



TODAY'S ACTION

Update on the MCWRA activities related to
the Salinas Valley Basin Groundwater
Sustainability Agency's Subgrant Agreements





Background

- Local Groundwater Sustainability Agencies (GSAs) have received State funding for studies and projects that rely on Agency programs, permits, water rights, and infrastructure
- Subgrant agreements have been developed between the SVBGSA and Agency to cover staff time to participate in, advise on, or complete various studies and activities.

Prior BOD Action

- Approved Subgrant Agreement and Amendments for services in support of Sustainable Groundwater Management Act Implementation Grant, Round 1
 - September 2022: original agreement totaling \$3,690,000
 - July 2023: amendment 1 for an additional \$131,000 for services and revised work plan (total \$3,821,000)
 - June 2024: amendment 2 to align with grant deadline and reduce grant total by \$341,000 (total \$3,480,000)
 - February 2025: amendment 3 for an additional \$1,500, revised work plan and time extension (total \$3,483,300)
- Approved Subgrant Agreement and Amendment for services in support of Sustainable Groundwater Management Act Implementation Grant, Round 2
 - January 2025: original agreement totaling \$250,000
 - February 2025: amendment 1 for an additional \$150,000 for services (total \$400,000)

Financial Impact

- Subgrant Agreement Round 1 is for an amount not to exceed \$3,483,300 allocated to staff time and other project costs related to planning, design and implementation
- Subgrant Agreement Round 2 is for an amount not to exceed \$400,000 and has been allocated to staff time to complete the projects and coordination
- No required matching funds or cost share from the Agency

Strategic Plan Alignment

Agency work under the Subgrant Agreements aligns with the Strategic Plan

- **Goal B, Planning and New Projects**

- **Strategy 1** - Expand and optimize the CSIP system.
- **Strategy 2** - Collaborate with local Groundwater Sustainability Agencies, define MCWRA's role, and implement a GSA integration plan.
- **Strategy 3** - Identify new water projects for development, utilizing existing or new water rights in collaboration with the GSA.

- **Goal C, Financial Sustainability**

- **Strategy 6** – Pursue grant funding and cost saving opportunities from all available sources, including collaborating with the GSA.

Discussion

- **Both the SVGBSA and MCWRA have crucial roles related to the management of regional water supplies**
- **MCWRA staff is participating in various processes as memorialized in the relevant agreements in place**
 - Continue to collect and expand groundwater monitoring for evaluation of current conditions and to inform decisions
 - Focus on evaluating GSPs Management Actions for feasible implementation
 - Priority questions include:
 - How do current facilities and operations work?
 - » Are there missed opportunities?
 - » What can be improved/done differently?
 - How much water is available?
 - When is the water available?
 - Where is the water available?
 - What can we do with the water, e.g., storage vs direct use?
 - Projects all have ambitious timeframes

Discussion

SGMA Goals

- Avoid undesirable results to demonstrate that a basin is operating within its sustainable yield (Water Code 10721)
- Set measurable objectives that have a reasonable margin of operational flexibility above the minimum thresholds (SMC BMP pg 27)
- Design projects and management actions to meet the measurable objectives (SMC BMP pg 27)

GSP Implementation

- Reach Sustainability in 20 years (2040/2042)
- Consider 6 Sustainability Indicators



Lowering
GW Levels



Reduction
of Storage



Seawater
Intrusion



Degraded
Quality



Land
Subsidence



Surface Water
Depletion

Types of Activities

Existing Facility/Operations Studies and Improvements:

- Dry Chlorine Scrubber Upgrade at Recycled Water Plant
- CSIP System & Operations Hydraulic Modeling
 - CSIP Distribution System Upgrades
 - Water scheduling system
 - Input on development of a Recycled Water Master Plan
- CSIP Distribution system booster enhancements

New Project Studies:

- Feasibility study on Aquifer Storage and Recovery
- Assessment of project constraints related to Agency permits and policies.
- Feasibility study for NSIP/CSIP Expansion
- Advise on Brackish Groundwater Restoration Project
- Reservoir operations modeling
- Castroville and Eastside Canals and Alternatives

Data Collection, Analysis and Monitoring:

- Expansion of Groundwater Monitoring Program
- Monitoring plan for the Deep Aquifers
- Water quality sampling to provide data for the Brackish Groundwater Restoration Project



