



CALIFORNIA DEPARTMENT OF WATER RESOURCES

SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE

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January 18, 2024

Tony Emmert
Fillmore and Piru Basins GSA
PO Box 1110
Fillmore, CA 93016
tonye@unitedwater.org

RE: Santa Clara River Valley – Fillmore Subbasin - 2022 Groundwater Sustainability Plan

Dear Tony Emmert,

The Department of Water Resources (Department) has evaluated the groundwater sustainability plan (GSP or Plan) submitted for the Santa Clara River Valley – Fillmore Subbasin. The Department has determined that the Plan is “incomplete” pursuant to Section 355.2(e)(2) of the GSP Regulations.

The Department based its incomplete determination on recommendations from the Staff Report, included as an enclosure to the attached Statement of Findings, which describes that the Subbasin’s Plan does not satisfy the objectives of the Sustainable Groundwater Management Act (SGMA) nor substantially comply with the GSP Regulations. The Staff Report also provides corrective actions which the Department recommends the Subbasin’s groundwater sustainability agency (GSA) review while determining how to address the deficiencies.

The Subbasin’s GSA has 180 days, the maximum allowed by the GSP Regulations, to address the identified deficiencies. Where addressing the deficiencies requires modification of the Plan, the GSA must adopt those modifications into the GSP and all applicable coordination agreement materials, or otherwise demonstrate that those modifications are part of the Plan before resubmitting it to the Department for evaluation no later than July 16, 2024. The Department understands that much work has occurred to advance sustainable groundwater management since the GSA submitted the GSP in January 2022. To the extent to which those efforts are related or responsive to the Department’s identified deficiencies, we encourage you to document that as part of your Plan resubmittal. The Department prepared a [Frequently Asked Questions](#) document to provide general information and guidance on the process of addressing deficiencies in an “incomplete” determination.

Department staff will work expeditiously to review the revised components of your Plan resubmittal. If the revisions sufficiently address the identified deficiencies, the Department will determine that the Plan is “approved”. In that scenario, Department staff

will identify additional recommended corrective actions that the GSA should address early in implementing the GSP (i.e., no later than the first required periodic evaluation). Among other items, those corrective actions will recommend the GSA provide more detail on their plans and schedules to address data gaps. Those recommendations will call for significantly expanded documentation of the plans and schedules to implement specific projects and management actions. Regardless of those recommended corrective actions, the Department expects the first periodic evaluations, required no later than January 2027 – one-quarter of the way through the 20-year implementation period – to document significant progress toward achieving sustainable groundwater management.

If the Subbasin's GSA cannot address the deficiencies identified in this letter by July 16, 2024, then the Department, after consultation with the State Water Resources Control Board, will determine the GSP to be "inadequate". In that scenario, the State Water Resources Control Board may identify additional deficiencies that the GSAs would need to address in the state intervention processes outlined in SGMA.

Please contact Sustainable Groundwater Management staff by emailing sgmps@water.ca.gov if you have any questions related to the Department's assessment or implementation of your GSP.

Thank You,

Paul Gosselin

Paul Gosselin
Deputy Director
Sustainable Groundwater Management

Attachment:

1. Statement of Findings Regarding the Determination of Incomplete Status of the Santa Clara River Valley – Fillmore Subbasin Groundwater Sustainability Plan

**STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES**

**STATEMENT OF FINDINGS REGARDING THE
DETERMINATION OF INCOMPLETE STATUS OF THE
SANTA CLARA RIVER VALLEY – FILLMORE SUBBASIN
GROUNDWATER SUSTAINABILITY PLAN**

The Department of Water Resources (Department) is required to evaluate whether a submitted groundwater sustainability plan (GSP or Plan) conforms to specific requirements of the Sustainable Groundwater Management Act (SGMA or Act), is likely to achieve the sustainability goal for the Subbasin, and whether the GSP adversely affects the ability of an adjacent basin or subbasin to implement its GSP or impedes achievement of sustainability goals in an adjacent basin or subbasin. (Water Code § 10733.) The Department is directed to issue an assessment of the GSP within two years of its submission. (Water Code § 10733.4.) This Statement of Findings explains the Department's decision regarding the submitted Plan by the Fillmore and Piru Basins Groundwater Sustainability Agency (GSA or Agency) for the Santa Clara River Valley – Fillmore Subbasin (No. 4-004.05).

Department management has reviewed the enclosed Staff Report, which recommends that the identified deficiencies should preclude approval of the GSP. Based on its review of the Staff Report, Department management is satisfied that staff have conducted a thorough evaluation and assessment of the Plan and concurs with, and hereby adopts, staff's recommendation and all the corrective actions provided. The Department thus determines the Plan Incomplete based on the staff assessments and recommendations. In particular, the Department finds:

A. The GSA should modify its sustainable management criteria and must provide a more detailed explanation and justification regarding the selection of the sustainable management criteria for groundwater levels, particularly the undesirable results and minimum thresholds, and the effects of those criteria on the interests of beneficial uses and users of groundwater. The minimum thresholds should indicate a depletion of supply at a given location that may lead to undesirable results. Department staff recommend the GSA consider and address the following:

1. The GSA should revise the GSP to sufficiently and clearly explain the undesirable results that the GSA aims to avoid and what it considers to be a significant and unreasonable level of impact, such as a number or percentage of wells going dry. In support of said explanation, the GSP should clearly discuss and disclose the anticipated impacts on beneficial uses and users of groundwater in the Subbasin.

