

Mercury and Radionuclides

7 November 2017

Food Safety Expert Panel Meeting

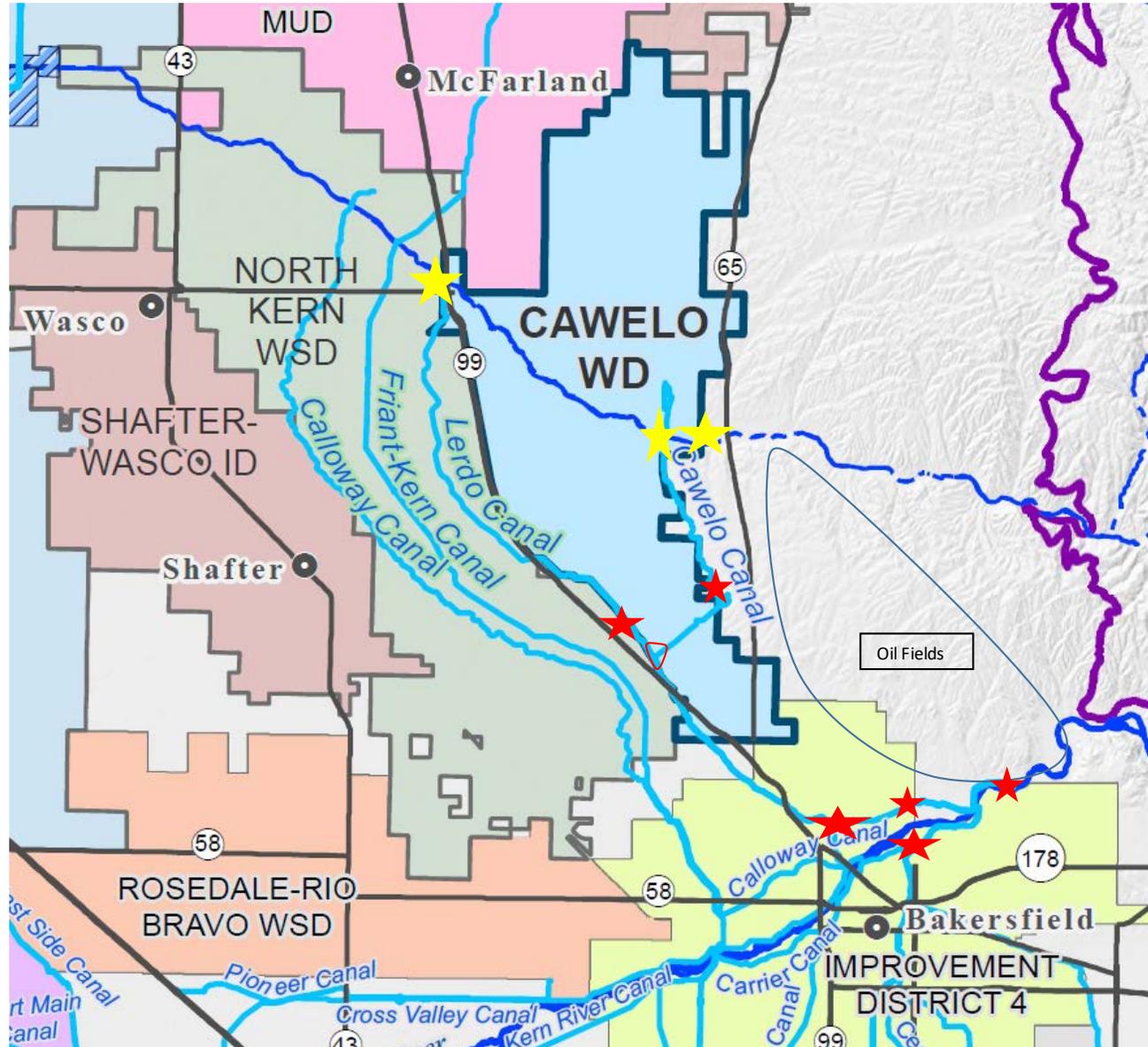
Central California Regional Water Quality Control Board



