

**BEST BEST & KRIEGER** 

ATTORNEYS AT LAW

3750 University Avenue  
Post Office Box 1028  
Riverside, California 92502-1028  
(951) 686-1450  
(951) 686-3083 Fax  
BBKlaw.com

INDIAN WELLS  
(760) 568-2611

IRVINE  
(949) 263-2600

LOS ANGELES  
(213) 617-8100

ONTARIO  
(909) 989-8584

SACRAMENTO  
(916) 325-4000

SAN DIEGO  
(619) 525-1300

WALNUT CREEK  
(925) 977-3300

Steven M. Anderson  
(951) 686-1450  
Steven.Anderson@bbklaw.com  
File No. 02335.00270

October 19, 2006

**VIA FACSIMILE AND OVERNIGHT MAIL (916) 341-5620**

Song Her, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, Sacramento, CA 95814



Re: Elsinore Valley Municipal Water District's Response to Proposed 2006 Revision to the Federal Clean Water Act Section 303(d) List and Proposed Adoption of a TMDL for PCBs in Lake Elsinore

Dear Song Her:

Best Best & Krieger LLP serves as General Counsel to the Elsinore Valley Municipal Water District ("EVMWD"). EVMWD is responsible for providing water and wastewater services to more than 100,000 customers and has over 35,000 water, wastewater and agricultural service connections in its rapidly growing service area in western Riverside County. On January 30, 2006, Best Best & Krieger provided the State Water Resources Control Board ("State Board") with comments on EVMWD's behalf regarding the State Board's proposed revision to the Federal Clean Water Act Section 303(d) list of water quality limited segments for California. (Exhibit A.) Specifically, our January 30th comment letter addressed the apparent lack of scientific data and factual support for the State Board's Proposed Listing of Lake Elsinore (the "Lake") as a water quality limited segment with respect to Polychlorinated Biphenyls ("PCBs"), and hence a lack of support for the development of a Total Maximum Daily Load ("TMDL") to address PCBs.

EVMWD has reviewed the State Board's response to that January 30th comment letter, but does not believe that the State Board's response adequately addresses the substantive and legal issues raised by its proposed listing of Lake Elsinore for PCBs. As a public agency, every budgetary demand – including the Proposed Listing of Lake Elsinore as a water quality limited segment and the subsequent implementation of a TMDL for PCBs – places a strain on EVMWD's ability to meet the public's needs. As such, EVMWD remains opposed to the State Board's decision to list and pursue a TMDL for PCBs in the Lake until, and unless, that decision is supported by facts and scientifically verified data and is properly tailored to address the specific beneficial uses and water quality needs of the Lake. With this background in mind,

Song Her, Clerk to the Board  
October 19, 2006  
Page 2

EVMWD submits these supplemental comments for the State Board's consideration.

### **The Beneficial Uses of Lake Elsinore**

The Proposed Listing is based on an incorrect identification of the beneficial uses of Lake Elsinore. The State Board's "Fact Sheet" supporting the listing identifies "CM – Commercial and Sport Fishing (CA)" as a beneficial use of Lake Elsinore. (Fact Sheet at p. 19.) This is incorrect. The Santa Ana River Basin Water Quality Control Plan ("Basin Plan") was originally adopted by the Santa Ana Regional Water Quality Control Board ("Regional Board") on March 11, 1994, and the State Board subsequently considered and adopted the Water Quality Control Plan on July 21, 2004. As required by Water Code section 13241(a), the Basin Plan identified the beneficial uses for Lake Elsinore only after taking into account "past, present, and probable future beneficial uses of water." Although the Basin Plan has undergone several subsequent amendments since 1994, none of these amendments altered the designated beneficial uses of Lake Elsinore. Accordingly, the only "past, present and probable future beneficial uses" of Lake Elsinore are those identified in the 1994 Basin Plan and include recreational, warmwater freshwater habitat, and wildlife habitat.

In September 2004, the State Board adopted its Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List ("Listing Policy"). "The objective of the Policy is to establish a standardized approach for developing California's section 303(d) list in order to achieve the overall goal of achieving water quality standards and maintaining beneficial uses in all of California's surface waters. Total Maximum Daily Loads (TMDLs) will be developed as needed for the waters identified under the provisions of the Policy." (23 Cal. Code Regs., § 2916 [emphasis added].)

EVMWD's January 30th comment letter explained that the State Board's Proposed Listing was not supportable because it was based on an incorrect beneficial use of Lake Elsinore, namely Commercial and Sport Fishing. The State Board's response to this comment letter **admits** that "the COMM beneficial use is not designated as an existing beneficial use" for Lake Elsinore. (Responses to Comment at p. 146 [comment number 146.1].) Nonetheless, the State Board asserted, without supporting evidence, that "recreational and consumptive fishing does occur on the [L]ake and it is possible that people consume the fish that they catch." (*Ibid.*)

The State Board's assertion that "it is possible" that people consume fish from Lake Elsinore is arbitrary and capricious given the apparent lack of evidence to support this conclusion. The Regional Board was specifically required to consider "past, present, and probable future beneficial uses" of Lake Elsinore when it adopted the Basin Plan. Despite its analysis, the Regional Board – which is a local body with familiarity with conditions in the watershed – did not find Commercial or Sport Fishing to be even a probable future beneficial use of Lake Elsinore, and the State Board's adoption of the Basin Plan demonstrates that the State Board was in agreement. Further, the State Board's Listing Policy is specifically designed to further the designated beneficial uses of a water body. The Listing Policy states that it "provides guidance for interpreting data and information as they are compared to beneficial uses." (Listing

Song Her, Clerk to the Board  
October 19, 2006  
Page 3

Policy at p. 1 [emphasis added].) Finally, the Listing Policy specifically forbids the use of the Policy to “establish, revise, or refine any water quality objective or beneficial use.” (*Ibid.*) As such, the Proposed Listing’s reliance on a non-designated beneficial use for Lake Elsinore is both inappropriate and forbidden by the Listing Policy itself. Accordingly, the State Board’s response to EVMWD’s comments does not resolve the outstanding issue that the Proposed Listing is legally unsupportable.