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2. The GSA should revise the minimum thresholds and explain how the minimum threshold groundwater levels are consistent with avoiding undesirable results the GSA aims to avoid. If, for example, the GSA seeks to avoid domestic wells going dry, the GSP should explain how the minimum threshold at each representative well will avoid impact to nearby domestic and other production wells. The GSP should also explain how the Agency has determined that basin conditions at minimum threshold water level conditions will avoid undesirable results for other sustainability indicators.
 3. Provide an evaluation of how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests.¹ Identify the number and location of wells that may be negatively affected when minimum thresholds are reached. Compare well infrastructure for all well types in the Subbasin with minimum thresholds at nearby, suitably representative, monitoring sites. Document all assumptions and steps clearly so that it will be understood by readers of the GSP. Include maps of potentially affected well locations, identify the number of potentially affected wells by well type, and provide a supporting discussion of the effects.
- B. The GSA must set preliminary sustainable management criteria for depletions of interconnected surface water associated with groundwater use, as required by the GSP Regulations,² based on best available information and science. The GSA should evaluate and disclose, sufficiently and thoroughly, the potential effects of the Plan's sustainable management criteria for depletions of interconnected surface water on beneficial uses of the interconnected surface water and on groundwater uses and users.

¹ 23 CCR § 354.28 (b)(4).

² 23 CCR §§ 354.26, 354.28, 354.30.

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Based on the above, the GSP submitted by the Agency for the Santa Clara River Valley – Fillmore Subbasin is determined to be incomplete because the GSP does not satisfy the requirements of SGMA, nor does it substantially comply with the GSP Regulations. The corrective actions provided in the Staff Report are intended to address the deficiencies that, at this time, preclude approval. The Agency has up to 180 days to address the deficiencies outlined above and detailed in the Staff Report. Once the Agency resubmits its Plan, the Department will review the revised GSP to evaluate whether the deficiencies were adequately addressed. Should the Agency fail to take sufficient actions to correct the deficiencies identified by the Department in this assessment, the Department shall disapprove the Plan if, after consultation with the State Water Resources Control Board, the Department determines the Plan inadequate pursuant to 23 CCR § 355.2(e)(3)(C).

Signed:



Karla Nemeth, Director
Date: January 18, 2024

Enclosure: Groundwater Sustainability Plan Assessment Staff Report – Santa Clara River Valley – Fillmore Subbasin

State of California
Department of Water Resources
Sustainable Groundwater Management Program
Groundwater Sustainability Plan Assessment
Staff Report

Groundwater Basin Name:	Santa Clara River Valley – Fillmore Subbasin (No. 4-004.05)
Submitting Agency:	Fillmore and Piru Basins Groundwater Sustainability Agency
Submittal Type:	Initial GSP Submission
Submittal Date:	January 26, 2022
Recommendation:	Incomplete
Date:	January 18, 2024

The Sustainable Groundwater Management Act (SGMA)¹ allows for any of the three following planning scenarios: a single groundwater sustainability plan (GSP) developed and implemented by a single groundwater sustainability agency (GSA); a single GSP developed and implemented by multiple GSAs; and multiple GSPs implemented by multiple GSAs and coordinated pursuant to a single coordination agreement.² Here, as presented in this staff report, a single GSP covering the entire basin was adopted and submitted to the Department of Water Resources (Department) for review.³

The Fillmore and Piru Basins Groundwater Sustainability Agency (the GSA) jointly submitted the Fillmore Basin Groundwater Sustainability Plan (GSP or Plan) to the Department for evaluation and assessment as required by SGMA and the GSP Regulations.⁴ The GSP covers the entire Santa Clara River Valley – Fillmore Subbasin (Subbasin) for the implementation of SGMA.

Evaluation and assessment by the Department is based on whether an adopted and submitted GSP, either individually or in coordination with other adopted and submitted GSPs, complies with SGMA and substantially complies with the GSP Regulations. Department staff base their assessment on information submitted as part of an adopted GSP, public comments submitted to the Department, and other materials, data, and reports that are relevant to conducting a thorough assessment. Department staff have evaluated the GSP and have identified deficiencies that staff recommend should preclude its approval.⁵ In addition, consistent with the GSP Regulations, Department staff have

¹ Water Code § 10720 *et seq.*

² Water Code § 10727.

³ Water Code §§ 10727(b)(1), 10733.4; 23 CCR § 355.2.

⁴ 23 CCR § 350 *et seq.*

⁵ 23 CCR §355.2(e)(2).

provided corrective actions⁶ that the GSAs should review while determining how and whether to address the deficiencies. The deficiencies and corrective actions are explained in greater detail in Section 3 of this staff report and are generally related to the need to define sustainable management criteria in the manner required by SGMA and the GSP Regulations.

This assessment includes four sections:

- **Section 1 – Evaluation Criteria**: Describes the legislative requirements and the Department’s evaluation criteria.
- **Section 2 – Required Conditions**: Describes the submission requirements, GSP completeness, and basin coverage required for a GSP to be evaluated by the Department.
- **Section 3 – Plan Evaluation**: Provides a detailed assessment of identified deficiencies in the GSP. Consistent with the GSP Regulations, Department staff have provided corrective actions for the GSA to address the deficiencies.
- **Section 4 – Staff Recommendation**: Provides staff's recommendation regarding the Department’s determination.

⁶ 23 CCR §355.2(e)(2)(B).

