appropriate state agencies, shall prepare generic groundwater protection plans for:

- a. Use of existing residential septic systems; and
- b. Construction, operation, closure, and capping of water wells.

(e)

1. A generic groundwater protection plan that has been approved by the cabinet as established in this administrative regulation may be incorporated by reference in a facility's groundwater protection plan.

2. Each person responsible for implementing the generic plan at a site shall maintain a copy of the plan at an appropriate, accessible location.

3. A person using a generic groundwater protection plan shall identify the activities governed by the plan and attach the identification to the copy of the generic plan.

(f)

1. A person preparing a new or revised generic groundwater protection plan person shall also place a notice in a statewide newspaper and a trade publication likely to be read by those affected by the groundwater protection plan. That notice shall:

- a. Provide for a thirty (30) day comment period;
- b. Identify activities that are addressed by the proposed generic groundwater protection plan; and
- c. Describe the procedure for review by the public of the plan and the procedures and time frames for providing comments.

2. The cabinet shall also notify by mail or email anyone who has requested in writing to be placed on a mailing list for purposes of this administrative regulation.

Section 3. Implementation of Groundwater Protection Plans.

(1) Record retention requirements.

(a) A site-specific groundwater protection plan required by Sections 1 through 3 of this administrative regulation, and documentation evidencing compliance with the provisions of the plan, shall be retained by the person responsible for implementing the plan, at the location of the activity if the location is normally attended at least eight (8) hours per day, or at the nearest office of that person's activity if the facility is not so attended.

(b) A generic groundwater protection plan and documentation evidencing compliance with the provisions of the plan shall be retained by the person responsible for implementing the plan in as many locations as necessary to ensure compliance.

(c) All records evidencing compliance shall be maintained and available for review by the cabinet for a period of not less than six (6) years after their preparation.

(2) Amendment of groundwater protection plans. Prior to conducting any new or modified activity, a person conducting that activity shall amend the groundwater protection plan to address the new or modified activity.

(3) Review and recertification of groundwater protection plans. Each groundwater protection plan shall be reviewed in its entirety every three (3) years, by the persons

responsible for the plan, updated if necessary, and recertified. To the extent possible, the review shall include a reevaluation of the design and operation procedures for the pollution prevention practices previously selected for the plan to ensure that they are effective.

(4) Submission of groundwater plans to cabinet.

(a) Upon written request of the cabinet, a person required to prepare a groundwater protection plan pursuant to this administrative regulation shall submit a copy of the plan to the cabinet within thirty (30) days of the date of the request.

(b) Upon written request of the cabinet, a person who has made a determination pursuant to Section 1(2) of this administrative regulation that a groundwater protection plan is not required for a specific activity shall submit a written demonstration to the cabinet within thirty (30) days of the date of the request.

(5) Submission of additional information to the cabinet. Upon review of a groundwater protection plan that has been submitted to the cabinet, the cabinet may require a person responsible for preparation or implementation of a plan to submit any of the information in this subsection to determine if the plan is protective of groundwater:

(a) For a site-specific groundwater protection plan, and for a generic groundwater protection plan in effect at a specific location, the location of all buildings, structures, roads, utilities, drainage pathways, and boundaries by using a narrative description or by using a map, diagram, or drawing;

(b) For a generic groundwater protection plan that applies to more than one (1) location, identification of the geographic region to which the generic groundwater protection plan applies, and an explanation of why that region was selected and why one (1) plan is appropriate for all activities addressed by the plan for all sites within the region;

(c) For a generic groundwater protection plan that applies to more than one (1) location, to the extent possible, a description of the nature and number of activities, and their associated facilities, that are expected to be governed by the generic groundwater protection plan;

(d) A Summary of reasonably available hydrogeologic information including:

1. Identification of location of sinkholes, sinking streams, springs, streams, lakes, ponds, and ditches;
2. Description of soil survey information;
3. Identification and location of currently usable wells, abandoned wells, and wellhead protection areas;
4. Identification of subsidence areas; and
5. Description of any other relevant hydrogeologic data known to the person preparing or implementing the groundwater protection plan; and

(e) Any other information, including site-specific groundwater or geologic information, which is known and readily available to the person responsible for preparing or implementing the plan but not to the cabinet to determine if the plan is protective of groundwater.

(6) Revisions to plans after cabinet review.

(a) If the cabinet reviews a groundwater protection plan and determines that it does not comply with the requirements of this administrative regulation, the cabinet shall notify the person responsible for preparing or implementing the plan of the deficiency in the plan. That person shall revise the plan to correct the deficiencies identified by the cabinet and submit the revised plan to the cabinet for further review.

(b) The person submitting the revised plan shall have thirty (30) days from issuance of the notice of the deficiencies to submit the revised plan.

(c) The cabinet shall review the revised plan and notify the person submitting the revised plan of its final determination within ten (10) days of receiving the revised

plan.

(7) Public inspection of groundwater protection plans.

(a) A person who desires to review a groundwater protection plan shall send a written request to the person required to prepare and to implement the groundwater protection plan.

(b) A person who receives a written request to review the groundwater protection plan shall within ten (10) working days:

1. Send a written response to the person requesting to inspect the groundwater protection plan stating that the groundwater protection plan may be reviewed at:

- a. The Division of Water in Frankfort;
- b. A regional office of the Division of Water;
- c. The facility;
- d. A local public library; or

2. Send a written response to the person requesting to inspect the groundwater protection plan stating the reason that a groundwater protection plan was not required to be prepared.

(c) A person who designates a review location for a groundwater protection plan shall send a copy of the groundwater protection plan to the location designated for review within ten (10) working days of receiving a written request to review the plan.

(8) Requirements upon transfer of property. Upon any subsequent transfer of a facility for which a groundwater protection plan has been prepared, the seller shall provide the purchaser with a copy of the most recent groundwater protection plan prepared for the facility pursuant to this administrative regulation.

(401 KAR 005:037. 20 Ky.R. 3128; 21 Ky.R. 25; 1030; eff. 8-24-1994; TAm eff. 7-14-2017; 44 Ky.R. 2604; 45 Ky.R. 690, 1003; eff. 11-1-2018; Crt eff. 10-28-2025.)