STATE OF CALIFORNIA
EDMUND G. BROWN JR., *Governor*

State of California • Natural Resources Agency
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
Kenneth A. Harris Jr., *State Oil and Gas Supervisor*
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CALIFORNIA
Water Boards

State Water Resources Control Board

November 9, 2017

Mr. David Albright, Manager
Ground Water Office
United States Environmental Protection Agency—Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901
Albright.David@epa.gov

NOVEMBER 2017 UPDATE ON COMPLIANCE REVIEW

Dear Mr. Albright:

On August 22, 2017 the Division of Oil, Gas, and Geothermal Resources (Division) and the State Water Resources Control Board (State Water Board) (collectively, the State) provided the United States Environmental Protection Agency (US EPA) with the most recent update on the State's compliance status on class II injection wells identified to be permitted for injection into potentially non-exempt underground sources of drinking water (USDW). As we agreed, the State will continue to provide US EPA with periodic updates on our progress to complete the aquifer exemption (AE) proposals identified in our January 17, 2017 letter.

This letter and enclosure provide a status update on the State's progress on AE proposals. There are a total of 28 AE proposals that the State has initially determined to have merit and would address the Safe Drinking Water Act compliance. Of those 28 AE proposals, the US EPA has already approved six, another two have been submitted to US EPA for approval and three have received concurrence from the State Water Board. For each of the remaining AE proposals, the State Water Board has identified additional data and analysis needed in order to issue concurrence. The Division is working with operators to collect and develop that additional data and/or analysis. Estimated completion dates for the remaining proposals are listed in the enclosed table.

While we continue to make progress on the AE proposals, the Division continues to take the necessary steps to ensure permanent cessation of injection into wells where data to support an exemption is not currently available. Of the wells of concern identified in the previous updates, the Division has confirmed that injection has ceased in all but five of the wells and the injection lines are disconnected. For four of the remaining wells, the Division is in the process of evaluating data indicating that the injection zone might not be a USDW. The operator of the fifth well is in the process of recompleting the well to inject into a non-USDW.

In addition to verifying that injection into these wells is not presently occurring, the Division is taking steps to rescind approvals to inject into a USDW that are outside the scope of an advancing AE proposal. The Division issued letters to 22 operators of such wells seeking voluntary

relinquishment of their permit to inject into those wells. If an operator does not respond by executing a declaration of voluntary relinquishment, then the Division will issue orders revoking the operator's approval to inject into the wells. This is an important step to ensure that injection will not resume in the future unless there has been a substantial State review and approval following US EPA approval of an appropriate AE proposal.

We believe that our progress continues to demonstrate the State's commitment to protect public health and the environment while avoiding unnecessary disruption of oil and gas production. If you have any questions or wish to discuss this matter further, please contact Mr. Ken Harris at (916) 323-1777.

Sincerely

Kenneth A. Harris Jr.,
State Oil and Gas Supervisor
Division of Oil, Gas, and Geothermal Resources

Jonathan Bishop
Chief Deputy Director
State Water Resources Control Board

Enclosure 1

AQUIFER EXEMPTION PROPOSAL REVIEW STATUS (11/8/2017)