### **Water Quality Objectives for Lake Elsinore**

The Proposed Listing identifies a water quality objective from the Basin Plan which states that “[t]oxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.” (Fact Sheet at p. 19.) The Proposed Listing then identifies a 20 ppb screening value in fish flesh as the evaluation guideline supporting the listing. (*Id.* at p. 20.) As summarized in EVMWD’s January 30th comment letter, neither the water quality objective nor the 20 ppb screening value support the Proposed Listing.

The State Board’s response to EVMWD’s comments states that “the water quality objective applied to this listing pertains to inland surface water, which applies to this water body.” (Responses to Comments at p. 146 [Comment Number 146.1].) This response, however, overlooks the fact that “water quality objectives” are directly dependent upon the designated beneficial uses of a water body. Indeed, “water quality objectives” are the “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.” (Water Code, § 13050(h) [emphasis added].) Accordingly, the State Board’s identified water quality objective is in error because it is not based on the reasonable protection of the actual beneficial uses of Lake Elsinore, but is instead based on the non-existent Commercial and Sport Fishing use identified in the Proposed Listing.

In addition, the identified water quality objective of preventing harm to human health is not supported by the 20 ppb screening value cited by the State Board. The State Board’s response to EVMWD’s January 30th comment letter states that the 20 ppb “screening value satisfy[ies] the conditions set forth by section 6.1.3 of the Listing Policy.” (Responses to Comment at p. 146 [Comment Number 146.1].) Section 6.1.3 of the Listing Policy, however, requires that the State Board “[i]dentify the water body, pollutants, and beneficial uses” of a water body and does not speak to the setting of arbitrary screening values. (Listing Policy at p. 20.) As discussed above, the Proposed Listing does not identify any of the designated beneficial uses of Lake Elsinore.

Further, Section 3.4 of the State Board’s Listing Policy specifically addresses health advisories and states:

A water segment shall be placed on the section 303(d) list if a health advisory against the consumption of edible resident organisms, or a

Song Her, Clerk to the Board  
October 19, 2006  
Page 4

shellfish harvesting ban, has been issued by the Office of Environmental Health Hazard Assessment (OEHHA), or Department of Health Services, and there is a designated or existing fish consumption beneficial use for the segment. In addition, water segment-specific data must be available indicating the evaluation guideline for tissue is exceeded.

Notably, no such applicable health advisory has been issued by OEHHA or Department of Health Services for Lake Elsinore. Further, the 20 ppb screening value was obtained from an internal Office of Environmental Health Hazard Assessment (OEHHA) report, which specifically stated that the 20 ppb value was "not intended as [a] level[] at which consumption advisories should be issued." ("Prevalence of Selected Target Chemical Contaminants in Sport Fish From Two California Lakes: Public Health Designed Screening Study" [June 1999, Robert K. Brodberg & Gerald A. Pollock] available at: <http://www.oehha.ca.gov/fish/pdf/Cx8258.pdf>.) The State Board's responses to EVMWD's comment letter **admits** that "[t]he OEHAA value is not being used to establish a consumption advisory." (Responses to Comments at p. 146 [Comment Number 146.1].) However, the Proposed Listing clearly states that it is intended to prevent the bioaccumulation of toxics at "levels which are harmful to human health." (Proposed Listing at pp. 19-20.) Accordingly, the State Board's proposed 303(d) list does necessarily assume some, albeit unwarranted, relationship between the 20 ppb screening value relied upon by the State Board and the protection of human health. In fact, the State Board has not provided any explanation of such a relationship and, indeed, none exists. The actual public health tolerance limit established by the United States Food & Drug Administration ("FDA") is 100 times greater than the 20 ppb screening value selected by the State Board. (See 21 Code Fed. Regs., § 109.30 [establishing a 2,000 ppb public health tolerance limit for PCBs in fish flesh].) Because the Proposed Listing identifies water quality objectives which do not further the beneficial uses of Lake Elsinore, because a health advisory has not been issued, and because the State Board has chosen a 20 ppb screening value which has no relation to the protection of human health, the State Board's Proposed Listing is arbitrary and capricious and the Proposed Listing is unsupported.

#### **The Lack of Data Supporting the Proposed Listing**

The Listing Policy requires that the State Board solicit and consider all readily available data and information when determining whether to list a water body as a water quality limited segment. (See, e.g., Listing Policy at p. 17.) Among other readily available information are "reports of fish kills" and "trends analysis, or predictive models for assessment the physical, chemical, or biological condition of [water bodies]." (Listing Policy at p. 17.) Further, and although it must solicit and consider all available data, the State Board "may place emphasis in the solicitation on the data and information generated since the last listing cycle." (Listing Policy at p. 18.) Despite these requirements, the Proposed Listing does not take into consideration any of the most current and readily available data regarding the presence or absence of PCBs in the waters of Lake Elsinore.

