

TECHNICAL MEMORANDUM

DATE: March 4, 2024

TO: Napa County Technical Advisory Group

FROM: Napa County Groundwater Sustainability Plan Project Team

SUBJECT: Napa County Workplans and Response to Comments

The Napa County Groundwater Sustainability Agency and the Groundwater Sustainability Plan (GSP) project team (Napa County staff, Luhdorff & Scalmanini, Consulting Engineers; ERA Economics and Stillwater Sciences) completed three draft workplans for public review and comment from October 30, 2023, through January 30, 2024. These draft workplans are available on the County website and include the following:

- Interconnected Surface Water and Groundwater Dependent Ecosystems: Napa Valley Subbasin (ISW and GDEs Workplan)
- Napa County Water Conservation, A Guide for Vineyards, Wineries and Other Water Users (WC Workplan)
- Groundwater Pumping Reduction: Napa Valley Subbasin (GPR Workplan)

Additionally, the WC and GPR Workplans are summarized in a concise document titled “Combined Program Overview”, also posted on the County’s website.

The project team presented the draft workplans at public workshops in December 2023 and January 2024. Feedback has been received from public comment through January 30, 2024. Comments from the Napa County Technical Advisory Group (TAG) were also received, and a discussion of the TAG’s comments occurred at the February 8, 2024, TAG meeting. Public comments were categorized into comment categories (including but not limited to editorial, technical, and implementation approach), and a draft response to either an individual comment (a specific comment) or a master comment (one that is shared across multiple comments and warrants a general response) have been prepared.

Revised drafts of the ISW and GDEs, WC, and GPR Workplans have been prepared in addition to responses to public comments. Three master responses were prepared for the WC and/or GPR Workplans, along with individual responses. The master responses are included below. All ISW and GDEs Workplan responses are individual responses. Tabulated individual responses to specific comments on the ISW and GDEs, WC, and GPR Workplans are included as three attachments (Attachments A through C). The comments and responses tables include the commenter’s organization (if applicable), commenter, one or more columns pertaining to the locations of the comments, the individual comments, and the responses.

The project team is concurrently working toward Workplan implementation, as defined in the implementation plan in the ISW and GDEs, WC, and GPR Workplans and presented at prior TAG meetings. Additional updates on implementation progress will be provided in future TAG meetings.

The revised draft Workplans are provided for the March 14, 2024 TAG meeting for the TAG's consideration, final comments on the revised draft workplans, and recommended submittal of the final draft workplans to the Napa County Groundwater Sustainability Agency.

MASTER RESPONSES

Master Response #1 -- Mandatory vs. Voluntary

The GPR focuses on voluntary actions to reduce groundwater pumping in the Napa Valley Subbasin. The GPR analysis estimates that there is sufficient capacity to expand existing practices and adopt new water conservation practices that would meet the groundwater pumping reduction measurable objective as described in the GSP.

The GSP acknowledges that voluntary adoption of water conservation practices requires sufficient incentives to get water users to adopt practices. Developing financial and other incentives is a core component of the implementation plan for the GPR. Incentives broadly include financial payments (e.g., cost-share or other payments), outreach and education, and behavioral nudge programs (e.g., benchmarking) that encourage additional adoption of practices. These voluntary programs have proven effective in other industries (e.g., energy savings) and are expected to be viable in the Napa Valley Subbasin as well.

The GPR also has an adaptive management implementation plan that will update implementation as additional information becomes available. This includes monitoring the adoption of practices through voluntary measures as well as tracking water savings. If voluntary actions are insufficient, then mandatory measures are included in the GPR. These may include but are not limited to well metering and water allocations. Since mandatory actions are typically more costly than voluntary actions, the GPR implementation plan emphasizes voluntary actions first.

Master Response #2 – Supply Augmentation

The GPR focuses on demand management opportunities. That is, opportunities to reduce water use in the Napa Valley Subbasin. This was the focus of the GPR as defined in the Projects and Management Actions specified in the GSP.

In addition to demand management, there may be opportunities for supply augmentation. These opportunities include, but are not limited to, increased stormwater capture for commercial, winery, and residential (e.g., water catchment systems), municipal and agriculture (e.g., increased reservoir and pond storage capacity), and targeted recharge opportunities. These opportunities will be assessed for technical, economic, and financial viability as part of the next steps and in parallel with GPR Workplan implementation.

It is important to emphasize that supply augmentation options must be tailored to groundwater conditions in the Napa Valley Subbasin. Unlike other Subbasins in the Central Valley, the Napa Valley

Subbasin is a smaller, responsive, alluvial aquifer. This affects the timing and feasibility of opportunities to augment supply. These technical considerations will be evaluated in parallel with GPR Workplan implementation.

