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State Water Resources Control Board

Division of Water Rights

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Edmund G. Brown Jr.
Governor

APPLICATION NO. _____
(Leave blank)

UNDERGROUND STORAGE SUPPLEMENT TO APPLICATION TO APPROPRIATE WATER BY PERMIT

1. State amount of water to be diverted to underground storage from each point of diversion in item 3b of form APP.

- a. Maximum Rate of diversions (1) see attachd (2) _____ (3) _____ cfs
- b. Maximum Annual Amount (1) 1,000,000 (2) _____ (3) _____ acre-feet

2. Describe any works used to divert to offstream spreading grounds or injection wells not identified in item 7 of form APP.

Not applicable.

3. Describe spreading grounds and identify its location and number of acres or location of upstream and downstream limits if onstream.

The proposed spreading grounds (recharge basins) are shown in the attached map to this Underground Storage Supplement, and a listing of the size and capacity is included in the attachment to this supplement, as well as Attachment 4 of the application.

4. State depth of groundwater table in spreading grounds or immediate vicinity:
see attached feet below ground surface on _____ 19 __ measured at a point located within the _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____ B&M

5. Give any historic maximum and or minimum depths to the groundwater table in the area.

Location see map Maximum _____ feet below ground surface on _____ (date)
Location _____ Maximum _____ feet below ground surface on _____ (date)

6. Describe proposed spreading operation.

Water is delivered to large basin sites for infiltration. One of the projects includes deliver to existing agricultural lands for onsite recharge amongst the vineyard or orchard.

7. Describe location, capacity and features of proposed pretreatment facilities and/or injected wells.

Pretreatment is not typical for recharge basins in the area. Some of the facilities will include separate sedimentation basins before deliver to recharge basins.

8. Reference any available engineering reports, studies, or data on the aquifer involved. DWR Bulletin 118 covers the place of use area. There are many other local and regional reports and studies that describe the groundwater conditions in the place of use, including several groundwater management plans.

9. Describe underground reservoir and attach a map or sketch of its location. A map is attached.

10. State estimated storage capacity of underground reservoir.

The area included in the place of use covers multiple groundwater basins with varying aquifer conditions and some confining layers and a large unconfined aquifer. Water levels are well below ground surface elevations in the area and there is significant storage capacity beyond the amount of this application

11. Describe existing use of the underground storage reservoir and any proposed change in its use.

Most of the place of use is a conjunctive use basin, relying on both surface water and groundwater to meet demands. The proposed project will help improve the underground storage reservoir that is critical overdrafted and has been heavily depended upon during drought periods.

12. Describe the proposed method and location of measurement of water placed into and withdrawn from underground storage.

All proposed basins will include measurement of diversions by flowmeter at the point of delivery. Water pumped from the aquifer will be measured where agency wells are utilized, and estimated in accordance with SGMA requirements for areas where wells are not metered.

Additional copies of this form and water right information can be obtained at www.waterrights.ca.gov.

Underground Storage Supplement Additional Information

Question 1a. Table 1 included with this Underground Storage Supplement provides a list of each of the current planned or proposed projects and which diversion point will be utilized, along with the maximum diversion rate for that project. The attached map shows the proposed project locations. Existing recharge basins within the place of use will also be used when capacity is available in those facilities. Additional projects may be identified as the applicants and the Groundwater Sustainability Agencies in the area develop projects to comply with SGMA.

