



May 20, 2013

Via Electronic Mail

Central Valley Regional Water Quality Control Board
11020 Sun Drive, # 200
Rancho Cordova, CA 95670-6114

Attention: Daniel McClure (dmcclure@waterboards.ca.gov)

Re: Amendments to the Water Quality Control Plan for the Sacramento River and the San Joaquin River Basins (the "Basin Plan") for the Control of Diazinon and Chlorpyrifos

Dear Mr. McClure:

On behalf of Pacific Coast Federation of Fishermen's Associations, Golden Gate Salmon Association, and Golden Gate Fishermen's Associations, we submit these comments on the Central Valley Regional Water Quality Control Board's draft Basin Plan and Total Maximum Daily Load ("TMDL") for the Control of Diazinon and Chlorpyrifos (hereinafter "Basin Plan Amendments"). Our clients have a long-standing interest in restoring native salmon populations that depend on the health of the Sacramento River and San Joaquin River watershed. Pesticide use is a major threat to the ecosystem and we submit these comments to improve surface water protections needed to restore water quality and help return salmon runs to healthy levels.

As explained more fully below, the Basin Plan Amendments are incomplete and inaccurate and must be revised before their approval by the Regional Board and the State Water Resources Control Board and submittal to EPA. In particular, the draft TMDL fails to identify any agricultural point sources discharges, fails to account for pesticide drift or include a margin of safety to ensure the applicable water quality standards will be attained, and fails to include reasonable assurances that the TMDL will be achieved. As a result of these failures and omissions, the TMDL is unlikely to achieve the goal of clean water in the Sacramento and San Joaquin rivers.

STATUTORY BACKGROUND

The federal Clean Water Act ("CWA") is a comprehensive water protection statute designed to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA employs two fundamental approaches to control water pollution. First, the National Pollutant Discharge Elimination System ("NPDES") in Section 301 provides EPA with authority to issue permits that establish technology-based effluent limitations on point sources of pollution. *Id.* § 1311. Second, section 303 of the Act requires states to establish "water quality standards" that set forth the desired (or "designated") uses of each particular waterbody and criteria to support and protect those uses, along with water quality

management plans that guide implementation of any control measures. *Id.* § 1313; *see also* 40 C.F.R. § 130.6.

Where effluent limitations on point sources are not sufficient to meet water quality standards, section 303(d)(1)(C) requires states to establish total maximum daily loads for particular pollutants impairing those waters. *Id.* § 1313(d)(1)(C). The TMDL provides a quantitative assessment of the pollution problem, covering point sources as well as nonpoint source pollution, and taking into account natural background sources and a margin of safety to account for data gaps, and specifies the reductions needed to achieve applicable water quality standards. 40 C.F.R. § 130.2(I). TMDLs developed by the states are submitted to EPA, which can either approve the TMDLs or disapprove them and, if disapproved, prepare a federal TMDL within 30 days. 33 U.S.C. § 1313(d)(2).

Once approved or established by EPA, TMDLs are not self-executing and do not, by themselves, require any particular action. Instead, TMDL implementation is generally accomplished by the states through a variety of mechanisms, including additional limits on NPDES permits, enforcement orders and best management practices for nonpoint source pollution, or monitoring actions. *See Sierra Club v. Meiburg*, 296 F.3d 1021, 1031 (11th Cir. 2002) (noting that the Clean Water Act leaves “the responsibility for implementing the TMDLs once they were established” to the states).

California implements the CWA through the Porter-Cologne Water Quality Control Act (the “Porter-Cologne Act”), Water Code §§ 13000-13953.4. The state is divided into nine Regional Water Quality Management Boards, which report to the State Water Resources Control Board (“State Board”). Each Regional Board is responsible for creating a water quality management plan, or “Basin Plan,” for its region as required by section 303(e) of the Clean Water Act. Under section 303(e), states must also periodically incorporate any EPA-approved or established TMDLs, as well as implementation measures, into their Basin Plans through a “continuing planning process.” 33 U.S.C. § 1313(e)(3)(C); *see* 40 C.F.R. §§ 130.5, 130.6(c)(1), (6).

