

Water Availability Analysis (WAA)

Frequently Asked Questions & Comments Received

December 18, 2014

1. Please describe in more detail the steps for analyzing a hillside parcel, particularly in the case where no neighboring well is within 500 Ft.

- a. A Hillside Parcel¹ will first require a Tier 1 analysis, wherein the applicant is required to identify existing and proposed uses of water, and how much water is expected to be consumed by each of those uses in normal and dry years.
- b. Tier 1 analysis for proposed projects on Hillside Parcels also includes determining the average annual recharge rate for the parcel (as discussed in Appendix B) to ensure that the planned usage is less than the calculated recharge. (Staff Note: Text in main body of document needs to be modified to be clear on this point).
- c. A Tier 2 analysis is then conducted to determine “well to well” interference. If no neighboring wells are within a specified distance (i.e., 500 Ft.), the project well is presumptively assumed to have no impacts on other wells and the Tier 2 analysis is complete. If a neighboring well is within 500 ft., or if other substantial evidence in the record indicates the need to do so, further analysis is required as detailed in the WAA.
- d. Tier 3 provides a procedure for conducting a Groundwater/Surface water interaction analysis. This analysis would be conducted if “substantial evidence in the record” indicates the need to do so.
- e. NOTE: “Substantial evidence” is defined by case law as evidence that is of ponderable legal significance, reasonable in nature, credible and of solid value. The following constitute substantial evidence: facts, reasonable assumptions predicated on facts; and expert opinions supported by facts. Argument, speculation, unsubstantiated opinion or narrative, or clearly inaccurate or erroneous information do not constitute substantial evidence. Questions specific to this point should be addressed to the Planning, Building, & Environmental Services (PBES) Department.

2. Can you get to a Tier 3 analysis (Groundwater to Surface Water) without doing a Tier 2?

Yes, you can. In the case where Tier 2 is not triggered by nearby wells, a Tier 3 analysis could still be required if substantial evidence in the record indicates a potential impact associated with Groundwater/Surface water interaction.

3. Why aren't there more monitoring wells in the hills?

Because of the diverse and complex (highly heterogeneous) geology in the hillsides, installation of monitoring wells provide minimal useful data just a few hundred feet away from the subject well. While some monitoring wells do exist in the hills (particularly in

¹ Hillside Parcels are those that are not located in the Napa Valley Floor or a County-designated Groundwater Deficient Area. The WAA refers to these locations as “All Other Areas”.

areas such as Angwin and Pope Valley), the expense of installing additional wells is not warranted for the minimal amount of data they would provide.

4. Should calculations of water use, recharge, etc. also include a buffer to account for uncertainties?

- a. While this is ultimately a policy call, the proposed WAA already provides several built in assurances or “buffers”. First, the proposed WAA both requires and also provides the tools for ensuring water use (volume) estimates for proposed projects are more accurate and detailed than in the past.
- b. Conservative factors are already included in the scientific analysis which provided the water use thresholds, distance thresholds, and guidance on parcel-specific analysis.
- c. Countywide monitoring and modeling programs in place or being developed already provide a view of the big picture and will allow adjustments to thresholds if the data so indicate a need.

5. Should water quality monitoring also be required at the WAA stage of project approval?

While this question has some merit, it is not a current requirement of the exiting WAA or proposed to be added to the revised document. There are several reasons for this:

- a. Project wells do not always exist at the time of use permit submittal, just as driveways, retaining wall, septic systems, and other supporting equipment is often installed after the use permit process. This is both to constrain initial costs, as well as to minimize environmental impact from installing such infrastructure should the project not be approved.
- b. Secondly, while water quality can sometimes be an issue (usually the result of high levels of naturally occurring contaminants), in reality this problem is almost always solvable by treatment or dilution;
- c. There may be some cases where obtaining water quality data early in the process could be useful, and nothing in this procedure prevents PBES from asking for the same should a particular project warrant it.
- d. Once a well is put into service for commercial potable usage, commercial projects that are regulated as a small water system do water quality testing as required by State drinking water laws, so problems with drinking water quality later in a project’s life would be identified.

6. How does the WAA address cumulative impacts?

- a. On the Napa Valley Floor and in the MST, the established Tier 1 thresholds are designed to address cumulative impacts. Also, the WAA has specific procedures for analyzing impacts between the project well and nearby neighboring wells and surface water features. As such, it addresses cumulative impacts in the immediate vicinity of the project, and countywide monitoring and modeling programs further address cumulative impacts on a basin wide basis.