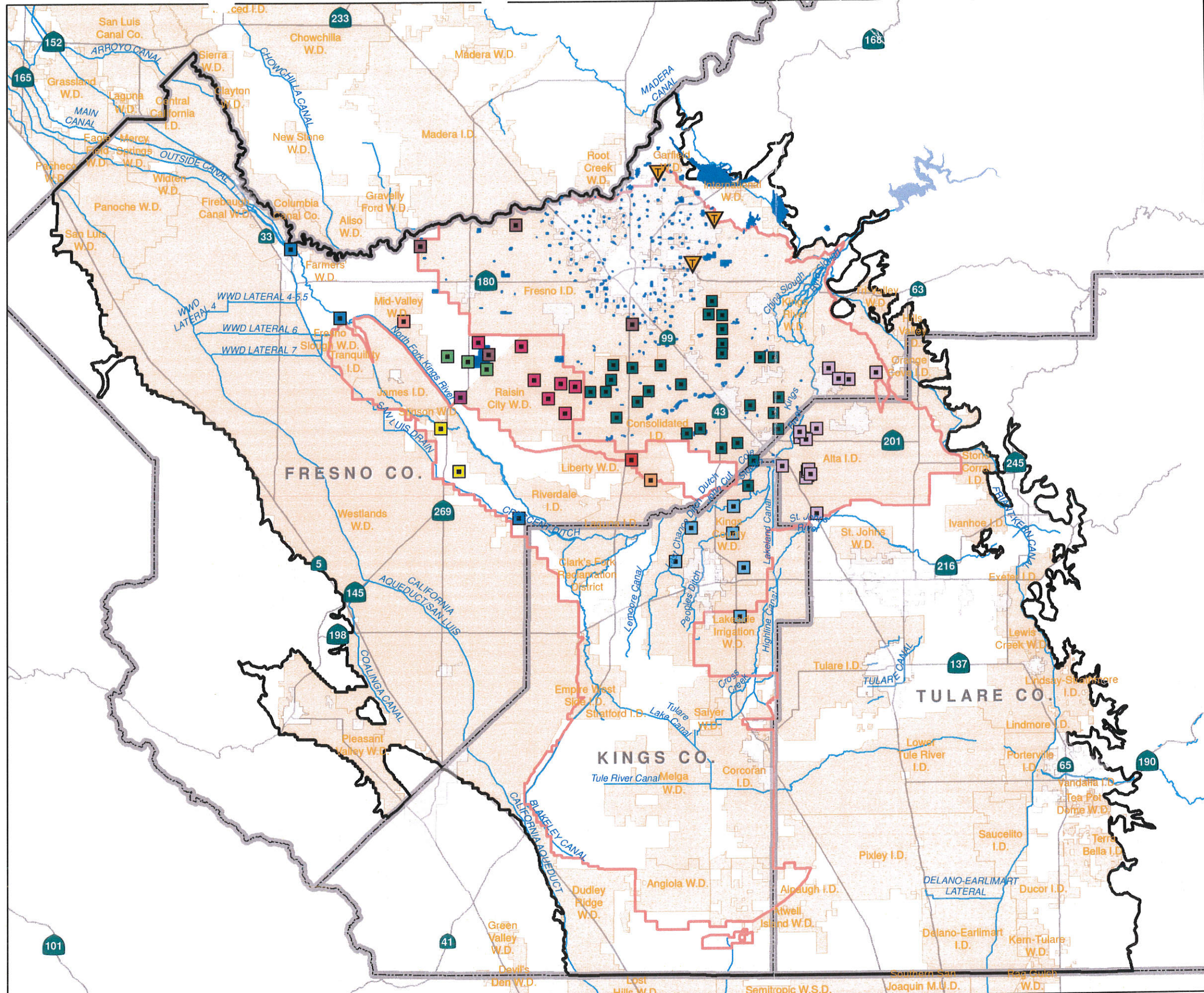
Question 1b. The maximum total diversion to underground storage will be 1,000,000 acre-feet per year. The total maximum amount diverted annually for each project is identified in Table 1 assuming 365 days of supply, which rarely occurs with floodwater.

Question 4. A depth to groundwater map was prepared for Spring 2012 and Fall 2016 using water level reading data from DWR. With the recent drought, most of the place of use area has groundwater levels at their lowest in history. For most of the area, maximum water levels occurred several decades ago, as overdraft has caused a general decline in groundwater levels for decades throughout most of the region.

