VIII A.

MEMORANDUM

TO: SLDMWA Board of Directors, Alternates

FROM: John Brodie, Water Resource Programs Manager
Joe McGahan, Regional Drainage/Westside Watershed Coalition Coordinator

DATE: June 9, 2022

RE: Activity Agreements – Staff Report for May 2022

This memorandum serves as the Staff Report for May 2022 regarding specified[1] Water Authority activities not separately addressed on the Board meeting agenda.

1. Integrated Regional Water Management (IRWM) Activity Summary

San Joaquin River Funding Area (SJRFA)

Work continues on the Proposition 1, Round 1 grant project. We are waiting for the release of the final Guidelines and Proposal Solicitation Package for Proposition 1, Round 2 funding. Under an agreement between IRWM Regions in the SJRFA, the Westside San Joaquin Region is eligible for up to $955,000 for projects in SJRFA. DWR could begin accepting applications in August.

Tulare-Kern Funding Area (TKFA)

$14.4 Million will be available for IRWM regions in the TKFA for the Proposition 1, Round 2 solicitation and application. IRWM regions in the funding area have yet to decide how the funds will be split across the region.

General Westside-San Joaquin Integrated Regional Water Management Plan (IRWMP)

SLDMWA Staff is working with project proponents in both funding areas to refresh the Opti database of projects. The updated project list will be used to inform project selection for the Proposition 1, Round 2 solicitations in late summer/early fall.

Staff also continues work on a project to engage with Disadvantaged Communities (DACs) in the Westside San Joaquin Region and learn about each community's priorities and funding needs that align with the objectives of the WSJ IRWMP. The development of tailored funding matrices will help DACs be ready for grant and other funding opportunities that align with their needs and priorities.

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[1] For the sake of completeness, this includes those Activity Agreements that have been approved by the Board of Directors, but not yet signed by all interested members and/or participants (i.e., the Los Vaqueros Expansion Project Activity Agreement, the Exchange Contractors 2019-2023 Transfer Program Activity Agreement, and the Westside-San Joaquin Integrated Regional Water Management Activity Agreement).

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2. Sustainable Groundwater Management Activity (SGMA) Activity Summary

Northern and Central Delta-Mendota Regions

The Northern and Central Management Committees directed staff to continue using Zoom for public participation meetings. Committee members are required to attend meetings in-person for purposes of achieving a quorum and to vote on action items unless other Brown Act provisions are followed.

April 30 was the deadline for collecting Spring Water Level readings across the Subbasin. Collected data must be uploaded to the DWR SGMA portal by the end of June.

General SGMA Activities

GSP groups are waiting for a grant agreement from DWR for $7.6 million in grant funding awarded to the Subbasin SGMA Round 1 Implementation funding. Received funds will go toward items including implementing groundwater recharge projects, amending Groundwater Sustainability Plans (GSPs), and filling data gaps. Agreements are expected to be finalized in May.

A subcommittee of Delta-Mendota Subbasin representatives continues its series of meetings with DWR SGMA program staff to discuss the incomplete determination given to the Delta-Mendota Subbasin's six GSPs. The 23 GSAs must make necessary changes, approve, and adopt the revised Plans by July 20, 2022.

SLDMWA staff is working with local project sponsors to maximize the use of grant funds from the Proposition 1/68 GSP Development/Implementation Grant. The last day for reimbursement eligible work was April 30, 2022. The final invoice must be submitted by June 30, 2022.

3. Drainage Activity Summary

Grassland Basin Drainage Management Steering Committee Activity Summary

- *Mitigation Subcommittee*

  The mitigation subcommittee overseas the expenditure of the $435,000 that was provided to Grassland Water District for use to augment wetland water supplies after 2019 when the Grassland Bypass Project was meeting water quality objectives. To date activities have centered on rehabilitating wells to augment supplies.

- *Mud Slough Restoration Project*

  The Water Authority adopted the CEQA for the project in December 2021. There were comments received on the project from the State Board, California Department of Fish and Wildlife (CDFW) and a group of commenters led by the Planning and Conservation League (PCL). Discussion are being held with the permitting agencies (SWRCB and CDFW) on final project details.

- *Grassland Water District Monitoring Wells*
  A total of 10 observation wells are planned to be installed to monitor groundwater levels and quality within the San Joaquin River Improvement Project and in a portion of Grassland Water District to the north. To date, five of the observation wells have been installed. The remaining five were delayed due to permitting issues from Merced County and landowner issues, which are in the process of being addressed.