First, the Proposed Listing does not provide any data showing the human exposure to

Song Her, Clerk to the Board  
October 19, 2006  
Page 5

carp fish flesh in Lake Elsinore, if any. The State Board's response to EVMWD's January 20th letter states that consumption of fish is "possible," but does not cite to any information showing what that consumption, if any, actually is. In addition, and according to the City of Lake Elsinore, no creel census has ever been performed regarding the sport fishing activities known to occur at Lake Elsinore. As such, the existing level of exposure is unknown. Further, EVMWD is unaware of any efforts made by the State Board to solicit information and data related to the levels of human exposure to carp fish flesh, and the State Board's technical sources do not include any references to such data. In the absence of consumption data, the State Board's response appears to be arbitrary and capricious, and the Proposed Listing does not appear to be factually supportable.

Second, the Proposed Listing is based on sporadic data from carp fish flesh, and omits any discussion or data from Lake Elsinore largemouth bass analyses in which PCBs were not detected. The omission of data which might suggest that a TMDL is unnecessary appears to violate the Listing Policy's requirement that "all existing readily available water quality-related data and information" shall be considered and analyzed. (See also Response to Comment at p. 146 ["All data must be considered."].) The selective inclusion of only those data sets which support the Proposed Listing is arbitrary and capricious given the existence of other substantial evidence which might suggest that a TMDL is unnecessary.

Third, the carp flesh data included in the Proposed Listing – gathered during the mid-1990's and early 2000's – is outdated. Data related to subsequent carp harvesting and fish kills, combined with a ban on the use of PCBs, suggest that the concentration of PCBs in fish flesh have similarly declined. Because of the age of the data and the very small, composited samples, EVMWD decided to collect more recent data on Lake Elsinore carp in 2006. The City of Lake Elsinore collects carp as part of the city's ongoing fish harvesting program. EVMWD participated in the fish collection in early June 2006 and selected 40 carp fish specimens for PCB analysis that represented a wide variety of lengths and weights of fish. The fish flesh was analyzed for PCBs. (See Exhibit B.) Of the 40 carp analyzed, PCBs were detected in 15 fish; the others were all "non-detect."<sup>1</sup> Indeed, the smallest fish, 300 mm or less in length, were all "non-detect" for PCB. For the fish greater than approximately 300 mm in length, there was no clear relationship between fish length (a surrogate measure for fish age) and PCB concentration. Some of the largest fish were non-detect for PCB, and some medium-sized fish had the highest total PCB concentrations. Most significantly, total PCB concentrations measured in the 40 fish flesh samples ranged from 11.1 to 73.9 ppb, all well below the current U.S. Food and Drug Administration (FDA) limit for PCB of 2 ppm or 2,000 ppb.

Fourth – and although this data was apparently made available after the listing of Lake Elsinore was first proposed – the Proposed Listing does not analyze or include this data despite

---

<sup>1</sup> Of the six PCB aroclors analyzed, only aroclors 1254 and 1242 were detected. Aroclor 1254 was found in three fish, at 10 ppb, 10.4 and 10.6 ppb, at or barely above the MDL of 10 ppb, levels considered as "detected, not quantifiable" (DNQ). Aroclor 1242 was found in 15 fish, in nine of these the concentration exceeded the SWRCB 20 ppb Reporting Limit, 6 were DNQ. (See Exhibit B.)

Song Her, Clerk to the Board  
October 19, 2006  
Page 6

the Listing Policy's requirement that it do so. EVMWD is not aware of any efforts made by the State Board to include these data, despite its affirmative obligation to do so under the Listing Policy. (Listing Policy at p. 18 [The State Board "must specifically solicit all readily available data and assessment information."].) The State Board's response to EVMWD's January 30th comment letter merely states that "[t]he Listing Policy does not put age limitations on data." (Response to Comments at p. 146 [Comment Number 146.1].) This statement, however, again ignores the Listing Policy's requirement that all available water-quality related data and information be solicited, considered, and analyzed. Further – and despite the Listing Policy's emphasis on "data and information generated since the last listing cycle" – the State Board's response suggests that little care has been taken by the State Board to ensure that the Proposed Listing reflects the existing, actual conditions of Lake Elsinore.

### **The Ambiguous Origins of PCBs in Lake Elsinore**

The Proposed Listing does not consider or evaluate the readily available information suggesting that PCBs may not be present in the waters of Lake Elsinore and, as such, the Proposed Listing appears both unsupported and premature. EVMWD routinely tests the treated effluent that it could release into Lake Elsinore for Lake makeup. These tests have consistently been "non-detect" for PCBs. (EVMWD, Report of Waste Discharge for Regional Plant, 2000 through 2006, in compliance with NPDES Permit CA 8000027). Further, Canyon Lake – a water body immediately upstream from Lake Elsinore – was also tested for PCBs and none were detected in either the lake's waters or fish flesh. (State Toxic Substances Monitoring Program Database, 1978-2000.) All of these readily available data suggest that the PCBs detected in carp fish flesh may not have come from Lake Elsinore's water. Pursuant to the Listing Policy's requirements, the State Board must consider these data and their implications for the Proposed Listing.

Separate and apart from the readily available data showing non-detects for PCBs in Lake Elsinore's waters, the Regional Board is conducting studies of the lakebed's sediment. Carp fish are bottom-feeders, thus it is possible that the source of PCBs detected in carp fish flesh is a product of lakebed sediment and not an influx of PCBs from upstream water sources. Since the sale of and use of PCBs have been illegal for approximately thirty years, the source of PCBs in carp fish flesh is not likely a result of current activities.

