

### **3745-300-10 Ground water classification and response requirements.**

(A) Definitions. As used in this rule:

- (1) "Capture zone" means all unsaturated and saturated subsurface areas that presently contribute or will contribute ground water to a well.
- (2) "Consolidated saturated zone" means a saturated zone in bedrock.
- (3) "Drinking water source protection area for a public water system using ground water" means the surface and subsurface area surrounding a public water supply well(s) that will provide water to the well(s) within five years as delineated or endorsed by the agency under the wellhead protection program and the source water assessment and protection program.
- (4) "Drinking water source protection plan" means the strategies to be implemented by a public water system to prevent, detect, and respond to water quality contamination in a drinking water source protection area, as adopted by the owner of the public water system and endorsed by the agency as meeting the requirements of the wellhead protection program and the source water assessment and protection program.
- (5) "Gallons" means U.S. gallons.
- (6) "Saturated zone" means a part or layer of the earth's crust, excluding the capillary zone, in which all voids are filled with water.
- (7) "Sole source aquifer" means an aquifer designated as a sole source aquifer under section 1424(e) of the Safe Drinking Water Act (1974), 42 U.S.C.A. 300f, as amended.
- (8) "Source water assessment and protection program" means Ohio EPA's program based on the Safe Drinking Water Act as amended in 1996, approved by U.S. EPA, November, 1999.
- (9) "Unconsolidated saturated zone" means any saturated zone that is not in bedrock, including, but not limited to, saturated zones in soil, gravel, sand, silt, clay or fill materials.
- (10) "Wellhead protection program" means Ohio EPA's program based on the Safe Drinking Water Act as amended in 1986, approved by U.S. EPA, November 1992.

(B) Obligation to classify ground water. Ground water as defined in rule 3745-300-01(A)(19) of the Administrative Code underlying a property must be classified in accordance with the criteria of this rule and requirements of paragraphs (D)(8) and

(D)(9) of rule 3745-300-07 of the Administrative Code unless one of the following conditions apply:

- (1) The ground water does not contain concentrations of chemical(s) of concern in excess of unrestricted potable use standards as determined in accordance with a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code; or
- (2) The remedial activities required for critical resource ground water are implemented for ground water exceeding unrestricted potable use standards underlying and emanating from the property, in accordance with paragraph (F)(2) of this rule.

[Comment: Low yield saturated zones that do not contain ground water as defined in rule 3745-300-01(A)(19) of the Administrative Code must meet applicable standards for soil.]

(C) Ground water classification system.

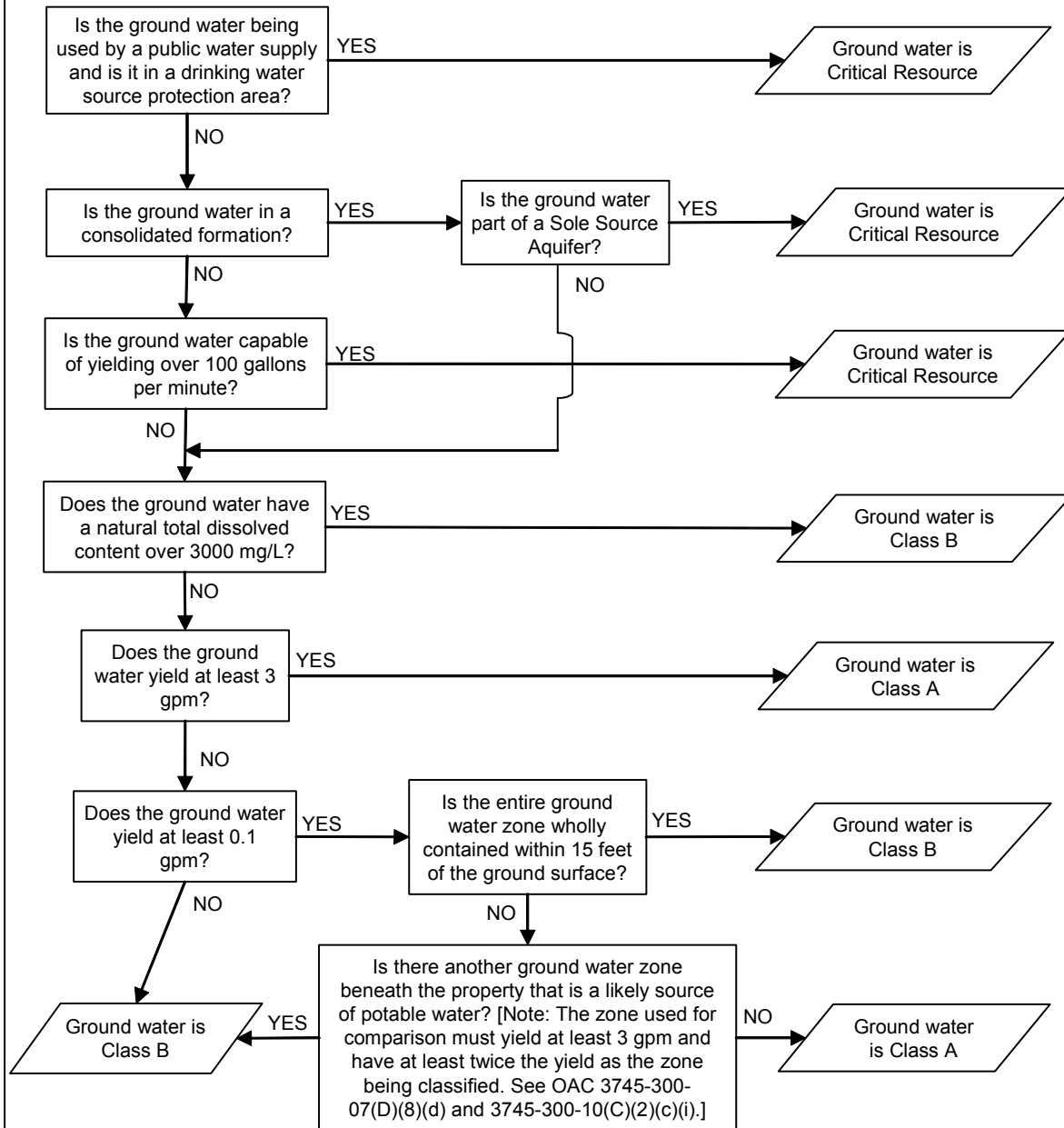
- (1) Ground water that meets any of the following criteria is classified as critical resource ground water:
  - (a) The ground water is being used by a public water system and is in a drinking water source protection area for a public water system using ground water;
  - (b) The ground water is part of an unconsolidated saturated zone that is capable of yielding water at a time-weighted average rate greater than one hundred gallons per minute over a twenty-four hour period as determined in accordance with paragraph (D)(9) of rule 3745-300-07 of the Administrative Code; or
  - (c) The ground water is in a consolidated saturated zone that is part of a sole source aquifer.
- (2) Ground water that does not meet any of the criteria for critical resource ground water and meets any of the following criteria is classified as "Class A" ground water:
  - (a) The ground water is in a saturated zone that is currently utilized as a source of water used for potable purposes on the property or within one-half mile of the boundary of the property; or
  - (b) The ground water has a background level of total dissolved solids of less than three thousand milligrams per liter, and except as provided in

paragraph (C)(2)(c) of this rule, the ground water is in a saturated zone that is capable of yielding water at a time-weighted average rate greater than one-tenth of a gallon per minute over a twenty-four hour period. The ground water yield must be determined in accordance with paragraph (D)(9) of rule 3745-300-07 of the Administrative Code.