Field	Name of Formation(s) / Unit(s) Proposed for Exemption	Injection Types	Minimum TDS of Area Proposed for Exemption (mg/L)	Maximum TDS of Area Proposed for Exemption (mg/L)	Hydrocarbon Production	Federal Criteria (40 CFR 146.4)	Preliminary Concurrence Letter to DOGGR[1]	Final Concurrence Letter to DOGGR	Status
Arroyo Grande	Dollie Sands	SC, SF, WD	980	2,800	Yes	(a), (b)(1)	8/7/2015	2/8/2016	DOGGR submitted proposal to US EPA on 2/8/2016. Proposal is being revised based on US EPA feedback.
Round Mountain	Jewett Sand	SC, SF	2,800	2,800	Yes	(a), (b)(1)	4/28/2016	11/29/2016	Approved by US EPA 2/9/2017.
	Pyramid Hill Sand	SC, SF, WF	1,000	2,400	Yes				
	Vedder	SC, SF, WF	1,200	4,000	Yes				
	Walker	WD	1,400	2,400	Yes				
Fruitvale	Santa Margarita	WD	5,630		Eastern Portion	(a), (c)	6/15/2016	11/7/2016	Approved by US EPA 2/9/2017.
Tejon	Transition Zone	WD	2,231	3,317	Yes	(a), (b)(1)	7/22/2016	11/30/2016	Approved by US EPA 2/9/2017.
Mount Poso	Pyramid Hill Sand	SF, WF	1,730		Yes	(a), (b)(1)	10/4/2016	2/8/2017	Approved by US EPA 4/17/2017.
	Vedder	SF, WF	2,520		Yes				
San Ardo/McCool Ranch	Lombardi Sands	SF, WD	4,500		Yes	(a), (c)	12/1/2016	9/13/2017	DOGGR submitted proposal to US EPA on 9/28/2017. EPA has provided questions about the proposal.
	Aurignac Sands	SC, WF, WD	4,842		Yes				
Lynch Canyon - Lanigan Sand	Lanigan Sand	SC, SF	3,439	4,658	Yes	(a), (b)(1)	2/3/2017		DOGGR is preparing public comment summaries and responses.
Sespe	Basal Sespe	WD	5,700	33,000	Yes	(a), (b)(1)	2/3/2017		Public hearing was held on 10/24/2017. Public comment period ends 11/8/2017.
Jasmin	Cantleberry Sands Member, Vedder Fm.	SF, SC, WD	380	410	Yes	(a), (b)(1)	2/7/2017	7/13/2017	Approved by US EPA 9/28/2017.
Kern Front	Vedder	WD	3,500	10,700	No	(a), (c)	2/23/2017	7/13/2017	Approved by US EPA 8/3/2017.
Elk Hills - Phase 1	Tulare	WD	4,500	20,000	No	(a), (c)	6/13/2017		DOGGR is preparing public comment summaries and responses.
Elk Hills - Phase 2	Tulare	WD	4,500	20,000	No	(a), (c)	6/13/2017		DOGGR is preparing public comment summaries and responses.
Poso Creek	Basal Etchegoin and Chanac	SC, SF	260	680	Yes	(a), (b)(1)	8/17/2017		Public comment period is open and a hearing is scheduled for 11/29/2017.
	Basal Etchegoin	SC, SF	480	1,300	Yes				
McKittrick	Tulare	SF, SC, WD	1,412	34,685	Yes	(a), (b)(1)	*November 2017*		Proposal is under review by Water Boards.
Jacalitos and Coalinga	Temblor	SF, WF	3,024	12,730	Yes	(a), (b)(1)	*November 2017*		Proposal is under review by Water Boards.
Kern Front	Upper Chanac	SC, SF, WD	320	350	Yes	(a), (b)(1)	*November 2017*		Proposal is under review by Water Boards.

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North Belridge	Tulare	SC, SF, WF ,WD	8,055	22,540	Yes	(a), (b)(1)	*November 2017*		Proposal is under review by Water Boards.
Cymric	Tulare	SF, WD	1,100	14,100	Southeastern Portion	(a), (b)(1)	*December 2017*		Proposal is under review by Water Boards.
Kern River	Kern River	SC, WD	120	1,200	Yes	(a), (b)(1)	*December 2017*		Proposal is under review by Water Boards.
Lost Hills - Phase 1	Tulare	SC, SF	3,789	11,135	Yes	(a), (b)(1)	*December 2017*		Proposal is under review by Water Boards.
Midway-Sunset	Tulare	SC, SF, WD	3,588	30,337	Northern Portion, Lower Tulare	(a), (c)	*December 2017*		Proposal is under review by Water Boards.
	Potter Sands	SC, SF, WD	1,550	22,347	Eastern Portion				
	Spellacy Sands	SC, SF, WD	1,200	38,491	Eastern Portion				
	Miocene Shale	SC, SF, WF, WD	3,000	26,628	Yes				
	Lower Antelope Sands	WD	4,296	24,740	No				
South Belridge	Tulare	SF, WD	3,498	32,788	No	(a), (b)(1)	*December 2017*		Proposal is under review by Water Boards.
Edison - Phase 1	Pyramid Hills and Vedder	WF	1,110	20,775	Yes	(a), (b)(1)	*December 2017*		Proposal is under review by Water Boards.
	Wicker Sands, Fruitvale Fm.	WD	3,300	3,300	Yes				
	Santa Margarita	SC, SF	440	820	Yes				
Edison - Phase 2	Chanac	SC, SF	570	2,000	Yes	(a), (b)(1)	*January 2018*		Proposal is under review by Water Boards.
Holser	Holser-Nuevo Zone, Modelo Fm.	WD	6,000	9,000	Yes	(a), (b)(1)	*January 2018*		DOGGR is preparing responses to Water Boards comments and questions regarding proposal.
Cat Canyon	Sisquoc	SC, SF, WF, WD	6,100	26,000	Yes	(a), (b)(1)	*March 2018*		DOGGR is preparing responses to Water Boards comments and questions regarding proposal. Proposal is being revised to include the Monterey Formation.
Lynch Canyon - Santa Margarita	Santa Margarita	WD	3,700 (estimated)	3,845 (estimated)	No	(a), (c)	*April 2018*		DOGGR is preparing responses to Water Boards comments and questions regarding proposal.
Lompoc	Monterey	WD	4,700	12,100	Yes	(a), (c)	*May 2018*		DOGGR is preparing responses to Water Boards comments and questions regarding proposal.

ACRONYMS:
Enhanced Oil Recovery (EOR), Cyclic Steam (SC), Steam Flood (SF), Water Flood (WF), Waste Disposal (WD), Division of Oil, Gas, and Geothermal Resources (DOGGR), To Be Determined (TBD), milligrams per liter (mg/L),

[1] Italics indicate estimated dates of submittal based on prior reviews and are subject to change.