- *Compliance Monitoring*
  Work is continuing to comply with the monitoring requirement of the 2019 Revised WDRs and with the December 2019 Use Agreement. This monitoring includes particulate sediment and fish collection and analysis to continue to analyze possible impacts of very infrequent discharge from the Grassland Bypass Project to Mud Slough and the San Joaquin River.

- *Other ongoing activities*
  Continue to review GBD invoices, prepare annual monitoring reports, support for ongoing litigation and data management and management of the Third Party Group for the Grassland Drainage Area Coalition to implement the Irrigated Lands Regulatory Program. Work includes participation in activities for groundwater protection values.

San Joaquin Valley Drainage Authority Activity Summary

- *General*
  Continue management of the Westside San Joaquin River Watershed Coalition to comply with the Irrigated Lands Regulatory Program. Distribute by mail paperwork requirements for 2021 reporting year. Follow up calls and emails were answered to assist farmers in completing their paperwork requirements. Manage field monitoring program and provide update of the management plan to the Regional Board. Review invoices from consultants and prepare letters to admin staff. Continue to update membership database. Prepare for annual grower meetings including district meetings. Enter farmer evaluation and nitrogen summary reports into coalition database. Meet with members to answer program questions.

- *Groundwater Protection Formula, Values and Targets*
  Coalitions are developing a methodology to establish nitrogen loading values and targets as required by the WDRs. The coalitions have calculated current values by township (36 square miles) and will propose interim targets and longer-term final targets for each township. If a township does not meet the approved GWP Targets, Coalitions will need to amend their Groundwater Quality Management Plan to include new management practices designed to meet the township's GWP Target. If a Coalition has elected to comply with the state's Nitrogen Permitting Strategy through the Management Zone alternative, the Coalition will have significantly more time to meet final GWP Targets.

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- *Management Zones*

  The Central Valley Basin Plan's Nitrate Permitting Strategy divided the Central Valley into Priority 1, Priority 2 and non-Prioritized basins. The Westside Coalition is in Priority 2. Priority 1 basins have developed and begun to implement their nitrate programs. The Regional Board is expected to issue notices to comply to Priority 2 basins in early 2023. The Westside San Joaquin River Watershed Coalition is in a Priority 2 basin and therefore is expected to receive a Notice to Comply from the Regional Board in 2023. The Westside Coalition is working to develop a plan to help form a Management Zone to comply with the requirements. The Management Zone will incorporate all dischargers of nitrate to groundwater, including municipal wastewater plants, dairies and industrial dischargers. The Management Zone will need to identify domestic wells that are high in nitrate and develop and plan to provide alternative water.

- *Salt Control Program*

  Phase I of the Salt Control Program involves the development of a Prioritization and Optimization Study (P&O Study). Work on the P&O Study is being done under the direction of the CV-SALTS executive committee. Currently, consultants are compiling data in order to characterize current salinity conditions of both surface and groundwater across the Central Valley. Phase I of the Salt Control Program is expected to last years.

- *Prop 84 Real Time Program Grant*

  Work continues on upgrading various monitoring stations and gathering monitoring data. $457,000 of grant billed to date with $420,000 remaining. Remaining work includes maintaining the stations and modeling to determine and manage salt discharges to the San Joaquin River.

VIII.B.

Westside San Joaquin River Watershed Coalition
2021 Paperwork Status Update for Del Puerto WD as of 6/13/2022