- (c) Ground water that meets any of the following criteria is not “Class A” ground water:
  - (i) The ground water is in a saturated zone that yields less than three gallons per minute as determined in accordance with paragraph (D)(9) of rule 3745-300-07 of the Administrative Code, and another ground water zone underlies the property that is a likely source of water used for potable purposes within one mile of the property. The ground water zone used for comparison must be present beneath the property, and yield three or more gallons per minute and at least twice as much ground water as the zone being classified; or
  - (ii) The ground water is in an unconsolidated saturated zone that yields less than three gallons per minute over a twenty-four hour period and all parts of the zone are wholly contained within fifteen feet below ground surface.
- (3) Ground water that does not meet any of the criteria for either critical resource ground water or “Class A” ground water, as determined in accordance with this rule, is classified as “Class B” ground water.

[Comment: The following flow chart represents the process for classifying ground water. The classification of ground water underlying the property, in some situations, may be determined without answering every question presented in the flowchart. It is important to note that this flow chart does not present all criteria and requirements that are important to properly classify the ground water. Please refer to paragraphs (B) and (C) of this rule and paragraphs (D)(7) through (D)(9) of rule 3745-300-07 of the Administrative Code for applicable portions of the rules for classifying ground water.]

**GROUND WATER CLASSIFICATION FLOW CHART**



(D) Urban setting designation criteria and process.

- (1) An urban setting designation may only be used for purposes of eliminating the potable use pathway and may only be requested through a certified professional. A certified professional may request an urban setting designation from the director for a property or properties meeting the following threshold criteria:
  - (a) The property or properties for which designation is requested is entirely within the boundaries of a township with a population of twenty thousand or more residents in the unincorporated area of the township or entirely within the corporation boundaries of a city;
  - (b) The city or township as described in paragraph (D)(1)(a) of this rule has a community water system. The certified professional must describe the water supply source and demonstrate that:
    - (i) Ninety per cent of the parcels within the city or township for which the designation is requested are connected or capable of being connected to the community water system. Parcels in unincorporated areas that are wholly surrounded by the city limits must also be considered in the calculation of parcels connected; or
    - (ii) Ninety per cent of the parcels within a minimum of one-mile from the proposed boundary of the urban setting designation are connected or capable of being connected to the community water system. Parcels in unincorporated areas that are wholly surrounded by the city limits must also be considered in the calculation of parcels connected.
  - (c) If the evaluation conducted under paragraph (D)(1)(b) of this rule indicates that less than ninety per cent of the parcels are connected or are capable of being connected to a community water system, an urban setting designation for the property may still be requested provided that one or both of the following apply:
    - (i) The parcels that are not connected or capable of being connected to a community water system would be unaffected by hazardous substances or petroleum on or emanating from the properties within the urban setting designation; or
    - (ii) Installation of well(s) used for potable water supply purposes at the parcels that are not connected or capable of being connected to a community water system would be impractical for reasons other than ground water quality or the presence of the community water system.

[Comment: Criteria that may be considered to demonstrate that well installation would be impractical include: (1) land use patterns (e.g.,

the parcel is on the right-of-way of a highway); (2) topography prevents any building or construction activity on the parcel; and (3) legally, enforceable and reliable restrictions on the use of ground water.]

[Comment: Contact Ohio EPA's "Voluntary Action Program", for guidance on how a certified professional may demonstrate whether ninety per cent of the parcels are connected or capable of being connected to a community water supply.]

- (d) The city or township as described in paragraph (D)(1)(a) of this rule has a community water system that the city or township considers capable of meeting its future water supply needs;
- (e) The property or properties for which the designation is requested is not located within a drinking water source protection area for a public water system using ground water. An urban setting designation for a property or properties located within a drinking water source protection area for a public water system using ground water, where the public water supply is a community system, may still be requested if the owner of the community water system has a drinking water source protection plan and the owner consents in writing to the designation;
- (f) Wells installed or used for potable water supply purposes are not located within one-half mile of the property boundary of the property or properties for which designation is requested as determined in accordance with the requirements of paragraph (D)(8)(a) of rule 3745-300-07 of the Administrative Code. If potable wells are located within one-half mile of the property boundary, the property or properties may still be designated, if:
  - (i) The wells are part of a community water system with a drinking water source protection plan and the owner of the community water system consents in writing to the designation; or
  - (ii) The certified professional requesting the designation demonstrates that the capture zones of any wells installed or used for potable water supply purposes within one-half mile of the property boundary do not extend under the property or properties for which the designation is requested.
- (g) When the property or properties for which designation is requested is located over a sole source aquifer in a consolidated saturated zone or an unconsolidated saturated zone capable of sustaining a yield greater than one hundred gallons per minute as determined in accordance with paragraph (D)(8)(b) of rule 3745-300-07 of the Administrative Code, the certified professional requesting the designation, through consultation with

the owner of the community water system and the appropriate legislative authority or its authorized representative, must demonstrate that there is not a reasonable expectation that there will be any wells installed or used for potable water supply purposes within one-half mile of the property boundary. The certified professional must, at a minimum, consider all of the following criteria to make this demonstration:

- (i) The presence of legally enforceable, reliable restrictions on ground water use, other than those imposed for wellhead protection or ground water protection purposes;
  - (ii) Whether current land use patterns within one-half mile of the property boundary or ground water quality make development of a well impractical;
  - (iii) Whether ninety per cent or more of the parcels within one-half mile of the property being designated is connected to a community water system; and
  - (iv) Whether the capture zones of any wells that can reasonably be expected to be installed or used within one-half mile of the property boundary would not extend under the property or properties for which designation is requested.
- (2) Approval or denial of a request for an urban setting designation. An urban setting designation may not be used for purposes of classifying ground water and determining applicable standards under this chapter and Chapter 3746. of the Revised Code until the director approves of a request for an urban setting designation in accordance with this paragraph.
- (a) Request for approval of designation. A certified professional must send a written request to the director for approval of an urban setting designation. The request for approval must include, at a minimum, the following:
    - (i) A cover letter requesting the director's approval of an urban setting designation, which includes the name and address of the volunteer(s), a description of the location and size of the property or properties, and if known, whether the legislative authority of the city or township in which the property or properties is located is in favor of or in opposition to the proposed urban setting designation;
    - (ii) An affidavit by the certified professional which affirms that:
      - (a) The urban setting designation threshold criteria contained in paragraphs (D)(1)(a) to (D)(1)(g) of this rule are met;



- (viii) A statement which advises the legislative authority that the director will consult with it regarding the designation and it is encouraged to provide written comments or any information relevant to the director's consideration of the urban setting designation; and
    - (ix) That a decision may be made by the director within ninety days after the director has consulted with the city or township where the property for which the designation is sought is located.
- (c) Information. After receipt of a complete request for approval of an urban setting designation, the director may request any additional information from the certified professional, the volunteer, local jurisdictions or residents, which may be relevant to determining whether or not to approve of the urban setting designation. Failure by a certified professional or volunteer to cooperate with any request under this paragraph may result in the director's refusal to consider the request for approval. At the director's discretion, a public meeting may be held on the request for approval.
- (d) Consultation. No later than ninety days after receipt of a complete request for approval of an urban setting designation the director will complete consultation with the legislative authority or authorized representative of the city or township in which the property or properties is located, or any other persons which the director deems appropriate, to obtain sufficient information for determining whether to approve or deny the request, as provided in paragraph (D)(2)(e) of this rule.
- (e) Criteria for approval or denial. The director may approve or deny the request for approval of an urban setting designation, after consulting with the legislative authority or authorized representative of the township or city where the property for which the designation is sought is located. The director may approve or deny a request for approval under this paragraph upon consideration of one or more of the following factors, as relevant:
  - (i) Whether all of the applicable threshold criteria contained in paragraphs (D)(1)(a) to (D)(1)(e) of this rule have been met for the property for which the designation has been sought;
  - (ii) The potential impact of the designation on jurisdictions surrounding the township or city where the property for which the designation is sought is located;
  - (iii) The potential impact of the intended designation on regional water resource needs and the consistency of the designation with any existing regional water resource obligations of the city or township where the property for which the designation is sought is located,

including any drinking water source protection plans for ground water in the area;

[Comment: Some plans may extend beyond the area endorsed by the source water assessment and protection program.]