Existing Facility Improvements: Dry Chlorine Scrubber Upgrade at Recycled Water Plant COMPLETED

Overview:

The Dry Chlorine Scrubber Upgrade at the Salinas Valley Reclamation Project (SVRP) reduces the annual maintenance requirements for the treatment system and increases the number of days that recycled water is available for delivery to CSIP users. M1W has had to shut down its tertiary treatment process every winter for maintenance of the existing chlorination system to comply with hazardous materials plan requirements and maintain its reliability. During that period, river water is also not permitted for diversion and use; therefore, the system must rely solely on groundwater from CSIP supplemental wells to deliver irrigation water to farmers in the seawater-intruded area. If a chlorine leak should occur during the summer, the entire treatment plant and river diversion facility would have to be shut down for repairs, also forcing CSIP to rely on groundwater.

This Component implements the first phase of GSP Priority Project #3: CSIP Winter Modifications through installing a dry chlorine scrubber system to replace the existing wet scrubber system. Chlorine is used to disinfect both recycled and surface water. The previous scrubber system used liquid caustic chlorine scrubbers to contain and remove toxic gaseous chlorine from the air in the event of an accidental release from the chlorine containment system. The new system incorporates two dry scrubbers into the existing chlorination system. The dry scrubbers are much safer to operate due to the elimination of liquid caustic ammonia which is a hazardous material that is corrosive to the system. The new system utilizes two scrubber tanks so that one is always available during maintenance of the other.



Existing Facility Improvements: CSIP Hydraulic Modeling IN PROGRESS

Technical Memo Overview:

The report documents the development, calibration, and application of a new hydraulic computer model for the CSIP distribution system. The purpose of this study is to replace the previous hydraulic model, evaluate existing CSIP distribution system capacity and performance under peak irrigation demands, and provide recommendations to guide MCWRA's capital improvement planning and long-term operational strategies, with the goal of optimizing existing operations and minimizing reliance on supplemental groundwater wells.

Existing Facility Improvements: CSIP Hydraulic Modeling

Outcomes: recommended system improvements to address hydraulic constraints, minimize reliance on groundwater, while enhancing system redundancy and reliability.

CIP 1 – Rodgers Loop Check Valve and Pressure Relief Valve

Installation of a check valve and pressure relief valve along the 24-inch pipe at Rodgers Loop prevents the Espinosa Booster Pump Station from recirculating through the loop, thereby improving pumping efficiency.

CIP 2 – Second CSIP Storage Pond Outlet Pipe

Construction of a new 30-inch outlet pipeline from the CSIP Storage Pond to Turnout 78 increases conveyance capacity across the Salinas River and provides operational redundancy for the existing 51-inch outlet pipe.

CIP 3 – In-System Storage and Booster Pump Station

Construction of 10–12.5 million gallons of new water storage with a booster pump station on the northeastern side of the CSIP distribution system adjacent to Blackie Road creates a secondary pressurized supply point. By reducing headloss and improving pressures at critical turnouts, the project strengthens redundancy and balances weekly demand fluctuations.



Existing Facility Improvements: CSIP Distribution System Booster Enhancements IN PROGRESS

Overview:

The Booster Station Enhancements will reduce the use of CSIP groundwater wells to address distribution system hydraulic deficiencies by optimizing the effectiveness of the three booster station sites.

All eight booster pumps at the three booster station sites (Espinosa, Molera, and Lapis) have been fully rebuilt and recoated, this includes both the pumping equipment and the motor. Final onsite equipment recoating was completed, and the optimization efforts are finalizing. The Molera Booster station motor VFD's control units have been ordered and are in production with arrival anticipated in September 2025, which will then complete this project.



PLANNING PHASE: Aquifer Storage and Recovery

Goals and Objectives

Address seawater intrusion in 180/400-Foot Aquifer Subbasin by:

- Maximizing surface water diversions
- Raising groundwater levels through injection
- Reducing groundwater pumping

Preliminary Feasibility Study / Conceptual Analysis

Summary Report

TM-1: Assesses physical and operational constraints, considering existing infrastructure such as the Nacimiento and San Antonio Reservoirs, the Salinas River Diversion Facility, and CSIP, while identifying new infrastructure needs.

TM-2: Reviews permitting and regulatory requirements, including water rights.

TM-3: Summarizes available water quality data and recommends a sampling plan for further treatment analysis.