The Central Valley Regional Water Quality Control Board (“CV Board”) is the State’s largest regional board, encompassing 60,000 square miles, or about 40 percent of the State’s total area. The CV Board is responsible for ensuring protection of water quality in the Sacramento and San Joaquin Rivers, along with their tributaries, the inland Delta, and the Tulare Lake Basin.

SPECIFIC COMMENTS

1. The Draft TMDL Improperly Assigns All Agricultural Sources Nonpoint Source Load Allocations.

The Code of Federal Regulations defines a TMDL as the “sum of the individual WLAs [wasteload allocations] for point sources and LAs [load allocations] for nonpoint sources and natural background.” 40 C.F.R. § 130.2(i). Under the Clean Water Act, the distinction between point and nonpoint sources is significant, because only point source discharges require federal

NPDES permits that include enforceable limits on pollution discharges. Regulation of nonpoint source pollution is largely left to states.

The draft TMDL includes only domestic wastewater treatment plants and municipal storm water discharges as point sources in the TMDL's wasteload allocation. Staff Report at 136; App. C at C-6. The draft TMDL includes all agricultural sources in the TMDL's nonpoint source load allocations. *Id.* at 137; App. C at C-7. However, agricultural use of pesticides may qualify as "point source" pollution, depending on how pesticides are applied. The TMDL must identify all agricultural point sources and include those sources in the TMDL's wasteload allocation.

The federal Clean Water Act prohibits the unpermitted "discharge of any pollutant by any person," 33 U.S.C. § 1311(a), and defines "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any *point source*." 33 U.S.C. § 1362(12)(A) (emphasis added). The Act defines a "point source" as a "discernible, confined and discrete conveyance, including but not limited to *any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.*" *Id.* § 1362(14) (emphasis added). The Act excludes from the definition of a point source both agricultural stormwater discharges and return flows from irrigated agriculture. *Id.*

Notwithstanding the exemption for agricultural return flows, pesticide pollution may qualify as "point source" pollution under the CWA in several cases, including when: 1) pesticides are sprayed directly on to water, 2) pesticides are applied to fields right next to a drainage ditch or without adequate buffers, 3) pesticides are discharged from agricultural drains where agricultural return flows are not the only source of pesticide pollution, and 4) pesticides are discharged to water bodies from leaky irrigation canals.

Numerous court decisions confirm that agricultural use of pesticides and other contaminants may qualify as point source pollution under the Clean Water Act in these and similar circumstances. *See, e.g., Headwaters v. Talent Irrig. Dist.*, 243 F.3d 526, 532-33 (9th Cir. 2001) (application of herbicide to irrigation canals that leaked into nearby river qualified as point source pollution); *League of Wilderness Defenders v. Forsgren*, 309 F.3d 1181, 1185 (9th Cir. 2002) (aerial spraying pesticides into rivers in national forest qualified as point source pollution); *Concerned Area Residents for the Env't. v. Southview Farms*, 34 F.3d 114, 119 (2d Cir. 1994) (applying liquid manure from tankers onto fields "from which the manure directly flows into navigable waters are point source discharges under the case law"); *United States v. Oxford Royal Mushroom Prods., Inc.*, 487 F.Supp. 852, 854 (E.D.Pa.1980) (spraying overabundance of water onto surface of an irrigation field which, in turn, ran off into a nearby stream through a break in a berm around the field may constitute discharge from a point source).

Furthermore, the Clean Water Act's definition of a "point source" is to be "broadly interpreted." *Southview Farms*, 34 F.3d at 118; *Dague v. City of Burlington*, 935 F.2d 1343, 1354 (2d Cir.1991), *rev'd on other grounds*, 505 U.S. 557 (1992); *see also Sierra Club v. Abston Constr. Co.*, 620 F.2d 41, 45-46 (5th Cir.1980) (defendants were engaged in strip mining operations and placed their overburden in highly erodible piles which were then carried away by

rain water through naturally created ditches); *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 374 (10th Cir.1979) (discharge from a large capacity reserve sump serving a gold extraction process could be a point source even though “the source of the excess liquid is rainfall or snow melt”).

Given the liberal standard for “point source” pollution under the Clean Water Act, the CV Board must not assume that all agricultural sources are nonpoint sources and automatically attribute them point source load allocations in the TMDL.