1 EVALUATION CRITERIA

The Department evaluates whether a Plan conforms to the statutory requirements of SGMA⁷ and is likely to achieve the basin’s sustainability goal.⁸ To achieve the sustainability goal, the Plan must demonstrate that implementation will lead to sustainable groundwater management, which means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.⁹ Undesirable results are required to be defined quantitatively by the GSAs overlying a basin and occur when significant and unreasonable effects for any of the applicable sustainability indicators are caused by groundwater conditions occurring throughout the basin.¹⁰ The Department is also required to evaluate whether the Plan will adversely affect the ability of an adjacent basin to implement its groundwater sustainability program or achieve its sustainability goal.¹¹

For a Plan to be evaluated by the Department, it must first be determined that it was submitted by the statutory deadline¹² and that it is complete and covers the entire basin.¹³ Additionally, for those GSAs choosing to develop multiple GSPs, the Plan submission must include a coordination agreement.¹⁴ The coordination agreement must explain how the multiple GSPs in the basin have been developed and implemented utilizing the same data and methodologies and that the elements of the multiple GSPs are based upon consistent interpretations of the basin’s setting. If these required conditions are satisfied, the Department evaluates the Plan to determine whether it complies with SGMA and substantially complies with the GSP Regulations.¹⁵ As stated in the GSP Regulations, “[s]ubstantial compliance means that the supporting information is sufficiently detailed and the analyses sufficiently thorough and reasonable, in the judgment of the Department, to evaluate the Plan, and the Department determines that any discrepancy would not materially affect the ability of the Agency to achieve the sustainability goal for the basin, or the ability of the Department to evaluate the likelihood of the Plan to attain that goal.”¹⁶

When evaluating whether the Plan is likely to achieve the sustainability goal for the basin, Department staff review the information provided for sufficiency, credibility, and consistency with scientific and engineering professional standards of practice.¹⁷ The Department’s review considers whether there is a reasonable relationship between the

⁷ Water Code §§ 10727.2, 10727.4, 10727.6.

⁸ Water Code § 10733(a).

⁹ Water Code § 10721(v).

¹⁰ 23 CCR § 354.26.

¹¹ Water Code § 10733(c).

¹² 23 CCR § 355.4(a)(1).

¹³ 23 CCR §§ 355.4(a)(2), 355.4(a)(3).

¹⁴ 23 CCR § 357.4.

¹⁵ 23 CCR § 350 *et seq.*

¹⁶ 23 CCR § 355.4(b).

¹⁷ 23 CCR § 351(h).

information provided by the GSAs and the assumptions and conclusions presented in the Plan, including: whether the interests of the beneficial uses and users of groundwater in the basin have been considered; whether sustainable management criteria and projects and management actions described in the Plan are commensurate with the level of understanding of the basin setting; and whether those projects and management actions are feasible and likely to prevent undesirable results.¹⁸ The Department also considers whether the GSAs have the legal authority and financial resources necessary to implement the Plan.¹⁹

To the extent overdraft is present in a basin, the Department evaluates whether the Plan provides a reasonable assessment of the overdraft and includes reasonable means to mitigate it.²⁰ When applicable, the Department will assess whether coordination agreements have been adopted by all relevant parties and satisfy the requirements of SGMA and the GSP Regulations.²¹ The Department also considers whether the Plan provides reasonable measures and schedules to eliminate identified data gaps.²² Lastly, the Department's review considers the comments submitted on the Plan and evaluates whether the GSAs have adequately responded to the comments that raise credible technical or policy issues with the Plan.²³

The Department is required to evaluate the Plan within two years of its submittal date and issue a written assessment.²⁴ The assessment is required to include a determination of the Plan's status.²⁵ The GSP Regulations provide three options for determining the status of a Plan: approved,²⁶ incomplete,²⁷ or inadequate.²⁸

Even when the Department determines a Plan is approved, indicating that it satisfies the requirements of SGMA and is in substantial compliance with the GSP Regulations, the Department may still recommend corrective actions.²⁹ Recommended corrective actions are intended to facilitate progress in achieving the sustainability goal within the basin and the Department's future evaluations, and to allow the Department to better evaluate whether implementation of the Plan adversely affects adjacent basins. While the issues addressed by the recommended corrective actions in an approved Plan do not, at the time the determination was made, preclude its approval, the Department recommends that the issues be addressed to ensure the Plan's implementation continues to be consistent with SGMA and the Department is able to assess progress in achieving the

¹⁸ 23 CCR §§ 355.4(b)(1), (3), (4) and (5).

¹⁹ 23 CCR § 355.4(b)(9).

²⁰ 23 CCR § 355.4(b)(6).

²¹ 23 CCR § 355.4(b)(8).

²² 23 CCR § 355.4(b)(2).

²³ 23 CCR § 355.4(b)(10).

²⁴ Water Code § 10733.4(d); 23 CCR § 355.2(e).

²⁵ Water Code § 10733.4(d); 23 CCR § 355.2(e).

²⁶ 23 CCR § 355.2(e)(1).

²⁷ 23 CCR § 355.2(e)(2).

²⁸ 23 CCR § 355.2(e)(3).

²⁹ Water Code § 10733.4(d).

basin’s sustainability goal.³⁰ Unless otherwise noted, the Department proposes that recommended corrective actions be addressed by the submission date for the first periodic assessment.³¹

After review of the Plan, Department staff may conclude that the information provided is not sufficiently detailed, or the analyses not sufficiently thorough and reasonable, to evaluate whether it is likely to achieve the sustainability goal for the basin. If the Department determines the deficiencies precluding approval may be capable of being corrected by the GSAs in a timely manner,³² the Department will determine the status of the Plan to be incomplete. A Plan deemed incomplete may be revised and resubmitted to the Department for reevaluation of whether all deficiencies have been addressed and incorporated into the Plan within 180 days after the Department makes its incomplete determination. The Department will review the revised Plan to evaluate whether the identified deficiencies were sufficiently addressed. Depending on the outcome of that evaluation, the Department may determine the resubmitted Plan is approved. Alternatively, the Department may find a formerly deemed incomplete GSP is inadequate if, after consultation with the State Water Resources Control Board, it determines that the GSAs have not taken sufficient actions to correct any identified deficiencies.³³

The staff assessment of the Plan involves the review of information presented by the GSAs, including models and assumptions, and an evaluation of that information based on scientific reasonableness. In conducting its assessment, the Department does not recalculate or reevaluate technical information provided in the Plan or perform its own geologic or engineering analysis of that information. The recommendation to approve a Plan does not signify that Department staff, were they to exercise the professional judgment required to develop a Plan for the basin, would make the same assumptions and interpretations as those contained in the Plan, but simply that Department staff have determined that the assumptions and interpretations relied upon by the submitting GSAs are supported by adequate, credible evidence, and are scientifically reasonable.

