

---

## San Francisco Bay Regional Water Quality Control Board

*Sent via electronic mail: no hard copy to follow*

January 23, 2019

Santa Clara Valley Water District  
Attn. Ms. Tiffany Hernandez  
5750 Almaden Expressway  
San Jose, CA 95118  
Email: [THernandez@valleywater.org](mailto:THernandez@valleywater.org)

**Subject: Additional Comments Pertaining to Mercury on Notice of Preparation for Guadalupe Dam Seismic Retrofit Project, Santa Clara County (State Clearinghouse No. 2018032007)**

Dear Ms. Hernandez:

This letter is an addendum to our comment letter dated April 9, 2018, on the Santa Clara Valley Water District's (District's) Notice of Preparation (NOP) for the Guadalupe Dam Seismic Retrofit Project (Project). The District issued the NOP pursuant to the California Environmental Quality Act (CEQA) (State Clearinghouse # 2018032007). San Francisco Bay Regional Water Quality Control Board (Water Board) staff appreciates the District's consideration of these additional comments on the NOP.

The Project has the potential for actions that will require the Water Board's approval under the federal Clean Water Act (CWA), the California Water Code (Water Code), and the San Francisco Bay Basin Water Quality Control Plan (Basin Plan) for discharges of dredge and fill material. Accordingly, the Water Board is a Responsible Agency under CEQA.

We offer the following additional comments pertaining to mercury to guide the District in completing the Project Draft Environmental Impact Report (DEIR) by specifying the scope and content of the environmental information within the Water Board's regulatory purview. We are providing these comments now, rather than waiting until after the DEIR is issued, to help ensure the District's DEIR thoroughly addresses potentially significant water quality impacts and includes appropriate mitigation measures for such impacts.

Additionally, submitting the comments now will help avoid the District having to recirculate the DEIR or prepare a supplemental EIR in the future. The District anticipates the Project will take three years to construct, including rewatering in the third year. There should be adequate time in the first two years to address the following issues to avoid potentially significant impacts from mercury.

DR. TERRY F. YOUNG, CHAIR | THOMAS MUMLEY, INTERIM EXECUTIVE OFFICER

**Legacy Mercury Contamination and Compliance and Coordination with the Guadalupe River Watershed Mercury Total Maximum Daily Load (TMDL).** In addition to the points included in our April 9, 2018 letter, the DEIR should address the following regarding how the Project will comply with the TMDL implementation plan (Basin Plan, section 7.7.1).

Analysis for the TMDL shows a linkage between reservoir bottom sediment mercury levels and elevated fish methylmercury levels (see [Figure 7.3 in the TMDL Staff Report](#)<sup>1</sup>). Sediment dewatering and refilling from the Project will release methylmercury into the water column. Reservoir drawdown and dewatering were not foreseen at the time the TMDL was written and adopted, and therefore the TMDL allocation is zero from mercury associated with mining equipment and sediment hotspots. As a result, the DEIR should identify the release of methylmercury into the water column as a potentially significant effect in the hydrology section when evaluating compliance with water quality standards and include the following mitigation actions to reduce the potentially significant effect to less-than-significant by ensuring compliance with the TMDL.

*Hydrology Mitigation Measures for Methylmercury in Guadalupe Reservoir: Identification and Remediation of Mining Equipment and Mercury Hotspots.*

The Project presents a unique opportunity for a visual inspection of the reservoir bottom for evidence of mining equipment or activity. If mining equipment or activity (e.g., mechanical equipment, pipes, adits, excavations, waste piles) are identified, that would indicate a potentially significant impact from mercury. To avoid these Project impacts, we recommend that the District conduct visual monitoring for mining equipment and activity while the reservoir is dewatered. If identified, we recommend that the District sample the mining equipment, sediment near the mining equipment, and sediment in and adjacent to any mining activity areas. We recommend that mercury contamination on equipment be defined as (a) any visible elemental mercury on equipment, and (b) median mercury concentration on equipment greater than 20 mg/kg (i.e., the hazardous waste level per 22 CCR Section 66261.24). Mercury levels in sediment near the mining equipment and in and adjacent to mining activity areas should be evaluated for presence of a hotspot. We recommend that hotspot be defined as a median mercury concentration from five or more samples collected within 10-meter radius that exceeds 20 mg/kg. The DEIR may consider and recommend a larger radial distance if 10 meters is not practicable for covering or capping. Water Board staff are available to work collaboratively with the District staff to determine radial distance. Mercury analysis by either mobile, in-situ x-ray fluorescence (XRF) metals detector (e.g., Niton XL3t GOLDD+ Analyzer) or laboratory analysis by U.S. EPA method 7473 would be acceptable.