Survey Type	recvd	total	pct recvd
INMPSR	88	130	68%

IDNo	Member Name	FE Req?	INMPSR Req?	2021 INMPSR Status	2021 paperwork req. met?
25004A	Williams Tr./Klein Family LTD Ptp,TIC	no	yes	not recvd	INMPSR missing
25006A	R.C. Capital Investments, LLC	no	yes	not recvd	INMPSR missing
25008A	Borges & Machado	no	yes	not recvd	INMPSR missing
25008C	Borges, Frank J.	no	yes	not recvd	INMPSR missing
25010A	McWilliams, Les	no	yes	not recvd	INMPSR missing
25011A	Fantozzi, Paul	no	yes	not recvd	INMPSR missing
25016A	Hamlow Farms	no	yes	not recvd	INMPSR missing
25019A	Salazar Ranches	no	yes	not recvd	INMPSR missing
25028B	Thoming Farms, LLC	no	yes	not recvd	INMPSR missing
25040A	Gonzalez Farms	no	yes	not recvd	INMPSR missing
25055A	Singh, Rajinder et ux.	no	yes	not recvd	INMPSR missing
25069A	Balam Farms	no	yes	not recvd	INMPSR missing
25069B	Iyer Farms	no	yes	not recvd	INMPSR missing
25069C	Meena Farms PTP	no	yes	not recvd	INMPSR missing
25069D	SATYAM Farms	no	yes	not recvd	INMPSR missing
25069E	Lax Iyer Farms	no	yes	not recvd	INMPSR missing
25073A	JKB Development, Inc.	no	yes	not recvd	INMPSR missing
25079A	Longhorn Enterprises	no	yes	not recvd	INMPSR missing
25085A	Brooks, Mark	no	yes	not recvd	INMPSR missing
25092A	Sabatino, Murphy Jr.	no	yes	not recvd	INMPSR missing
25095A	Del Don, Lee et al	no	yes	not recvd	INMPSR missing
25095B	Del Don, Leroy III	no	yes	not recvd	INMPSR missing
25095D	Maring, J&T 1997 Trust	no	yes	not recvd	INMPSR missing
25095E	Maring, J&T Family Ptp, L.P.	no	yes	not recvd	INMPSR missing
25095F	Maring, Jon E.	no	yes	not recvd	INMPSR missing
25095G	Maring, Zachary	no	yes	not recvd	INMPSR missing
25104A	Sunflower Ranch Co.	no	yes	not recvd	INMPSR missing
25105A	E & C Farms, LLC c/o Justin Reeves	no	yes	not recvd	INMPSR missing
25117A	JT Farms #2	no	yes	not recvd	INMPSR missing
25118A	Gallo, Robert J. et al	no	yes	not recvd	INMPSR missing
25122A	L & L Investments, LLC	no	yes	not recvd	INMPSR missing
25134A	JEM-G2, L.P.	no	yes	not recvd	INMPSR missing
25144A	Sardar Ranch	no	yes	not recvd	INMPSR missing
25145A	NISRA Farms, LLC	no	yes	not recvd	INMPSR missing
25147A	A & T Ranches	no	yes	not recvd	INMPSR missing
25152A	Sandhu, Gurmail	no	yes	not recvd	INMPSR missing
25158A	Ace Orchards, LLC	no	yes	not recvd	INMPSR missing
25159A	Escobar Properties LLC et al	no	yes	not recvd	INMPSR missing
25160A	Garlic City Properties, LLC	no	yes	not recvd	INMPSR missing
25163A	Sun Valley Orchards, LLC	no	yes	not recvd	INMPSR missing
25164A	Corral Hallow Cattle Co.	no	yes	not recvd	INMPSR missing
25165A	T.C.A Properties, Inc.	no	yes	not recvd	INMPSR missing

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State of California Executive Department Executive Order N-7-22

- Effective March 28, 2022
- Due to the duration and severity of the drought
- Necessary to protect public health and safety
- Emergency regulations meant to prevent, hinder or delay the effects of drought conditions.

VIII.C.

Stanislaus County Well Permitting and Groundwater Ordinances

- Stanislaus County Ordinance Code Chapter 9.36
- Well construction requirements
  - Focused on water quality protection, specifies minimum setbacks, construction standards. Stanislaus County Groundwater Well Siting and Construction Guidelines approved by the Board of Supervisors on April 5, 2022.

Stanislaus County Groundwater Ordinance Code Chapter 9.37

- Unsustainable Groundwater Extraction is Prohibited to Prevent adverse environmental and economic impacts.
  - Increased groundwater overdraft
  - Land subsidence
  - Uncontrolled movement of inferior water quality through aquifers
  - Lowering of groundwater levels
  - Increased groundwater degradation

Executive Order N-7-22 numbers 9.a and 9.b includes additional requirements for County well permit evaluations

- Domestic Wells that provide less than two acre-feet per year and wells that provide groundwater exclusively to public water supply systems are not subject to the order.

Section 9. "To protect health, safety, and the environment during this drought emergency, a county, a city, or other public agency shall not:

a. "Approve a permit for a new groundwater well or for alteration of an existing well in a basin subject to the Sustainable Groundwater Management Act and classified as a medium or high-priority without first obtaining written verification from a Groundwater Sustainability Agency, managing the basin or area of the basin where the well is proposed to be located that groundwater extraction by the proposed well would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan adopted by that Groundwater Sustainability Agency and would not decrease the likelihood of achieving a sustainability goal for the basin covered by such a plan;" or

b. "Issue a permit for a new groundwater well or for altercation of an existing well without first determining that extraction of groundwater from the proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.