TM-4: Presents groundwater flow modeling results.

PLANNING PHASE: Aquifer Storage and Recovery COMPLETED

ASR Scenarios Evaluated

Scenario	Description
Seasonal Release with ASR project concept	• Shift reservoir releases and diversions at SRDF to Dec-June • Injects treated water via new ASR wells • Summer extraction from ASR wells
New Diversion of Winter High Flows for ASR project concept – Alternative 1	• No change to current April-October SRDF operations or “business as usual CSIP” • For ASR: use excess flows to divert November-April and inject (no extraction from ASR wells)
New Diversion of Winter High Flows for ASR project concept with injection into 400-Foot Aquifer only – Alternative 1A	• Same as Alternative 1, except all diverted water is injected into 400-Foot Aquifer only



PLANNING PHASE: Aquifer Storage and Recovery COMPLETED

Key Findings

ASR Scenarios did not achieve SWI Minimum Threshold

Seasonal Release with ASR project concept has significant operational constraints associated with releasing stored reservoir water and rediverting it at SRDF in winter.

Modified or new water rights would be needed for either approach.

Existing CSIP and SRDF infrastructure upgrades are likely required to implement either approach.

The timing of diversions and injection is key for meeting CSIP demands in the peak season.

Seasonal release/re-diversion scenario may create additional issues with not being able to meet CSIP demands, exacerbating the need to pump more groundwater



PLANNING PHASE: Castroville and Eastside Canals and Alternatives Roadmap IN PROGRESS

Purpose:

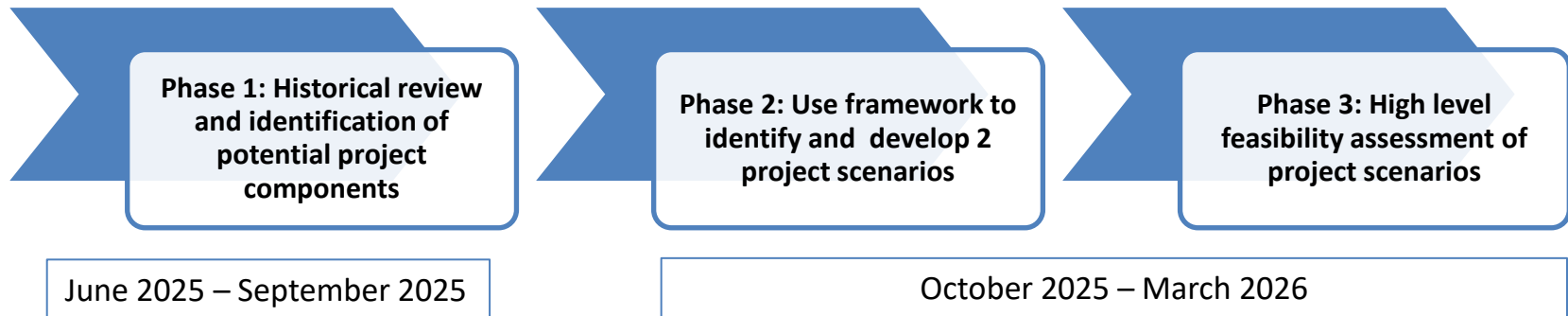
- Support MCWRA to put Permit 11043 water right to beneficial use
- Understand project options, including but not limited to Permit 11043, for achieving groundwater sustainability, to be further studied.

Project Scenario(s):

- Identify a realistic project concept using additional supply from the Salinas River for:
 - Mitigating seawater intrusion
 - and/or
 - Addressing lowered groundwater levels to help achieving Sustainable Management Criteria (SMC) in Eastside, Langleigh, 180/400

PLANNING PHASE: Castroville and Eastside Canals and Alternatives Roadmap

Timeline:



Phase 1 includes:

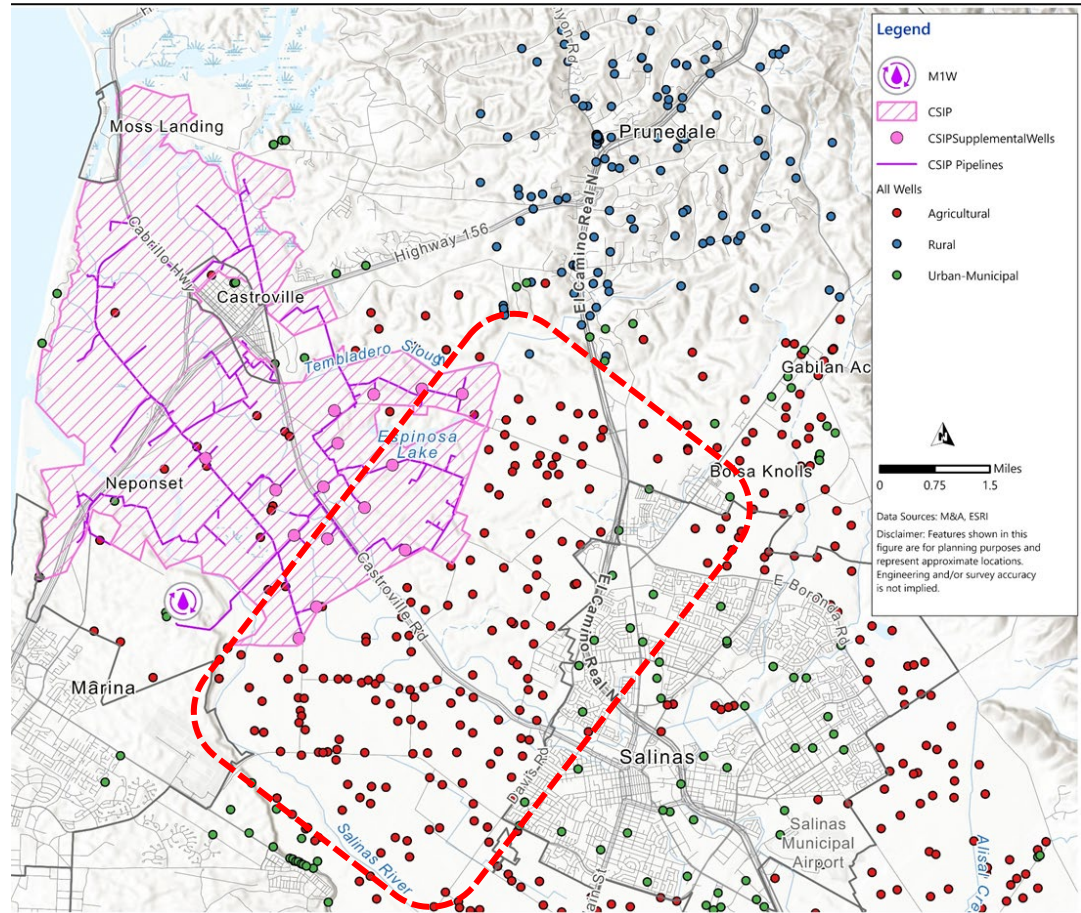
- History / Project Ideas
- Permit 11043 and new water rights
- Project concept to use Salinas River diversions to mitigate seawater intrusion
- Estimation of how much water might be diverted
- Tool for project evaluation and ranking
- Report

Phases 2 & 3 include: Modeling of streamflow and permitted and alternative points of diversion and effects relative to Sustainable Management Criteria. Modeling of at least 2 climate change scenarios.

PLANNING PHASE: New Seawater Intrusion Project (NSIP) IN PROGRESS

Overview:

- Modified description of CSIP Expansion
- Evaluation of a new agricultural water supply project to compare options for delivery of alternative supplies to areas experiencing or at risk of seawater intrusion, outside of CSIP area
- High Level Feasibility Study for New Seawater Intrusion Project (NSIP)





PLANNING PHASE: New Seawater Intrusion Project (NSIP)

Approach:

- Includes source water investigations, identification of delivery areas and irrigation demands, infrastructure needs and sizing paired with source water options, costs
- First Step: Source Water Usability Evaluation

This includes identifying different source waters that could be used for NSIP and defining volumes, quality, timing, and other issues, e.g. water rights, related with securing these supplies. Water quality evaluation and storage needs.
- Subsequent Steps: Project Configurations and Modeling; and Delivery Area Scenarios and Technical Memorandum
- Carollo Engineers to support this study, including assistance with documenting findings on potential source waters, engineering analysis of options for distribution system sizing and layouts, and cost estimates



PLANNING PHASE: New Seawater Intrusion Project (NSIP)