The Project also presents a unique opportunity for easy access to investigate a potential sediment mercury hotspot identified in 2005. Results of the 2005 one-time reservoir sediment monitoring for the TMDL implementation plan indicate a potentially significant impact from a mercury hotspot in the reservoir (see [Reservoir Sediment Sampling](#), Tetra Tech 2005<sup>2</sup>). In 2005, median sediment mercury in 16 samples was 3 mg/kg, but notably, sample GR-6-A

---

<sup>1</sup> URL for the Guadalupe River Watershed TMDL Staff Report:  
[https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/guadalupe\\_river\\_mercury/C1\\_Guad\\_SR\\_Sep08.pdf](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/guadalupe_river_mercury/C1_Guad_SR_Sep08.pdf)

<sup>2</sup> URL for the 2005 monitoring report:  
[https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/guadalupe\\_river\\_mercury/res\\_sed\\_sampl.pdf](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/guadalupe_river_mercury/res_sed_sampl.pdf)

contained more than 300 mg/kg, far exceeding the 20 mg/kg hazardous waste level. To avoid these impacts, we recommend that the District conduct additional monitoring while the reservoir is dewatered. We recommend that the District sample at least five locations at and within the 10-meter radius of GR-6-A to determine if this is a hotspot.

To reduce potentially significant effects from mercury-contaminated mining equipment to less-than-significant, we recommend that the District clean, remove, and/or cover mercury-contaminated mining equipment. To reduce potentially significant effects from sediment hotspots associated with mining activity, we recommend that the District cover/cap any hotspots with clean sediment to minimize the potential for mercury to be converted to methylmercury after the reservoir is refilled.

We welcome the opportunity to provide additional comments on a draft Project DEIR when it is available for review. If you have any questions about these additional or our previous comments please contact both Susan Glendening of my staff at [susan.glendening@waterboards.ca.gov](mailto:susan.glendening@waterboards.ca.gov) or (510) 622-2462 and Carrie Austin at [carrie.austin@waterboards.ca.gov](mailto:carrie.austin@waterboards.ca.gov) or (510) 622-1015.

Sincerely,

Keith H. Lichten, Chief  
Watershed Management Division

cc: State Clearinghouse, [state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov)  
SCVWD:  
Chris Hakes, [CHakes@valleywater.org](mailto:CHakes@valleywater.org)  
Jennifer Castillo, [JCastillo@valleywater.org](mailto:JCastillo@valleywater.org)  
Kirsten Struve, [KStruve@valleywater.org](mailto:KStruve@valleywater.org)  
Nina Hawk, [NHawk@valleywater.org](mailto:NHawk@valleywater.org)  
CDFW:  
Mayra Molina, [Mayra.Molina@wildlife.ca.gov](mailto:Mayra.Molina@wildlife.ca.gov)  
Brenda Blinn, [Brenda.Blinn@wildlife.ca.gov](mailto:Brenda.Blinn@wildlife.ca.gov)  
Corps, SF Regulatory, Katerina Galacatos, [Katerina.Galacatos@usace.army.mil](mailto:Katerina.Galacatos@usace.army.mil)  
GCRCD, Stephanie Moreno, [SMoreno@GCRCD.org](mailto:SMoreno@GCRCD.org)  
NMFS:  
Gary Stern, [Gary.Stern@noaa.gov](mailto:Gary.Stern@noaa.gov)  
Andy Trent, [Andrew.Trent@noaa.gov](mailto:Andrew.Trent@noaa.gov)  
USFWS:  
Joseph Terry, [Joseph.Terry@fws.gov](mailto:Joseph.Terry@fws.gov)  
Ryan Olah, [Ryan.Olah@fws.gov](mailto:Ryan.Olah@fws.gov)