- The Department of Water Resources has provided clarification that all **new, replacement, reconstruction, and repair** well permits are **required to comply** with the provisions of the Order for as long as it is in effect.

- In order to comply with Section 9.a of the executive order, the Stanislaus County Department of Environmental Resources is sending a 30 day review request form to the Groundwater Sustainability Agency to request a written consistency determination pursuant to Section 9.a. **This was previously not required for replacement wells of the same capacity because they were allowed an exemption pursuant to Section 9.37.045 without further review.**

- The County is developing a screening procedure for staff to use to evaluate the well proposals likelihood to cause significant well interference of existing nearby wells and potential subsidence that would adversely impact or damage nearby infrastructure with the intent to facilitate expedited project review while lessening the applicant's burden and cost where possible.

In House Screening Procedure

- The screening procedure uses appropriate nomographs for specific aquifer areas and aquifer zones to identify a necessary minimum setback screening distance between the proposed well project and existing nearby wells.

- Significant subsidence has not been observed in Stanislaus County. It has been determined that only the evaluation of well projects in the lower aquifer in the Corcoran Clay Area will need to be completed to identify wells that would adversely impact or damage critical nearby infrastructure.

- If minimum setback screening distances can not be maintained, the applicant may provide an analysis from a qualified professional with acceptable criteria to determine if the well project would be likely to cause subsidence that would adversely impact or damage nearby infrastructure.

- If the screening procedure indicates that it is likely for the well project to cause likely significant well interference or subsidence of critical infrastructure prior to further review the applicant must submit a supplemental evaluation and application that meets the requirements of the County's Discretionary Well Permitting Program prior to further review.

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Activity	Sustainability Indicator				
	Chronic Lowering of Groundwater Levels	Reduction of Groundwater Storage	Degraded Water Quality	Land Subsidence	Depletions of Interconnected Surface Water
	groundwater elevations in each principal aquifer.		may demonstrate decreased concentrations of certain constituents of concern).	piezometric head and resulting in reduced risk of inelastic land subsidence.	
Sites Reservoir	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, thereby reducing declines in groundwater elevations in each principal aquifer.	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing declines in groundwater storage.	Increased reliability of surface water supplies (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing degradation of groundwater quality particularly for constituents of concern that are correlated with groundwater levels (where increased groundwater levels may demonstrate decreased concentrations of certain constituents of concern).	Increased water supply reliability (directly and indirectly) and operational flexibility can offset groundwater pumping from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	This project does not address this sustainability indicator.
Los Vaqueros Expansion Phase 2	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, thereby reducing declines in groundwater elevations in each principal aquifer.	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing declines in groundwater storage.	Increased reliability of surface water supplies (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing degradation of groundwater quality particularly for constituents of concern that are correlated with groundwater levels (where increased groundwater levels may demonstrate decreased concentrations of certain constituents of concern).	Increased water supply reliability (directly and indirectly) and operational flexibility can offset groundwater pumping from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	This project does not address this sustainability indicator.
Tier 3 Management Actions					
Groundwater Extraction Fee with Land Use Modifications	Collection of groundwater extraction fees incentivizes the use of supplemental or alternative water supplies where fees can also fund activities/projects that increase groundwater supplies, such as groundwater recharge, thus reducing declines in groundwater elevations.	Collection of groundwater extraction fees incentivizes the use of supplemental or alternative water supplies where fees can also fund activities/projects that increase groundwater supplies, such as groundwater recharge, thereby offsetting groundwater pumping and reducing declines in groundwater storage.	Collection of groundwater extraction fees incentivizes the use of supplemental or alternative water supplies where fees can also fund activities/projects that reduce degradation of groundwater quality, such as the proper construction and destruction of wells to prevent groundwater contamination.	Collection of groundwater extraction fees incentivizes the use of supplemental or alternative water supplies that offset Lower Aquifer pumping, reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	Collection of groundwater extraction fees can incentivize the use of supplemental or alternative water supplies over groundwater pumping from areas where surface water-groundwater interaction is known or suspected to occur, thus reducing the risk of depletions of interconnected surface water.
City of Patterson Reduced Groundwater Use Portfolio	Increased use of water supplies other than groundwater and easier implementation of water supply projects offsets groundwater pumping, thus reducing declines in groundwater elevations.	Increased use of water supplies other than groundwater and easier implementation of water supply projects offsets groundwater pumping and reduces declines in groundwater storage.	This management action does not address this sustainability indicator.	Increased use of other water supplies and easier implementation of water supply projects can offset groundwater pumped from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	This management action does not address this sustainability indicator.
Rotational Fallowing of Crop Lands	Rotational fallowing of crop lands can temporarily reduce agricultural water use, thereby increasing groundwater levels.	Rotational fallowing of crop lands can temporarily reduce agricultural water uses, thereby reducing declines in groundwater storage.	Rotational fallowing of crop lands can temporarily reduce agricultural water use, thereby improving groundwater quality.	Rotational fallowing of crop lands can temporarily reduce agricultural water use, thereby reducing the risk of inelastic land subsidence.	This management action does not address this sustainability indicator.

