

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

ORDER WQO 2002 - 0016

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In the Matter of the Review on Own Motion

**THE CITY OF TURLOCK, MUNICIPAL SERVICES DEPARTMENT**

For Review of Waste Discharge Requirements Order No. 5-01-122

and Cease and Desist Order No. 5-01-123

[NPDES Permit No. CA0078948]

for the City of Turlock Water Quality Control Facility,

Issued by the

California Regional Water Quality Control Board,

Central Valley Region

***SWRCB/OCC FILE A-1382***

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BY THE BOARD:

On May 11, 2001, the Central Valley Regional Water Quality Control Board (Regional Board) reissued a National Pollutant Discharge Elimination System (NPDES) permit (Order No. 5-01-122 or the permit) and Cease and Desist Order (Order No. 5-01-123 or CDO) to the City of Turlock (Turlock). The permit and CDO authorize Turlock to discharge treated effluent from its wastewater treatment plant into the Harding Drain. Turlock filed a petition for review of the permit and CDO. In this order the State Water Resources Control Board (State Board or Board) addresses the significant issues raised in the petition and remands the permit to the Regional Board for modifications. The remaining issues are dismissed.<sup>1</sup>

**I. BACKGROUND**

Turlock owns and operates a wastewater treatment plant serving the City of Turlock and Community Services Districts of Keyes and Denair. The plant is a secondary treatment facility with a design capacity of 20 million gallons per day (mgd) and a current

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<sup>1</sup> See *People v. Barry* (1987) 194 Cal.App.3d 158; Cal. Code Regs., tit. 23, § 2052(a)(1). Dismissed issues have either been addressed in previous State Board orders, or are determined to be not sufficiently substantial to warrant review.

average discharge of 10.4 MGD. The facility's treated effluent is discharged into Harding Drain, a water body that subsequently discharges into the San Joaquin River approximately five miles downstream from the discharge point.

The permit provides that the Harding Drain is a "man-made agricultural drainage facility designed and maintained by TID [Turlock Irrigation District] for drainage purposes."<sup>2</sup> The permit notes that in addition to Turlock's treated wastewater, Harding Drain carries flows from Turlock Irrigation District operational spill water, tailwater from row and orchard crops, municipal storm water, and other runoff.<sup>3</sup> Prior to reissuance of Turlock's NPDES permit, the discharge was governed by Waste Discharge Requirements Order No. 95-059, adopted by the Regional Board in March 1995.<sup>4</sup>

Turlock filed its petition for review of the permit and request for stay on May 30, 2001, and later amended the petition in a submission dated June 11, 2001. Pursuant to a settlement agreement, the State Board granted Turlock a temporary stay of certain final effluent limitations and compliance schedules contained in the permit and CDO.<sup>5</sup> The State Board has agreed to review the matter on its motion.<sup>6</sup>

Turlock objects to a number of limitations contained in the permit and CDO, contending that the requirements imposed by the Regional Board are unnecessary, overly stringent, and impossible to achieve without costly measures that will endanger the economic vitality of the City of Turlock and surrounding communities served by the City's wastewater treatment facility.<sup>7</sup> Turlock also cites enforcement provisions in the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act)<sup>8</sup> and mandatory minimum penalty

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<sup>2</sup> Permit, Finding 2.

<sup>3</sup> *Ibid.*

<sup>4</sup> Permit, Finding 7.

<sup>5</sup> State Board Order WQ 2001-13.

<sup>6</sup> See, State Board Order WQO 2002-0006, adopted March 21, 2002.

<sup>7</sup> City of Turlock, First Amended Petition for Review of California Regional Water Quality Control Board, Central Valley Region, Order No. 5-01-122 and Cease and Desist Order No. 5-01-123, June 11, 2001, (Petition) at p. 10.

<sup>8</sup> 33 U.S.C. § 1251 et seq.

provisions in the California Water Code to illustrate the potential harm associated with overly stringent permit limitations.<sup>9</sup>

Wastewater discharges to surface waters are regulated by the Clean Water Act and by the state Porter-Cologne Water Quality Control Act.<sup>10</sup> An NPDES permit is required for any point source<sup>11</sup> discharge of a pollutant to surface waters. Water quality standards governing allowable discharges are contained in statewide and regional water quality control plans, which set forth beneficial use designations and water quality objectives to protect those uses. The Regional Board is governed by the Water Quality Control Plan for Sacramento River and San Joaquin River Basins (Basin Plan). For water bodies not listed, the Basin Plan provides guidance for determining applicable designations and resulting water quality standards.