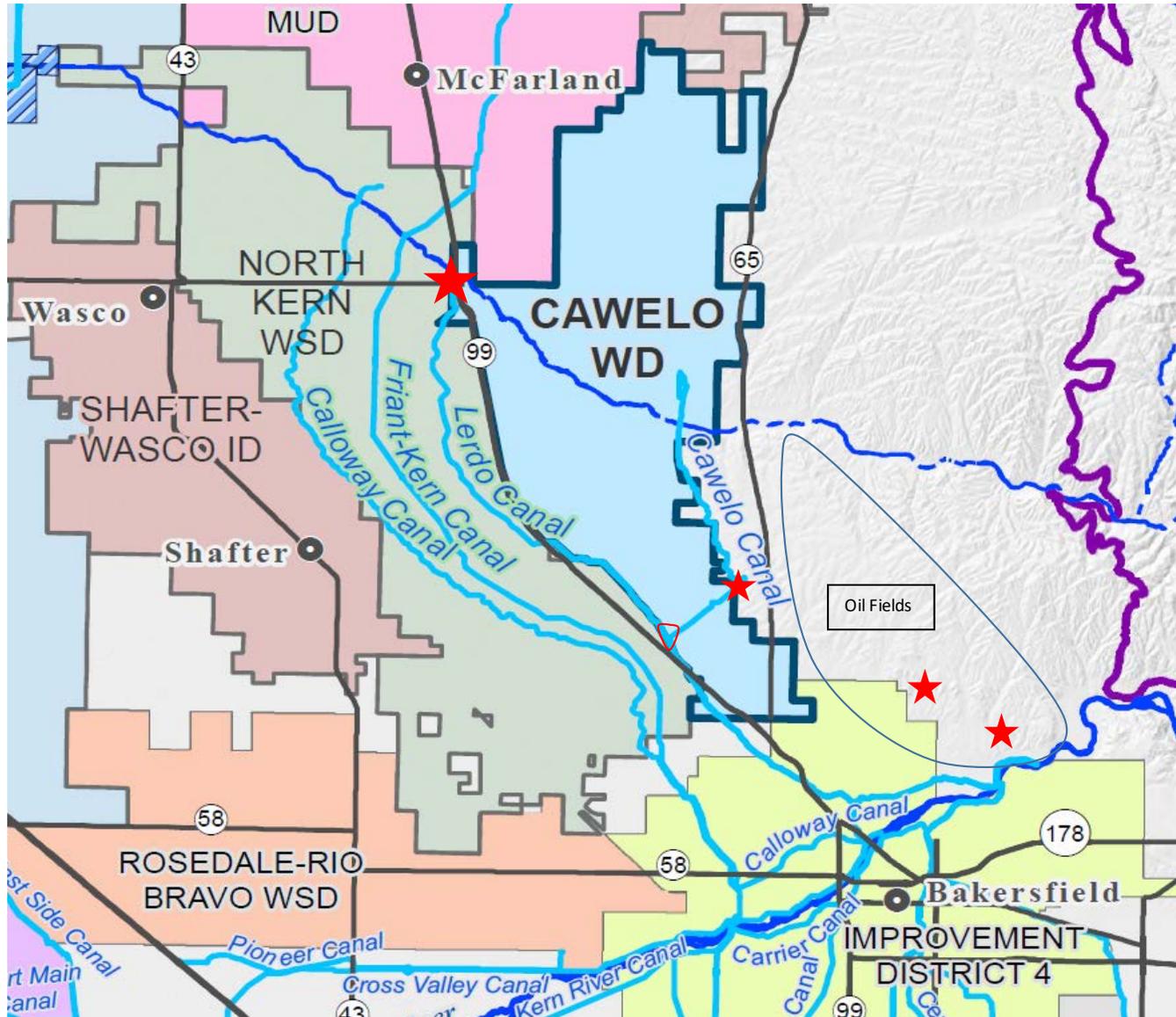
OUTLINE

- Discharge flow paths- historical and current
- Mercury data
- Radionuclide data
- Data comparison
- Public resources

