



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*
801 K Street • MS 18-05
Sacramento, CA 95814
(916) 445-9686 • FAX (916) 319-9533



State Water Resources Control Board

August 16, 2018

Mr. David Albright
United States Environmental Protection Agency—Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

AUGUST 2018 UPDATE ON COMPLIANCE REVIEW

Dear Mr. Albright:

On May 23, 2018 the Division of Oil, Gas, and Geothermal Resources (DOGGR) and the State Water Resources Control Board (State Water Board) (collectively, the State) provided the United States Environmental Protection Agency (US EPA) with an 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). The State will continue to provide US EPA with periodic updates on our review of aquifer exemption (AE) proposals.

DOGGR continues to work in coordination with the State Water Board and the appropriate regional water quality control boards (collectively, Water Boards) to develop AE proposals. In our previous update, we noted that there were 28 AE proposals the State had determined to have merit. This number has since increased to 30 because two of the packages were split into two, to better address the applicable aquifer exemption criteria. The following summarizes the current status of these 30 AE proposals.

- Nine proposals are complete and have been approved by the US EPA;
- Five proposals have been submitted to US EPA for approval (San Ardo and McCool Ranch, Kern Front Chanac, Cymric, McKittrick, and Arroyo Grande);
- One proposal is being readied for submission to US EPA (Lynch Canyon – Lanigan Sand);
- Three proposals have been made available to the public for comment and the State is in the process of responding to comments (Lost Hills Phase I, North Belridge, and Sespe);
- Two are currently being made available for public comment (Edison Phase 1 and Jacalitos-Coalinga);
- Three proposals are being prepared for public comment (Edison Phase 2, South Belridge, and Midway-Sunset (deeper formations)); and
- Seven proposals are under review by the Water Boards or being supplemented by DOGGR.

DOGGR and the Water Boards are in regular communication regarding the seven proposals under review. Estimated completion dates for these are noted in the attached table.

DOGGR continues to address existing approvals for wells to inject into USDWs where data to support an aquifer exemption is not currently available, and has secured voluntary relinquishment from almost all the operators. While DOGGR is continuing to work on resolving the approval status of a few wells, no injection is occurring in any of these wells.

In mid-June, DOGGR invited the Ground Water Protection Council (GWPC) to conduct a peer review of its UIC program. The peer review is designed to provide DOGGR with recommendations for program improvement. The GWPC has completed its on-site portion of the peer review, and will be providing DOGGR with its findings and final recommendations next spring.

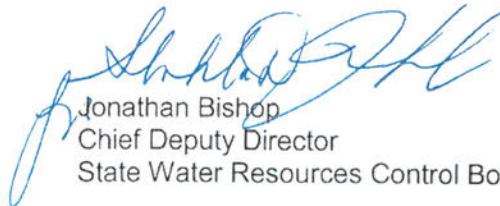
Also, in an effort to improve compliance of its rules, regulations, and statutes, DOGGR established an Enforcement Unit and joined with the Department of Conservation's Legal Office to establish the Office of Enforcement. This office is comprised of dedicated Legal and technical staff who will be working closely with DOGGR and the Districts to ensure compliance with the regulations and statutes and will be responsible for taking enforcement actions in a manner that is fair, firm, consistent, and transparent across the state.

We believe that our progress continues to demonstrate the State's commitment to protecting 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, or Ken.Harris@conservation.ca.gov or Mr. Jonathan Bishop at (916) 341-5619 or Jonathan.Bishop@waterboards.ca.gov.

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 (8/8/2018)

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)	Contains Hydrocarbons	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; 11/28/2017 (Revised Package)	2/8/2016; 5/22/2018 (Revised Package)	Submitted to US EPA 5/25/2018.
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 and McCool Ranch	Lombardi Sands	SF, WD	4,500		Yes	(a), (c)	12/1/2016	9/13/2017	Submitted 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	1/17/2018	DOGGR is preparing the final submittal for US EPA.
Sespe	Basal Sespe	WD	5,700	33,000	Yes	(a), (b)(1)	2/3/2017		DOGGR is preparing public comment summaries and responses.
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 8/30/2017.
Elk Hills - Phase 1	Tulare	WD	4,500	20,000	No	(a), (c)	6/13/2017	1/31/2018	Approved by US EPA 3/29/2018.
Elk Hills - Phase 2	Tulare	WD	4,500	20,000	No	(a), (c)	6/13/2017	1/31/2018	Approved by US EPA 3/29/2018.