Table 1 - Proposed Project List

Project Name	Type of Project	Estimated Area (Acres)	Estimated Percolation Rate (ft/day)	Calculated Volume (AF/day)	Max Annual Volume (AF)	Diversion Flowrate (cfs)	Point of Diversion #	Point of Diversion Name	Exist or Proposed
CID In-District Recharge Projects	Groundwater Recharge	2,000	1.00	2,000	730,000	1,000	5	CID	Exist
CID Little Texas Area Recharge Project	Groundwater Recharge	500	1.00	500	182,500	250	P1	Cole Slough	Proposed
FID In-District Recharge Projects	Groundwater Recharge	500	1.00	500	182,500	250	3,4	FID	Exist
AID In-District Recharge Projects	Groundwater Recharge	600	1.00	600	219,000	300	2	Alta	Exist
KCWD In-District Recharge Projects	Groundwater Recharge	600	0.25	150	54,750	75	25,26	Peoples, Last Chance	Exist
RCWD In-District Recharge Projects	Groundwater Recharge	2,400	0.50	1,200	438,000	600	4, 5, 30, P5	CID, FID, Liberty Mill Race, RCWD	Exist / Proposed
MVWD In-District Recharge Projects	Groundwater Recharge	1,000	0.50	500	182,500	250	P4	Mid-Valley	Proposed
LID Recharge Site 11	Groundwater Recharge	70	1.00	70	25,550	35	27	Liberty	Exist
North Fork Kings GSA Elkhorn Property	Groundwater Recharge	40	1.00	40	14,600	20	27	Liberty	Exist
Terranova On-Farm Flood Capture and McMullin Recharge Site	Groundwater Recharge / In-Lieu Recharge	4,000	0.25	1,000	365,000	500	P2	Terranova	Proposed
JID Distributed Recharge, Bypass and Lassen Projects	Groundwater Recharge / In-Lieu Recharge	800	0.50	400	146,000	200	4, P3	FID, JID McMullin	Exist / Proposed
KRCD Coehlo and Gagnani Wetlands Recharge	Groundwater Recharge	1,200	0.25	300	109,500	150	39, 40	Crescent, Stinson	Exist
WWD Crescent Canal Project	In-Lieu Recharge				146,000	200	39	Crescent	Exist
WWD Lateral 6/7 Project	In-Lieu Recharge				124,100	170	P10	Mendota Pool	Proposed
WWD Lower DMC Pumback Project	In-Lieu Recharge				365,000	500	P11	Mendota Pool	Proposed
			Total =	7,260	3,285,000	4,500			