- Source waters to be considered may include:
 - effluent available from Monterey One Water Regional Treatment Plant currently not put to beneficial use 2) the City of Salinas industrial ponds
 - Tembladero Slough, Reclamation Ditch No.1665, and the Blanco Drain surface water related to water right applications A032263C, and A032263D currently not put to beneficial use
 - excess or available Salinas River Diversion Facility (SRDF)
 - other potential sources under investigation in SVBGSA's feasibility studies for Salinas River water as identified from the Castroville and Eastside Canals and Alternatives study related to water right permit 11043
 - treated brackish groundwater



PLANNING PHASE: Implement Deep Aquifer Study Recommendations IN PROGRESS

Agency staff participating in the **Deep Aquifers Agencies Working Group** (“Working Group”) alongside:

- Salinas Valley Basin GSA
- Monterey County Health Department
- Marina Coast Water District GSA .

Agency staff developed a Monitoring Plan for the Deep Aquifers at the request of the Working Group.

- The purpose of the Monitoring Plan is to expand monitoring, coordinate monitoring efforts across agencies with jurisdiction over the Deep Aquifers, and streamline data reporting to agencies utilizing the data.
- The Monitoring Plan is a deliverable in the Round 1 subgrant agreement.

PLANNING PHASE:

Data Expansion and SGMA Compliance IN PROGRESS

Work plans for both SGMA Round 2 grants include tasks related to expanding well registration and groundwater extraction reporting programs in the Salinas Valley Groundwater Basin