(iv) Whether the ground water in the region or area where the property or properties for which the designation is sought is not currently being used by residents as a source of water used for potable purposes such that the risk of exposure to humans of contaminated ground water as a result of the designation is not likely;

(v) Whether the ground water in the region or area where the property or properties for which the designation is sought is located is not reasonably expected to be used as a future source of water used for potable purposes by residents such that a risk of exposure to humans of contaminated ground water as a result of the designation is not likely;

[Comments: For purposes of evaluating whether the ground water in the region or area where the property or properties for which the designation is sought will be used as a future source of potable water, the director will consider: the likelihood of future water use by local residents in light of the existence of regional, commingled contamination in the area surrounding the property or properties for which the designation is sought; the existence of reasonably available alternative potable water sources, other than the ground water proposed for designation, to satisfy the future needs of local residents; and the existence of reliable, legally enforceable local laws which restrict or prohibit the use of the ground water proposed for designation, such that the risk of exposure of humans to contaminated ground water as a result of the designation is not likely.]

(vi) The availability and feasibility of treatment systems at community water systems that are capable of preventing exposures to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards; and

(vii) Any other factors pertaining to the request for approval that the director considers relevant to determine whether the urban setting designation will be protective of public health and safety and the environment.

(f) Costs. The volunteer seeking the urban setting designation is responsible for reimbursing the agency for all of its costs incurred to review and consider the request for approval of the urban setting designation. A

statement of costs will be sent to the volunteer after the request for approval is approved, denied, or withdrawn. The volunteer must pay the costs, in full, within sixty days of receipt of the statement of costs.

- (g) Timing. The director will approve or deny a request for approval of an urban setting designation within ninety days after:
  - (i) Receiving a complete request, as set forth in paragraph (D)(2)(a) of this rule; and
  - (ii) Consultation with the city or township, as provided in paragraph (D)(2)(d) of this rule.

The director may extend the time for approving or denying a request for approval if the director determines that an extension of time is necessary to properly consider the request. If the director extends the time for considering the request for approval the agency will notify the volunteer, and other interested persons, of the extended deadline for denying or approving the request.

- (3) Use of an urban setting designation to support a no further action letter.

An urban setting designation approved by the director may be used to determine the appropriate ground water response requirements in paragraph (F) of this rule. The certified professional must verify in accordance with this rule that the urban setting designation remains protective of the potable use pathway for property that is the subject of a no further action letter. The certified professional must make the verification at the time of and as part of issuance of a no further action letter for the property. Verification is not required when there is reason to believe that the urban setting designation remains protective of the potable use pathway because conditions are unchanged since the urban setting designation request or most recent verification. When a certified professional determines that verification is not required for a property pursuant to this rule, the certified professional must provide written justification for the determination in the "Phase II Property Assessment" report for the property.

- (a) To verify the urban setting designation, the certified professional must consider the criteria included in paragraph (D)(3)(b) of this rule and determine that the criteria are still protective of the potable use pathway.
- (b) Criteria for verifying that an urban setting designation is protective. To verify, the following criteria must be evaluated:
  - (i) Whether additional well(s) have been installed within one-half mile of the urban setting designation boundary or the geographic area that

are or will be impacted by the chemical(s) of concern emanating from the property. This must be accomplished at a minimum by:

- (a) Review of the ground water well logs submitted to the Ohio department of natural resource since the request for, or most recent verification of, the urban setting designation. If well(s) have been installed, the certified professional must determine whether the well(s) are being or are reasonably anticipated to be used for potable purposes; and
  - (b) Contact with the county health department or other local authorities with jurisdiction over installation of wells used for potable purposes to determine if any residential wells are or are reasonably anticipated to be used for potable purposes.
- (ii) If it is determined, in accordance with paragraph (D)(3) of this rule, that new potable wells have been installed, the urban setting designation may be verified to be protective of the potable use pathway as long as:
  - (a) The well(s) are part of a community water system with a drinking water source protection plan and the owner(s) of the community water system consents in writing to the use of the urban setting designation in support of the no further action letter; or
  - (b) The capture zones of any wells installed or used for potable water supply purposes within one-half mile of the property boundary do not extend under the property for which the urban setting designation applies.
- (iii) If enforceable restrictions on the use of ground water for potable purposes were used as part of the urban setting designation, determine whether the restrictions are still valid.
- (iv) Determine whether any new drinking water source protection area(s) for a public water system using ground water have been delineated that incorporate areas within the urban setting designation.
- (v) Evaluate whether the ground water in the region or area within or surrounding the urban setting designation is or is reasonably anticipated to be used as a source of water for potable purposes.
  - (a) Contact the owner or operator of each public water system in the region or area and the city or township planners to determine: (i) whether the public water systems are meeting the current water use demands and (ii) if there are any plans to develop ground

water either within or in the vicinity of the urban setting designation as a source of potable water; and

- (b) As applicable to the property that is the subject of the no further action letter, contact the surrounding communities to determine whether they have any plans to develop the ground water in the vicinity of the urban setting designation.
- (c) In verifying an urban setting designation, the certified professional may rely upon the certified professional's evaluation of the criteria contained in paragraph (D)(3)(b) of this rule or the director's evaluation, if any, of the urban setting designation provided for in paragraph (D)(4) of this rule.

[Comment: If the urban setting designation has been recently approved by the director or the criteria contained in paragraph (D)(3)(b) of this rule have been recently evaluated and determined to be protective of the potable use pathway, the certified professional need not verify the urban setting designation where changed conditions do not otherwise exist. However, the director reserves authority to evaluate the protectiveness of the urban setting designation as it applies to a submitted no further action letter in determining whether a covenant not to sue may be issued.]

- (4) The director may implement a program to periodically verify the protectiveness of an urban setting designation at eliminating a potable use pathway. Based on an evaluation of the criteria in paragraph (D)(3)(b) of this rule, the director may determine that the urban setting designation is still valid or that it is no longer valid and may not be relied upon in future no further action letters. The director may decrease the size of the urban setting designation so that the decreased area remains protective of the potable use pathway.
  - (a) The director will make available any determinations regarding urban setting designations to certified professionals.
  - (b) If the director determines that an urban setting designation is no longer valid or decreases its size in accordance with this rule, the agency will notify certified professionals and the original applicant(s) of the urban setting designation. In addition, the director's determination will be public noticed in the affected county(ies). No further action letters issued following such notice must not rely on the urban setting designation that was the subject of such notice.