The Regional Board conducted tests of the Lakebed sediment (top 2 centimeters, or approximately 1 inch) at 30 established locations for PCBs (and other chemicals) on June 27, 2002 and April 29, 2003. The PCB detection limit was 1 ppb or 1 nanogram per gram. Each sample was split to provide two replicates. The analytical results were made available in October 2006. (California Regional Water Quality Control Board, Santa Ana Region, unpublished data, 2006). In June 2002, at one site near the southwest side of the Lake, one of the two replicates tested positive for four PCB species; the other replicate from that sample was non-detect. At the site with one positive replicate, the total of the four PCB species was 1.8 ppb, barely over the detection limit of 1 ppb. The other 29 sediment samples were non-detect for PCBs. The April 2003 sediment samples from the same 30 sites were all non-detect for PCBs.

Song Her, Clerk to the Board  
October 19, 2006  
Page 7

Pursuant to the Listing Policy, the State Board is obligated to consider this data and its potential impact on the Proposed Listing. (See Listing Policy at p. 17. [“Data and information that shall be reviewed include . . . data possessed by the RWQCBs”].) Until, and unless, these data are considered, the Proposed Listing appears unsupported.

Finally, the State Board’s responses to EVMWD’s January 30th comment letter erroneously states that “[t]he source of the PCB concentrations has no bearing in whether the standard is met or not met in the water body.” (Responses to Comments at p. 147 [Comment Number 146.1].) EVMWD respectfully disagrees. If the Lake’s waters are not the source of the PCBs detected in fish flesh, then the implementation of a TMDL would serve little purpose. Indeed, a “total maximum daily load” is intended to protect the “water quality standard applicable to such waters . . . taking into account the severity of the pollution and the uses to be made of such waters.” (33 U.S.C., § 1313(d).) If PCB pollution does not exist in the Lake’s waters at levels that violate applicable water quality standards, then the Clean Water Act does not appear to provide a basis for establishing a TMDL. Further, a TMDL is intended to allocate pollutant loads “at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.” (*Ibid.*) If the PCBs found in fish flesh come from the lakebed sediment, rather than the Lake’s waters, then there is no external “load” to allocate among potential stakeholders/dischargers. (See *San Francisco Baykeeper v. Whitman* (9th Cir. 2002) 297 F.3d 877, 880 [“TMDLs are the maximum quantity of a pollutant the water body can receive on a daily basis without violating the water quality standard.”]; *Pronsolino v. Nastri* (9th Cir. 2002) 291 F.3d 1123, 1127-28 [“A TMDL defines the specified maximum amount of a pollutant which can be discharged or ‘loaded’ into the waters at issue from all combined sources.” (internal citation omitted)].) The potential existence of PCBs in carp fish would be an existing, steady condition which is not attributable to upstream effluent discharges, and imposing a TMDL would do little, if anything, to reduce the existing concentrations of PCBs in lakebed sediment. In addition, it is unclear which entities could be required to resolve a purported problem, likely caused by use or dumping of PCBs in the 1970’s or earlier. Accordingly, and in the absence of the consideration and analysis of the source of PCBs in fish flesh, the Proposed Listing is not supportable.

### **Public Policy Considerations**

In addition to the Proposed Listing being unsupported for the reasons discussed above, there are many public policy considerations suggesting that the Proposed Listing is premature. First, Lake Elsinore is not located in an industrialized area where PCBs are prevalent. Unlike the areas surrounding Newport Bay and the San Diego Creek – which evidence industrialization and show heightened levels of PCBs and heavy metal concentrations in receiving waters<sup>2</sup> – Lake Elsinore is almost entirely surrounded by residential and agricultural land uses. Thus, it is not

<sup>2</sup> See Regional Board’s Final Problem Statement for the Total Maximum Daily Load For Toxic Substances in Newport Bay and San Diego Creek (dated December 15, 2000) at pp. 6, 8, 20 and available at: [http://www.waterboards.ca.gov/santaana/pdf/nbtmdl\\_final.pdf](http://www.waterboards.ca.gov/santaana/pdf/nbtmdl_final.pdf).

Song Her, Clerk to the Board  
October 19, 2006  
Page 8

surprising that EVMWD and other local agencies, are involved with the development of a TMDL for nutrients in Lake Elsinore to address the unique upstream discharges associated with the area's land uses. That TMDL is being addressed and should receive higher priority. Indeed, EVMWD has been cooperative throughout the development and implementation of the nutrient TMDL and has participated consistently in its development and implementation as a critical stakeholder. The development and ultimate implementation of the nutrient TMDL will address the unique water quality challenges faced by the Lake Elsinore area and appears to be a more important use of public funds and efforts than the premature development of a TMDL for PCBs. There are also far more important issues facing the State of California, such as its aging infrastructure and limited water supply, which should have higher priority for State staff time and funding than an unnecessary TMDL effort.

In addition, and to address any lingering concerns regarding the "possible" consumption of carp fish flesh from Lake Elsinore, there is an ongoing fish eradication program in place to reduce the resident population of carp in Lake Elsinore. If carp fish ingest lakebed sediment containing PCBs and retain those PCBs in the fish's flesh, then the removal of carp fish from the Lake, especially larger fish, may, over time, reduce presently existing levels of PCBs in lakebed sediment.

The implementation of a fish eradication program, combined with the development of a TMDL for nutrients in the Lake, appears to adequately address the Lake's immediate and unique water quality needs. As such, the Proposed Listing for PCBs is both premature and unnecessary.