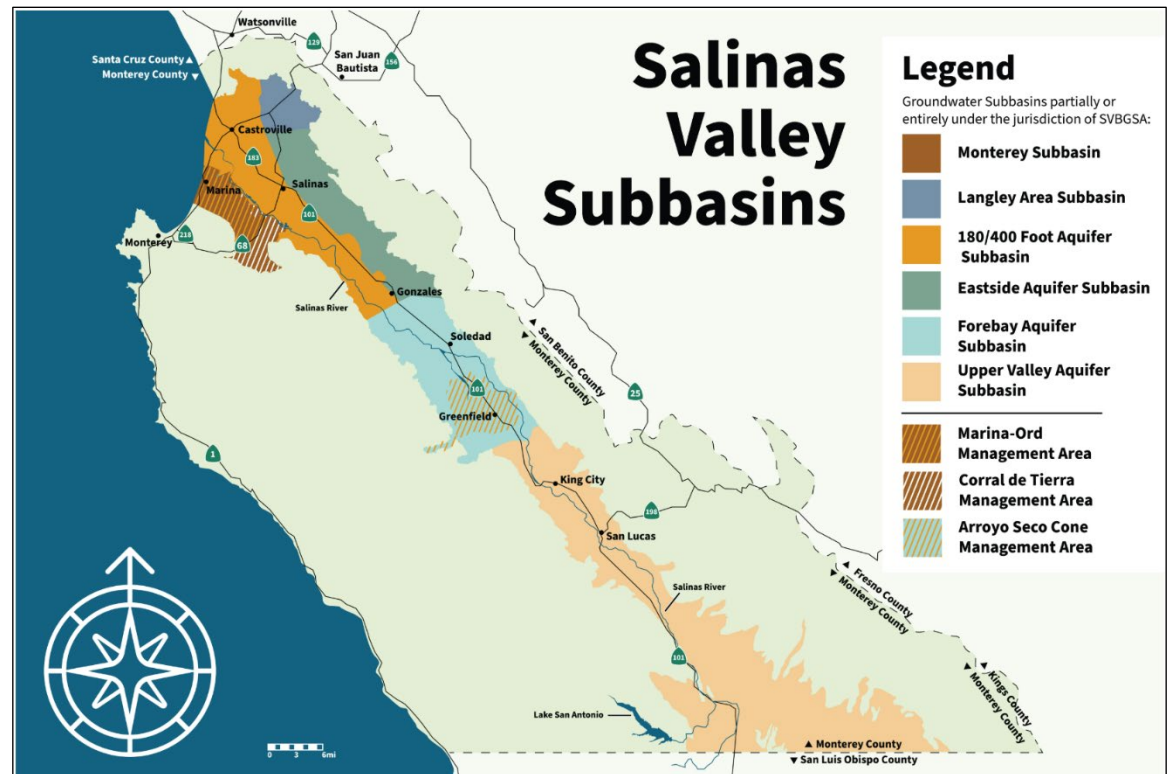


Figure source: www.svbgsa.org

Status of Round 1 Projects

Components/Budget Category		Original Sub Grant	Amendment 1	Amendment 2	Amendment 3	Total Sub Grant Amount	YTD Expenses	Sub Grant Balance	% Complete
COMPONENT 2: Dry Chlorine Scrubber Upgrade at Monterey One Water Recycled Water Plant									
(c): Implementation/Construction		1,185,000		310,000		1,495,000	1,495,000	0	100%
Component Total Amount		1,185,000				1,495,000	1,495,000	0	100%
COMPONENT 3: Castroville Seawater Intrusion Project (CSIP) Distribution System Upgrades									
(a): Component 3 Administration		5,000				5,000	2,258	2,742	45%
(b): Planning / Design / Environmental		520,000		867,000	-290,000	1,097,000	808,069	288,931	74%
(c): Implementation/Construction		1,622,000		-1,462,000	290,000	450,000	450,000	0	100%
(d): Monitoring / Assessment		3,000				3,000	199	2,801	7%
Component Total Amount		2,150,000			0	1,555,000	1,260,527	294,473	81%
COMPONENT 5: Conduct Feasibility Study on Aquifer Storage and Recovery									
(b): Planning / Design / Environmental		45,000			-8,700	36,300	36,300	0	100%
Component Total Amount		45,000			36,300	36,300	36,300	0	100%
COMPONENT 7: Compliance Reporting and Data Expansion²									
(b): Planning/Design/Environmental		0		250,000		250,000	250,000	0	100%
(c): Implementation/Construction		310,000		-250,000		60,000	60,000	0	100%
Component Total Amount		310,000				310,000	310,000	0	100%
COMPONENT 8: Implement Deep Aquifer Study Recommendation²									
(b): Planning / Design / Environmental		0			12,000	12,000	8,109	3,891	68%
Component Total Amount		0			12,000	12,000	8,109	3,891	68%
COMPONENT 9: Seawater Intrusion Feasibility Study²									
(b): Planning / Design / Environmental		0	131,000	-56,000		75,000	74,279	721	99%
Component Total Amount		0				75,000	74,279	721	99%
Subgrant Total Amount		3,690,000	3,821,000	3,480,000	3,483,300	3,483,300	3,184,216	299,084	91%



Status of Round 2 Projects

Components/Budget Category		Original Sub Grant	Amendment 1	Total Sub Grant Amount	YTD Expenses	Sub Grant Balance	% Complete
SALINAS COMPONENT 2: Data Expansion and SGMA Compliance							
(b): Environmental/Engineering/Design		200,000		200,000	75,646	124,354	38%
Component Total Amount		200,000		200,000	75,646	124,354	38%
MONTEREY COMPONENT 2: Monterey Subbasin Data Expansion and SGMA Compliance							
(b): Environmental/Engineering/Design		50,000	0	50,000	18,911	31,089	38%
Component Total Amount		50,000		50,000	18,911	31,089	38%
SALINAS COMPONENT 3: Engagement/Outreach							
(e): Engagement/ Outreach		0	150,000	150,000	14,385	135,615	10%
Component Total Amount		0	150,000	150,000	14,385	135,615	10%
Subgrant Total Amount		250,000	400,000	400,000	108,942	291,058	27%

Discussion (cont.)

- Timelines for relevant agreements:
 - Round 1 grant: activities end October 31, 2025, and reporting due by 12/31/2025
 - Round 2 grant: activities end March 31, 2026, and reporting due by April 15, 2026
 - GMP Service Agreement for March 1, 2025 to June 30, 2026 recommended by BOD and being considered by BOS to fund full year of program activities
 - SVBGSA/MCWRA MOU for additional services valid through June 15, 2026
- Other coordination efforts
 - Staff-level meetings on a regular basis
 - Both SVBGSA and MCWRA Committee participation
 - e.g.: MCWRA BMAC and SVBGSA Advisory Committee



Next Steps

- Closeout Round 1 Grant
 - Complete final CSIP Distribution System project design
 - Report out on preferred project scope and estimated costs
 - Finalize Subgrant Completion Report and Deliverables
- GMP data collection activities have commenced and reporting will be provided as available
- Coordinated updates on Management Action Progress will be presented by SVBGSA and MCWRA staff this fall/winter
 - A roadmap to decision making will be developed for actions next year