



PROPOSAL

Expanded Scope and Cost for Review of New and Replacement Well Applications in the Santa Ynez River Valley Groundwater Basin Eastern Management Area

To: Bill Buelow/SYRWCD
From: Tim Nicely and Jeff Barry, GSI Water Solutions, Inc.
Date: May 23, 2023

At your request, we have prepared a revised scope and estimated budget to perform an expanded review of permit applications submitted to the County of Santa Barbara Department of Environmental Health Services (EHS) for new or replacement wells within the Eastern Management Area of the Santa Ynez River Groundwater Basin. The Groundwater Sustainability Agencies (GSAs) are required by Governor Newsom's Executive Order N-7-22, as amended by Executive Order N-5-23, and the County Board of Supervisors Urgency Ordinance dated May 24, 2022 to review well construction and modification permit applications to determine whether or not a written verification can be provided that groundwater extraction by the proposed new or replacement well⁴

1. would be "inconsistent with any sustainable groundwater management program" established by the Groundwater Sustainability Plan (Plan) adopted by that GSA, and
2. would decrease the likelihood of achieving a sustainability goal for the basin covered by such Plan.

In the EMA, several well permit applications were reviewed and approved during 2022 and 2023 following these general guidelines. As the drought in 2022 became more severe and water levels in EMA monitoring wells showed continued declines (some water levels falling below minimum thresholds established in the Plan), the EMA GSA began to be concerned that using this generalized approach may not adequately reflect overall conditions in the EMA consistent with the Plan. The Plan acknowledges that short term annual water supply and use may vary according to numerous factors including land use and near-term climate, yet sustainable yield estimates and groundwater management described in the Plan reflect conditions/considerations of water supply and use over a long-term period of time. For this reason, a more comprehensive review of groundwater conditions and use within the EMA, over both the short term and longer term, can be used to better assess whether new permit applications are inconsistent with the sustainable groundwater management program established by the EMA and would decrease the likelihood of achieving the sustainability goal of the EMA's Plan.

Details of our proposed scope of work for the expanded review of permit applications for new and replacement wells are presented as follows.

Scope of Work

The scope of work for reviewing new or replacement well applications includes (1) the level of review that has been conducted thus far in the EMA pursuant to the “Process and Criteria for Administering Written Verifications Per Executive Order N-7-22” that was approved by the EMA GSA on July 21, 2022 (herein referred to as the initial assessment) and (2) the expanded assessment.

The expanded assessment presented in this proposal focuses on the core sustainability factors, which will be used to evaluate whether production from a proposed well is consistent with Sustainable Groundwater Management as set forth in the GSP contained in the EMA’s Plan. These core sustainability factors are:

- A. **Undesirable Results** - Presence/imminence/absence
- B. **Water Budget Parameters** - Short and long-term land and water use assumptions
- C. **Projects and Management Actions** - Programs/water savings/priorities

This evaluation will consider the most recent annual report for the EMA, which presents the groundwater conditions for the previous water year (October of one year to September of the following year) in compliance with DWR regulations, along with an active data set regarding well permits, land and water use practices, and related trends in the EMA and/or a forthcoming spring groundwater conditions report for the EMA, which will be prepared for this purpose. Together, this information will provide the EMA GSA with a comprehensive and updated status of the sustainability factors as described in the EMA Plan.

Review for Written Verifications

Initial Assessment

- Examine the proposed well construction information and assess whether the well is located within one of the management areas.
- Determine whether the geologic setting and aquifer that the well would be completed in would be within in a Principal Aquifer that is managed by the EMA (such as within the Paso Robles Formation or Careaga Sand).
- Assess groundwater conditions (e.g., water level elevations and trends, water quality) and rainfall conditions in the preceding water years.
- Evaluate whether the well would increase production within the management area.
- For replacement wells, assess whether the pumping capacity of the replacement well will be a “like for like” replacement with regards to production volume relative to the original well. Information that may be reviewed includes:
 - Planned pumping rate of the replacement well and estimated or measured flow rate of the original well;
 - Pump curves for both the original well pump and new pump, as available;
 - If a pump curve is not available, pump type, number of bowls, pump diameter, pump horsepower, RPM, assumed lift;
 - System pressure in the discharge line and total pressure head;
 - Well construction details for the proposed replacement well and original well including total depth, perforated or screened intervals, well diameter;

- Estimated groundwater levels at the time of the application and at the time the original well was completed.
- Review that the proposed use of the well is consistent with the proposed location and design capacity.
- Review whether the property is within the boundaries of a public water system`.

Expanded Assessment

The expanded review tasks were developed to answer specific questions about whether the production from a proposed well would be consistent with the Plan.

1. **Undesirable Results.** The planned production and use of groundwater from the proposed well must be evaluated against the presence, imminence, or absence of undesirable results as described in the EMA GSP. The supplemental criteria for evaluating undesirable results will include the following:
 - a. Most recently reported groundwater levels compared to Minimum Thresholds (MTs) and definition of undesirable result established by the GSP. Determine whether more than 50% of the representative wells exceed MTs after two consecutive years of average or above average precipitation.
 - b. If MTs exceeded, consider the magnitude of exceedances.
 - c. Consider reported impacts to other wells in the area.
 - d. Consider other undesirable result criteria (e.g., water quality).
2. **Water Budget Parameters.** The planned production and use of groundwater from the proposed well must be consistent with the current and long-term water budget parameters in the GSP (Section 3). Water budget parameters to consider may include:
 - a. Projected land-uses
 - b. Total irrigated acreage
 - c. Cropping distribution
 - d. Water duty factors for different crop types.
3. **Projects and Management Actions.** The planned production and use of groundwater from the proposed well must be compliant with any implemented projects or management actions of the EMA GSA, and as a condition for issuance of a written verification the applicant must agree to register the well with and report production semi-annually to the EMA GSA.

Deliverable

After consulting as needed with EMA staff regarding information contained in a well permit application, and after obtaining additional information that may be required to complete the assessment described herein, GSI will prepare a technical memorandum to the EMA that documents the information that was reviewed, present findings from the evaluation, provide an opinion regarding the verification of consistency with the sustainability goal of the Plan, and provide a list of proposed conditions that may be applicable.

Budget Estimate

The estimated cost to complete the entire scope of work described in this memorandum is \$2,200 per well permit application. The work will be completed on a time and materials basis at a blended rate of \$200 per hour. Should additional time be required to complete the review, the EMA will be notified, and if approved by the EMA, the work will be conducted on a time and materials basis at the hourly rate shown above.

Indemnification and Limitations of Liability

GSI does not warrant or guarantee that the new or replacement well will produce the expected amount of water nor that the GSA will not require that the extraction from the well be reduced in the future in accordance with its authority to ensure sustainable groundwater management pursuant to SGMA.

GSI is not responsible for or otherwise liable for any costs, investments, lost revenue, or payments related to any groundwater well permitted or not permitted by the County pursuant to any well permit application, including well drilling costs, pumping fees, extraction limits, costs related to well failure, well deepening, increased maintenance, replacement, or operational costs.

The GSA's issuance of a written verification and the County's issuance of a well permit to Applicant does not guarantee the extraction of any specific amount of water now or in the future or any defined water level or water quality.

The GSA and the Santa Ynez River Water Conservation District agrees to hold GSI harmless and indemnify GSI for any liability stemming from the findings presented in the GSI report or related to the County issuing or not issuing a well permit in response the Application or to the GSA issuance of a written verification related to the well permit.