### **Conclusion**

As discussed above, EVMWD's activities do not contribute PCBs to Lake Elsinore; the State Board has not considered all available water-quality related data despite the Listing Policy's requirement that it do so; the Proposed Listing does not further the identified beneficial uses of the Lake; no health advisory has been issued; and the Proposed Listing otherwise lacks a factual and scientific basis. Accordingly, EVMWD remains opposed to the Proposed Listing because it is unsupported. Further, EVMWD requests that it be omitted from any list of implementing entities (*i.e.*, stakeholders) because it is not a position to accept responsibility, either financially or otherwise, for the completion of studies necessary to support the Proposed Listing or development of the TMDL, the ultimate implementation of the TMDL, or the monitoring activities which may be associated with the TMDL.

Thank you for providing the Elsinore Valley Municipal Water District with the opportunity to provide additional comments on the State Board's proposed Revision to the Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments, including the proposed listing for a TMDL for PCBs in Lake Elsinore. EVMWD reserves the right to present further comments at any hearings or proceedings upon the Proposed Listing or upon the release of additional information relating to these proposed changes in the Section 303(d) listing.

Please do not hesitate to contact me if you have any questions regarding these matters or

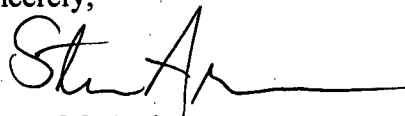


**BEST BEST & KRIEGER**  
ATTORNEYS AT LAW

Song Her, Clerk to the Board  
October 19, 2006  
Page 9

any of the above-comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven M. Anderson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Steven M. Anderson  
of BEST BEST & KRIEGER LLP

cc: Ronald E. Young, General Manager EVMWD  
Janet Fahey, MWH

Exhibits  
RVPUB\CSCHILLER\721468.1

**BEST BEST & KRIEGER LLP**

A CALIFORNIA LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

INDIAN WELLS  
(760) 568-2611

IRVINE  
(949) 263-2600

ONTARIO  
(909) 989-8584

**LAWYERS**

3750 UNIVERSITY AVENUE  
POST OFFICE BOX 1028  
RIVERSIDE, CALIFORNIA 92502-1028  
(951) 686-1450  
(951) 686-3083 FAX  
BBKLAW.COM

SACRAMENTO  
(916) 325-4000

SAN DIEGO  
(619) 525-1300

WALNUT CREEK  
(925) 977-3300

STEVEN M. ANDERSON  
(951) 686-1450  
STEVEN.ANDERSON@BBKLAW.COM  
FILE NO. 02335.00033

January 30, 2006

**VIA FACSIMILE AND MAIL (916) 341-5620**

Selica Potter, Acting Clerk to the Board  
State Water Resources Control Board  
Executive Office  
1001 I Street, 24th Floor  
Sacramento, CA 95814

Re: Elsinore Valley Municipal Water District Comments on Notice of  
Revision to Federal Clean Water Act Section 303(d) List and Proposed  
Adoption of a TMDL for PCBs in Lake Elsinore

Dear Ms. Potter:

Best Best and Krieger LLP serves as General Counsel to the Elsinore Valley Municipal Water District ("EVMWD"). EVMWD is responsible for providing water and wastewater services to more than 100,000 customers in its service area. The following comments are submitted in response to the State Water Resources Control Board's ("State Board") Notice of Revision to Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments for California including the proposed listing of a total maximum daily load ("TMDL") for polychlorinated biphenyls ("PCBs") in Lake Elsinore.

As set forth in more detail below, EVMWD believes that the proposed revisions to the 303(d) list to include a TMDL for PCBs in Lake Elsinore is not supportable. EVMWD has several concerns related to the factual basis and scientific methodology used to support the proposed listing of a TMDL for PCBs in Lake Elsinore. In addition, there are also numerous practical, economic, and other unnecessary burdens which will likely result should the State Board decide to impose a TMDL for PCBs in Lake Elsinore.

**Concerns Related to the Factual Basis & Methodology Supporting the Proposed Listing**

As an initial concern, EVMWD notes that the State Board's Fact Sheet Supporting Revision of the Section 303(d) List in California Regional Water Quality Control Board, Region 8 (the "Proposed Listing") identifies "CM - Commercial and Sport Fishing (CA)" as a beneficial use of Lake Elsinore. The Santa Ana Region Water Quality Control Plan ("Basin Plan"), however, does not include commercial or sport fishing among Lake Elsinore's beneficial uses.

Selica Potter, Acting Clerk of the Board  
January 30, 2006  
Page 2

Instead, the Basin Plan identifies recreational, warmwater freshwater habitat, and wildlife habitat as the only beneficial uses of Lake Elsinore. The State Board's current Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List ("Listing Policy") appears to require that all proposed listings identify the appropriate beneficial uses of a water body segment. Here, however, the Proposed Listing does not identify the correct beneficial uses of Lake Elsinore. EVMWD thus believes that the Proposed Listing is not properly supported and is inconsistent with the State Board's adopted Listing Policy.

In addition, the Proposed Listing identifies a water quality objective from the Basin Plan which states that "Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health." As discussed above, however, this water quality objective does not seek to protect the beneficial uses of Lake Elsinore identified in the Proposed Listing. As such, it is unclear how the identified water quality objectives support the listing of a TMDL for PCBs in Lake Elsinore, consistent with the State Board's adopted Listing Policy.