[Comment: Verifications of an urban setting designation and director's determinations in accordance with this rule are not intended to affect property relying on the urban setting designation which was the subject of a previously issued covenant not to sue.]

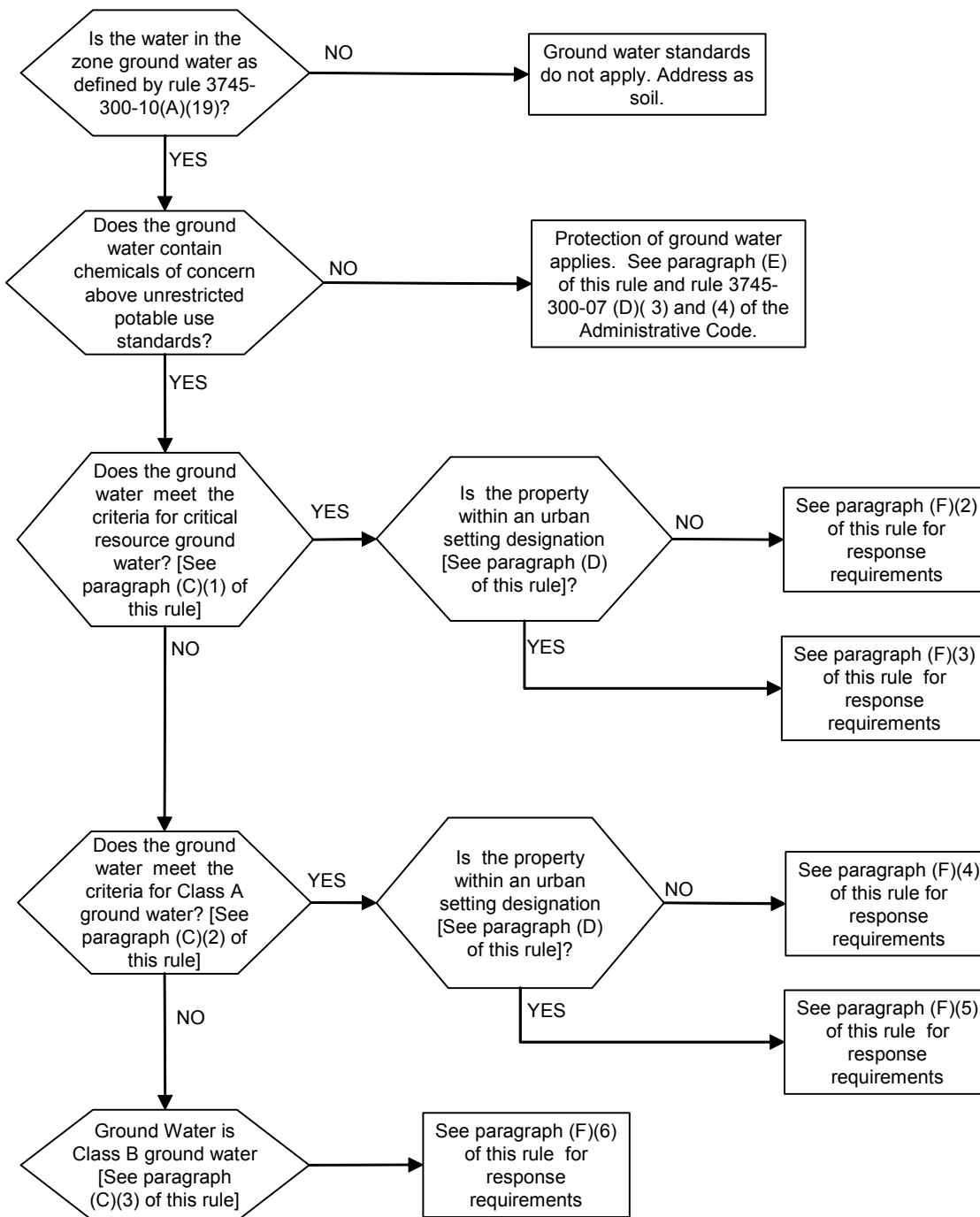
- (E) Protection of ground water meeting unrestricted potable use standards.

- (1) When any ground water in a saturated zone underlying the property complies with the unrestricted potable use standards as determined by a “Phase II Property Assessment” conducted in accordance with rule 3745-300-07 of the Administrative Code, the remedial activities undertaken in connection with a voluntary action at or upon the property must ensure that migration of hazardous substances or petroleum from source or source areas on the property will not result in unrestricted potable use standards being exceeded anywhere within the saturated zone.
  - (2) No other provision of this chapter modifies the requirements of this paragraph.
- (F) Response requirements for ground water exceeding unrestricted potable use standards.
- (1) Applicability.
    - (a) When a volunteer determines that ground water underlying or emanating from a property exceeds a unrestricted potable use standard in accordance with rule 3745-300-07 of the Administrative Code, the volunteer must meet the requirements described in this paragraph based on the ground water classification(s) made in accordance with paragraphs (B) and (C) of this rule and an urban setting designation made in accordance with paragraph (D) of this rule, if applicable. All remedial activities including institutional controls or engineering controls, must be implemented in accordance with rule 3745-300-15 of the Administrative Code.
    - (b) A volunteer may not use the applicable ground water standards of paragraph (F)(2)(b), (F)(2)(c), (F)(3)(b), (F)(3)(c), (F)(4)(b), (F)(4)(c), (F)(5)(b), (F)(5)(c), (F)(6)(b) or (F)(6)(c) of this rule regarding off-property source or source areas of ground water contamination, if any of the following apply:
      - (i) The owner of the voluntary action property is the owner or operator of any property, other than the voluntary action property, where any source or source area is located, and hazardous substances or petroleum have emanated from the off-property source or source area onto the voluntary action property;
      - (ii) The owner of the voluntary action property was an owner or operator of any property, other than the voluntary action property, where any source or source area was located during the owner’s ownership of or operation on any such property, and hazardous substances or petroleum have emanated from the off-property source or source area onto the voluntary action property;

- (iii) The volunteer, or owner if different from the volunteer, caused or contributed to the source or source areas or release of the off-property source;
  - (iv) The volunteer, or owner if different from the volunteer, has entered into an agreement with any person with the purpose or effect of creating a less stringent ground water standard than would otherwise be applicable in this rule; or
  - (v) The volunteer is a parent, subsidiary, or other commonly owned entity of any party identified in paragraphs (F)(1)(b)(i) to (F)(1)(b)(iv) of this rule.
- (c) A volunteer to whom any of the conditions described in paragraphs (F)(1)(b)(i) to (F)(1)(b)(v) of this rule apply must presume that the ground water contamination is attributable entirely to source or source areas that were or are located on the property, and use the applicable standards of paragraph (F)(2)(a), (F)(3)(a), (F)(4)(a), (F)(5)(a) or (F)(6)(a) of this rule in accordance with paragraph (F)(1)(a) of this rule.

Comment: This flow chart represents which response requirements apply to ground water based upon its classification and an urban setting designation, if any. The flow chart is provided as guidance only and may not be relied on to determine applicable standards for the property.]

**GROUND WATER RESPONSE REQUIREMENTS FLOW CHART**



(2) Critical resource ground water without an urban setting designation.