AQUIFER EXEMPTION PROPOSAL REVIEW STATUS (8/8/2018)

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)	Contains Hydrocarbons	Federal Criteria (40 CFR 146.4)	Preliminary Concurrence Letter to DOGGR ¹	Final Concurrence Letter to DOGGR	Status
Poso Creek	Basal Etchegoin and Chanac	SC, SF	260	680	Yes	(a), (b)(1)	8/17/2017	1/17/2018	Approved by US EPA 5/4/2018.
	Basal Etchegoin	SC, SF	480	1,300	Yes				
Cymric	Tulare	SF, WD	1,100	14,100	Yes	(a), (b)(1)	11/9/2017	6/6/2018	Submitted to US EPA on 7/12/2018.
McKittrick	Tulare	SF, SC, WD	1,412	34,685	Yes	(a), (b)(1)	11/9/2017	6/6/2018	Submitted to US EPA on 7/12/2018.
Kern Front	Upper Chanac	SC, SF, WD	320	350	Yes	(a), (b)(1)	1/25/2018	6/4/2018	Submitted to US EPA 06/20/2018.
Edison - Phase 1	Pyramid Hills and Vedder	WF	1,110	20,775	Yes	(a), (b)(1)	3/7/2018		DOGGR is preparing public comment summaries and responses.
	Wicker Sands, Fruitvale Fm.	WD	3,300	3,300	Yes				
	Santa Margarita	SC, SF	440	820	Yes				
Lost Hills - Phase 1	Tulare	SC, SF	3,789	11,135	Yes	(a), (b)(1)	3/19/2018		DOGGR is preparing public comment summaries and responses.
North Belridge	Tulare	SC, SF, WF, WD	8,055	22,540	Yes	(a), (b)(1)	3/19/2018		DOGGR is preparing public comment summaries and responses.
Jacalitos and Coalinga	Temblor	SF, WF	3,024	12,730	Yes	(a), (b)(1)	5/14/2018		The public comment period is open and a hearing is scheduled for 8/15/2018.
South Belridge - Western Expansion Area	Tulare	SF, WD	3,498	32,788	Yes	(a), (b)(1)	6/6/2018		DOGGR is preparing public comment and hearing notice documents.
Midway-Sunset - Deeper Formations	Potter Sands	SC, SF, WD	3,010	22,347	Yes	(a), (c)	6/19/2018		DOGGR is preparing public comment and hearing notice documents.
	Spellacy Sands	SC, SF, WD	3,117	38,491	Yes				
	Miocene Shale	SC, SF, WF, WD	3,000	26,628	Yes				
	Lower Antelope Sands	WD	4,296	24,740	Yes				
Edison - Phase 2	Chanac	SC, SF	570	2,000	Yes	(a), (b)(1)	7/3/2018		DOGGR is preparing public comment and hearing notice documents.

AQUIFER EXEMPTION PROPOSAL REVIEW STATUS (8/8/2018)

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)	Contains Hydrocarbons	Federal Criteria (40 CFR 146.4)	Preliminary Concurrence Letter to DOGGR ¹	Final Concurrence Letter to DOGGR	Status
Cat Canyon	Monterey	SC, SF, WF, WD	6,333	12,314	Yes	(a), (b)(1)	2018		DOGGR is preparing responses to Water Boards comments and questions regarding proposal. Date of preliminary concurrence subject to receipt of the additional information.
	Sisquoc	SC, SF, WF, WD	6,333	22,007	Yes				
Holser	Holser-Nuevo Zone, Modelo Fm.	WD	6,000	9,000	Yes	(a), (b)(1)	2018		DOGGR is preparing responses to Water Boards comments and questions regarding proposal. Date of preliminary concurrence subject to receipt of the additional information.
Kern River	Kern River	SC, WD	120	1,200	Yes	(a), (b)(1)	2018		DOGGR is preparing additional information to support proposal. Date of preliminary concurrence subject to receipt of the additional information.
Lompoc	Monterey	WD	4,700	12,100	Yes	(a), (b)(1)	2018		DOGGR is preparing responses to Water Boards comments and questions regarding proposal. Date of preliminary concurrence subject to receipt of the additional information.
Lynch Canyon - Santa Margarita	Santa Margarita	WD	2,800	3,845 (estimated)	No	(a), pending	2018		DOGGR is preparing responses to Water Boards comments and questions regarding proposal. Date of preliminary concurrence subject to receipt of the additional information.
Midway-Sunset - Tulare	Tulare	SC, SF, WD	3,588	30,337	Northern Portion, Lower Tulare	(a), (c)	2018		DOGGR is preparing additional information to support proposal. Date of preliminary concurrence subject to receipt of the additional information.
South Belridge - Eastern Expansion Area	Tulare	SF, WD	3,498	32,788	No	(a), (c)	2018		DOGGR is preparing additional information to support proposal. Date of preliminary concurrence subject to receipt of the additional information.

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.