Lastly, the Department’s review and assessment of an approved Plan is a continual process. Both SGMA and the GSP Regulations provide the Department with the ongoing authority and duty to review the implementation of the Plan.³⁴ Also, GSAs have an ongoing duty to reassess their GSPs, provide annual reports to the Department, and, when necessary, update or amend their GSPs.³⁵ The passage of time or new information may make what is reasonable and feasible at the time of this review to not be so in the future. The emphasis of the Department’s periodic reviews will be to assess the GSA’s progress toward achieving the basin’s sustainability goal and whether implementation of

³⁰ Water Code § 10733.8.

³¹ 23 CCR § 356.4.

³² 23 CCR § 355.2(e)(2)(B)(i).

³³ 23 CCR § 355.2(e)(3)(C).

³⁴ Water Code § 10733.8; 23 CCR § 355.6.

³⁵ Water Code §§ 10728, 10728.2.

the Plan adversely affects the ability of GSAs in adjacent basins to achieve their sustainability goals.

2 REQUIRED CONDITIONS

A GSP, to be evaluated by the Department, must be submitted within the applicable statutory deadline.³⁶ The GSP must also be complete and must, either on its own or in coordination with other GSPs, cover the entire basin. If a GSP is determined to be incomplete, Department staff may require corrective actions that address minor or potentially significant deficiencies identified in the GSP. The GSAs in a basin, whether developing a single GSP covering the basin or multiple GSPs, must sufficiently address those required corrective actions within the time provided, not to exceed 180 days, for the GSP to be reevaluated by the Department and potentially approved.

2.1 SUBMISSION DEADLINE

SGMA required basins categorized as high- or medium-priority as of January 1, 2017 and to submit a GSP no later than January 31, 2022.³⁷

The GSA submitted the Fillmore Subbasin GSP to the Department on January 26, 2022, in compliance with the statutory deadline.

2.2 COMPLETENESS

GSP Regulations specify that the Department shall evaluate a GSP if that GSP is complete and includes the information required by SGMA and the GSP Regulations.³⁸

The GSA submitted an adopted GSP for the entire Subbasin. Department staff found the Fillmore Subbasin GSP to be complete and include the required information, sufficient to warrant an evaluation by the Department. Therefore, the Department posted the GSP to its website on February 7, 2022.

2.3 BASIN COVERAGE

A GSP, either on its own or in coordination with other GSPs, must cover the entire basin.³⁹ A GSP that intends to cover the entire basin may be presumed to do so if the basin is fully contained within the jurisdictional boundaries of the submitting GSAs.

The GSP intends to manage the entire Fillmore Subbasin and the jurisdictional boundaries of the submitting GSA appear to cover the entire Subbasin.

³⁶ Water Code § 10720.7.

³⁷ Water Code § 10720.7(a)(2).

³⁸ 23 CCR § 355.4(a)(2).

³⁹ Water Code § 10727(b); 23 CCR § 355.4(a)(3).

3 PLAN EVALUATION

As stated in Section 355.4 of the GSP Regulations, a basin “shall be sustainably managed within 20 years of the applicable statutory deadline consistent with the objectives of the Act.” The Department’s assessment is based on a number of related factors including whether the elements of a GSP were developed in the manner required by the GSP Regulations, whether the GSP was developed using appropriate data and methodologies and whether its conclusions are scientifically reasonable, and whether the GSP, through the implementation of clearly defined and technically feasible projects and management actions, is likely to achieve a tenable sustainability goal for the basin.

Department staff have identified deficiencies in the GSP, the most serious of which preclude staff from recommending approval of the GSP at this time. Department staff believe the GSA may be able to correct the identified deficiencies within 180 days. Consistent with the GSP Regulations, Department staff are providing corrective actions related to the deficiencies, detailed below, including the general regulatory background, the specific deficiency identified in the GSP, and the specific actions to address the deficiency.

3.1 DEFICIENCY 1. THE GSP DOES NOT ESTABLISH SUSTAINABLE MANAGEMENT CRITERIA FOR CHRONIC LOWERING OF GROUNDWATER LEVELS IN A MANNER SUBSTANTIALLY COMPLIANT WITH THE GSP REGULATIONS.

3.1.1 Background

It is up to the GSA to define undesirable results and describe the effect of undesirable results on the beneficial uses and users of groundwater.⁴⁰ From this definition, the GSA establishes minimum thresholds, which are quantitative values that represent groundwater conditions at representative monitoring sites that, when exceeded individually or in combination with minimum thresholds at other monitoring sites, may cause the basin to experience undesirable results.⁴¹ Put another way, the minimum thresholds represent conditions that, if not exceeded, should prevent the basin from experiencing the undesirable results identified by the GSA. Minimum thresholds for chronic lowering of groundwater levels are the groundwater elevation indicating a depletion of supply at a given location that may lead to undesirable results.⁴² Quantitative values for minimum thresholds should be supported by information and criteria relied upon to establish and justify the minimum threshold,⁴³ and a quantitative description of

⁴⁰ 23 CCR § 354.26 (b)(3), § 354.28 (b)(4).

⁴¹ 23 CCR § 354.28, DWR Best Management Practices for the Sustainable Management of Groundwater: Sustainable Management Criteria (DRAFT), November 2017.

⁴² 23 CCR § 354.28 (c)(1).

