

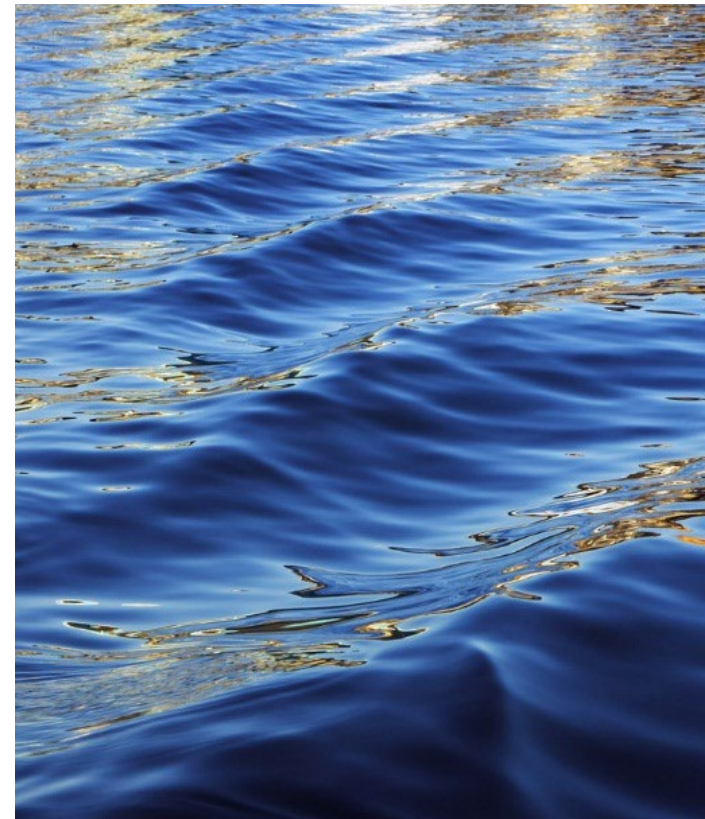


180/400-Foot Aquifer Subbasin Implementation Committee

January 20, 2022



Salinas Valley Basin
Groundwater Sustainability Agency



Background on SGMA Implementation Grant

- State has confirmed available grant maximum of up to \$7.6 M for the 180/400-Foot Aquifer. No match required. Spending Plan due to state by February 18, 2022.
- Staff and M&A have reviewed the Projects and Management Actions as well as data gaps in the 180/400-Foot GSP and is recommending seven projects to be included in the Spending Plan for a total of \$7.6M.
- These are preferred actions and projects in the 180/400-Foot GSP.
- These projects qualify for funding as eligible projects

Projects Should be a Response to Subbasin Conditions

- The 180/400-Foot Subbasin has been found to have chronic lowering of groundwater elevations, is in overdraft, and has loss groundwater storage due to seawater intrusion.
- To reach sustainability these conditions should be addressed concurrently and are priorities for the Subbasin
- The Deep Aquifers are also an important focus for the GSP and completing updated management policy is important to achieve in the near term.

“Big Picture” for the use of the grant funds

- This funding provides a rare opportunity to conduct feasibility analyses at an early stage for assessing project viability and costs. Three projects will do this in the grant:
 - Demand Management Feasibility
 - Extraction Barrier Feasibility
 - Aquifer Storage & Recovery Feasibility
- Feasibility will include legal (ie., water rights), engineering, environmental testing, cost estimation, and stakeholder engagement as examples of associated tasks

Projects Scoring Process – Table 7

- The State has provided an Application Evaluation Criteria Table 7 to be used for scoring the Projects. A table for each Project was provided to you for your scoring purposes. The tables included evaluation notes for your consideration.
- The scoring criteria has to be used as it is and cannot be edited in anyway.
- All committee members have an equal vote on this scoring process – we will develop an average score for each Project
- Once the average score is obtained for each Project, the Projects should be ranked based on the scoring criteria and listed highest to lowest. The Board will be provided this list.

Data gaps and role in the GSP Updates (2-yr and 5-yr)

- The 2020 GSP identified several data gaps and existing monitoring networks that needed to be expanded when funds became available: See Implementation Activity 3, 4 and 5 in Chapter 10 Implementation of the GSP.
 - Aquifer properties assessment
 - Field reconnaissance for GDE verification
 - Interconnected surface water monitoring network
 - Groundwater elevation monitoring network – add four wells
 - Groundwater storage monitoring network – expand existing well metering system to collect additional groundwater pumping information
 - Update the Data Management System – public access and maps

PROJECT 1: Compliance Reporting and Data Expansion in the 180/400-Foot Aquifer

- TASK 1: Completion of the 2023 and 2024 Annual Report as required by SGMA.
- TASK 2: Update online Data Management System to store and report information relevant to the implementation and monitoring of the 180/400-Foot Aquifer GSP.
- TASK 3: Address Data Gaps Identified in 180/400-Foot Aquifer GSP (Aquifer properties, GDE field verification, addition of monitoring wells).
- TASK 4: Well Registration and Metering in the 180/400-Foot Aquifer
- TASK 5: Model updates