A volunteer must meet the following minimum requirements at a property where ground water underlying the property has been classified as critical resource ground water in accordance with paragraphs (B) and (C) of this rule and an urban setting designation has not been made in accordance with paragraph (D) of this rule:

(a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property, the following minimum requirements in paragraphs (F)(2)(a)(i) to (F)(2)(a)(viii) of this rule must be met:

- (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;

[Comment: Engineering controls may include the use of water treatment systems.]

- (ii) Ground water emanating from the property must not exceed unrestricted potable use standards, except when the ground water emanates into a surface water body immediately adjoining the property's boundary, in which case, the applicable standards established in accordance with paragraph (E) of rule 3745-300-08 of the Administrative Code, for the receiving surface water body must be met;

- (iii) When ground water that has emanated from the property has caused or is reasonably anticipated to cause concentrations of chemical(s) of concern in ground water to exceed unrestricted potable use standards at off-property wells used for potable purposes as determined in accordance with rule 3745-300-07 of the Administrative Code, the volunteer must implement one or more of the following activities to ensure that the ground water users have a continuing supply of potable water that does not contain chemical(s) of concern at concentrations in excess of unrestricted potable use standards:

(a) Restore the contaminated ground water to unrestricted potable use standards; or

(b) Provide a reliable alternate potable water supply or water treatment system that:

- (i)* Provides a volume of potable water sufficient for the intended use; and
  - (ii)* Is provided for a period of time no shorter than the time that the ground water supply of off-property ground water users exceeds unrestricted potable use standards.
- (iv) The remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
  - (a)* Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b)* Ensure protection of important ecological resources on and off the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]
- (v) When ground water that has emanated from a property has concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, the volunteer, and any subsequent owners relying on a no further action letter, must conduct the following activities. The following activities must be conducted, for as long as the ground water, that has emanated from the property, continues to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards:
  - (a)* Prior to issuance of a no further action letter, the volunteer must identify the visual evidence of ground water use in the areas where ground water has or is reasonably anticipated to have

concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

- (b) Prior to issuance of a no further action letter, the volunteer must review Ohio department of natural resources water well log information to determine whether ground water wells have been installed on the properties where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
- (c) Prior to issuance of a no further action letter, the volunteer must send a written notification by certified mail to all owners of properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards that includes the following:
  - (i) The location and a description of the property where the voluntary action has taken place;
  - (ii) A summary of the releases of the chemical(s) of concern that were assessed as part of the voluntary action and remedial activities that have been or are being taken at the property;
  - (iii) A description of the concentrations of chemical(s) of concern in ground water that has or may migrate onto or under the properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (iv) A summary of the unrestricted potable use standards for the chemical(s) of concern that have emanated from the property;
  - (v) A description of the requirements contained in paragraphs (F)(2)(a)(v) to (F)(2)(a)(viii) of this rule that the volunteer, or subsequent owners relying on an no further action letter, to address exposures of humans to ground water with concentrations of chemical(s) of concern in excess of applicable standards; and
  - (vi) A request for information concerning any current or intended use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of

chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone number of a representative of the volunteer, or subsequent owner relying on a no further action letter who can be notified of any current or intended use of ground water or contacted for further information.

- (d) At least annually, review Ohio department of natural resources water well log information, for the properties where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed;
  - (e) At least annually, identify any known changes and, at inquire of changes in ownership of properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (f) Provide the notification required by paragraph (F)(2)(a)(v)(c) of this rule to owners of properties identified under paragraph (F)(2)(a)(v)(e) of this rule; and
  - (g) Identify other information that is known to the volunteer, or owner, if different, regarding changes in the use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards.
- (vi) Based on the information obtained in paragraphs (F)(2)(a)(v)(a) to (F)(2)(a)(v)(g) of this rule, the volunteer must identify off-property receptor populations for the ground water pathway as determined in accordance with paragraph (D)(1)(g) of rule 3745-300-07 of the Administrative Code;
  - (vii) For each receptor population identified pursuant to paragraph (F)(2)(a)(vi) of this rule that uses the ground water for potable purposes, one or more of the measures contained in paragraphs (F)(2)(a)(iii)(a) and (F)(2)(a)(iii)(b) of this rule must be implemented to ensure that those receptor populations have a continuing supply of water that does not exceed unrestricted potable use standards; and
  - (viii) For each receptor population identified pursuant to paragraph (F)(2)(a)(vi) of this rule for which an exposure pathway exists other than that identified pursuant to paragraph (F)(2)(a)(vii) of this rule,

implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(2)(a)(v) to (F)(2)(a)(viii) of this need to be included in an operation and maintenance plan in accordance with rule 3745-300-15 of the Administrative Code.]

- (b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(2)(b)(i) to (F)(2)(b)(iii) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) Implement remedial activities for sources or source areas of contamination on the property to prevent leaching of chemical(s) of concern from those sources or source areas that is reasonably anticipated will result in unrestricted potable use standards being exceeded in ground water emanating from the property, as determined in accordance with rules 3745-300-07, 3745-300-08, and 3745-300-09 of the Administrative Code; and
  - (iii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
    - (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources on the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” conducted in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (c) When ground water contamination is partially attributable to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code, and the chemical(s) of concern from sources or source areas off the property are the same as those from sources or source areas on the property the following minimum requirements in paragraphs (F)(2)(c)(i) to (F)(2)(c)(ix) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) Implement remedial activities for sources or source areas of contamination on the property to prevent leaching of chemical(s) of concern from those sources or source areas that is reasonably anticipated would result in unrestricted potable use standards being exceeded in ground water emanating from the property, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code;
  - (iii) When the individual or collective effect of sources or source areas on the property have caused or are reasonably anticipated to cause the concentrations of chemical(s) of concern to exceed unrestricted potable use standards in ground water at off-property wells used for potable purposes as determined in accordance with rule 3745-300-07 of the Administrative Code, the volunteer must implement one or more of the following activities to ensure that the ground water users have a continuing potable supply of water that does not contain chemical(s) of concern at concentrations in excess of unrestricted potable use standards:
    - (a) Restore the contaminated ground water to unrestricted potable use standards; or
    - (b) Provide a reliable alternate potable water supply or water treatment system that:



space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources off the property, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably anticipated to cause applicable standards to be exceeded, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.

[Comment: Such exposures must be evaluated as part of a "Phase II Property Assessment" in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (vi) When the individual or collective effect of sources or source areas on the property have caused or are reasonably anticipated to cause the concentrations of chemical(s) of concern to exceed unrestricted potable use standards in ground water that has emanated or will emanate from a property, the volunteer, and any subsequent owners relying on an no further action letter, must conduct the following activities. The following activities must be conducted for as long as the ground water that has emanated from the property continues to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards:
  - (a) Prior to issuance of a no further action letter for the property, the volunteer must identify the visual evidence of ground water use in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (b) Prior to issuance of a no further action letter for the property, the volunteer must review Ohio department of natural resources water well log information to determine whether ground water wells have been installed on the properties where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (c) Prior to issuance of a no further action letter for the property, the volunteer must send a written notification by certified mail to all owners of properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards. The written notification must include:

- (i) The location and a description of the property where the voluntary action has taken place;
  - (ii) A summary of the releases of the chemical(s) of concern that were assessed as part of the voluntary action and remedial activities that have been or are being taken at the property;
  - (iii) A description of the concentrations of chemical(s) of concern in ground water that has or may migrate onto or under the properties in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (iv) A summary of the unrestricted potable use standards for the chemical(s) of concern that have emanated from the property;
  - (v) A description of the requirements contained in paragraphs (F)(2)(c)(vi) to (F)(2)(c)(ix) of this rule that the volunteer, or subsequent owners relying on a no further action letter, to address exposures of humans to ground water with concentrations of chemical(s) of concern in excess of applicable standards; and
  - (vi) A request for information concerning any current or intended use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone number of a representative of the volunteer, or subsequent owner relying on a no further action letter who can be notified of any current or intended use of ground water or contacted for further information.
- (d) At least annually, review Ohio department of natural resources water well log information for the properties where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed;
- (e) Prior to issuance of a no further action letter for the property, the volunteer must identify any known changes and, at a minimum, annually inquire of changes in ownership of properties in areas

where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

- (f) Provide the notification specified in paragraph (F)(2)(c)(vi)(c) of this rule to owners of properties identified under paragraph (F)(2)(c)(vi)(e) of this rule; and
  - (g) Identify other information that is known to the volunteer or owner, if different, regarding changes in the use of ground water in areas where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards.
- (vii) Based on the information obtained in accordance with paragraphs (F)(2)(c)(vi)(a) to (F)(2)(c)(vi)(g) of this rule, the user must identify off-property receptor populations for the ground water pathway determined in accordance with paragraph (D)(1)(g) of rule 3745-300-07 of the Administrative Code;
- (viii) For each receptor population identified pursuant to paragraph (F)(2)(c)(vii) of this rule that uses the ground water for potable purposes, one or more of the measures contained in paragraphs (F)(2)(c)(iii)(a) and (F)(2)(c)(iii)(b) of this rule must be implemented to ensure that those receptor populations have a continuing supply of water that does not exceed unrestricted potable use standards; and
- (ix) For each receptor population identified pursuant to paragraph (F)(2)(c)(vii) of this rule for which an exposure pathway exists other than that identified pursuant to paragraph (F)(2)(c)(viii) of this rule, implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(2)(c)(vi) to (F)(2)(c)(ix) of this rule need to be included in an operation and maintenance plan in accordance with rule 3745-300-15 of the Administrative Code.]

- (d) The volunteer must comply with the requirements contained in paragraphs (F)(2)(a) of this rule for chemical(s) of concern in ground water contributed by sources or source areas on the property, which are different than chemical(s) of concern identified by a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code as originating from sources or source areas that were or are located off the property.

(3) Critical resource ground water with an urban setting designation.

A volunteer must meet the following minimum requirements at a property where ground water underlying the property has been classified as critical resource ground water in accordance with paragraphs (B) and (C) of this rule and an urban setting designation has been made in accordance with paragraph (D) of this rule:

- (a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(3)(a)(i) to (F)(3)(a)(viii) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) Ground water emanating from the property must not exceed standards for unrestricted potable use when it reaches the urban setting designation boundary or a distance of one-half mile from the property boundary, whichever is greater;
  - (iii) When ground water that has emanated from the property has caused or is reasonably anticipated to cause unrestricted potable use standards to be exceeded at off-property wells used for potable purposes beyond the urban setting designation boundary or a distance of one-half mile from the property boundary, whichever is greater, as determined in accordance with rule 3745-300-07 of the Administrative Code, the volunteer must implement one or more of the following activities to ensure that the ground water users have a continuing supply of potable water that does not contain any chemical(s) of concern at concentrations in excess of unrestricted potable use standards:
    - (a) Restore the contaminated ground water that supplies water to those identified wells to unrestricted potable use standards; or
    - (b) Provide a reliable alternate potable water supply or water treatment system that:
      - (i) Provides a volume of water sufficient for the intended use; and

- (ii) Is provided for a period of time no shorter than the time that the ground water supply of off-property ground water users exceeds unrestricted potable use standards.
- (iv) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
  - (a) Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources on and off the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (v) When ground water that has emanated from a property has concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards beyond the property, the volunteer, or subsequent owners relying on a no further action letter, must conduct the following activities. The following activities must be conducted for as long as the ground water that has emanated from the property boundary, continues to exceed or is anticipated to exceed unrestricted potable use standards:
  - (a) Prior to issuance of a no further action letter for the property, the volunteer must identify the visual evidence of ground water use in the areas beyond the urban setting designation boundary or beyond a distance of one half mile from the property boundary, whichever is greater, where ground water has or is reasonably

anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

- (b) Prior to issuance of a no further action letter, the volunteer must review Ohio department of natural resources water well log information to determine whether ground water wells have been installed on the properties beyond the urban setting designation boundary or beyond a distance of one half mile from the property boundary, whichever is greater, where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
- (c) Prior to issuance of a no further action letter for the property, the volunteer must send a written notification by certified mail to all owners of properties in areas beyond the urban setting designation boundary or beyond a distance of one half mile from the property boundary, whichever is greater, where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards. The written notification must include:
  - (i) The location and a description of the property where the voluntary action has taken place;
  - (ii) A summary of the releases of the chemical(s) of concern that were assessed as part of the voluntary action and remedial activities that have been or are being taken at the property;
  - (iii) A description of the concentrations of chemical(s) of concern in ground water that has or may migrate onto or under the properties where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (iv) A summary of the unrestricted potable use standards for the chemical(s) of concern that have emanated from the property;
  - (v) A description of the requirements contained in paragraphs (F)(3)(a)(v) to (F)(3)(a)(viii) of this rule that the volunteer, or owner, if different, is implementing to address the exposures of humans to ground water with concentrations of chemical(s) of concern in excess of applicable standards; and

- (v) A request for information concerning any current or intended use of ground water in where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone number of a representative of the volunteer, or owner, if different, who can be notified of any current or intended use of ground water or contacted for further information.
  - (d) At least annually, review the Ohio department of natural resources water well log information for the properties beyond the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed;
  - (e) At least annually, identify any known changes and, at a minimum, annually inquire of changes in ownership of properties in areas beyond the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (f) Provide the notification specified in paragraph (F)(3)(a)(v)(c) of this rule to owners of properties identified under paragraph (F)(3)(a)(v)(e) of this rule; and
  - (g) Identify other information that is known to the volunteer or owner, if different, regarding changes in the use of ground water in areas beyond the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards.
- (vi) Based on the information obtained in accordance with paragraphs (F)(3)(a)(v)(a) to (F)(3)(a)(v)(g) of this rule, the volunteer must identify off-property receptor populations for the potable use ground water pathway as determined in accordance with paragraph (D)(1)(g) of rule 3745-300-07 of the Administrative Code;
- (vii) For each receptor population identified in paragraph (F)(3)(a)(vi) of this rule that uses the ground water for potable purposes, one or more of the measures contained in paragraphs (F)(3)(a)(iii)(a) and (F)(3)(a)(iii)(b) of this rule must be implemented to ensure that those receptor populations have a continuing supply of potable water that

does not contain concentrations of chemical(s) of concern in excess of unrestricted potable use standards; and

- (viii) For each receptor population identified in paragraph (F)(3)(a)(vi) of this rule for which an exposure pathway exists other than that identified in paragraph (F)(3)(a)(vii) of this rule, implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(3)(a)(v) to (F)(3)(a)(viii) of this rule need to be included in an operation and maintenance plan in accordance with rule 3745-300-15 of the Administrative Code.]