Master Response #3 – Measurable Objective for Depletions of Interconnected Surface Water and Voluntary Groundwater Pumping Reductions

Introduction

The Napa Valley Subbasin GSP includes Projects and Management Actions for achieving the sustainability goal as required by GSP Regulations. Following the adoption of the GSP, initial GSP implementation for Management Action #2: Groundwater Pumping Reductions (GPR) has involved the development of the GPR Workplan as specified in the GSP. The GSP Regulations also require a description of the measurable objective that will benefit from the Projects and/or Management Actions. For Management Action #2: GPR, the GSP specifically describes the measurable objective for the sustainability indicator for depletions of interconnected surface water. Accordingly, the overarching objective of the GPR Workplan is to achieve a reduced streamflow depletion goal, and associated sustainability goal, through reducing groundwater pumping. The reduction in groundwater pumping necessary to reduce streamflow depletion to levels consistent with the sustainability goal is estimated to be a 10 percent reduction in pumping from the average annual historical pumping (2005-2014) over the 20-year GSP implementation period. In coordination with stakeholder and public input during GPR Workplan development, the GPR Workplan focuses first on voluntary implementation steps and indicates that mandatory measures may be necessary in the future should voluntary measures be insufficient to achieve the Subbasin sustainability goal.

This Master Response provides background information to clarify the requirements for the Management Action and the overarching goal of the GPR Workplan, including:

- GSP Regulatory Requirements for Projects and Management Actions;
- GSP Management Action #2: Groundwater Pumping Reductions;
- Sustainable Yield and Sustainability Goal; and
- GPR Workplan: Reducing Streamflow Depletion and Achieving the Sustainability Goal

GSP Regulatory Requirements for Projects and Management Actions

The GSP Regulations (California Code of Regulations Title 23, 23 CCR) require GSPs to contain Projects and Management Actions (23 CCR 354.44):

- (a) Each Plan shall include a description of the projects and management actions the Agency has determined will achieve the sustainability goal for the basin, including projects and management actions to respond to changing conditions in the basin.*
- (b) Each Plan shall include a description of the projects and management actions that include the following:*
 - (1) A list of projects and management actions proposed in the Plan with a description of the **measurable objective** (emphasis added) that is expected to*

benefit from the project or management action. The list shall include projects and management actions that may be utilized to meet interim milestones, the exceedance of minimum thresholds, or where undesirable results have occurred or are imminent.

- (A) A description of the circumstances under which projects or management actions shall be implemented, the criteria that would trigger implementation and termination of projects or management actions, and the process by which the Agency shall determine that conditions requiring the implementation of particular projects or management actions have occurred.*
- (B) The process by which the Agency shall provide notice to the public and other agencies that the implementation of projects or management actions is being considered or has been implemented, including a description of the actions to be taken.*
- (2) If overdraft conditions are identified through the analysis required by Section 354.18, the Plan shall describe projects or management actions, including a quantification of demand reduction or other methods, for the mitigation of overdraft.*
- (3) A summary of the permitting and regulatory process required for each project and management action.*
- (4) The status of each project and management action, including a timetable for expected initiation and completion, and the accrual of expected benefits.*
- (5) An explanation of the benefits that are expected to be realized from the project or management action, and how those benefits will be evaluated.*
- (6) An explanation of how the project or management action will be accomplished. If the projects or management actions rely on water from outside the jurisdiction of the Agency, an explanation of the source and reliability of that water shall be included.*
- (7) A description of the legal authority required for each project and management action, and the basis for that authority within the Agency.*
- (8) A description of the estimated cost for each project and management action and a description of how the Agency plans to meet those costs.*
- (9) A description of the management of groundwater extractions and recharge to ensure that chronic lowering of groundwater levels or depletion of supply during periods of drought is offset by increases in groundwater levels or storage during other periods.*
- (c) Projects and management actions shall be supported by best available information and best available science.*

(d) An Agency shall take into account the level of uncertainty associated with the basin setting when developing projects or management actions.

Note: Authority cited: Section 10733.2, Water Code.

Reference: Sections 10727.2, 10727.4, and 10733.2, Water Code.

GSP Management Action #2: Groundwater Pumping Reductions

The Napa Valley Subbasin GSP includes “Management Action #2: Groundwater Pumping Reductions” (GSP Section 11.5.2). The GSP section on the GPR management action contains all the information required by 23 CCR 354.44, including the measurable objective expected to benefit from the management action, which is the sustainability indicator for depletions of interconnected surface water. Specifically, GSP Section 11.5.2.2 Measurable Objective states:

“On October 14, 2021, the GSPAC discussed and approved the sustainable management criteria for the sustainability indicator for depletions of interconnected surface water. The interim measurable objective for that indicator includes a reduction in streamflow depletion corresponding to a 10 percent reduction in average annual historical (2005-2014) pumping. Successful attainment of this objective would increase the volume of groundwater in storage and reduce the potential for undesirable results.”