Activity	Sustainability Indicator				
	Chronic Lowering of Groundwater Levels	Reduction of Groundwater Storage	Degraded Water Quality	Land Subsidence	Depletions of Interconnected Surface Water
			reduced groundwater quality degradation associated with declining groundwater levels.	piezometric head, resulting in a reduced risk of inelastic land subsidence.	
Little Salado Creek Groundwater Recharge and Flood Control Basin	Increased groundwater recharge, directly contributing to increased groundwater levels in the Upper Aquifer.	Increased groundwater recharge, directly contributing to increased storage in the Upper Aquifer.	Contributes to increased groundwater levels through increased recharge, reducing groundwater quality degradation associated with declining groundwater levels.	This project does not address this sustainability indicator.	Increased groundwater recharge reduces the potential for groundwater levels to decline and negatively impact interconnected surface water flows.
Patterson Irrigation District Groundwater Bank and/or Flood-MAR-type Project	Increased groundwater recharge, directly contributing to increased groundwater levels in the Upper Aquifer.	Increased groundwater recharge, directly contributing to increased storage in the Upper Aquifer.	Contributes to increased groundwater levels through increased recharge, reducing groundwater quality degradation associated with declining groundwater levels.	This project does not address this sustainability indicator.	Increased groundwater recharge reduces the potential for groundwater levels to decline and negatively impact interconnected surface water flows.
West Stanislaus Irrigation District Lateral 4-South Recapture and Recirculation Reservoir	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater storage.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations potentially leading to reduced groundwater quality degradation associated with declining groundwater levels.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in Lower Aquifer piezometric head, resulting in a reduced risk of inelastic land subsidence.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations and associated potential impacts to interconnected surface water.
Ortigalita Creek Groundwater Recharge and Recovery Project	Increased groundwater recharge, directly contributing to increased groundwater levels in the Upper Aquifer.	Increased groundwater, directly contributing to increased storage in the Upper Aquifer.	Contributes to increased groundwater levels through increased recharge, reducing groundwater quality degradation associated with declining groundwater levels.	This project does not address this sustainability indicator.	Increased groundwater recharge reduces the potential for groundwater levels to decline and negatively impact interconnected surface water flows.
Tier 2 Management Actions					
Develop Program to Incentivize Use of Surface Water and Reduce Groundwater Demand	Incentivizing the use of surface water supplies offsets groundwater pumping from each principal aquifer, thus reducing declines in groundwater elevations in each principal aquifer.	Incentivizing the use of surface water supplies offsets groundwater pumping and reduces declines in groundwater storage.	Groundwater quality could improve by incentivizing the use of surface water supplies to offset groundwater pumping, particularly for constituents of concern that are correlated with groundwater levels (where increased groundwater levels may demonstrate decreased concentrations of certain constituents of concern).	Incentivizing the use of surface water supplies can offset groundwater pumped from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	Incentivizing the use of surface water can offset groundwater pumped from areas where surface water-groundwater interaction is known or suspected to occur, thus reducing the risk of depletions of interconnected surface waters.
Tier 3 Projects					
Pacheco Reservoir Expansion	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, thereby reducing declines in groundwater elevations in each principal aquifer.	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing declines in groundwater storage.	Increased reliability of surface water supplies (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing degradation of groundwater quality particularly for constituents of concern that are correlated with groundwater levels (where increased groundwater levels may demonstrate decreased concentrations of certain constituents of concern).	Increased water supply reliability (directly and indirectly) and operational flexibility can offset groundwater pumping from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	This project does not address this sustainability indicator.
Raising San Luis Reservoir	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, thereby reducing declines in	Increased water supply reliability (directly and indirectly) and operational flexibility offsets groundwater pumping, reducing declines in groundwater storage.	Increased reliability of surface water supplies and operational flexibility offsets groundwater pumping, reducing degradation of groundwater quality particularly for constituents of concern that are correlated with groundwater levels (where increased groundwater levels	Increased water supply reliability (directly and indirectly) and operational flexibility can offset groundwater pumping from the Lower Aquifer, thus reducing declines in Lower Aquifer	This project does not address this sustainability indicator.