In addition, the Draft Staff Report states that the TMDL applies only to storm water and domestic waste water dischargers as opposed to all NPDES-permitted dischargers, because these are the only “*significant* NPDES-permitted sources” of chlorpyrifos and diazinon. Staff Report at 137 (emphasis added). It is unclear what is meant by “significant” NPDES-permitted sources, and begs the question of what sources of chlorpyrifos and diazinon are being left out, and on what legal basis does the CV Board rely to exclude some NPDES-permitted sources based on their characterization as not “significant”? The exclusion of some NPDES-permitted sources of chlorpyrifos and diazinon is not adequately explained or justified.

2. The Draft TMDL Does Not Include a Margin of Safety.

The Draft Staff Report incorrectly states that TMDLs are defined only as the “sum of the individual wasteload allocations (WLAs) and load allocations (LAs).” Staff Report at 132. In so stating, the Staff Report omits from the TMDL definition a critical component of all TMDLs—the margin of safety. The Clean Water Act explicitly provides that TMDLs “shall be established 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.*” 33 U.S.C. § 1313(d)(1)(C) (emphasis added). Although the Draft Status Report elsewhere identifies the correct statutory language, its omission of this key definitional component of a TMDL is concerning in light of the draft TMDLs failure to actually include a margin of safety.

The Draft Status Report states that an “explicit” margin of safety is not required because the TMDL includes an “implicit” margin of safety based on conservative estimates that allow for “extra dilution” in 303(d)-listed waters. Staff Report at 139. The problem with the implicit margin of safety theory is that it appears that the TMDL does not account for an important source of pesticide pollution of Central Valley waters—pesticide drift. Pesticide drift is the process whereby sprayed pesticide particles are transported far from fields where they are applied. Relatedly, pesticide particles may also volatilize, and in a gaseous form have the potential to be transported even greater distances from fields. A recent EPA study concluded that chlorpyrifos that has volatilized may harm people more than 4,000 feet from where it is applied, depending on application rates, field size and other factors. *See* EPA, *Chlorpyrifos; Preliminary Evaluation of Potential Risks from Volatilization* 6 (Jan. 31, 2013) (attached as Exhibit A).

The Draft Staff Report acknowledges that chlorpyrifos can pollute surface waters as a result of pesticide drift “at the time of application or as runoff up to several months after

application.” Staff Report at 28. The Draft Staff Report also acknowledges the risk of chlorpyrifos volatilization, but states that only a “small fraction of applied chlorpyrifos is expected to volatilize from soil, crops, surface water or other surfaces into the atmosphere.” *Id.* To the contrary, EPA’s preliminary assessment of chlorpyrifos volatilization risk, mentioned above, found that approximately 30% of chlorpyrifos can be emitted from a treated field as a result of volatilization. *See* Volatilization Assessment at 5. Thus, to the extent it is addressed at all, the Basin Plan Amendments underestimate the potential for contamination from pesticide drift.

Notwithstanding the staff’s acknowledgment of pesticide drift, the draft TMDL’s load allocations do not appear to account for surface water contamination that results from drift, even though drift may contribute significant amounts of chlorpyrifos and diazinon to surface waters and prevent attainment of water quality standards.

In addition, there is no reason to believe that “extra dilution” available in 303(d)-listed waters will provide a sufficient margin of safety to account for these sources of chlorpyrifos and diazinon pollution, as the Draft Staff Report contends, particularly given the fact that the potential for pesticide drift has been significantly underestimated. Staff Report at 139.

Moreover, the Draft Staff Report estimates that agricultural sources will need to reduce chlorpyrifos discharges by between 57% (average) and 99% (maximum) to attain the proposed load allocations. Staff Report at 142, Table 5-1. The range of reductions required for diazinon sources is between 35% (average) and 43% (maximum). *Id.* These are large ranges with significant reductions being necessary to meet the load allocations. If some agricultural sources will need to reduce their chlorpyrifos discharges by 90% or more just to meet the load allocations, and the load allocations may not be adequate because a major source of pollution (drift) has not been accounted for, the TMDL is unlikely to achieve the goal of clean water.

