



Part 2 – Groundwater Project Renewals: Operational Monitoring and Operational Testing

Frequently Asked Questions (FAQ)

Q. I have current and historical data. Now what?

A. When renewing an existing withdrawal project, it is important to examine and utilize as much existing data as possible. One of the purposes of a renewal is to assess if anything has changed that may impact previously approved withdrawal rates. To accomplish this, compare current and historical data to evaluate if the data previously collected is consistent with current performance and determine if impacts to other users and the environment can be assessed using the historical and current data.

Q. What are significantly adverse impacts?

A. Significant adverse impacts impair the use, function, character, or extent of a resource, whether it is a well, wetland, or stream. Significant adverse impacts can include diminution of water quality, habitat, or water quantity. Significant adverse impacts require partner regulatory agency coordination and may result in reductions to a requested rate or other limitations and conditions.

Q. What is an area of influence?

A. The area of influence, generally referred to as the area impacted or expected to be impacted by pumping a well, should be utilized when assessing impacts to other users or the environment, establishing a monitoring or testing network, or completing the groundwater availability analysis. The Commission has not defined a de minimis drawdown level for the area of influence. Rather, the Commission expects the consultant to use their judgement in evaluating the resources in the area of influence that may be impacted the operation of the source. For the groundwater availability analysis, the Commission generally recommends assessing a likely capture area for a well and should include all portions of an aquifer upgradient of the capture area.

Q. Is a groundwater availability analysis required?

A. Commission regulations require that projects complete a groundwater evaluation to consider a 1-in-10 year drought event and specifically require that permanent damage to the aquifer does not occur.

Q. Are there areas where well development should be limited because of current water resource limitations?

A. The Commission has identified several potentially stressed areas (PSA) and water challenged areas (WCA) in the Groundwater Management Plan. Additionally, the Commission's Consumptive Water Use and Availability Study (CWUAS) has identified areas where water availability may be limited. Finally, projects need to consider project scale water resource limitations when developing new sources. To help identify potential resource limitations, the Commission recommends that projects complete a groundwater availability analysis prior to drilling a testing well. Furthermore, the Commission has a voluntary Pre-Drill Well Site Review process that will help identify potential resource limitations, as well as other important factors that should be considered prior to drilling a new supply well. More information on the Groundwater Management Plan and CWUAS can be found on the Commission's website.

Q. What is a "data gap"?

A. Data gaps are missing information that the project will need to collect and provide in support of the renewal application which the Commission will need to review to ensure that a project conforms to current standards. During the review of an application, Commission staff is generally assessing three principal risk factors: 1) Sustainability of the withdrawal; 2) Impacts to other users; and 3) Impacts to the environment. If any of these principle risk factors cannot be resolved with existing data, then a data gap exists for that factor.

Q. What are the most common data gaps?

A. Common data gaps include insufficient historical testing and/or operations data, information regarding impacts to environmental resources, and impacts to other users. Aquifer testing may not have been completed or the testing may have been inadequate. Historical testing data collected in a non-SRBC approved aquifer test is often insufficient (short duration, single well test, or well not tested in final form). Historical operations data often includes withdrawal data, but may lack concurrent water level data and/or have a short period of record. Surface water features were rarely monitored during historical testing. The presence of rare, threatened, or endangered species may not have been considered during previous testing or the species were listed after the well was constructed, which may elevate the protection and regulatory requirements for adjacent streams and wetlands they inhabit.

Q. How are data gaps filled?

A. Identified data gaps can be filled through targeted operational monitoring or operational testing, preferably during a seasonal dry period and prior to submission of a waiver or application.

Q. Is operational monitoring or testing sufficient to support the renewal application?

A. Operational monitoring or testing is appropriate when data gaps have been identified that can be filled through operational monitoring and/ or operational testing to avoid completing a new aquifer test in accordance with an approved aquifer testing plan. In general, operational monitoring or testing supplements existing data (e.g. historical testing) to develop the information needed to assess the three primary risk factors identified above.