In addition to state standards, United States Environmental Protection Agency (U.S. EPA) has promulgated the California Toxics Rule (CTR),<sup>12</sup> which established numeric criteria for priority toxic pollutants<sup>13</sup> for the state's inland surface waters and enclosed bays and estuaries. The State Board concurrently adopted a policy to implement the new criteria entitled, "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2000)" (Implementation Policy or Policy). Among other provisions, the Policy establishes procedures for selecting priority toxic pollutants that must be regulated in a permit, calculating effluent limitations, and establishing compliance schedules.

## II. CONTENTIONS AND FINDINGS<sup>14</sup>

**Contention:** The Basin Plan states that the beneficial uses of specifically identified water bodies generally apply to their tributary streams and provides for a case-by-case

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<sup>9</sup> Petition, at pp. 8-9.

<sup>10</sup> Cal. Wat. Code § 13000 et seq.

<sup>11</sup> A "point source" is "any discernible, confined and discrete conveyance" such as a pipe, ditch, channel, tunnel, conduit or well. 33 U.S.C. § 1362(14).

<sup>12</sup> See 40 C.F.R. § 131.38, 65 Fed. Reg. 31682-31719 (May 18, 2000).

<sup>13</sup> Appendix A to 40 C.F.R. Part 423 lists 126 priority pollutants.

<sup>14</sup> Turlock has requested that the Board take official notice of an order issued by a federal district court in *City of Los Angeles v. U.S. EPA* (C.D. Cal., Dec. 18, 2001), Case No. CV 00-08919 R9RZx), on a summary judgment motion. That

analysis of the beneficial uses of unidentified water bodies. Turlock contends that the Regional Board's application of the tributary language is contrary to federal and state law because the Regional Board failed to conduct an adequate site-specific analysis of existing uses.

**Finding:** The status of the Harding Drain with respect to the tributary language and identification of appropriate beneficial uses is unclear. The Regional Board must clarify whether or not the Drain is a constructed agricultural drain as opposed to a modified natural stream, and whether the Basin Plan language applies to constructed agricultural drains. In either case, the Regional Board must provide a more thorough discussion of the beneficial uses of the Harding Drain.

The Basin Plan provides that:

“The beneficial uses of any specifically identified water body generally apply to its tributary streams. In some cases a beneficial use may not be applicable to the entire body of water. In these cases the Regional Water Board's judgment will be applied. It should be noted that it is impractical to list every surface water body in the Region. For unidentified water bodies, the beneficial uses will be evaluated on a case-by-case basis.”<sup>15</sup>

The Basin Plan also directs that water bodies without designated beneficial uses are assigned the designation of Municipal (MUN) and Domestic Supply, in accordance with State Water Board Resolution No. 88-63.<sup>16</sup> That resolution is incorporated by reference.<sup>17</sup>

The Regional Board found that the Harding Drain is tributary to the San Joaquin River and that: “[u]pon review of the flow conditions, habitat values, and beneficial uses of Harding Drain, . . . the beneficial use[s] identified in the Basin Plan for the San Joaquin River, from the mouth of Merced River to the City of Vernalis, are applicable to the Harding Drain.”<sup>18</sup> The permit includes a brief discussion of a number of the beneficial uses applied to the Harding Drain. Turlock argues that the analysis of beneficial uses is inadequate, resulting in

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request is denied. The order addressed the legality of EPA action on a Los Angeles Regional Water Quality Control Board basin plan amendment. The order is unpublished and is not binding on the Board.

<sup>15</sup> Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region, Fourth Edition (1998), (hereinafter Basin Plan), at II-2.00.

<sup>16</sup> State Water Resources Control Board, Resolution No. 88-63, (Sources of Drinking Water Policy).

<sup>17</sup> Basin Plan, II-2.00.

<sup>18</sup> Permit, Finding 12.

identification of non-existing and unattainable uses that require unreasonably stringent limits. In order to address Turlock's concerns, several issues must first be clarified.

It is unclear whether the tributary language in the Basin Plan applies to constructed agricultural drains. The Regional Board has previously interpreted the language to exclude such drains, based upon the provision's limited application to "tributary streams."<sup>19</sup> We find this to be a reasonable interpretation of the language appearing in the Basin Plan. The Regional Board retains the prerogative of interpreting its own Basin Plan, but must consistently apply the language and explain its basis for doing so. If the tributary language does not apply to constructed agricultural drains, then there has been no designation of such drains, except those that are individually designated in the Basin Plan.

The issue is further complicated by conflicting statements in the permit and the Regional Board's response regarding the nature of the Harding Drain. The permit states that the Harding Drain is a "man-made agricultural drainage facility designed and maintained by TID for drainage purposes."<sup>20</sup>

Conversely, the Regional Board response to the petition states that:

"... Harding Drain was not developed on upland so it is not a 'constructed agricultural drain.' Rather, Harding Drain is a modified natural stream corridor with continuing beneficial uses."<sup>21</sup> A lengthy submission by TID describes construction of the drains in its irrigation system as excavations "at suitable locations to collect irrigation return flows and intercept subsurface drainage."<sup>22</sup> The permit and fact sheet contain no other findings on this point, although the hearing transcript and responses to comments both note the Regional Board's position that the

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<sup>19</sup> Memorandum from Elizabeth Miller Jennings to Dennis W. Westcot, March 3, 1994, re: Application of the Tributary Footnote in the Water Quality Control Plan for the RWQCB, Central Valley Region, Basins 5A, 5B, and 5C. The State Board takes official notice of this document and adds it to the administrative record.