Attachment Underground Storage Supplement



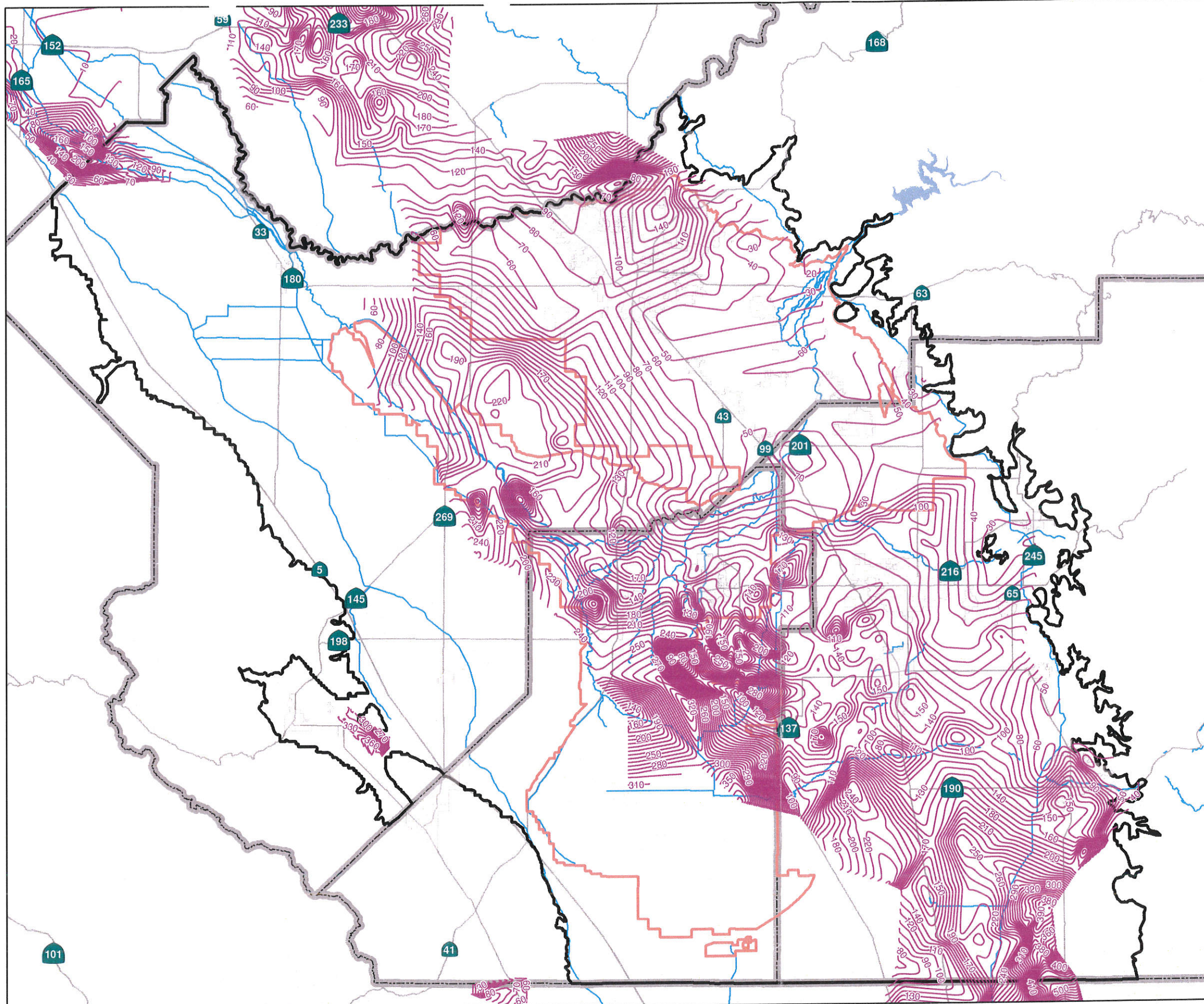
- Proposed AID Project
- Proposed FID Project
- Proposed JID Project
- Proposed KCWD Project
- Proposed KRCD Project
- Proposed LID Project
- Proposed MVWD Project
- Proposed NFKGSA Project
- Proposed TNR Project
- Proposed WWD Project
- Proposed RCWD Project
- Proposed CID Project
- ▽ Surface Water Treatment Plant Or Expansion
- Existing Recharge Basin
- Place of Use
- Kings River Water Association Service Area Boundary
- County
- Irrigation/Water District
- City Limits

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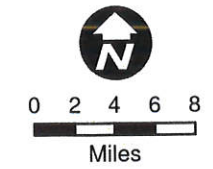
0 2 4 6 8
 Miles

Depth to Groundwater DWR GIC (Groundwater Information Center)

