**Lower Salinas River Watershed Total Maximum Daily Load**
**for Chlorpyrifos and Diazinon**
**Monterey County**

**May 4-5, 2011, Item 16**
**Staff Report Attachment 4**

## PUBLIC COMMENTS AND STAFF RESPONSE

Water Board staff received comments from:

1. Janet Parrish, U.S. Environmental Protection Agency (U. S. EPA), dated March 15, 2011.

2. Steven A. Edmondson, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS), dated March 16, 2011.

Staff responses to these comments are provided below. All comments are direct transcriptions from the letters.

## Comments and Responses

**Comment 1 – U. S. EPA**
*"U.S. Environmental Protection Agency (EPA) appreciates the opportunity to support the proposed Chlorpyrifos and Diazinon Total Maximum Daily Loads (TMDLs) for the Lower Salinas River Watershed. The proposed TMDLs meet federal requirements under the Clean Water Act and appropriately set numeric targets, waste load and load allocations, load reduction milestones to meet water quality standards for these pesticides. The TMDLs address impairments related to chlorpyrifos and diazinon, as well as impairments previously attributed to unspecified pesticides and unknown toxicity. We recommend and support your Board's adoption of these TMDLs.*

*EPA supports the analysis used to develop the TMDLs and finds that they are consistent with EPA water quality guidelines for chlorpyrifos and diazinon. We appreciate that you have included numeric targets equivalent to the water quality objectives for acute and chronic conditions, and for additive conditions: i.e., when the two pesticides are present concurrently in water bodies. Extensive scientific evidence shows that chemicals such as these, which are within the same class, will have a combined, additive effect, this it is necessary to address these issues."*

**Staff Response to Comment 1**
Staff notes that the U. S. EPA supports adoption of the proposed TMDLs and that the proposed TMDLs meet their requirements for approval.

**Comment 2 - NMFS**
*"Due to the identified and potential weakness of relying on the Agricultural Order implementation procedures and other agency programs, NMFS recommends that the Water Board withdraw the current draft TMDLs for Chlorpyrifos and Diazinon in the lower*

*Salinas River Watershed from consideration at this time.. Once the Agricultural Order is passed, the implementation actions and procedures found within it can be analyzed and their likelihood of achieving water quality standards in an accelerated manner in the lower Salinas River Watershed can be determined. Then additional actions necessary to achieve these TMDLs, such as addressing discharges from tile-drained properties and nurseries, can be added to the implementation section of the TMDL document. It is likely that these extra efforts will be needed in the lower Salinas River even if they are not the highest priority under the broader Agricultural Order."*

**Staff Response to Comment 2**

It is important to note that there is an Agricultural Order currently in effect (current Agricultural Order, R3-2010-004). The Central Coast Water Board is in the process of renewing the current Agricultural Order, and it is not certain when a renewed Agricultural Order will be adopted by the Board. The current Agricultural Order requires Dischargers to comply with all requirements of applicable water quality control plans (Condition #D2), and specifies that Dischargers must not cause or contribute to exceedances of any Regional, State, or Federal numeric or narrative water quality standard (Condition #D3). Consistent with the Porter-Cologne Water Quality Control Act (California Water Code Division 7), specifically section 13269, any renewal will require compliance with water quality standards, and therefore, the proposed TMDLs.

Therefore, it is not necessary to wait until the current Agricultural Order is renewed for staff to assess whether its elements will achieve water quality objectives because the Central Coast Water Board approved the current Agricultural Order, which requires Dischargers to comply with state and federal water quality standards, and any renewals of the current Agricultural Order will require the same.

The TMDL implementation plan recommends regulatory mechanisms for achieving the TMDLs. These recommendations are not exhaustive, they don't restrict use of other regulatory mechanisms, nor does the absence of any recommended regulatory mechanism in a TMDL implementation plan limit the Water Board's authority to use additional regulatory mechanism; the Water Board is free to exercise its authority, e.g. through various regulatory mechanisms, whether these regulatory mechanisms are described in a TMDL implementation plan or not. Therefore, if the current Agricultural Order, or any renewals of it, is insufficient to achieve the TMDL, including discharges from tile-drains or nurseries, staff can, and will, propose alternative regulatory strategies to address these discharges. Staff will use monitoring results and other information to propose increased monitoring and reporting, individual waste discharge requirements, enforcement actions, or other regulatory mechanisms, as necessary.