⁴³ 23 CCR § 354.28 (b)(1).

how conditions at minimum thresholds may affect the interests of beneficial uses and users of groundwater.⁴⁴

3.1.2 Deficiency

Department staff believe that the GSP contains flaws that do not sufficiently comply with the GSP Regulations and must be addressed to consider beneficial uses and users in the Subbasin. The GSP's presentation of undesirable results is unspecific and indeterminate regarding the number or depth of dry wells that are considered significant and unreasonable. The GSA's decision to establish minimum thresholds at the lowest possible elevation in each representative monitoring well, the bottom of well perforations, is technically flawed and would render the GSA unable to monitor groundwater levels if the minimum thresholds were exceeded during Plan implementation. The GSP has failed to provide information about how the proposed minimum thresholds indicate a depletion of supply that would lead to undesirable results. The selected minimum thresholds appear arbitrary and not supported by historical or projected groundwater levels. Also, the GSP fails to describe why the minimum thresholds, as proposed, are completely disconnected from the projected future water levels that the GSA anticipates will be experienced in the Subbasin. The GSP's approach is problematic because most of the selected minimum thresholds⁴⁵ are hundreds of feet lower than historical low water levels and deeper than many domestic well depths identified in the GSP,⁴⁶ which means this Plan would allow an unknown number of production wells to go dry with constituting an undesirable result.

3.1.3 Deficiency Details

Based on its review, Department staff conclude the Plan has not defined sustainable management criteria for chronic lowering of groundwater levels in a manner required by SGMA and the GSP Regulations. Generally, the GSP does not provide clear descriptions of what constitutes undesirable results and does not establish its minimum thresholds with consideration of the interests of beneficial uses and users and sufficient supporting information. The lack of this information limits Department staff's ability to evaluate whether the criteria are reasonable or whether the GSA plans to operate the Subbasin to avoid undesirable results.⁴⁷

The GSP provided minimum thresholds that are not related to a depletion of supply and were not developed with consideration of beneficial uses and users. Rather, the GSP states that it selected these minimum thresholds to "maximize the operational flexibility of the basins"⁴⁸ by selecting the bottom of the screened interval of the monitoring well.⁴⁹ Because of this approach, the GSA would not be able to monitor groundwater levels in a

⁴⁴ 23 CCR § 354.28 (b)(4).

⁴⁵ Fillmore GSP, Table 3.5-3, p. 135.

⁴⁶ Fillmore GSP, Figure 2.1-4, p. 168.

⁴⁷ 23 CCR §§ 354.28 (b)(1), 354.28 (b)(2), 354.28 (b)(3), 354.28 (b)(4), 354.28 (c)(1).

⁴⁸ Fillmore GSP, Appendix J, Section 5, p. 1517.

⁴⁹ Fillmore GSP, Section 3.3.1, p. 115; Appendix J, Section 3.3.3, p. 1509.

representative monitoring well when groundwater levels drop below minimum thresholds, which is technically flawed and would limit the GSA’s capability to manage the Subbasin.

GSP Regulations require that GSAs define undesirable results caused by the chronic lowering of groundwater levels by identifying a significant and unreasonable depletion of supply that is present when an undesirable result occurs.⁵⁰ The GSP describes an undesirable result as: “groundwater level declines that result in...: loss of ability to pump groundwater from water wells..., die-off of riparian vegetation... due to groundwater levels declines below the critical water level... attributable to groundwater pumping.”⁵¹ The GSP also restates the undesirable result in Appendix J: “The undesirable results to be avoided for this sustainability indicator have two segments: the loss of the ability to pump groundwater from the existing well network (Table 3-1 and Figure 3-3) and significant and unreasonable GDE vegetation die-off due to implementation of the GSP.”⁵² The GSP states that an undesirable result would occur “when groundwater elevations drop below the bottom of well perforations (i.e., screen) in 25 percent of the representative monitoring sites...”⁵³

Department staff have identified flaws with how the GSA has defined undesirable results. To begin, the Plan’s definition of undesirable results is unspecific and does not specify the number of dry wells that are considered significant and unreasonable,⁵⁴ yet the GSP considers it acceptable to dewater wells that are shallower than 100 feet deep.⁵⁵ Staff conclude the GSP uses undefined qualifying language that renders the meaning of its description of undesirable results indeterminate. In other words, the GSA has not made it clear whether dewatering one well, wells shallower than 100 feet deep, or more wells, including those deeper than 100 feet, are considered significant and unreasonable effects of lowering of groundwater levels in the Subbasin.

Additionally, the Plan defines undesirable results as a function of minimum threshold conditions necessary to reasonably satisfy beneficial uses and users of groundwater, but does not explain how they were determined. This is compounded by the fact that the Plan does not demonstrate how or whether the interests of those beneficial uses and users were considered. As a result, it would not be possible for staff to determine whether it was appropriate to the needs of beneficial uses and users in the Subbasin, as determined by the GSA. The Plan’s quantification of undesirable results as 25 percent or more of the representative monitoring wells in the Subbasin fall below their minimum groundwater elevation threshold levels is unsatisfactory because the Plan does not explain why this threshold would avoid effects the GSA has determined to be significant and unreasonable.

⁵⁰ 23 CCR § 354.26 (a).

⁵¹ Fillmore GSP, Section 3.2.2, p. 111.

⁵² Fillmore GSP, Appendix J, Section 3.3.1, p. 1505.

⁵³ Fillmore GSP, Section 3.2.3.1, p. 112.

⁵⁴ Fillmore GSP, Section 3.2.2, p. 111.

⁵⁵ Fillmore GSP, Section 3.3.1, p. 115.

Department staff conclude the GSA must reevaluate and clearly define and provide its rationale for when undesirable results occur in the Subbasin, based on a thorough consideration of the interests of beneficial uses and users of groundwater, as required by the GSP Regulations ([see Corrective Action 1a](#)).