Further, the Proposed Listing identifies a 20 ppb screening value in fish flesh as the evaluation guideline supporting the listing of a TMDL for PCBs in Lake Elsinore. This value, however, appears to have been obtained from an internal California Office of Environmental Health Hazard Assessment ("OEHHA") research report. (OEHHA, "Prevalence of Selected Target Chemical Contaminants in Sport Fish From Two California Lakes: Public Health Designed Screening Study" [June 1999, Robert K. Brodberg & Gerald A. Pollock] *available at*: <http://www.oehha.ca.gov/fish/pdf/Cx8258.pdf>.) That report states that this screening value was "not intended as levels at which consumption advisories should be issued" but instead was intended for use as a "guide to identify fish species and chemicals from a limited data set" which might merit additional analysis. (*Id.* at p. 4.) The use of this 20 ppb screening value in support of the Proposed Listing is thus inappropriate because the screening value is not a water quality objective, a public health goal or action level, nor a maximum contamination level per the Listing Policy's requirements. In addition, the Proposed Listing does not provide, nor cite to, any data showing what the human exposure to carp fish flesh is for Lake Elsinore. In the absence of such consumption data, it is improper to rely upon the 20 ppb screening value used by the State Board in its Proposed Listing.

Regarding the actual data cited, the Proposed Listing references, but does not include, data sets obtained from the analysis of carp fish flesh. This data, however, appears sporadic and does not include or consider data from largemouth bass analyses in which PCBs were not detected. In addition, the sample sizes used in the State Board's analysis appear inconsistent with the State Board's Listing Policy. Section 3.5 of the Listing Policy provides that "the binomial distribution as described in section 3.1" shall be used to determine tissue pollutant levels. Section 3.1 then references Table 3.1 and describes the binomial distribution methodology for determining tissue pollutant levels. Although Table 3.1 states that "[a]pplication of the binomial test requires a minimum sample size of 16," some of the fish flesh data used to support the Proposed Listing included sample sizes of seven fish or less. Given the

Selica Potter, Acting Clerk of the Board  
January 30, 2006  
Page 3

Listing Policy's requirements, it is unclear how these small sample sizes and the unexplained exclusion of largemouth bass fish flesh data showing non-detects for PCBs support the Proposed Listing.

In addition to the apparently incomplete nature of the data, the fish flesh data cited in support of the Proposed Listing appears to be outdated. The Proposed Listing cites to data taken in the mid-1990's and very early 2000's. Subsequent carp harvesting and fish kills, combined with the general decline in the use of PCBs, would likely demonstrate a decrease in the concentration of PCBs obtained from fish flesh. Although the data referenced by the State Board do indicate that the concentration of PCBs in fish flesh have decreased since 1994, no supplemental data has been provided by the State Board which analyzes how recent fish kills and carp harvesting may have further reduced the levels of PCBs in fish flesh. (See Proposed Listing at p. 20 [referencing Toxic Substances Monitoring Program Data Reports *available at*: <http://www.waterboards.ca.gov/programs/smw/index.html>].) Given the apparently outdated nature of this data, EVMWD believes that the Proposed Listing is not adequately supported.

#### **Practical, Economic, and Other Concerns Related to the Proposed Listing**

Aside from the above-listed issues regarding the factual basis and scientific support for the Proposed Listing, EVMWD has several other concerns regarding the State Board's consideration of a TMDL for PCBs in Lake Elsinore. The source of the PCBs detected in the fish flesh analysis cited by the State Board is not well understood. Recent water column studies conducted on Lake Elsinore show non-detects for the presence of PCBs. In addition, studies from 2003 through 2005 of the effluent produced by EVMWD's regional wastewater reclamation plant, which supplies a supplemental water source for Lake Elsinore, likewise showed non-detects for PCBs.

These studies suggest that the source of PCBs in the fish flesh analyzed may be Lake bed sediment or perhaps, to a lesser extent, the presence of PCBs in runoff from the surrounding watershed. Recently, the Regional Water Quality Control Board, Santa Ana Region, took sediment samples from Lake Elsinore for analysis. Although it appears that the data from the Regional Board's analysis is available, it has not yet been made accessible to EVMWD. The results of this data may provide additional insight as to the presence of PCBs in fish obtained from Lake Elsinore, and EVMWD may have additional comments to submit to the State Board on the Proposed Listing once that sediment data is made available. We request that this data be made available as soon as possible.

In consideration of the practical concerns raised above, EVMWD would like to clarify that its actions – including the addition of supplemental water supplies to Lake Elsinore – are not sources of PCBs. As such, and if the State Board does indeed proceed with a listing of a TMDL for PCBs in Lake Elsinore, EVMWD is not in a position, financially or otherwise, to be burdened with the duty of serving as a responsible party to the implementation of the TMDL or the monitoring activities which may be associated therewith.

Selica Potter, Acting Clerk of the Board  
January 30, 2006  
Page 4

In conclusion, we believe that the Proposed Listing is based on questionable factual and scientific evidence and also raises other concerns related to the implementation of a TMDL for PCBs in Lake Elsinore. Given these concerns and the apparent inconsistencies between the Proposed Listing and the State Board's Listing Policy, EVMWD believes that the listing of a TMDL for PCBs in Lake Elsinore should not be considered at this time.

Thank you for providing the Elsinore Valley Municipal Water District with the opportunity to provide comments on the State Board's proposed Revision to the Federal Clean Water Act 303(d) List of Water Quality Limited Segments for California including the proposed listing of a TMDL for PCBs in Lake Elsinore. EVMWD reserves the right to present further comments at any future hearings or upon the revision or release of additional information relating to these proposed changes in the 303(d) listings. To this end, EVMWD requests that all future notices related to the release of additional information or hearings on these proposed listings be sent to Ron Young, General Manager, EVMWD at the following address: 31315 Chaney Street, P.O. Box 3000, Lake Elsinore, CA 92531-3000.

Please do not hesitate to contact us if you have any questions about these matters or any of the above-comments.