Staff notes that the TMDL Project Report not only describes regulatory mechanisms that will be used to achieve the TMDLs, but also describes the numeric targets for chlorpyrifos, diazinon, and the additive toxicity of these two pesticides. The numeric targets are numeric interpretations of the narrative water quality objectives for toxicity and pesticides as they pertain to chlorpyrifos and diazinon. Central Coast Water Board approval of the proposed TMDLs helps clarify numeric goals for the current Agricultural Order, as well as renewals of it. Therefore, withdrawing the TMDL from Water Board consideration, as the commenter suggests, could hinder clarification of this goal, including implementation efforts of the current Agricultural Order.

The commenter's suggestion that the TMDLs be withdrawn until the current Agricultural Order is renewed is founded on the misconceptions that the current Agricultural Order or a renewal of it is insufficient to achieve the TMDLs, that additional regulatory actions may be necessary to achieve the TMDLs, and that additional implementation actions first need to be described in a TMDL implementation plan before utilizing them. These are misconceptions regarding Water Board authority (as discussed above); therefore, staff is proceeding with the recommendation of Central Coast Water Board adoption of the TMDLs.

**Comment 3 – NMFS**

*"NMFS is concerned that the TMDLs for chlorpyrifos and diazinon in the Lower Salinas River Watershed will not result in the attainment of water quality standards for these two contaminants in an appropriate amount of time. The TMDLs will certainly not be implemented at an accelerated pace to achieve the loading allocations in the shortest time-frame feasible as the TMDL document calls for in its implementation and monitoring chapter. This is because the implementation of the TMDLs is strictly tied to the implementation of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order). However the Agricultural Order, which will not even be finalized by the end of the comment period for these TMDLs, does not address two major contributors to the loading of these pollutants in the lower Salinas River Watershed."*

**Staff Response to Comment 3**

The commenter is concerned that the TMDLs will not be achieved in an appropriate amount of time because the TMDLs is "strictly tied to implementation" of the renewal of current Agricultural Order, which is not yet approved, and two major contributors (tile-drains and nurseries) are not addressed in the draft renewal of the Agricultural Order.

Please refer to staff response to Comment 2 above concerning achieving these TMDLs through the current Agricultural Order and renewals of it.

Implementation of the proposed TMDLs do rely in part on the current Agricultural Order, and the current Agricultural Order clearly states that other regulatory means, e.g. WDRs, will be considered when necessary. Finding number 15 of R3-2010-004 states:

"Some operations may be immediately considered for WDRs because of a past history of violations or other problems of non-compliance; however, the vast majority of operations will be allowed time to meet requirements before being considered for WDRs. The conditions of the waiver require Dischargers to comply with applicable water quality control plans and water quality objectives."

Furthermore, the March 2011 draft Agricultural Order, page 12, Additional Finding 5, states: "…this action…does not preclude the Central Coast Water Board from requiring WDRs for any individual discharger or from administering enforcement remedies (including civil liability) pursuant to the Water Code."

Therefore, implementation of the TMDL is not strictly tied to the current Agricultural Order nor the March 2011 draft Agricultural Order as the commenter suggests; other regulatory mechanisms (e.g., WDRs) will be utilized when progress toward achieving water quality

standards, and water quality control plans, is inadequate, including discharges from tile-drained areas and nurseries.

Staff concurs that the current Agricultural Order does not include individual monitoring and reporting requirements that would enable the Central Coast Water Board to identify specific agricultural operations discharging waste (including chlorpyrifos and diazinon) to surface waters. Staff intends to prioritize specific operations for these requirements in ongoing implementation of the current Agricultural Order, and has included such requirements in the Agricultural Order renewal. Such requirements will improve efficiency in identifying problematic operations, and conducting necessary regulatory follow-up actions.