GSP regulations require GSAs to provide the information and criteria relied upon to establish and justify the minimum thresholds.⁵⁶ The GSP discusses minimum thresholds in Section 3.3.1,⁵⁷ however Department Staff note that the discussion in Section 3.3.1 is focused on a model evaluation of future conditions and does not discuss the criteria used to select the GSP's minimum thresholds. The GSP provides additional discussion of sustainable management criteria in Appendix J, and indicates minimum thresholds were set at the base of the screen in each representative monitoring well,⁵⁸ but does not provide further details about the criteria. Further, the GSP fails to describe why the minimum thresholds, as proposed, are completely disconnected from the projected future water levels that the GSA anticipates will be experienced in the Subbasin. Because of this lack of clear criteria Staff conclude the GSP has not adequately provided the information and criteria used to establish this minimum threshold.⁵⁹ Staff recommend the GSA clearly describe and document each step of its process to develop minimum thresholds, and provide tables, figures, maps, and supporting data as necessary to fully explain all steps used to develop the criteria ([See Corrective Action 1b](#)).

Furthermore, GSP Regulations require GSAs to consider how conditions at minimum thresholds may affect the interests of beneficial uses and users of groundwater.⁶⁰ The GSP evaluated well infrastructure and projected conditions, but did not evaluate well infrastructure at minimum thresholds. The GSP uses a numerical model to project future groundwater conditions and compares those conditions to the Subbasin's well infrastructure, and states that the groundwater model predicts that future low groundwater level conditions will not result in wells going dry.⁶¹ The GSP does not indicate the relationship between projected groundwater levels and minimum thresholds.

The GSP does include a qualifying statement that the GSA considers it acceptable to dewater wells that are shallower than 100 feet deep,⁶² and indicates that wells less than 100 feet deep are most susceptible to dewatering.⁶³ However, the GSP does not provide any estimate of how many wells are shallower than 100 feet and apparently acceptable to dewater. The GSP then sets minimum thresholds⁶⁴ for 9 of the 12 representative monitoring sites over 200 feet deep below ground surface. These values are lower than

⁵⁶ 23 CCR § 354.28 (b)(1).

⁵⁷ Fillmore GSP, Section 3.3.1, pp. 115-116.

⁵⁸ Fillmore GSP, Appendix J, Section 3.3.1.1, p. 1505.

⁵⁹ 23 CCR 354.28 (b)(1).

⁶⁰ 23 CCR § 354.28 (b)(4).

⁶¹ Fillmore GSP, Section 3.2.3.2, p. 112.

⁶² Fillmore GSP, Section 3.3.1, p. 115.

⁶³ Fillmore GSP, Appendix J, Figure 3-9, p. 1535.

⁶⁴ Fillmore GSP, Table 3.5-3, p. 135; Appendix K – Appendix A, pp. 1728-1844.

the historical low water level measurements⁶⁵ in each respective well by 147 to 374 feet. The GSP does not describe how lowering groundwater levels by hundreds of feet may impact beneficial uses and users and staff are concerned that the selected minimum thresholds would allow an unknown number of production wells to go dry because they appear to be deeper than many domestic well depths identified in the GSP⁶⁶. Staff are also concerned that basin conditions at groundwater level minimum thresholds may lead to undesirable results for other sustainability indicators.

Department Staff conclude that the forecast analysis of impacts to beneficial uses and users provided in the GSP based on future conditions is not sufficient because the GSP sets minimum thresholds hundreds of feet below the modeled future conditions. The GSA must directly evaluate the effects on beneficial uses and users in the basin at the minimum threshold conditions. The GSA must identify the number, location, depths, and percentage of all wells that may be impacted at the proposed minimum thresholds and explain how the interests of beneficial uses and users were considered (see [Corrective Action 1c](#)).

3.1.4 Corrective Action 1

The GSA should modify its sustainable management criteria and must provide a more detailed explanation and justification regarding the selection of the sustainable management criteria for groundwater levels, particularly the undesirable results and minimum thresholds, and the effects of those criteria on the interests of beneficial uses and users of groundwater. The minimum thresholds should indicate a depletion of supply at a given location that may lead to undesirable results.⁶⁷ Department staff recommend the GSA consider and address the following:

- a. The GSA should revise the GSP to sufficiently and clearly explain the undesirable results that the GSA aims to avoid. The GSA should sufficiently and clearly explain what it considers to be a significant and unreasonable level of impact, such as a number or percentage of wells going dry. In support of the explanation, the GSP should clearly discuss and disclose the potential effects on uses and users of drinking water wells and all other beneficial uses and users of groundwater in the Subbasin.
- b. The GSA should revise the minimum thresholds and must explain how the minimum threshold groundwater levels are consistent with avoiding undesirable results the GSA aims to avoid. If, for example, the GSA seeks to avoid domestic wells going dry, the GSP should explain how the minimum threshold at each representative well will avoid impact to nearby domestic and other production wells. The GSP should also explain how the Agency has determined that basin

⁶⁵ Fillmore GSP, Appendix K – Appendix A, pp. 1728-1844.

⁶⁶ Fillmore GSP, Figure 2.1-4, p. 168.

⁶⁷ 23 CCR § 354.28 (c)(1).

conditions at minimum threshold water level conditions will avoid undesirable results for other sustainability indicators.

- c. Provide an evaluation of how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests.⁶⁸ Identify the number and location of wells that may be negatively affected when minimum thresholds are reached. Compare well infrastructure for all well types in the Subbasin with minimum thresholds at nearby, suitably representative, monitoring sites. Document all assumptions and steps clearly so that it will be understood by readers of the GSP. Include maps of potentially affected well locations, identify the number of potentially affected wells by well type, and provide a supporting discussion of the effects.