- (b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following requirements in paragraphs (F)(3)(b)(i) to (F)(3)(b)(iii) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) Implement remedial activities for sources or source areas of contamination on the property to prevent leaching of chemical(s) of concern from those sources or source areas that is reasonably anticipated will result in unrestricted potable use standards being exceeded in ground water at a distance of one-half mile from the property boundary, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code; and
  - (iii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
    - (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to contaminants of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial

process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources on the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (c) When ground water contamination is partially attributable to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code and the chemical(s) of concern from sources or source areas off the property are the same as those from sources or source areas on the property, the following requirements in paragraphs (F)(3)(c)(i) to (F)(3)(c)(ix) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) Implement remedial activities for sources or source areas of contamination on the property to prevent leaching of chemical(s) of concern from those sources or source areas that is reasonably anticipated will result in unrestricted potable use standards being exceeded in ground water at the urban setting designation boundary, or a distance of one-half mile from the property boundary, whichever is greater, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code;
  - (iii) When the individual or collective effect of sources or source areas on the property have caused or are reasonably anticipated to cause the concentrations of chemical(s) of concern in ground water that has emanated from the property to exceed unrestricted potable use standards at off-property wells used for potable purposes beyond the urban setting designation or a distance of one-half mile from the property boundary, whichever is greater, as determined in accordance with rule 3745-300-07 of the Administrative Code, the volunteer must implement one or more of the following to ensure that the ground water users have a continuing supply of potable water that does not

contain chemical(s) of concern at concentrations in excess of unrestricted potable use standards:

- (a) Restore the contaminated ground water to unrestricted potable use standards; or
  - (b) Provide a reliable alternate potable water supply or water treatment system that:
    - (i) Provides a volume of water sufficient for the intended use; and
    - (ii) Is provided for a period of time no shorter than the time that the ground water supply of off property ground water users exceeds unrestricted potable use standards.
- (iv) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
- (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources on the property.
- (v) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
- (a) Ensure protection of humans off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably anticipated to cause applicable standards to

be exceeded. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources off the property, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably anticipated to cause applicable standards to be exceeded.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (vi) When the individual or collective effect of sources or source areas on the property have caused or are reasonably anticipated to cause the concentrations of chemical(s) of concern to exceed unrestricted potable use standards in ground water at a distance of one-half mile from the property boundary, the volunteer, and any subsequent owners relying on a no further action letter, must conduct the following activities. The activities must be conducted for as long as the ground water which has emanated from the property beyond a distance of one-half mile from the property boundary continues to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards:
  - (a) Prior to issuance of a no further action letter for the property, the volunteer must identify any visual evidence of ground water use in the areas beyond the urban setting designation boundary or beyond a distance of one half mile from the property boundary, whichever is greater, where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (b) Prior to issuance of a no further action letter for the property, the volunteer must review Ohio department of natural resources water well log information to determine whether ground water wells have been installed on the properties beyond the urban

setting designation or beyond a distance of one half mile from the property boundary, whichever is greater, on where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;

- (c) Prior to issuance of a no further action letter for the property, the volunteer must send a written notification by certified mail to all owners of properties in areas beyond the urban setting designation or beyond a distance of one half mile from the property boundary, whichever is greater, where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards. The written notification must include:
- (i) The location and a description of the property where the voluntary action has taken place;
  - (ii) A summary of the releases of the chemical(s) of concern that were assessed as part of the voluntary action and remedial activities that have been or are being taken at the property;
  - (iii) A description of the concentrations of chemical(s) of concern in ground water that has or may migrate onto or under the properties where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (iv) A summary of the unrestricted potable use standards for the chemical(s) of concern that have emanated from the property;
  - (v) A description of the requirements contained in paragraphs (F)(3)(c)(vi) to (F)(3)(c)(ix) of this rule that the volunteer, or owners, if different, is implementing to address the exposures of humans to ground water with concentrations of chemical(s) of concern in excess of applicable standards; and
  - (vi) A request for information concerning any current or intended use of ground water where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards along with the name, address and phone

number of a representative of the volunteer, or owner, if different, can be notified of any current or intended use of ground water or contacted for further information.

- (d) At least annually, review Ohio department of natural resources water well log information for the properties beyond the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards, to determine whether new ground water wells have been installed;
  - (e) At least annually, identify any known changes and, at a minimum, annually inquire of changes in ownership of properties in areas beyond the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards;
  - (f) Provide the notification specified in paragraph (F)(3)(c)(vi)(c) of this rule to owners of properties identified under paragraph (F)(3)(c)(vi)(e) of this rule; and
  - (g) Identify other information that is known to the volunteer or owner, if different, regarding changes in the use of ground water in areas beyond the property boundary where ground water has or is reasonably anticipated to have concentrations of chemical(s) of concern in excess of unrestricted potable use standards.
- (vii) Based on the information obtained in accordance with paragraphs (F)(3)(c)(vi)(a) to (F)(3)(c)(vi)(g) of this rule of this paragraph, the volunteer must identify off-property receptor populations for the potable use ground water pathway as determined in accordance with paragraph (D)(1)(g) of rule 3745-300-07 of the Administrative Code;
- (viii) For each receptor population identified pursuant to paragraph (F)(3)(c)(vii) of this rule that uses the ground water for potable uses, one or more of the measures contained in paragraphs (F)(3)(c)(iii)(a) and (F)(3)(c)(iii)(b) of this rule must be implemented to ensure that those receptor populations have a continuing supply of potable water that does not exceed unrestricted potable use standards; and
- (ix) For each receptor population identified pursuant to paragraph (F)(3)(c)(vii) of this rule for which an exposure pathway exists other than that identified pursuant to paragraph (F)(3)(c)(viii) of this rule, implement measures that reliably prevent human exposure to ground water in excess of applicable standards for those exposures.

[Comment: The requirements contained in paragraphs (F)(3)(c)(vi) to (F)(3)(c)(ix) of this rule need to be included in an operation and maintenance plan as described in rule 3745-300-15 of the Administrative Code, the remedy rule.]

- (d) A volunteer must comply with the requirements contained in paragraph (F)(3)(a) of this rule for chemical(s) of concern in ground water contributed by sources or source areas on the property, which are different than chemical(s) of concern identified by a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code as originating from sources or source areas that were or are located off the property.
- (4) "Class A" ground water without an urban setting designation.

A volunteer must meet the following minimum requirements at a property where ground water underlying the property has been classified as "Class A" ground water in accordance with paragraphs (B) and (C) of this rule and an urban setting designation has not been made in accordance with paragraph (D) of this rule:

- (a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(4)(a)(i) to (F)(4)(a)(iv) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards, or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) Ground water emanating from the property must not exceed unrestricted potable use standards except when the ground water emanates into a surface water body immediately adjoining the property's boundary, in which case, the applicable standards established in paragraph (E) of rule 3745-300-08 of the Administrative Code for the receiving surface water body must be met;
  - (iii) When ground water has emanated from the property and caused or is reasonably anticipated to cause unrestricted potable use standards to be exceeded at off-property wells used for potable purposes, as determined in accordance with rule 3745-300-07 of the Administrative Code, the volunteer must implement one or more of the following

activities to ensure that the ground water users have a continuing potable supply of water that does not contain chemical(s) of concern at concentrations in excess of unrestricted potable use standards:

- (a) Restore the contaminated ground water to unrestricted potable use standards; or
- (b) Provide a reliable alternate potable water supply or water treatment system that:
  - (i) Provides a volume of water sufficient for the intended use; and
  - (ii) Is provided for a period of time no shorter than the time that the ground water supply of off-property ground water users exceeds unrestricted potable use standards.
- (iv) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
  - (a) Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources on and off the property.