Sincerely,



Steven M. Anderson  
of BEST BEST & KRIEGER LLP

cc: Ron Young, General Manager EVMWD  
Phil Miller, EVMWD  
Janet Fahey, MWH



August 29, 2006

Mr. Ronald Young, General Manager  
 Elsinore Valley Municipal Water District  
 31315 Chaney Street  
 Lake Elsinore, CA 92351

Subject: Lake Elsinore Fish Flesh Analysis for PCBs  
 Proposed TMDL for PCBs in Lake Elsinore

Dear Ron:

This letter report presents the results of the analysis for PCBs in carp collected from Lake Elsinore in June 2006. EVMWD had requested that additional fish flesh analysis be performed to update the available data for PCBs in fish flesh collected by the Toxic Substances Monitoring Program (TSMP), upon which the State Water Resources Control Board (SWRCB) proposes to base a Total Maximum Daily Load (TMDL) designation for Lake Elsinore as an impaired waterbody.

**Background**

TSMP monitoring data for PCB in Lake Elsinore fish flesh, reported as ppb wet weight, are shown in the attached table (Table 1). Samples were taken in Lake Elsinore five times over the years between 1983 and 2000. Results are presented as mean values for the composite of the fish analyzed; values for individual fish are not available. Three aroclors, commercial mixtures of PCB compounds, were analyzed (1248, 1254 and 1260) and the values were summed to determine Total PCBs, in parts per billion (ppb) wet weight. From the table, PCB concentrations of 1254 and 1248 were highest in carp in 1983 and 1984, based on this small number of samples. PCB 1260 was not detected in any of the samples. The detection limit at that time was 10 ppb.

Date	Sample Size	Length (mm)	Total PCB (1254+1248) (ppb wet weight)
June 1983	6 carp	310	280
May 1984	7 carp	323	120
June 1994	6 carp	337	[below detection limit]
June 1995	6 carp	360	88
July 2000	3 carp	325	53

Note that six largemouth bass from Lake Elsinore analyzed in May 1984 were non-detect for all three aroclors, and that six carp analyzed in June 1989 from Canyon Lake, upstream of Lake Elsinore, were also non-detect for all three aroclors.

It is our understanding that, on the basis of these data, the SWRCB is proposing to list Lake Elsinore as impaired for PCB in fish flesh.

Because of the age of the data and very small, composited samples, EVMWD decided to collect more recent data on Lake Elsinore carp.

### **Methodology**

Carp (*Cyprinus carpio*) are collected by the City of Lake Elsinore as part of the city's ongoing fish harvesting program. MWH participated in the fish collection in early June 2006 and selected 40 specimens for PCB analysis that represented a wide variety of lengths and weights of fish. The fish, collected by seining, were weighed and measured at the time of collection, then put on ice and transported to CRG Laboratories in Torrance, CA for analysis. At the laboratory, the fish were filleted and the skin removed from the filets before analysis, to reflect the concentration of PCB in the edible portion of the fish.

Six PCB aroclors and Total PCB, the sum of the aroclors, were analyzed in the following manner.

- Aroclor PCBs by gas chromatograph mass spectrophotometer (GCMS) Using Method EPA 8270Cm
- PCB Congeners by GCMS Using Method EPA 8270Cm

Data are reported as nanograms per gram (parts per billion) wet weight in fish filet, skin off.

The Method Detection Limit (MDL) (CFR 40 Part 136) was 10 ppb. MDL is defined as the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

The SWRCB Minimum Level or Reporting Limit (RL) is currently 20 ppb. RL, aka quantification limit, is defined as the MDL multiplied by a factor of 1-10 [2, in this case], as determined by the lab to provide acceptable precision values among replicated measurements.

SWRCB (TSMP) definitions state that values between the MDL and the RL (i.e., between 10 and 20 ppb here) should be reported as the actual measured value (not negative), with a flag that is carried all the way through data storage, handling, and reporting. The flag is DNQ = detected, not quantifiable.

Values above the RL (or quantification limit) are deemed as acceptable values without reservation, and are shown as the actual measured value, and assigned a QA code of A (Acceptable without reservation).

## Sampling Results

The analysis was performed for six aroclors, which are defined combinations of PCB congeners. Two aroclors were detected, 1242 and 1254. The sum of the concentrations for the two aroclors is presented as Total PCB. Concentrations under 20 ppb are reported by the laboratory as below SWRCB reportable limit (DNQ) and are shaded in **Table 2**.

**Table 2**, in which data are not composited, shows the concentration for each aroclor and total PCB in each of the 40 carp. The carp are sorted in the table by length from smallest to largest. The fish ranged in length from 260 to 654 mm. The data indicate:

- Of the 40 carp analyzed, PCBs were detected in 15 fish; the others were all "non-detect."
- Of the six aroclors analyzed, only aroclors 1254 and 1242 were detected. Aroclor 1254 was found in three fish, at 10 ppb, 10.4 and 10.6 ppb, at or barely above the MDL of 10 ppb and all in the DNQ category for PCB defined above as "detected, not quantifiable." Aroclor 1242 was found in 15 fish, in nine of these the concentration exceeded the SWRCB 20 ppb Reporting Limit, six were DNQ. In only three fish were both aroclors detected.
- Graphs attached (**Figures 1 and 2**) show Total PCB concentrations (ppb wet weight) versus fish length. The smallest fish, 300 mm or less in length, were all "non-detect" for PCB. For the fish greater than approximately 300 mm in length, the graphs of PCB concentration versus length demonstrate no clear relationship between fish length (a surrogate measure for fish age) and PCB concentration. The medium-sized and larger fish showed no consistent pattern of presence/absence of PCB or concentration of PCB when present. Some of the largest fish were non-detect for PCB, and some of the medium-sized fish had the highest Total PCB concentrations. In addition, there was no consistent pattern of presence of specific aroclors versus fish size.
- Total PCB concentrations measured ranged from 11.1 to 73.9 ppb, below the current U.S. Food and Drug Administration (FDA) limit for PCB of 2 ppm or 2,000 ppb (Code of Federal Regulations, Title 21 Food and Drug, Chapter I, Food And Drug Administration, Subchapter B--Food For Human Consumption, Part 109 -- Unavoidable Contaminants In Food For Human Consumption And Food-Packaging Material, Subpart B--Tolerances for Unavoidable Poisonous or Deleterious Substances, Sec. 109.30 Tolerances for polychlorinated biphenyls (PCBs)).
- The California Office of Environmental Health Hazard Assessment (OEHHA) has issued advisories where sport-caught fish have been found to contain PCBs above 100 ppb. The advisories provide guidance on how much fish an individual can safely eat. The consumption limits are often specific to the species and fishing locations. The advisories are available from OEHHA and are printed in the California Sport Fishing