3.2 DEFICIENCY 2. THE GSP DOES NOT SET SUSTAINABLE MANAGEMENT CRITERIA FOR DEPLETIONS OF INTERCONNECTED SURFACE WATER.

3.2.1 Background

SGMA identifies six effects of groundwater conditions occurring throughout the basin that GSAs must evaluate to achieve sustainable groundwater management. The GSP Regulations refer to these effects as sustainability indicators, which are chronic lowering of groundwater levels, reduction of groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletions of interconnected surface water.⁶⁹ Generally, when any of these effects are “significant and unreasonable,” as defined in SGMA, they are referred to as “undesirable results.”⁷⁰ SGMA requires GSAs to sustainably manage groundwater, which requires GSAs to avoid undesirable results for any sustainability indicator during the planning and implementation horizon.⁷¹ For each sustainability indicator, GSAs must develop sustainable management criteria, describe the process used to develop those criteria, and establish a monitoring network to adequately monitor conditions.⁷² SGMA identifies undesirable results related to depletions of interconnected surface water as those “that have significant and unreasonable adverse impacts on beneficial uses of the surface water.”⁷³

The GSP Regulations state that if a GSA is able to demonstrate that undesirable results related to one or more sustainability indicators are not present and are not likely to occur in the basin, the GSA is not required to develop sustainable management criteria for those indicators.⁷⁴ Absent a conclusive explanation of why a sustainability indicator is

⁶⁸ 23 CCR 354.28 (b)(4).

⁶⁹ 23 CCR § 351(ah).

⁷⁰ Water Code § 10721(x).

⁷¹ Water Code §§ 10721(v), 10721(r).

⁷² 23 CCR §§ 354.22, 354.32.

⁷³ Water Code § 10721(x)(6).

⁷⁴ 23 CCR §§ 354.22, 354.26 (d), 354.28 (e).

inapplicable, the Department assumes all sustainability indicators apply.⁷⁵ Demonstration of non-applicability of sustainability indicators must be supported by best available information and science and should be provided in descriptions throughout the GSP (e.g., information describing basin setting, discussion of the interests of beneficial users and uses of groundwater).⁷⁶

The Department's assessment of a GSP's likelihood to achieve its sustainability goal for its basin is based, in part, on whether a GSP provides sufficiently detailed and reasonable supporting information and analysis for all applicable indicators. The GSP Regulations require the Department to evaluate whether establishment of sustainable management criteria is commensurate with the level of understanding of the basin setting.⁷⁷

3.2.2 Deficiency

The GSA presents conclusive evidence that interconnected surface waters and beneficial uses and users of surface water exist in the Subbasin. However, the GSA chose to not develop sustainable management criteria for this sustainability indicator by claiming that there are no significant and unreasonable effects of depletions of interconnected surface water (i.e., undesirable results are not present and are not likely to occur). Department staff believe that the GSA's determination that undesirable results for depletions of interconnected surface water are not present and not likely to occur is inaccurate, not supported by best available information and science, and lacks consideration of all beneficial uses and users. Thus, the GSA's decision to not establish sustainable management criteria for depletions of interconnected surface water in this Subbasin does not comply with the GSP Regulations, and could potentially adversely impact beneficial uses and users of surface water due to groundwater pumping during Plan implementation.

3.2.3 Deficiency Details

The GSP identifies interconnected surface water being present in the Subbasin and estimates the amount of depletion due to pumping.⁷⁸ The GSP identifies groundwater discharge areas near the Subbasin boundaries along the Santa Clara River and states that "during dry periods, rising groundwater near the [sub]basin boundaries keep reaches of the Santa Clara River flowing".⁷⁹ The GSP acknowledges data gap regarding the "extent and timing of interconnectedness" along Sespe Creek and the central portion of the Santa Clara River.⁸⁰ The GSP also identifies recharge areas where surface water infiltrates to contribute recharge to the groundwater system,⁸¹ and provides a map identifying stream channel recharge areas and agricultural return flow areas that recharge

⁷⁵ DWR Best Management Practices for the Sustainable Management of Groundwater: Sustainable Management Criteria (DRAFT), November 2017.

⁷⁶ 23 CCR §§ 355.4 (b)(1), 355.4 (b)(4).

⁷⁷ 23 CCR § 355.4 (b)(3).

⁷⁸ Fillmore GSP, Section 2.2.2.7, pp. 85-87; Figure 2.2-27, p. 204.

⁷⁹ Fillmore GSP, Section 2.2.1.5.6, p. 65.

⁸⁰ Fillmore GSP, Section 2.2.2.7, p. 86.

⁸¹ Fillmore GSP, Section 2.2.1.5.4, p. 63.

groundwater.⁸² The GSP estimates that more groundwater discharges to surface water in wet periods, and more surface water recharges the basin during dry periods.⁸³ The GSP also describes beneficial uses and users of surface water in the Subbasin, which includes freshwater habitat, migration habitat, wetlands, and habitat for endangered species.⁸⁴ Based on this information, Department staff believe that the GSP provides sufficient evidence that both interconnected surface water and beneficial uses and users of surface water are present in the Subbasin.