**Comment 4 – NMFS**

*"The Agricultural Order explicitly states that it will focus on non-tiledrain discharges and anticipates addressing tile-drain discharges in a subsequent agricultural order (Attachment A of the March 2011 Agricultural Order, page 2). This subsequent Agricultural Order will not occur for at least five years. According to Table 4.1 in the staff report for these TMDLs, one of the greatest sources by mass of diazinon and chlorpyrifos to the lower Salinas River Watershed is from the Blanco Drain system, which is largely a tile-drained watershed. Percent load reductions greater than 86% under all flow regimes is required for this drainage to meet the TMDLs. However, the Agricultural Order does not appear to require implementation actions for this drainage due to its focus on non-tiledrain discharges. Therefore, reliance upon the Agricultural Order will result in continued violations of water quality standards, and impacts to the ESA listed steelhead trout that utilize the lower Salinas River."*

**Staff Response to Comment 4**

The comment refers to a finding of the March 2011 draft Agricultural Order. The finding states: "The Central Coast Water Board recognizes that Dischargers may not achieve immediate compliance with all requirements…The focus of this Order is non-tile-drain discharges. The Central Coast Water Board anticipates evaluating longer timeframes to address tile-drain discharges for inclusion in a subsequent Agricultural Order."

The comment also states that the Blanco Drain watershed is largely tile-drained and must reduce loading by an estimated 86% to achieve the TMDL.

The comment therefore deduces that reliance on the March 2011 draft Agricultural Order [alone] will not result in achieving water quality standards and protection of steelhead trout in the lower Salinas River, which is the receiving water of Blanco Drain.

The intent of the finding referred to in the comment, in part, is to acknowledge the difficulty of achieving some water quality standards in tile-drain systems. However, the finding does not waive the responsibility of dischargers to eliminate toxicity in *receiving waters*, e.g., Blanco Drain.

Also note that the March 2011 draft Agricultural Order describes *Tier 3* dischargers (the group of dischargers defined in the March 2011 draft Agricultural Order with most regulatory oversight) as those who apply chlorpyrifos and diazinon [e.g., to a field], and the operation discharges irrigation or stormwater to a waterbody listed as impaired for

toxicity or pesticides. Thus, tile-drain discharges are *not* exempt from this criterion, including dischargers in Blanco Drain, and are therefore subject to regulatory oversight described for Tier 3 dischargers.

Additionally, Tier 3 dischargers are subject to individual monitoring requirements as described in the March 2011 draft Agricultural Order (see Monitoring and Reporting Program, Tier 3). The Monitoring and Reporting Program describes "Individual Surface Water Discharge Monitoring" and states that "Tier 3 Dischargers must submit an individual surface water discharge Sampling and Analysis Plan and QAPP to monitor individual discharges of waste from their operation, including irrigation run-off (*including tailwater discharges and discharges from tile drains,* tailwater ponds and other water containment features unless constructed with impermeable liner), and stormwater discharges…[emphasis added]"

Staff stresses that the intent of the monitoring requirements is, in part, for staff to further refine regulatory actions necessary to achieve water quality standards, including the elimination of toxicity caused by chlorpyrifos and diazinon. If the requirements described in the current Agricultural Order or any renewal of the current Agricultural Order are deemed insufficient by the Central Coast Water Board, the Central Coast Water Board is not precluded from requiring additional monitoring and reporting, individual WDRs or administering enforcement actions to achieve water quality standards (please see staff response for comment 2 describing additional regulatory options).

**Comment 5 - NMFS**
*"Furthermore, the March 2011 version of the Agricultural Order does not focus on nursery operations in a manner similar to the previous version of the Agricultural Order released in February 2010. Nurseries are identified in the staff report for the TMDLs as a major contributor of diazinon and chlorpyrifos from the Espinosa Slough watershed to the Lower Salinas River. The Agricultural Order's implementation efforts will be focused on properties over 1,000 acres in size which will miss the vast majority of nursery operations. Again, this weakness in the Agricultural Order will not result in accelerated achievement of loading allocations in the shortest time-frame feasible."*

**Staff Response to Comment 5**

The comment is based on the misunderstanding that unless a nursery is 1000 acres or more, it will not be subject to the Tier 3 requirements described in the March 2011 draft Agricultural Order.