Regulations booklet. These values are based on a cancer risk of  $1 \times 10^{-5}$  and a fish consumption rate of 21 g/day (0.74 ounces per day or three 8-ounce meals per month and no 16-ounce meals). Total PCB concentrations measured in the 40 carp taken from Lake Elsinore in June 2006 ranged from 11.1 to 73.9 ppb, all below 100 ppb. In addition, fish consumption rates for Lake Elsinore are unknown, as no creel census has ever been done (P. Kilroy, City of Lake Elsinore, pers. comm., 2006).

- The State Board, in the proposed listing document for PCB in Lake Elsinore fish flesh, identified a 20 ppb screening value (SV) in fish flesh as the determinant. Nine of the 15 carp in which PCB was detected had Total PCB concentrations over 20 ppb.

However, this SV is not a fish flesh objective, public health goal, action level or maximum contaminant level (MCL). It was a value developed specifically for an internal OEHHA research report (OEHHA, 1999), and was used as a basis for identifying which previously sampled sites warranted additional sampling. The report states: "The SVs are not intended as levels at which consumption advisories should be issued but are useful as a guide to identify fish species and chemicals from a limited data set, such as this one, for which more intensive sampling, analysis or health evaluation are to be recommended."

### **Conclusions**

- Like the TSMP data, the 2006 PCB sampling of flesh from 40 carp from Lake Elsinore is also a single "snapshot."
- PCBs were found in the edible flesh (filet, skin off) of 15 Lake Elsinore carp (of the 40 analyzed).
- PCB was not detected in the smaller fish (300 mm or less) and was detected in some but not all of the larger and medium sized fish. From these data, there is no clear relationship between fish size and concentration above a certain size.
- PCB concentrations present in the 15 carp in which PCB was detected are all below the current U.S. FDA criterion for PCB in edible fish flesh of 2,000 ppb and OEHHA criteria for sport-caught fish of 100 ppb.

### **Discussion**

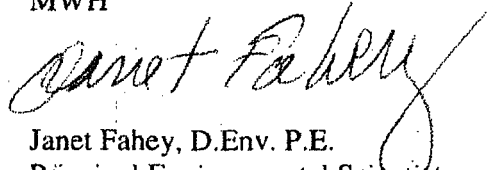
There is no clear basis from these data or the previous TSMP data for listing Lake Elsinore as "impaired" for PCB in fish flesh. Such a listing needs to be supported by a far more comprehensive analysis of all the edible species in all age classes in Lake Elsinore, together with a creel census to identify the degree of human exposure.

Note also that the California Regional Water Quality Control Board, Santa Ana Region, conducted sediment analysis for PCB at 30 locations in Lake Elsinore and has not yet released the data.

Thank you for the opportunity to provide this information.

Sincerely,

MWH

A handwritten signature in cursive script that reads "Janet Fahey". The signature is written in black ink and is positioned above the printed name and title.

Janet Fahey, D.Env. P.E.  
Principal Environmental Scientist

## References and Bibliography

California Association of Sanitation Agencies. 2006 Section 303d List – September 2005 Draft Review Tips and Checklist, Prepared by Tri-TAC.

(California) Office of Environmental Health Hazard Assessment (OEHHA), 1999. Prevalence of Selected Target Chemical Contaminants in Sport Fish from Two California Lakes: Public Health Designed Screening Study. Final Project Report, prepared by R.K. Broderick and G.A. Pollock, June 1999.

California Regional Water Quality Control Board, Santa Ana Region, Water Quality Control Plan (Basin Plan), 1995, as amended 2005.

Fox River Watch, 2001. The History of PCBs.  
[http://www.foxriverwatch.com/monsanto2a\\_pcb\\_pcb.html/](http://www.foxriverwatch.com/monsanto2a_pcb_pcb.html/)

State Water Resources Control Board (SWRCB), 2006 303(d) List documents:  
[http://www.swrcb.ca.gov/tmdl/303d\\_update.html](http://www.swrcb.ca.gov/tmdl/303d_update.html)

SWRCB 303(d) Listing Policy: [http://www.swrcb.ca.gov/tmdl/303d\\_listing.html](http://www.swrcb.ca.gov/tmdl/303d_listing.html)

U.S. Environmental Protection Agency (USEPA). Fact Sheet: Polychlorinated Biphenyls (PCBs) Update: Impact on Fish Advisories. EPA-823-F-99-019. September 1999.

USEPA, 2005. Current National Recommended Water Quality Criteria.  
<http://www.epa.gov/waterscience/criteria/wqcriteria.html>