Activity	Sustainability Indicator				
	Chronic Lowering of Groundwater Levels	Reduction of Groundwater Storage	Degraded Water Quality	Land Subsidence	Depletions of Interconnected Surface Water
Lower Aquifer Pumping Rules for Minimizing Subsidence	Provides an additional buffer to keep groundwater levels above minimum thresholds at representative monitoring locations in the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and avoiding undesirable results for this sustainability indicator.	Reduced declines in Lower Aquifer piezometric head as a result reduces overall groundwater extractions from the Lower Aquifer.	This management action does not address this sustainability indicator.	Providing an additional buffer to keep groundwater levels above the minimum thresholds at representative monitoring locations for Chronic Lowering of Groundwater Levels reduces declines in Lower Aquifer piezometric head, resulting in reduced risk of inelastic land subsidence.	This management action does not address this sustainability indicator.
Maximize Use of Other Water Supplies	Increased use of water supplies other than groundwater offsets groundwater pumping from each principal aquifer, thus reducing declines in groundwater elevations in each principal aquifer.	Increased use of water supplies other than groundwater offsets groundwater pumping and reduces declines in groundwater storage.	Groundwater quality could improve with the increased use of other water supplies to offset groundwater pumping, particularly for constituents of concern that are correlated with groundwater levels (where increased groundwater levels may demonstrate decreased concentrations of certain constituents of concern).	Increased use of other water supplies can offset groundwater pumped from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	Increased use of other water supplies can offset groundwater pumped from areas where surface water-groundwater interaction is known or suspected to occur, thus reducing the risk of depletions of interconnected surface waters.
Increasing GSA Access to and Input on Well Permits	Input from GSAs regarding new well locations may avoid undesirable results related to this sustainability indicator within the GSA's jurisdictional area, where groundwater extractions can also be metered or measured.	Input from GSAs regarding new well locations may avoid undesirable results related to this sustainability indicator within the GSA's jurisdictional area, where groundwater extractions can also be metered or measured.	Input from GSAs regarding new well locations may aid in avoiding areas where groundwater pumping is expected to cause increased concentrations of constituents of concern.	Input from GSAs regarding new well locations may also include proposed depth and screened intervals for a new well, where such input may reduce the number of new wells pumping from the Lower Aquifer resulting in reduced risk of inelastic land subsidence.	Input from GSAs regarding new well locations may aid in avoiding installation of wells located where pumping has the potential to cause depletions of interconnected surface water.
Drought Contingency Planning in Urban Areas	Drought contingency planning may result in the ability to prepare for and respond to water shortage during times of drought by increasing efficiency of use of available groundwater resources or seeking alternative or supplemental water supply sources, thus reducing declines in groundwater elevations in each principal aquifer.	Drought contingency planning may result in the ability to prepare for and respond to water shortage during times of drought by increasing efficiency of use of available groundwater resources or seeking alternative or supplemental water supply sources, thus reducing declines in groundwater storage.	This management action does not address this sustainability indicator.	Drought contingency planning may result in the ability to prepare for and respond to water shortages during times of drought by utilizing other water supplies as opposed to continued pumping from the Lower Aquifer, thus reducing declines in Lower Aquifer piezometric head and resulting in reduced risk of inelastic land subsidence.	This management action does not address this sustainability indicator.
Fill Data Gaps	Filling in data gaps related to this sustainability indicator will aid in refining water budgets, improve the representative monitoring network, and provide additional data for setting/refining numeric minimum thresholds and measurable objectives.	Filling in data gaps related to this sustainability indicator will aid in refining water budgets, improve the representative monitoring network, and provide additional data for setting/refining numeric minimum thresholds and measurable objectives.	Filling in data gaps related to this sustainability indicator will aid in refining water budgets, improve the representative monitoring network, and provide additional data for setting/refining numeric minimum thresholds and measurable objectives.	Filling in data gaps related to this sustainability indicator will aid in refining water budgets, improve the representative monitoring network, and provide additional data for setting/refining numeric minimum thresholds and measurable objectives.	Filling in data gaps related to this sustainability indicator will aid in refining water budgets, improve the representative monitoring network, and provide additional data for setting/refining numeric minimum thresholds and measurable objectives.
Tier 2 Projects					
Del Puerto Canyon Reservoir Project	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater storage.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations potentially leading to	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in Lower Aquifer	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations and associated potential impacts to interconnected surface water.