The purpose of a margin of safety is to account for “any lack of knowledge concerning the relationship between effluent limitations and water quality.” 33 U.S.C. § 1313(d)(1)(C). EPA guidance also instructs that “TMDLs can and should be used . . . to consider the effect of *all activities or processes that cause or contribute to the water quality-limited conditions of a waterbody.*” EPA, *Guidance for Water-Quality Based Decisions: The TMDL Process*, Chapter 3 (emphasis added). Here, we know that pesticide drift may be a major contributing source to surface water pollution, and yet the extent of that pollution and the role that it plays has not been adequately explored. The margin of safety must take into account the potential for water pollution caused by drift and volatilization of chlorpyrifos and diazinon.

In short, the draft TMDL is incomplete and fails to adequately assess or account for the role of pesticide drift or adopt an adequate margin of safety.

3. The Draft TMDL Lacks Reasonable Assurances That the TMDL Limits Will Be Achieved.

Although TMDL implementation is left to states, EPA guidance instructs that a “TMDL should provide reasonable assurances that nonpoint source control measures will achieve

expected load reductions in order for the TMDL to be approvable.” EPA, *Guidelines for Reviewing TMDLs under Existing Regulations issued in 1992* 8 (May 20, 2002). This information is necessary for “EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement water quality standards,” as required by section 303(d) of the Clean Water Act. *Id.*; 33 U.S.C. § 1313(d)(1)(C).

In addition, California law requires the CV Board to incorporate the TMDL, along with a “program of implementation” to achieve water quality objectives, into its Basin Plan. Cal. Water Code § 13050(j)(3). This implementation program must include a description of actions necessary to achieve the objectives, a time schedule for such actions, and a method for determining compliance with the objectives. *Id.* § 13242.

The draft TMDL fails to meet these requirements of federal and state law, because it lacks any detail as to how the TMDL limits will be implemented. As discussed above, in addition to an inadequate margin of safety, there is an enormous range in the reductions that would be required by agricultural sources to attain the TMDL’s load allocations, including between 57% (average) and 99% (maximum) for chlorpyrifos dischargers. Staff Report at 142, Table 5-1. The TMDL needs to identify who are the problem sources, which sources need to reduce their loads and by how much, in order for EPA to determine that the TMDL is established at a level that will attain water quality standards. The draft TMDL does not provide this basic information about how the pollution loads will be implemented. For example, a TMDL that requires all sources to reduce chlorpyrifos discharges by 57%, the average of all reductions that would be needed to meet chlorpyrifos load allocations, will not achieve clean water because some sources will need to reduce their discharges by significantly more than the average (up to 99%) for the overall load allocation to be achieved.

Likewise, the draft TMDL contains insufficient information concerning TMDL implementation measures. The draft TMDL only requires agricultural dischargers to prepare and submit to the CV Board a management plan if an exceedance of the water quality objectives or load allocations occurs. Staff Report at 143. No specific pollution control measures are required to be included in the management plan. Instead, the draft TMDL vaguely requires each management plan to describe the “actions” the discharger will take, as well as a schedule for implementation of those actions (with no specific deadlines required), a monitoring plan, and a commitment to revise pollution controls “as necessary.” *Id.* Thus, the draft TMDL does not identify any specific “nonpoint source control measures,” and instead defers to a future process consideration of such measures.

In short, the draft TMDL contains insufficient information concerning TMDL implementation, such that there is not a reasonable assurance that the nonpoint source control measures will achieve load allocations necessary to attain water quality standards. In addition, the Basin Plan Amendments do not include a program implementation plan, as required by state law. *See* Cal. Water Code § 13050(j).

Please consider these comments and revise the proposed Basin Plan Amendments to address the omissions and inaccuracies identified above. As currently drafted, the draft TMDL is incomplete and inaccurate and violates both federal and state water laws.

Sincerely,

A handwritten signature in cursive script that reads "Erin M. Tobin".

Erin M. Tobin
Irene Gutierrez
Counsel for PCFFA, *et al.*

Cc: Jared Blumenfeld, Regional Administrator, EPA Region IX (blumenfeld.jared@epa.gov)