

ARCHIVE: Archived to revise and clarify the guidance within the document (technical content remains accurate). Refer to VA300007.03.011 for the updated document.

OHIO EPA

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE VOLUNTARY ACTION PROGRAM

FREQUENTLY ASKED QUESTION #8: Determining Which COCs Require Multiple Chemical Adjustment for the Protection of Ground Water Demonstration

PURPOSE

This series of fact sheets is intended to provide guidance regarding the Agency's position concerning the interpretation of certain Voluntary Action Program (VAP) rule requirements. The information provided within these documents is based upon Agency evaluation of several VAP no further action letters submitted with the intent of obtaining a covenant not to sue as well as assistance provided for several VAP technical assistance projects.

QUESTION

What is the universe of chemicals of concern (COCs), identified at a property, for which a multiple chemical adjustment is to be performed when developing an applicable risk-derived unrestricted potable use standard(s) (*i.e.* potable use standard(s) determined in accordance with OAC 3745-300-09, the Property-Specific Risk Assessment Rule, or RDUPUS) for purposes of determining if the provisions for protection of ground water meeting unrestricted potable use standards (POGWMUPUS) apply?

BACKGROUND

When determining applicable standards for an unrestricted potable use ground water zone by performing the multiple chemical adjustment to account for cumulative risk, the universe of COCs on which to perform the multiple chemical adjustment **may** be interpreted the following different ways:

- (1) Consider all COCs, identified at the property, which will use the risk-derived unrestricted potable use standards (RDUPUS); or
- (2) Consider all COCs, identified at the property, which will use the RDUPUS, that **are detected** in the ground water zone; or
- (3) Consider all COCs, identified at the property, which will use the RDUPUS, that **are detected in or will likely leach to** the ground water zone;
- (4) Consider all COCs, identified at the property, which will use the RDUPUS, that **are detected in or will likely leach to the ground water zone, and co-occur in a common area** (see attached diagram for clarification); or
- (5) Consider all COCs, identified at the property, which will use the RDUPUS, that **are from a source or source area that have already impacted or are likely to leach to the ground water zone and co-occur in a common area** (see attached diagram for clarification).

The question is then raised regarding which of the five options discussed above are appropriate to use when developing applicable standard(s) for purposes of determining if the provisions for POGWMUPUS apply.

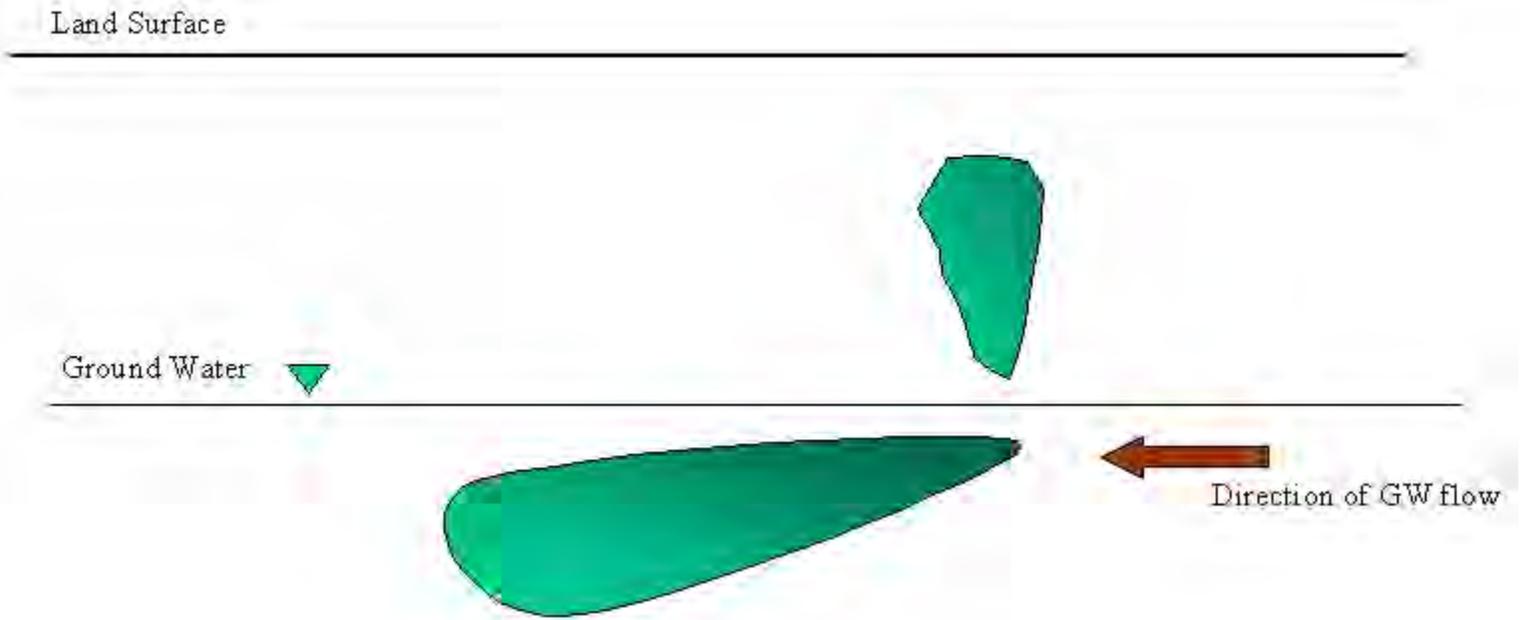
ANSWER

For purposes of developing risk-derived unrestricted potable use standards or RDUPUS at a property in order to make a determination that the provisions for POGWMUPUS do or do not apply, the universe of chemicals that are subject to multiple chemical adjustment are all COCs, identified at the property, which will use the property-specific unrestricted potable use standards PSUPUS **that are detected in or will likely leach to the ground water zone.**