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Table 7-2. Summary of How Northern & Central Delta-Mendota Region GSP Projects and Management Actions Address Sustainability Indicators

Activity	Sustainability Indicator				
	Chronic Lowering of Groundwater Levels	Reduction of Groundwater Storage	Degraded Water Quality	Land Subsidence	Depletions of Interconnected Surface Water
Tier 1 Projects					
Los Banos Creek Recharge and Recovery Project	Increased groundwater recharge; directly contributing to increased groundwater levels in the Upper Aquifer.	Increased groundwater recharge; directly contributing to increased storage in the Upper Aquifer.	Contributes to increased groundwater levels through increased recharge, reducing groundwater quality degradation associated with declining groundwater levels.	This project does not address this sustainability indicator.	Increased groundwater recharge reduces the potential for groundwater levels to decline and negatively impact interconnected surface water flows.
Orestimba Creek Recharge and Recovery Project	Increased groundwater recharge during wet periods; directly contributing to increased groundwater levels in the Upper Aquifer. Provides an alternative source of water during dry/critically dry periods for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations.	Increased groundwater recharge; directly contributing to increased storage in the Upper Aquifer.	Contributes to increased groundwater levels through increased recharge during wet periods, reducing groundwater quality degradation associated with declining groundwater levels. Provides an alternative source of water during dry periods for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations that potentially lead to reduced groundwater quality degradation.	As water demand is met by water in the Upper Aquifer, reliance on Lower Aquifer pumping decreases, which results in a reduced risk of inelastic land subsidence.	Increased groundwater recharge reduces the potential for groundwater levels to decline and negatively impact interconnected surface water flows.
North Valley Regional Recycled Water Program (NVRRWP) – Modesto and Early Turlock Years	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater storage.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations potentially leading to reduced groundwater quality degradation associated with declining groundwater levels.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in Lower Aquifer piezometric head, resulting in a reduced risk of inelastic land subsidence.	Provide an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations and associated potential impacts to interconnected surface water.
City of Patterson Percolation Ponds for Stormwater Capture and Recharge	Increased groundwater recharge; directly contributing to increased groundwater levels in the Upper Aquifer.	Increased groundwater recharge; directly contributing to increased storage in the Upper Aquifer.	Contributes to increased groundwater levels through increased recharge, reducing groundwater quality degradation associated with declining groundwater levels.	Increased recharge in the Upper Aquifer will allow the City to utilize this aquifer in lieu of pumping the Lower Aquifer, which will result in reduced risk of inelastic land subsidence.	Increased groundwater recharge reduces the potential for groundwater levels to decline and negatively impact interconnected surface water flows.
Kaljian Drainwater Reuse Project	Provides a new source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations.	Provides new source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater storage.	Provides a new source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations potentially leading to reduced groundwater quality degradation associated with declining groundwater levels.	Provides a new source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in Lower Aquifer piezometric head, resulting in a reduced risk of inelastic land subsidence.	Provides a new source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations and associated potential impacts to interconnected surface water.
West Stanislaus Irrigation District Lateral 4-North Recapture and Recirculation Reservoir	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater storage.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations potentially leading to reduced groundwater quality degradation associated with declining groundwater levels.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in Lower Aquifer piezometric head, resulting in a reduced risk of inelastic land subsidence.	Provides an alternative source of water for irrigation, thereby offsetting groundwater pumping and reducing declines in groundwater elevations and associated potential impacts to interconnected surface water.
Revision to Tranquillity Irrigation District Lower Aquifer Pumping	Modifies the way in which Lower Aquifer groundwater is extracted, reducing declines in Lower Aquifer piezometric head.	Modifies the way in which Lower Aquifer groundwater is extracted, reducing declines in Lower Aquifer piezometric head and overall groundwater extractions from the Lower Aquifer.	This project does not address this sustainability indicator.	Modifies the way in which Lower Aquifer groundwater is extracted, reducing declines in Lower Aquifer piezometric head resulting in a reduced risk of inelastic land subsidence.	This project does not address this sustainability indicator.
Tier 1 Management Actions					

VIII.C.1.