Q. What is operational monitoring and operational testing?

A. Operational monitoring and operational testing are completed during operation and use of water from the existing source. They allow for limited disruption to a system/facility while generating useful data for supporting renewal of the expiring well and can include expanded monitoring of adjacent wells or surface waters. Withdrawal and water level collection from the production well is always part of operational monitoring or testing.

Q. What is the difference between operational monitoring and operational testing?

A. Operational monitoring is completed during normal system operations and primarily includes monitoring of only the expiring well. Current operational data is often needed to demonstrate that the source can be renewed at or near the previously approved quantity. Operational testing can involve strategic changes in pumping rate (expanded withdrawal) of the expiring well and often includes expanded monitoring. Operational testing typically includes operating the well at a constant rate for a specific period of time while gathering monitoring data from wells and/ or surface waters to address data gaps.

Q. Which operational data collection method should I choose?

A. Some factors that influence the selection of data collection monitoring will depend on the nature of the gaps such as potential impacts to sustainability, other users or the environment, the time available for monitoring, and the size of the data gaps. Operational monitoring is typically long duration (e.g. months or seasonal) with less concentrated effort while operational testing can be short duration (e.g. weeks) but with more concentrated effort. The size of the data gaps identified from review of historical testing and available operational data may influence whether minor gaps can be filled with operational monitoring or if operational testing is needed to fill larger data gaps.

Q. Is operational testing the same as a standard standalone aquifer test?

A. No, and this is an important distinction as the use of existing data and supplemental operational monitoring or testing may avoid the costs and disruptions associated with standalone aquifer tests. Operational monitoring and testing is a more targeted exercise meant to selectively collect data to fill identified data gaps while minimizing impacts to the ongoing operation of the project. Operational monitoring or testing can be completed without prior Commission approval; however, it is recommended that staff be contacted to discuss potential data gaps.

Q. What is a Voluntary Action Plan (VAP)? What are the costs?

A. A VAP is a hydrogeologic evaluation and summary of historical data completed by Commission staff for eligible PWSAP projects. Please reference the Part 1 FAQ for more information about PWSAP eligibility. A VAP typically includes a summary of the project's existing data, identified data gaps, and potential options to fill the data gaps. Commission assistance to eligible projects in developing VAPs is completed at no cost to the project sponsor.

Q. Are VAPs required?

A. A VAP is not required, as they are voluntary and participating project sponsors can withdraw from the process at any time. The Commission recommends that eligible public water suppliers participate in the PWSAP to receive a VAP that will serve as a valuable guide for the renewal process.

Q. Can a VAP be completed for my non-PWSAP project?

A. For projects that are not eligible under the Commission's PWSAP, experienced consultants can offer similar services in evaluating existing data, identifying data gaps, and developing plans for gathering data to address data gaps. Commission staff is available to discuss action plans created by consultants to help ensure that the three principle risk factors will be appropriately addressed with historical data and data collected through the implementation of an action plan.

Q. What are the possible outcomes of a VAP?

A. A VAP will generally identify data gaps and provide several potential renewal options. The options summarized in a VAP will outline additional monitoring or testing that can be completed to help fill data gaps. During the Commission's review of a project to develop a VAP, Commission staff may identify a withdrawal rate that is acceptable without further data collection or evaluation and projects may use the Commission's evaluation in support of a renewal application at the identified rate. Projects that accept the Commission's evaluation do not need to complete an aquifer testing plan waiver request and can submit a groundwater withdrawal application using the VAP as support for the hydrogeologic portion of the renewal application.

If you have any questions or would like to request a time to review or discuss a project's data available or guidance for operational monitoring or testing, please contact the Commission at (717) 238-0423. You can also direct questions to:

General Project Review Questions

- Todd Eaby, Manager Project Review: teaby@srbc.net

Groundwater Projects and PWSAP Questions

- Mike Appleby, Groundwater Supervisor: mappleby@srbc.net