For purposes of the Department of Water Resources review of submitted GSPs and “evaluating whether a Plan is likely to achieve the sustainability goal for the basin, the Department shall consider many required elements, including “whether the projects and management actions are feasible and likely to prevent undesirable results and ensure that the basin is operated within its sustainable yield” (23 CCR 355.4(b)(5)).

Sustainable Yield and Sustainability Goal

In the Napa Valley Subbasin GSP, the average annual historical period (2005-2014) (GSP Section 9.5.6.2.2), which spans 10 water years preceding the January 1, 2015 SGMA benchmark date, was used to develop the sustainable management criteria definitions for depletions of interconnected surface water. In accordance with GSP regulations, GSPs must address any undesirable results that occurred after the SGMA benchmark date (January 1, 2015) but are not required to address conditions that occurred after this date. The average annual historical pumping during the last 10 years before January 1, 2015 is 14,600 (GSP Section Table 8-12). The average annual historical pumping during the base period (1988-2014) was 14,900 AFY (GSP Section 9.8). These average annual pumping values are consistent with the estimated sustainable yield of 15,000 AFY (GSP Section 9.8.5). Accordingly, a 10 percent reduction in the average annual historical pumping (or the sustainable yield) is about 1,500 AFY (GSP Table 11-9). This translates to the GSP implementation period pumping objective being about 13,500 AFY. The 13,500 AFY is for context and represents an approximate groundwater pumping reduction target. The reduction in streamflow depletion may be accomplished by combining reductions in pumping with other demand management and/or supply augmentation approaches. As indicated in GSP Section 11.5.2.1 and GSP Table 11-9, the geographic scope of the groundwater pumping reduction actions planned in the GPR Workplan is the Subbasin.

On March 11, 2021, the Groundwater Sustainability Plan Advisory Committee (GSPAC) unanimously approved the GSP sustainability goal (GSP Section 1.1.4):

- *To protect and enhance groundwater quantity and quality for all beneficial uses and users of groundwater and interconnected surface water in the Napa Valley Subbasin both now and in the future.*
- *The Napa County GSA will implement sustainable management criteria and an adaptive management approach supported by the best available information and best available science, resulting in the absence of undesirable results within 20 years from GSP adoption.*

While the sustainable yield is estimated to be 15,000 AFY, the sustainability goal calls for implementing sustainable management criteria, including the measurable objective to reduce streamflow depletion to “protect and enhance groundwater quantity and quality for all beneficial uses and users...”

Master Response #3 Summary

During GSP development, the GSPAC and a GSPAC Work Group had many meetings in September and October 2021 focused on the topic of depletions of interconnected surface water, including the interrelationship between surface water depletions, management actions (especially groundwater pumping reductions), and the avoidance of undesirable results. On October 14, 2021, the GSPAC voted to approve the sustainable management criteria, including the measurable objective, for the sustainability indicator for depletions of interconnected surface water.

Measurable objectives are established to achieve the sustainability goal within 20 years of GSP implementation and for continued sustainable management of the Subbasin. The Management Action #2: GPR calls for preparation of a plan (i.e., the GPR Workplan) to implement the GPR program. As described in the GSP, GSP implementation, including steps to achieve the measurable objective, “would begin following NCGSA adoption of the GSP.” The overarching objective of the GPR Workplan is to achieve a reduced streamflow depletion goal, and associated sustainability goal, through reducing groundwater pumping. The reduction in groundwater pumping necessary to reduce streamflow depletion to levels consistent with the sustainability goal is estimated to be a 10 percent reduction in pumping from the average annual historical pumping (2005-2014) over the 20-year GSP implementation period. The GPR Workplan describes 13,500 AFY as a groundwater pumping reduction target since that is about a 10 percent reduction from the average annual historical pumping during the period 2005-2014. However, the essential aspect of Management Action #2: GPR and the stated measurable objective are to reduce streamflow depletion in a manner that achieves protection and enhancement of interconnected surface water in the Napa River. This may be accomplished by combining reductions in pumping with other demand management and/or supply augmentation approaches. In coordination with stakeholder and public input during GPR Workplan development, the Workplan focuses first on voluntary implementation steps and indicates that mandatory measures may be necessary in the future should voluntary measures be insufficient to achieve the Subbasin sustainability goal.

Attachment A: ISW and GDEs Workplan – Responses to Comments

Attachment B: WC Workplan – Responses to Comments

Attachment C: GPR Workplan – Responses to Comments