

**Alternative GWPC
Comment Response Document
(comments received from August 2013 – May 2014)
October 30, 2014**

Comment 1: The Alternative GWPC area seems small, why can't the extent of Alternative GWPC area be larger?

Although potentially applicable to a seemingly low percentage of the State (8%), the Alternative GWPC would be applicable to areas where the density of Remediation sites currently in programs is high (14%). Further adjustments to the criteria used to determine the appropriate area for the Alternative GWPC would have a negative impact on future water supplies. In addition, modifying the criteria or decreasing the buffer distances used would only have a marginal increase in Alternative GWPC area. The most limiting factor for the Alternative GWPC map is the current public water supply map. Development of a more up-to-date public water supply map could increase the area covered by the proposed Alternative GWPC. Since there is not yet such a map, a provision for a commissioner approval option if public water has been extended into an area not shown on the map is included in the proposal.

Comment 2: Does every property need to be connected within 500 ft of the plume? What about 100-200 ft up gradient or side gradient?

The distance of 500 feet was selected to be consistent with the standard practice described in Water Supply Well Receptor Guidance Document. Since there are no long-term monitoring requirements to detect changes in water use or conditions, a 500-foot buffer provides a small safety factor. Change in water usage within this buffer is likely to negatively impact established steady state conditions, thereby changing the conditions of the Class B completion.

Comment 3: Why does public water need to be available to all properties downgradient of the plume to the surface water discharge point? This could be excessive and unnecessary for low level plumes that are a long way from the surface water discharge area.

The proposal stipulates that public water be available to all properties downgradient of the plume until it reaches the surface water discharge point because the Department cannot control future water usage outside the area where public water is currently available. There is the potential that if a water supply well or multiple water supply wells (neighborhood) are installed within the area between the known plume and the surface water discharge point, the

plume could be drawn further down gradient and threaten the newly installed supply wells. These wells could potentially draw in water that exceeds the GWPC.

Comment 4: For the commissioner approval option (public water is available and the site meets all other requirements), what information is needed?

A map showing the extent of public water in the area and a table showing that the surrounding properties are connected, in accordance with the proposed criteria for use of this provision, would need to be submitted. The Department will create an additional state-wide map showing the areas that might be eligible for the Alternative GWPC if public water were available. (The GIS layer of public water service areas currently available to the Department is outdated, which is why this option is offered.)

Comment 5: More commissioner approvals

Currently there is only one proposed commissioner approval option for the instances where public water is available but has not yet been mapped as an Alternative GWPC area. There may be opportunity to expand the commissioner approval options in the future to include site-specific information that would allow the use of the Alternative GWPC.

Comment 6: Why is bedrock excluded from Commissioner Approval option?

The basic premise of this alternative is that, eventually, small amounts of contamination in the groundwater will breakdown/dissipate/dissolve to meet GA standards, and that there is time for this to occur because the groundwater is not currently used for drinking. Once contamination enters bedrock, however, the mechanisms for degradation change and the direction of groundwater flow becomes less predictable without bedrock hydrology studies. Without efficient degradation, a plume would not reach GWPC in a meaningful period of time and would not comply with the State's anti-degradation policy. In addition, contamination in bedrock fractures has the ability to migrate beyond the established buffer distances intended to protect future groundwater resources.

Comment 7: Why does soil need to be remediated to meet default DEC. Why is the DEC an issue for potential impact to ground water?

It is not implied that DEC needs to be met to be protective of groundwater. Compliance with soil DEC is required, as for any release area. This proposal specifies that the timing of soil compliance occur before this additional and alternative compliance variance can be applied, as it is standard practice and currently required by the RSRs to comply with soil standards before establishing compliance with GWPC.

Comment 8: Why do we need to meet the default SWPC and Volatilization Criteria for drinking water issues?

The SWPC and VolC are RSR compliance criteria that must be met in any cleanup to be protective from vapors and surface water contamination. This alternative is ONLY applicable to GWPC to preserve and be protective of the quality of groundwater for drinking water purposes. It is duly noted that the word “default” be removed, since a site could use any appropriate alternative SWPC or VolC method to meet the RSRs and still use the Alternative GWPC provision. The only alternative that would not be acceptable to use with the Alternative GWPC is an Alternative PMC. Using these two options together could have a negative additive effect on groundwater quality.

Comment 9: Why not just use the SWPC and VolC instead of developing yet another set of criteria? Why wouldn't these scenarios apply to all GB areas instead of just greenhouse irrigation and outdoor irrigation scenarios, which seem like isolated cases?

The Alternative GWPC was derived by evaluating the health impact from uses other than for drinking water purposes. (To use this provision, all potentially affected properties would need to be connected to public water.) This would include domestic uses, such as bathing or household washing, which would be the next highest potential exposure scenarios. After domestic use, DPH believes using the water for irrigation purposes in a greenhouse environment would be the next highest potential exposure scenario. Therefore, if a receptor survey identifies other commercial/industrial water uses (e.g., parts cooling) that require high quality water; the alternative GWPC would not be able to be applied. In that case, the GWPC or background must be used as a compliance point with the RSRs.

Comments 10: The alternate criteria appear reasonable; however, review and comment from qualified risk assessors should be incorporated into the next steps.

The risk assessors report will be evaluated and used when finalizing the Alternative GWPC concept.

Comment 11: Does this come out of the GW reclassification guidance document that says in general if a site is >1000 ft. from a receiving water body it is not a good candidate for reclass?

Use of the Alternative GWPC is not related to ground water reclassification, although in both cases, the Department must be protective of existing and future ground water uses. Reclassification does not require any change to the RSRs and is a separate process in itself.