Historical Discharges



CWD Current Discharges



Mercury

Historical Discharges

Discharger	Number of Samples	Non-Detects	Data Range	Exceed Primary MCL (2µg/l)
Historical Discharge (prior to 2007)	14	10	ND to 0.0659µg/l	No
Chevron to Cawelo Water District (2007-2012)	4	3	ND to 0.052µg/l	No
Valley Waste to Cawelo Water District (2007-2012)	3	2	ND to 0.01µg/l	No

Current Discharges

Discharger	Number of Samples	Non-Detects	Data Range	Exceed Primary MCL (2µg/l)
Chevron to Cawelo Water District	16	16	ND	No
Valley Water to Cawelo Water District	3	3	ND	No
California Resources to North Kern Water Storage	14	7	ND to 0.22µg/l ¹	No
Hathaway to Jasmin Mutual	11	11	ND	No

¹Mercury detected in Discharge 001 (effluent)

Gross Alpha

Discharger	Number of Samples	Non-Detects	Data Range	Exceed Primary MCL (15pCi/l)
Chevron USA to Cawelo Water District	9	0	0.24 to 9.3 pCi/l	No
Valley Water to Cawelo Water District	6	6	ND	No
California Resources to North Kern Water Storage	11	0	0.6 to 8.26 pCi/l	No
Hathaway to Jasmin Mutual Water District	11	0	-0.081 to 20 pCi/l	Yes ¹

¹One sample above MCL in 2016 JMWD Pond

Radium 226

Discharger	Number of Samples	Non-Detects	Data Range	Exceed Primary MCL (5pCi/l)
Chevron USA to Cawelo Water District	11	0	0.0908 to 1.27pCi/l	No
Valley Water to Cawelo Water District	6	6	ND	No
California Resources to North Kern Water Storage	15	0	-2.03 to 4.5 pCi/l	No
Hathaway to Jasmin Mutual Water District	11	0	-0.23 to 0.62 pCi/l	No

Radium 228

Discharger	Number of Samples	Non-Detects	Data Range	Exceed Primary MCL (5pCi/l)
Chevron USA to Cawelo Water District	11	0	-0.15 to 0.74 pCi/l	No
Valley Water to Cawelo Water District	6	6	ND	No
California Resources to North Kern Water Storage	15	0	-0.039 to 9.02pCi/l	Yes ¹
Hathaway to Jasmin Mutual Water District	11	0	-0.19 to 4.7 pCi/l	No

¹One sample above MCL in 2015- Discharge 001 (effluent)

Uranium

Discharger	Number of Samples	Non-Detects	Data Range	Exceed Primary MCL (20pCi/l)
Chevron USA to Cawelo Water District	11	9	ND to 1.08pCi/l	No
Valley Water to Cawelo Water District	6	6	ND	No
California Resources to North Kern Water Storage	10	4	ND to 5.811pCi/l	No
Hathaway to Jasmin Mutual	11	9	ND to 0.409pCi/l	No

Summary

- Most mercury detects from historical discharges
- One sample detected above MCL in gross alpha (98-205)
- One sample detected above MCL in radium 228 (2015-0127)
- No samples above MCL for uranium
- No samples above MCL for mercury
- No samples above MCL for radium 226

2016 Water Quality Report

Cal Water: Bakersfield District

Constituent	Concentration	Average
Mercury	ND to 1.3 µg/l	ND
Gross Alpha	ND to 11.0 pCi/l	1.7 pCi/l
Uranium	ND to 14.5 pCi/l	1.9 pCi/l
Radium 228	ND to 1.1	ND

Data from surface and groundwater samples: groundwater wells, surface water from the Kern River, and treated water from the Kern County Water Agency

Data Bases and Other Resources

- Geotracker GAMA WEBSITE:
https://www.waterboards.ca.gov/gama/geotracker_gama.shtml
- Cal Water Report:
<https://www.calwater.com/docs/ccr/2016/bk-bk-2016.pdf>
- Radionuclide information:
https://www.waterboards.ca.gov/gama/docs/coc_radionuclides.pdf
- Mercury information:
https://www.waterboards.ca.gov/gama/docs/coc_mercury.pdf

Thank You