As discussed in staff response to comment 4, a criterion for Tier 3 includes operations where chlorpyrifos or diazinon are applied and there is discharge to a waterbody listed as impaired for toxicity or pesticides; this includes discharges from nurseries, even if they are less than 1000 acres in size. Consequently, nurseries meeting that criterion are categorized as Tier 3, as described in the March 2011 draft Agricultural Order.

Also note that the description of Tier 3 includes milestones of "One of two individual surface water discharge monitoring samples is not toxic" by October 1, 2012, and "Two of two individual surface water discharge monitoring samples are not toxic" by October 1, 2013 (See March 2011 draft Agricultural Order, Appendix A, Order No. R3-2011-0006, page 35). Tier 3 nurseries would be subject to this milestone.

**Comment 6 – NMFS**

*"Finally, the staff report for the TMDL makes several recommendations to the Agricultural Order for implementation and monitoring requirements, but the March 2011 draft Agricultural Order does not seem to fulfill all the recommendations. However, this is difficult to determine, since the Agricultural Order has not been finalized and may still be amended."*

**Staff Response to Comment 6**

The TMDL Project Report recommends implementation and monitoring requirements to achieve and assess progress of TMDL implementation, e.g., prioritizing discharges likely contributing to impairment from chlorpyrifos and diazinon and requiring individual monitoring of discharges. The March 2011 draft Agricultural Order contains these recommendations. For example, the March 2011 draft Agricultural Order prioritizes all agricultural discharges based on whether or not the agricultural operation applies either chlorpyrifos or diazinon, and whether an agricultural operation using these pesticides discharges to an impaired waterbody, including tile-drain and nursery operations.

However, some waterbodies impaired for chlorpyrifos and diazinon are not yet on the 303d list of impaired waters; staff determined these waterbodies are impaired for chlorpyrifos and diazinon after the 2010 303d list was approved and incorporated these waterbodies in the proposed TMDL. Requirements for agricultural operators discharging to waterbodies that are not on the 2010 303d list, but impaired due to chlorpyrifos and diazinon, will be incorporated in the approved renewal of the current Agricultural Order, or will be established through other regulatory means, e.g., Water Code section 13267.

For other actions necessary to achieve the proposed TMDLs, but not incorporated in the current and any renewed Agricultural Order, staff will propose required actions during the implementation phase using authority of the Agricultural Order or other authority described in the Water Code. After all, the monitoring and reporting required by the current Agricultural Order, and likely any renewal of the current Agricultural Order, is in part intended to gage progress towards achieving water quality standards, and if necessary, help staff determine if additional regulatory oversight is necessary.

**Comment 7 – NMFS**

*"The draft TMDLs also reference the future surface water regulations for pesticides being developed by the California Department of Pesticide Regulation as being a mechanism to achieve control over chlorpyrifos and diazinon discharges. However, the content and form of these future regulations cannot be relied upon to achieve loading allocations in the shortest time-frame possible. There are other tools available to the Water Board, such as issuing Waste Discharge Requirements for nurseries that use chlorpyrifos or diazinon in the lower Salinas River watershed, to achieve water quality standards quickly. These tools should be fully explored and utilized before relying upon future, still developing regulatory processes to achieve water quality standards."*

**Staff Response to Comment 7**

Staff did not mean to indicate that future surface water regulation implemented by the California Department of Pesticide Regulation (CDPR) is being relied upon to achieve these TMDLs. Staff's intention was to highlight current and future activities, including those of CDPR, that are intended to address chlorpyrifos and diazinon. To be clear, the TMDL does not rely in any way on activities of CDPR to achieve the proposed TMDL, but activities of CDPR may help. The Central Coast Water Board will utilize waivers, WDRs, NPDES permits, and other regulatory tools to regulate discharges of chlorpyrifos and diazinon to achieve the proposed TMDLs, thereby attaining water quality standards.