PROJECTS AND MANAGEMENT ACTIONS IN 180/400 GSP

| Priority Management Action # | Management Action Name | Notes |
|------------------------------|--|---|
| OTHER | Water Charges Framework | Separate demand management/allocations from funding; Demand Management included |
| 1 | Agricultural Land and Pumping Allowance Retirement | To consider later, after pumping allocations established |
| 2 | Outreach and Education for Agricultural BMPs | To consider later |
| 3 | Reservoir Reoperation | MCWRA has funding to assess this |
| 4 | Restrict Pumping in CSIP Area | Included in Demand Management |
| 5 | Support and Strengthen Monterey County Restrictions on Additional Wells in the Deep Aquifers | Deep Aquifers Study funded!! Operationalize management guidance from it |
| 6 | Seawater Intrusion Working Group | ESTABLISHED!! |

| Priority Project # | Project Name | Notes |
|--------------------|--|---|
| 1 | Invasive Species Eradication | Not included given other potential sources of funding |
| 2 | Optimize CSIP Operations | Included in CSIP Projects |
| 3 | Modify M1W Recycled Water Plant | Included in CSIP Projects |
| 4 | Expand Area Served by CSIP | To consider later, if/when source water identified |
| 5 | Maximize Existing SRDF Diversion | To consider later; dependent on CSIP optimization |
| 6 | Seawater Intrusion Pumping Barrier | Included in Seawater Intrusion Pumping Barrier |
| 7 | 11043 Diversion Facilities Phase I: Chualar | Primarily for Eastside Benefit |
| 8 | 11043 Diversion Facilities Phase II: Soledad | Primarily for Eastside Benefit |
| 9 | SRDF Winter Flow Injection | Renamed ASR |

- 1 Compliance Reporting and Data Expansion
- 2 Demand Management Feasibility
- 3 Operationalize Deep Aquifer Study Recommendations
- 4 A) CSIP Distribution System Improvements
B) Chlorine Scrubber for Winter Modifications at M1W
- 5 Feasibility Study for the SWI Pumping Barrier with Evaluation of Brackish Water Treatment
- 6 Conduct Feasibility Study on Aquifer Storage and Recovery
- 7 Stakeholder Outreach and Engagement

PROJECT 2: Demand Management Feasibility Study for the 180/400-Foot Aquifer

- TASK 1: Develop legal basis and constraints for demand management options.
- TASK 2: Facilitated stakeholder discussion and determine demand management options and expected results.

PROJECT 3: Operationalize Deep Aquifer Study Recommendations

- Based on recommendations from the Deep Aquifer Study conducted by SVBGSA and partners, priority management recommendations will be addressed
- The Deep Aquifer Study is a priority project in the 180/400-Foot GSP with management recommendations a critical action item in the first five years of GSP implementation
- Benefit includes a management plan and actions for the Deep Aquifer.

PROJECT 4A: Castroville Seawater Intrusion Project Distribution System Improvements

- TASK 1: Hydraulic Modeling
- TASK 2: Water Scheduling
- TASK 3: A-1 Site Piping Upgrades
- Benefits: Total pumping reduction estimated to be a low of 248 AF/yr. (without Diversion Facility and 75% efficient) to a high of 1,625 AF/yr. (with Diversion Facility and 100% efficient), with a long-term average of 1,200 to 1,600 AF/yr.

PROJECT 4B: Chlorine Scrubber for Winter Modifications at Monterey One Water

- Design and construct a reliable chlorine dry scrubber system that meets all regulatory requirements and that can be successfully phased into use as a replacement for the existing wet scrubber system.
- Benefits: 345 AF/yr. not used from MCWRA Supplemental Wells and reducing or avoiding chloride levels that are above drinking water standards in domestic wells.

PROJECT 5: Conduct Feasibility Study for the Seawater Intrusion Pumping Barrier with evaluation of brackish water treatment for direct municipal use

- This work will focus on evaluating the basin technical efficacy of groundwater desalting and developing conceptual facility concepts and estimates of capital and operating costs.
- Additional feasibility analysis will include well location determination, land acquisitions needs, conveyance and distribution systems, and end-user analysis.

PROJECT 6: Conduct Feasibility Study for the Aquifer Storage and Recovery

- Assesses Preferred Project 9 in the GSP. Includes modeling to understand how project may address seawater intrusion and groundwater elevations
- Assesses project constraints including existing operational rules and permitting in place.
- Performs water quality analysis
- Conducts distribution system modeling in the CSIP system

PROJECT 7: Stakeholder Outreach and Engagement

- Provides ability to manage extensive stakeholder input on feasibility projects and assessment work.
- Provides support for reporting out to necessary committees
- Produces accessible communications products for web, public presentations, and hosting of public workshops

1

Compliance Reporting and Data Expansion

2

Demand Management Feasibility

3

Operationalize Deep Aquifer Study Recommendations

4

**A) CSIP Distribution System Improvements
B) Chlorine Scrubber for Winter Modifications at M1W**

5

Feasibility Study for the Seawater Intrusion Pumping Barrier with Evaluation of Brackish Water Treatment for Municipal Use

6

Conduct Feasibility Study on Aquifer Storage and Recovery

7

Stakeholder Outreach and Engagement



Questions?