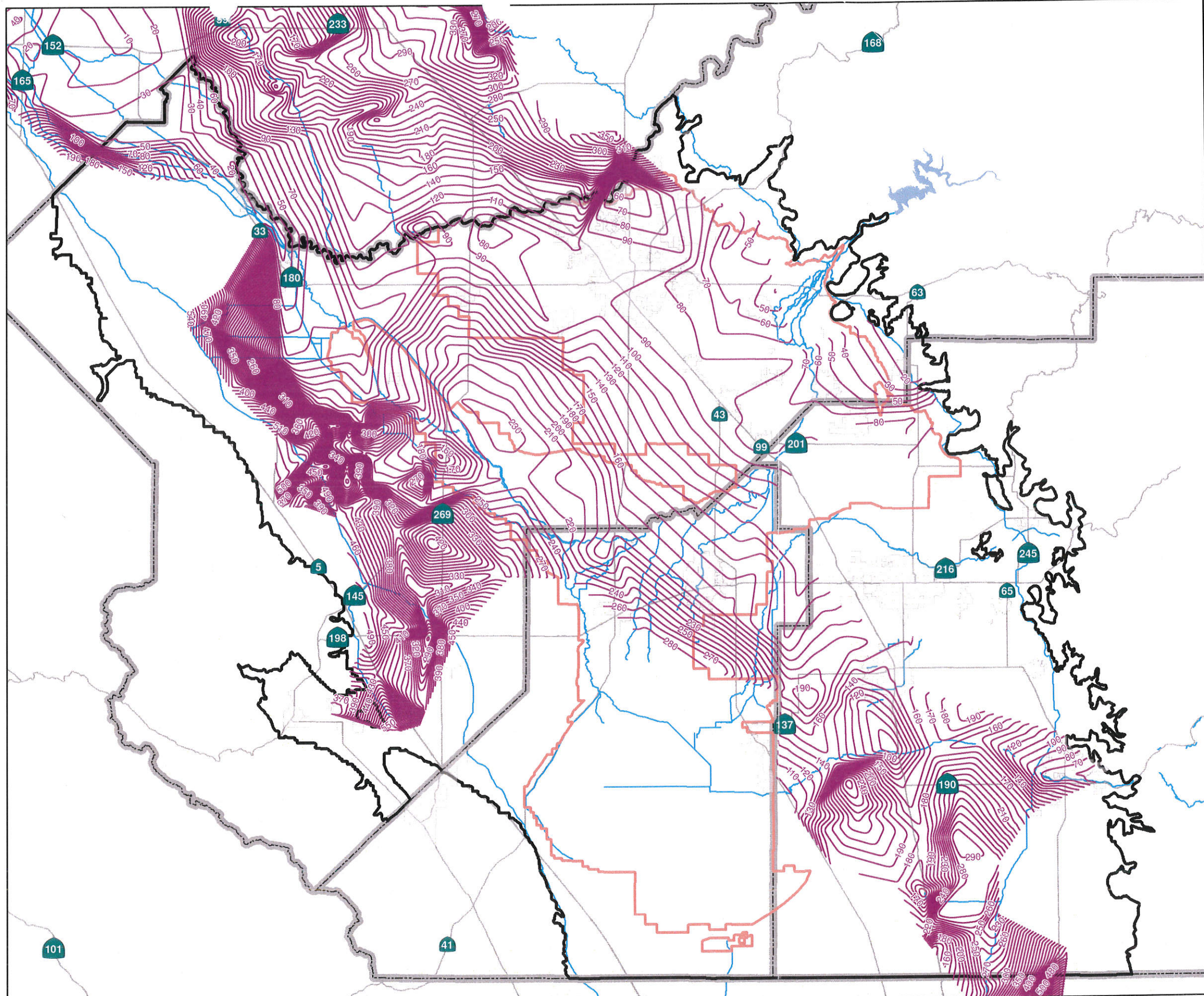
- Spring 2012 DTW Contours (ft)
- Place of Use
- Kings River Water Association Service Area Boundary
- County
- City Limits



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Depth to Groundwater DWR GIC (Groundwater Information Center)



-  Fall 2016 DTW
-  Place of Use
-  Kings River Water Association Service Area Boundary
-  County
-  City Limits

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