- b. In the hillsides, because there is little to no connectivity or impact over even medium distances (1500 feet) due to the complex geology of the hillsides, the WAA procedures are designed to address nearby impacts whereas wide spread impacts are not expected to occur.

7. What are the rights of citizens to demand more study on particular applications?

CEQA (as implemented the Lead Agency, which in Napa County is PBES) defines the level of study required on individual projects. The Lead Agency makes these determinations on a project by project basis, based on the nature and location of the project, its potential impacts and whether or not the project can be feasibly mitigated.

8. What data are confidential and what is not?

- a. The County has been collecting groundwater level information from volunteered wells for many years, some data since 1918. Level information collected from private sources is considered to be sensitive and the well owner's privacy respected. In practical terms, this means that groundwater level data made available to the public will not be directly associated with the well from which it is obtained, but rather reported by general geographic area or subarea. Owner names and addresses will not be used as identifiers in any public report. Published maps will depict well locations at the subarea or larger scale level. Information considered proprietary under law will not be released to the public. California Water Code §13751 and §13752 prohibits distributing well completion reports to anyone but the landowner, his or her designee, or a government agency without the owner's permission.

The County has no plans, and no need, to make raw groundwater level data accessible to the public. This does not apply to County staff, other government agencies or consultants that have a legitimate need to access the information. If information is requested through a County public records request, the County will determine it's applicability and also notify the well owner on file.

The exception are those volunteered wells that participate in the California Statewide Groundwater Elevation Monitoring (CASGEM) program. Participation in the CASGEM program helps to further research conducted by the State Department of Water Resources (DWR) to better understand California's overall groundwater resources at the regional and statewide level. Well owners who participate in the CASGEM program have voluntarily agreed to share information about their well's construction and water levels with DWR and the public through the CASGEM website: (http://www.water.ca.gov/groundwater/groundwater_data_and_monitoring.cfm). The CASGEM website displays information from the well log, historical groundwater elevations and a location map at the parcel level scale.

- b. In general, information provided to PBES in support of a permit application is public record, unless a specific statute says otherwise.

9. Should proactive efforts to recharge the aquifer be undertaken?

This is a policy discussion that is outside the scope of the WAA.

10. If a parcel has drain tiles installed for a vineyard how does that affect recharge?

Parcel-specific recharge analysis will only occur as part of the WAA procedure for Hillside Parcels which are very unlikely to have drain tile systems. Agricultural drain tiles are typically constructed in alluvial settings (e.g., valley floors) to increase the thickness of the unsaturated zone in areas with very shallow groundwater, since continuously saturated soils within the crop root zone can limit crop productivity or cause crop mortality. The magnitude of groundwater level reductions achieved by such systems is relatively small, typically less than 10 feet, and limited by the expenses of system construction and operation. In light of this, agricultural drain tile systems do not limit rates of groundwater recharge or the potential for recharge at the parcel scale because they exist in areas where the ability of a groundwater system to receive recharge is already limited by the lack of unsaturated zone thickness.

11. Is this document an ordinance?

- a. No, this is an administrative policy that will be adopted by the Board. The policy establishes a procedure that provides scientific guidance for the objective analysis of the proposed groundwater use and potential impacts resulting from a discretionary application. It is not intended to enable or hinder growth and development, or determine which projects can or cannot be approved. This is not a land use document, and project specific conditions may warrant higher (or different) levels of analysis. Ultimately these decisions lie solely with PBES, the Planning Commission, and Board of Supervisors, though it is hoped that the information derived from these procedures will inform those decision making processes.
- b. Planning issues, such as how a project is conditioned, post approval monitoring, code enforcement, etc. are also under the jurisdiction of PBES.
- c. Similarly, this document is unrelated to the procedure for countywide groundwater monitoring, which is the responsibility of Public Works (PW) and is carried out under various groundwater monitoring procedures and policies approved by the Board of Supervisors and as required by State Law.

12. How are Springs treated?

Napa County enjoys the occurrence of many natural springs, and the potential for planned projects to affect spring flow has been considered. Because springs originate as groundwater, springs are addressed in the WAA Tier 2 analysis. It is recommended that any proposed project wells occurring within 1,500 feet of natural springs that are being used for potable or agricultural purposes be evaluated to assess potential connectivity between the part of the aquifer system from which groundwater is planned to be produced and the spring(s). Springs exist in complex hydrogeologic environments. Other substantial evidence in the record may result in the need for such an analysis even though the spring(s) is located a greater distance from the planned well site.