Anthea Hansen

From: Jochimsen, Maria@DWR <Maria.Jochimsen@water.ca.gov>
Sent: Tuesday, June 7, 2022 9:06 AM
To: Anthea Hansen
Subject: RE: Del Puerto Water District ANL Items

Hi Anthea,
I've got a first draft done but Kelley still reviewing it. Hopefully she'll have that done in the next day or so and I'll be able to get it to you by the end of the week. Sorry about the delay.
Thanks,

Maria Jochimsen
Environmental Scientist
DWR - Division of Regional Assistance
Work Phone: (916) 902-7423
Maria.Jochimsen@water.ca.gov

SAVE OUR WATER
saveourwater.com

From: Anthea Hansen <ahansen@delpuertowd.org>
Sent: Tuesday, June 7, 2022 8:54 AM
To: Jochimsen, Maria@DWR <Maria.Jochimsen@water.ca.gov>
Subject: FW: Del Puerto Water District ANL Items

Hi Maria,

How are things coming with the Agreement?

Sincerely,
Anthea

Anthea G. Hansen
General Manager
Del Puerto Water District
PH 209-892-4470/FAX 209-892-4469

From: Anthea Hansen <>
Sent: Tuesday, May 17, 2022 9:46 AM
To: sgwp@water.ca.gov
Cc: Jochimsen, Maria@DWR <Maria.Jochimsen@water.ca.gov>
Subject: Del Puerto Water District ANL Items

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Anthea G. Hansen
General Manager
Del Puerto Water District
PH 209-892-4470/FAX 209-892-4469

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VIII. C.2

Table 7-1. Northern & Central Delta-Mendota Region GSP Projects and Management Actions

Tier	Category	Project / Management Action	Project Proponent
Tier 1	Projects	Los Banos Creek Recharge and Recovery Project	San Luis Water District
		Orestimba Creek Recharge and Recovery Project	Del Puerto Water District
		North Valley Regional Recycled Water Program (NVRRWP) – Modesto and Early Turlock Years	Del Puerto Water District
		City of Patterson Percolation Ponds for Stormwater Capture and Recharge	City of Patterson
		Kaljian Drainwater Reuse Project	San Luis Water District
		West Stanislaus Irrigation District Lateral 4-North Recapture and Recirculation Reservoir	West Stanislaus Irrigation District
		Revision to Tranquillity Irrigation District Lower Aquifer Pumping	Tranquillity Irrigation District
	Management Actions	Lower Aquifer Pumping Rules for Minimizing Subsidence	N/A
		Maximize Use of Other Water Supplies	N/A
		Increasing GSA Access to and Input on Well Permits	N/A
		Drought Contingency Planning in Urban Areas	N/A
		Fill Data Gaps	N/A
Tier 2	Projects	Del Puerto Canyon Reservoir Project	Del Puerto Water District
		Little Salado Creek Groundwater Recharge and Flood Control Basin	Stanislaus County
		Patterson Irrigation District Groundwater Bank and/or Flood-Managed Aquifer Recharge (MAR)-type Project	Patterson Irrigation District
		West Stanislaus Irrigation District Lateral 4-South Recapture and Recirculation Reservoir	West Stanislaus Irrigation District
		Ortigalita Creek Groundwater Recharge and Recovery Project	San Luis Water District
	Management Action	Develop Program to Incentivize Use of Surface Water and Reduce Groundwater Demand	N/A
Tier 3	Projects	Pacheco Reservoir Expansion	Santa Clara Valley Water District
		Raising San Luis Reservoir	U.S. Bureau of Reclamation (USBR)
		Sites Reservoir	Sites Project Authority
		Los Vaqueros Expansion Phase 2	Contra Costa Water District
	Management Actions	Groundwater Extraction Fee with Land Use Modifications	N/A
		City of Patterson Reduced Groundwater Use Portfolio	City of Patterson
		Rotational Fallowing of Crop Lands	N/A

N/A – Not applicable; no specific project proponent identified. In most cases, management action will be implemented by a single GSA, all of the GSAs, and/or a proponent/manager for the management action will be identified prior to implementation.

Blank