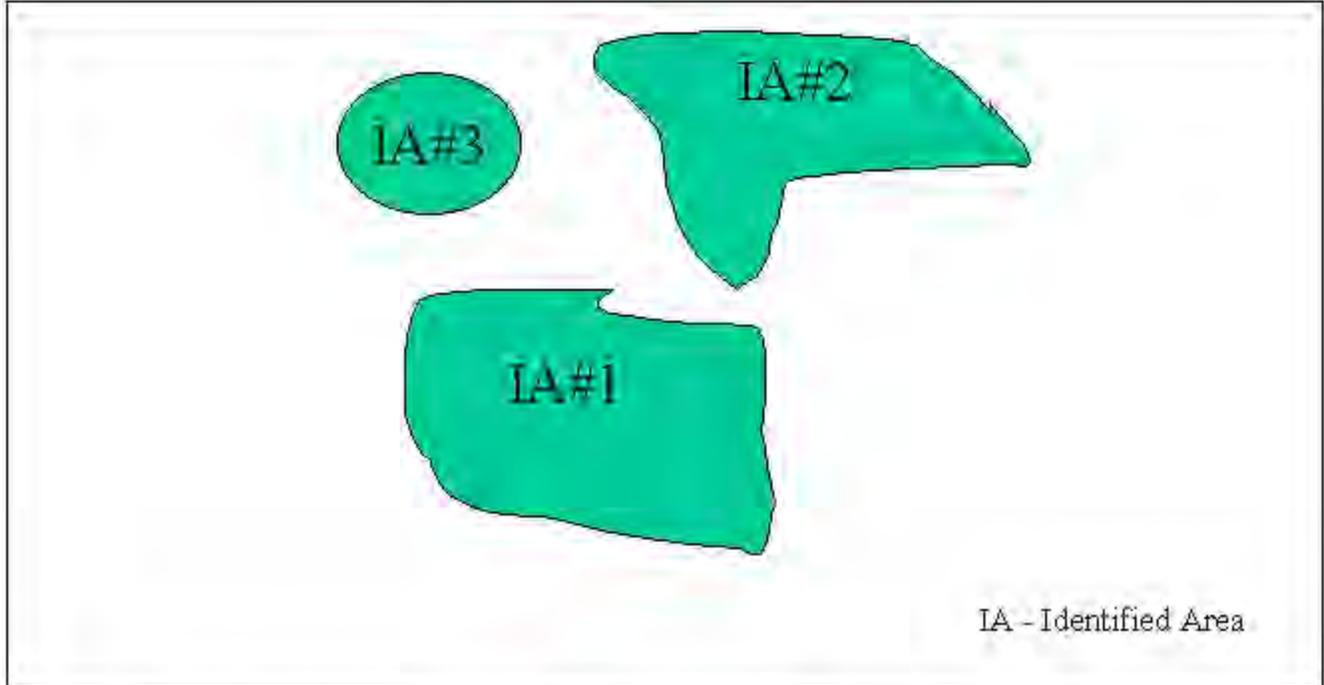
In **certain special cases**, where the property is of large size (and the source areas in the unsaturated zone are separated by sufficient distances) or where two or more hydraulically non-interconnected ground water zones exist at the property and are impacted by separate identified areas in the unsaturated zone, a demonstration may be made that all the COCs that are detected in or will likely leach to the ground water at the property **will not** all co-occur in a common area of any one ground water zone. Thus, any actual or hypothetical well from which water is pumped

would **not necessarily contain all** the COCs, identified at the property, which will use the RDUPUS that are detected in or will likely leach to the ground water at the property. Therefore, in any one of these special cases where sufficient demonstration is made that such circumstances apply at a property¹, the universe of chemicals that are subject to multiple chemical adjustment are all COCs, identified at the property, which will use the RDUPUS that **are detected in or will likely leach to the ground water zone, and co-occur in a common area of the ground water zone.**

¹ If the volunteer or CP is unclear about when it is appropriate to perform multiple chemical adjustment for purposes of POGWMUPUS demonstration, VAP technical assistance can be provided to assist in the determination.



(4) COC's detected in or will likely leach to the GW zone, co-occurring in a common area (cross-sectional view)



(5) COC's from a source or source area which have already impacted or are likely to leach to GW zone, co-occurring in a common area (plan view)

Note: The universe of COC's subject to multiple chemical adjustment would comprise of all COC's from each of these three identified areas which have already impacted, or are likely to leach to, the GW zone.