Regardless of the GSA's clear identification of the presence of interconnected surface water in the Subbasin, the GSP does not establish sustainable management criteria for depletions of interconnected surface water because "the Agency does not consider depletions of interconnected surface water [causing] a significant and unreasonable effect."⁸⁵ For example, the GSP considered loss of the *O. mykiss* (known as steelhead or rainbow trout)⁸⁶ species of fish's rearing and spawning habitat as an undesirable result, but provides alternative reasons for not managing depletions due to pumping (such as variability of flows in the Subbasin, a lack of instream flow requirements from other regulatory entities, and other factors) and claims that *O. mykiss* only use the Santa Clara River when it is fully connected with surface water flow.⁸⁷ Department Staff note that the reasoning provided (fish will use the river when its surface water flow is fully connected), is an indicator of a beneficial use or user being affected by conditions (i.e., stream depletion due to pumping) in the Subbasin. Staff also note that the GSP lacks sufficient consideration on the beneficial use of surface water of fish migration, and the reasoning regarding the lack of beneficial uses of surface water by *O. mykiss* fish is flawed because it contradicts with best available information and science, including those presented in other parts of the GSP⁸⁸. For example, the GSP's basin setting section acknowledges beneficial users of surface water in the Subbasin which includes Southern California steelhead,⁸⁹ describes the critical habit for Southern California steelhead,⁹⁰ and lists the existing habitat management and special-status species recovery plans in the Fillmore and Piru Subbasins, including the Southern California Steelhead Recovery Plan.⁹¹ Staff further note that the GSA has not explained how it determined that impacts to other beneficial uses and users of surface water were not considered as undesirable results of depletions of interconnected surface water, such as impacts to wetland habitat and impacts to surface water diversions by water rights holders. Department staff conclude that the GSA does not sufficiently demonstrate that significant and unreasonable effects

⁸² Fillmore GSP, Figure 2.2-10, p. 187.

⁸³ Fillmore GSP, Section 2.2.3.3.2, p. 98.

⁸⁴ Fillmore GSP, Section 2.2.1.5.6, pp. 65-66.

⁸⁵ Fillmore GSP, Section 3.2.1, p. 110.

⁸⁶ Fillmore GSP, Appendix D, p. 382.

⁸⁷ Fillmore GSP, Section 3.2.1, p. 110.

⁸⁸ Fillmore GSP, Section 2.2.1.5.6, pp. 65-66; Section 2.2.2.8, pp. 88-89; Appendix D, pp. 322-466.

⁸⁹ Fillmore GSP, Section 2.2.1.5.6, pp. 65-66.

⁹⁰ Fillmore GSP, Table 2.2-7, p. 89; Figure 2.2-31, p. 208.

⁹¹ Fillmore GSP, Section 2.2.2.8, p. 89.

of stream depletion due to pumping on beneficial uses of surface water are not present and are not likely to occur in the Subbasin.

The GSP also reasons that “[u]ndesirable results related to surface water depletions were considered significant, yet not unreasonable, because natural climate variability (i.e., [prolonged] droughts) is a significant cause of depleted surface waters (i.e., dry streams), that are not eliminated with pumping reductions (Appendix J). Climate conditions are considered to have a more significant impact on surface water flows than groundwater pumping.”⁹² However, climate variability does not negate the presence of historical or future impacts of groundwater pumping on surface water depletions, and the impacts of pumping on beneficial uses and users of surface water, such as Southern California steelhead, are generally most severe during dry periods.⁹³ In fact, the basin setting section of the GSP acknowledges historical impacts of pumping by stating that “[t]he diversion of surface water and pumping of groundwater resources of the Santa Clara Valley River Basin since the late 1800s has resulted in streamflow depletion (Hanson et al., 2003)”⁹⁴. Moreover, the analysis and discussions of stream depletion in Appendix J⁹⁵ focuses on flow rates at the rising groundwater areas along the Santa Clara River but neglects potential impacts to beneficial uses and users such as special-status fish and water rights holders in this and downstream subbasins especially during dry periods. Therefore, the GSP has not sufficiently and thoroughly considered all beneficial uses and users of surface water in its evaluation of undesirable results.

Department staff conclude that interconnected surface water and beneficial uses of surface water exist in the Subbasin, and the GSA’s decision to not develop sustainable management criteria for depletions of interconnected surface water is incompliant with GSP regulations.⁹⁶ Therefore, the GSA must establish initial sustainable management criteria for depletions of interconnected surface water as required by GSP Regulations to manage the sustainability indicator (See [Corrective Action 2](#)). Department staff also conclude that the GSA’s determination that undesirable results for depletions of interconnected surface water are not present and are not likely to occur is flawed, not supported by best available information and science, and lacks consideration of all beneficial uses and users of surface water.

Department staff understand that estimating the location, quantity, and timing of stream depletion due to ongoing, subbasin-wide pumping is a complex task and that developing suitable tools may take additional time; however, it is critical for the Department’s ongoing and future evaluations of whether GSP implementation is on track to achieve sustainable groundwater management. The Department plans to provide guidance on methods and approaches to evaluate the rate, timing, and volume of depletions of interconnected

⁹² Fillmore GSP, Section 3.2.2, p. 111.

⁹³ NOAA’s National Marine Fisheries Service comments on the Groundwater Sustainability Plan for the Fillmore Subbasin, April 19, 2022, pp. 2 and 12-13.

⁹⁴ Fillmore GSP, Section 2.2.2.7, p. 86.

⁹⁵ Fillmore GSP, Appendix J, Sections 3.6 - 3.6.2.2, pp. 1513-1515.

⁹⁶ 23 CCR § 354.28 (e).

surface water and support for establishing specific sustainable management criteria in the near future. This guidance is intended to assist GSAs to sustainably manage depletions of interconnected surface water. Department staff recommend that the GSA anticipate updating its sustainable management criteria for interconnected surface water after the guidance is released, as part of its next periodic update.

3.2.4 Corrective Action 2

The GSA must set preliminary sustainable management criteria for depletions of interconnected surface water associated with groundwater use, as required by the GSP Regulations,⁹⁷ based on best available information and science. The GSA should evaluate and disclose, sufficiently and thoroughly, the potential effects of the Plan's sustainable management criteria for depletions of interconnected surface water on beneficial uses of the interconnected surface water and on groundwater uses and users.

4 STAFF RECOMMENDATION

Department staff believe that the deficiencies identified in this assessment should preclude approval of the GSP for the Santa Clara River Valley – Fillmore Subbasin. Department staff recommend that the GSP be determined incomplete.

⁹⁷ 23 CCR §§ 354.26, 354.28, 354.30.