[Comment: Such exposures must be evaluated as part of a "Phase II Property Assessment" in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following

minimum requirements in paragraphs (F)(4)(b)(i) to (F)(4)(b)(iii) of this rule must be met:

- (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards;
- (ii) Implement remedial activities for sources or source areas of contamination on the property to prevent leaching chemical(s) of concern from those sources or source areas that is reasonably anticipated will result in unrestricted potable use standards being exceeded in ground water emanating from the property, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code; and
- (iii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
  - (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources on the property.  
  
[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]
- (c) When ground water contamination is partially attributable to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code and chemical(s) of concern from sources or source areas off the property are

the same as those from sources or source areas on the property, the following minimum requirements in paragraphs (F)(4)(c)(i) to (F)(4)(c)(v) of this rule must be met:

- (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards;
- (ii) Implement remedial activities for sources or source areas of contamination on the property, to prevent leaching of chemical(s) of concern from those sources or source areas that is reasonably anticipated will result in unrestricted potable use standards being exceeded in ground water emanating from the property, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code;
- (iii) When the individual or collective effect of sources or source areas on the property have caused or are reasonably anticipated to cause the concentrations of chemical(s) of concern to exceed unrestricted potable use standards in ground water at off-property wells used for potable purposes as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code, the volunteer must implement one or more of the following activities. to ensure that the ground water users have a continuing supply of potable water that does not contain chemical(s) of concern at concentrations in excess of unrestricted potable use standards:
  - (a) Restore the contaminated ground water to unrestricted potable use standards; or
  - (b) Provide a reliable alternate water supply or water treatment system that:
    - (i) Provides a volume of water sufficient for the intended use; and
    - (ii) Is provided for a period of time no shorter than the time that the ground water supply of off-property ground water users exceeds unrestricted potable use standards.
- (iv) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:

- (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources on the property.
- (v) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
  - (a) Ensure protection of humans off the property from exposures to ground water not related to potable use of the ground water, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably expected to cause applicable standards to be exceeded, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources off the property, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably expected to cause applicable standards to be exceeded.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (d) A volunteer must comply with the requirements contained in paragraph (F)(4)(a) of this rule for chemical(s) of concern in ground water contributed by sources or source areas on the property, which are different than chemical(s) of concern identified by a “Phase II Property Assessment” conducted in accordance with rule 3745-300-07 of the Administrative Code as originating from sources or source areas that were or are located off the property.
- (5) “Class A” ground water with urban setting designation. A volunteer must meet the following requirements at a property where ground water underlying the property has been classified as “Class A” ground water in accordance with paragraphs (B) and (C) of this rule and an urban setting designation has been made in accordance with paragraph (D) of this rule:
  - (a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property, as determined in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(5)(a)(i) to (F)(5)(a)(ii) of this rule must be met:
    - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards; and
    - (ii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
      - (a) Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing

space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources on and off the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(5)(b)(i) to (F)(5)(b)(ii) of this rule must be met:

- (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards; and
- (ii) The remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:

- (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources on the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (c) When ground water contamination is partially attributable to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code and the chemical(s) of concern from sources or source areas off the property are the same as those from sources or source areas on the property, the following minimum requirements in paragraphs (F)(5)(c)(i) to (F)(5)(c)(iii) of this rule must be met:
- (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards;
  - (ii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
    - (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
    - (b) Ensure protection of important ecological resources on the property.
  - (iii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
    - (a) Ensure protection of humans off the property from exposures to ground water not related to potable use of the ground water, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably expected to cause applicable standards to be exceeded, as determined in accordance with rules 3745-300-07 and 3745-300-

09 of the Administrative Code. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of a inhabited structure ; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources off the property, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably expected to cause applicable standards to be exceeded, as determined in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (d) A volunteer must comply with the requirements contained in paragraph (F)(5)(a) of this rule for chemical(s) of concern in ground water contributed by sources or source areas on the property, which are different than chemical(s) of concern identified by a “Phase II Property Assessment” conducted in accordance with rule 3745-300-07 of the Administrative Code as originating from sources or source areas that were or are located off the property.

- (6) “Class B” ground water.

A volunteer must meet the following minimum requirements at a property where ground water underlying the property has been classified as “Class B” ground water in accordance with paragraphs (B) and (C) of this rule:

- (a) When ground water contamination is attributable entirely to sources or source areas that were or are located on the property, the following minimum requirements in paragraphs (F)(6)(a)(i) to (F)(6)(a)(ii) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards; and

- (ii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
  - (a) Ensure protection of humans on and off the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
  - (b) Ensure protection of important ecological resources on and off the property.

[Comment: Such exposures must be evaluated as part of a "Phase II Property Assessment" in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (b) When ground water contamination is attributable entirely to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code, the following minimum requirements in paragraphs (F)(6)(b)(i) to (F)(6)(b)(ii) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards; and
  - (ii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
    - (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use

of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and

- (b) Ensure protection of important ecological resources on the property.

[Comment: Such exposures must be evaluated as part of a “Phase II Property Assessment” in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (c) When ground water contamination is partially attributable to sources or source areas that were or are located off the property as determined in accordance with rule 3745-300-07 of the Administrative Code and the chemical(s) of concern are from sources or source areas off the property are the same as those from sources or source areas on the property, the following minimum requirements in paragraphs (F)(6)(c)(i) to (F)(6)(c)(iii) of this rule must be met:
  - (i) Implement institutional controls or engineering controls that reliably prevent human exposure on the property to ground water with concentrations of chemical(s) of concern in excess of unrestricted potable use standards or restore the ground water underlying the property to those unrestricted potable use standards.
  - (ii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:
    - (a) Ensure protection of humans on the property from exposures to chemical(s) of concern in ground water not related to potable use of the ground water; and
    - (b) Ensure protection of important ecological resources on the property.
  - (iii) The remedy or remedial activities must achieve compliance with applicable standards established under rule 3745-300-09 of the Administrative Code to:

- (a) Ensure protection of humans off the property from exposures to ground water not related to potable use of the ground water, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably expected to cause applicable standards to be exceeded. For the purposes of this rule, exposures to chemical(s) of concern in ground water not related to potable use of the ground water include exposures resulting from non-consumptive uses and exposures resulting from inadvertent contact with contaminated ground water. Examples of such exposures include, but are not limited to: exposures to industrial process water; water used for lawn watering; water used for irrigation; shallow ground water contaminated with volatile organic compounds that volatilize into the breathing space of an inhabited structure; and shallow ground water seeping into sub-surface utility tunnels or sewers; and
- (b) Ensure protection of important ecological resources off the property, unless the individual or collective effect of sources or source areas on the property have not caused and are not reasonably expected to cause applicable standards to be exceeded.

[Comment: Such exposures must be evaluated as part of a "Phase II Property Assessment" in accordance with rules 3745-300-07 and 3745-300-09 of the Administrative Code.]

- (d) A volunteer must comply with the requirements contained in paragraphs (F)(6)(a) of this rule for chemical(s) of concern in ground water contributed by sources or source areas on the property, which are different than chemical(s) of concern identified by a "Phase II Property Assessment" conducted in accordance with rule 3745-300-07 of the Administrative Code as originating from sources or source areas that were or are located off the property.

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