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**DATE:** October 4, 2010

**TO:** Jessica Newman  
Office of Chief Counsel

**FROM:** Christopher Means  
Environmental Scientist  
Compliance and Assurance Unit

**SUBJECT: Rebuttal of Issues Raised By Eastern Municipal Water District on  
September 22, 2010 Regarding Penalty Calculation Methodology Factors in  
ACL Complaint No. R9-2010-0085**

In accordance with the final hearing procedures for ACL Complaint No. R9-2010-0085, this memo responds to issues raised by Eastern Municipal Water District (EMWD) in response to Tentative ACL Order No. R9-2010-0131. Upon thorough review of the arguments put forth by EMWD, the Prosecution Team contends each is without merit. On September 22, 2010, EMWD submitted its Evidence and Policy Statements, including arguments in support of the position by General Counsel Gerald D. Shoaf of Redwine and Sherrill (ESR Supporting Document No.9). Specifically, EMWD challenges the proposed liability, and argues that penalty calculation methodology factors for (1) Harm or Potential Harm to Beneficial uses, (2) Deviation from Requirement factor, (3) Culpability and (4) History of Violations adjustment factors should be substantially lowered.

### **EMWD's Arguments, Followed by Responses from the Prosecution Team**

#### **1. EMWD Asserts no actual harm to Beneficial Uses was shown, therefore the score for the Harm or Potential Harm to Beneficial Uses should be revised from 3 to 1 or even 0.**

Response: The initial Prosecution Team assignment of a score of 3 (moderate) was based substantially on evidence provided by EMWD. Subsequent submittals provide no justification to reduce the score to 1 (minor), nor to 0 (negligible). Based on the findings and assumptions provided in EMWD's biological assessments (ESR Supporting Documents 6 and 7) the Prosecution Team is confident that a score of 3 (moderate) for this factor is reasonable, appropriate, and should not be reduced.

A score of 3, or moderate threat to beneficial uses, is defined in the Enforcement Policy as follows:

"Moderate – moderate threat to beneficial uses (i.e., impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects)."

EMWD's biological assessments confirm that the "moderate" score is appropriate because they demonstrate that:

A. Impacts to WARM, WILD, and REC beneficial uses were observed or reasonably expected.

The findings of the initial Biological Impact Assessment (EOSR Supporting Document No. 6) note that “[t]he ecological resources of Murrieta Creek have been identified as a resource of extremely high concern, as it is considered one of the last high quality riverine environments in Southern California “(page 3). Further, in the impact area, the creek “supports pockets of aquatic habitat.” (page 6) The report goes on to assume that native and non-native amphibians, southwestern pond turtle, and Arroyo Chub (a species of special concern) absorbed direct impacts as a result of the spill (page 6). Aquatic wildlife (fish, amphibians, crayfish) were observed within the 20-acre marsh/wetland impact area at the time of the initial assessment (page 4). Based on these findings and assumptions it is reasonable to expect that the WARM and WILD beneficial uses of the Creek were negatively impacted. Additionally, walking trails provide the REC-2 beneficial use adjacent to the creek throughout the spill area. As a result of the spill, EMWD posted contamination warning signs along the creek for forty four days, adversely affecting the REC-2 beneficial uses within the spill area;

B. “Impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects.”

As documented in the follow-up assessment (EOSR Supporting Document No. 7) the relative health of the ecosystem six months after the spill is evidence that the ecosystem was able to attenuate the effects of the spill without appreciable acute or chronic effects.

EMWD’s assertion that the score be revised to a score of **0** (negligible, no actual or potential harm) or **1** (minor, low threat to beneficial uses) completely disregards the scientifically-documented adverse effects that untreated sewage can have on human and biological receptors (EOSR Supporting Document No. 6, pages 6-7). Accepting EMWD’s lowered scores would essentially assert that the discharge of raw untreated sewage into waters of the US/State has little or no deleterious environmental impact. Accordingly, no revision of Factor 1 of the methodology is warranted.

**2. EMWD asserts the Deviation from Requirement adjustment factor should be considered Minor not Moderate.**

Response: As described in the Enforcement Policy penalty calculation methodology (ESR Supporting Document No. 10, page 14): “The Deviation from Requirement reflects the extent to which the violation deviates from the specific requirement that was violated.” EMWD’s Waste Discharge Requirements (EOSR Supporting Document No. 11) and the Discharge Prohibitions and Facility design and Operation Specifications contained therein specifically require EMWD to properly operate its plant, adequately train its staff, prohibit sewage spills, and adequately respond to a spill should it occur.

As described throughout the Prosecution Team's Technical Analysis (ESR Supporting Document No. 3), EMWD partially complied with these specific requirements. For instance, EMWD responded effectively to cease and clean-up the spill after it was finally observed. However, EMWD failed to address prevention of the spill because it had inadequate plant safeguards in place and operators that were not sufficiently trained in alarm response. These failures led to an unnecessary and avoidable 14-hour period in which the spill continued unabated until discovery the next day. A determination of moderate deviation from the specific requirements is the appropriate determination.

**3. EMWD asserts it is not culpable for the spill because its redundant spill controls and operators' response were reasonable.**

Response: EMWD asserts its culpability for the spill to be negligible and proposes a Culpability Factor Score of 1. The Prosecution Team disagrees and recommends retaining a score of 1.3 for culpability. Although EMWD contends that 1.6 million gallons of sewage was released as a result of an unavoidable sequence of events, the facts point otherwise. EMWD further suggests that the Operator on duty at the time of the spill acted reasonably in response to the spill, even though warnings were not acted upon.

EMWD fails to justify revision to the culpability score. The Prosecution Team does not contest that the failure of the programmable logic controller (PLC) was the root cause of the spill. However, EMWD's own investigation (Supporting Documents 4 & 5) concluded that there were system design flaws and operator error that contributed to the release, including:

1. The PLC was a single point of failure and no engineered redundant controls were in place to run the barscreen cleaners, as is the case with all other reclamation facilities under EMWD control (Supporting Document No. 4, page 3).
2. Design problems with the Supervisory Control and Data Acquisition (SCADA) warning system, thereby allowing critical warnings to be acknowledged without dispatching technicians to investigate (Supporting Document No. 4, page 5).
3. Plant operator error/lack of training on alarm response (Supporting Document No. 4, page 5).

EMWD's investigation results demonstrate that safeguards to prevent a spill at the TVRWRF were below the prevailing standards of its other four reclamation facilities. The SCADA system at the TVRWRF was the only system which allowed critical alarms to be acknowledged on the first screen of the SCADA interface. Additionally, the TVRWRF was the only EMWD facility not to have independent mechanical floats to activate the bar screen cleaners, should the run command fail to be sent from the PLC. The spill could have been avoided or minimized had either of these system design capabilities been incorporated into the TVRWRF system.

In evidence submitted on September 22, 2010, EMWD asserts that the actions of the on-call operator were reasonable. The Prosecution Team notes, however, that due to inadequate training in alarm response, the operator missed critical information readily available to him on the SCADA interface that could have prevented or minimized the spill. For instance, subsequent to the spill, at a cost of \$7,000 dollars, EMWD provided further training to its operators to assure that this mistake would not occur again. Had the events leading up to the spill occurred at any other EMWD facility, the spill may have never occurred.

#### 4. EMWD asserts its past sewage spills do not qualify as “repeat violations”

Response: EMWD asserts that the Prosecution Team inappropriately applied a factor of 1.1 to the History of Violations adjustment factor. EMWD misinterprets the Enforcement Policy language by suggesting that differing circumstances associated with each spill event prevents them from being considered “repeat violations.” Prosecution Team staff reviewed the Statewide SSO Database and determined that EMWD had a total of ten Category 1 public sewer spills in the period of 2006 – 2009 (spill equals or exceeds 1000 gallons, or result in a discharge to a drainage channel/surface water or drain pipe and not fully captured). These ten spills totaled 1,185,765 gallons of untreated sewage discharged, with a total of 959,765 gallons released to the environment and not recovered.

Each of these ten spills is a violation of Discharge Prohibitions contained in the Basin Plan and EMWD’s Waste Discharge Requirements and, thus, should be considered in the History of Violations adjustment factor. The penalty calculation methodology (Supporting Document No. 10, page 17) states:

“Where there is a history of repeat violations, a minimum multiplier of 1.1 should be used to reflect this.”

Clearly, no reduction in the score is warranted. Prosecution staff applied the minimum score required by the penalty calculation methodology.

cc via email:

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