<sup>20</sup> Permit, Finding 2.

<sup>21</sup> California Regional Water Quality Control Board, Central Valley Region, Response to Petition for Review of Waste Discharge Requirements Order No. 5-01-122 and Cease and Desist Order No. 5-01-123 [NPDES No. CA0078948], City of Turlock, Wastewater Treatment Plant, Stanislaus County, October 1, 2001, (Regional Board Response) at p. 2.

<sup>22</sup> Turlock Irrigation District, Summary of Facts and Points and Authorities in Support of Petition for Review, at p. 4.

Harding Drain is a modified natural stream.<sup>23</sup> Given its importance to the determination of beneficial uses, as provided below, that position should be reconsidered and better supported in the permit findings or fact sheet.

The nature of the Harding Drain also has implications for application of Resolution No. 88-63, the State Board Sources of Drinking Water Policy. Resolution No. 88-63 contains an exception for waters “in systems designed or modified for the primary purpose of conveying or holding agricultural drainage waters, provided that the discharge from such systems is monitored to assure compliance with all relevant water quality objectives as required by the Regional Boards.”<sup>24</sup> The Harding Drain would appear to qualify for this exception.

The specificity of the tributary language in the Basin Plan and the nature of the water body require additional findings before the beneficial uses can be identified. The appropriate analysis depends upon whether or not the Basin Plan tributary language applies. If the Regional Board concludes that it does, either because the Harding Drain is found not to be a constructed agricultural drain or because the Regional Board now interprets the tributary language as applying to constructed agricultural drains, the process for identifying the beneficial uses of unnamed tributaries is set forth in the City of Vacaville order, which concerns an unnamed tributary stream.<sup>25</sup>

If the Regional Board concludes that the tributary language does not apply, the appropriate designated uses would be based on U.S. EPA’s water quality standards regulations, which require protection of all existing uses.<sup>26</sup> Existing uses are “those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.”<sup>27</sup> Existing uses also include those uses for which water quality was suitable

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<sup>23</sup> See Central Valley Regional Water Quality Control Board, Response to Comments (2<sup>nd</sup> Set), for City of Turlock & Turlock Irrigation District, NPDES Permit Renewal, May 8, 2001, at p. 8; Hearing Transcript, Central Valley Regional Water Quality Control Board, Consideration of NPDES Permit Renewal and Adoption of Cease and Desist Order, May 11, 2001, at p. 50.

<sup>24</sup> State Board Resolution No. 88-63, 2.b.

<sup>25</sup> See State Board Order WQO 2002-0015, at pp. 8 – 11. That order provides that a water body to which the Basin Plan tributary language applies must be protected for the full range of beneficial uses of the downstream water body to which it is tributary, unless a Basin Plan amendment is effected to de-designate the inappropriate uses.

<sup>26</sup> See, 40 C.F.R. § 131.10.

<sup>27</sup> 40 C.F.R. § 131.3(e);

on or before November 28, 1975.<sup>28</sup> The Regional Board would therefore examine existing uses of the water body in question. Moreover, given the rebuttable presumption that all waters should be designated as fishable and swimmable, the Regional Board would have to prepare a use attainability analysis (UAA) if it intends to exclude those designated uses.<sup>29</sup> Finally, all downstream uses must be protected.<sup>30</sup> Because inapplicability of the tributary language would mean that no beneficial uses other than MUN have been designated, a Basin Plan amendment would ultimately be necessary.<sup>31</sup> In that event, the Regional Board may require dischargers to the affected waterbody to provide assistance, through data collection, water quality-related investigations, or other appropriate means, to support and expedite the basin plan amendment process.<sup>32</sup> Pursuant to Water Code sections 13267 and 13383, dischargers are expected to contribute to and assist in expediting a process that will facilitate their use of the state's waterways for wastewater disposal.

In either case, the permit's findings are insufficient to reflect the Regional Board's conclusions on these points. Only eight of the twelve beneficial uses identified as applying to the Harding Drain are discussed in the permit findings.<sup>33</sup> Only one beneficial use, agricultural drainage and irrigation, is described in the permit as an existing use of the Harding Drain. All other beneficial uses discussed in the permit are described in terms of potential uses and uses of the San Joaquin River downstream of the discharge. The findings that concern the uses of the San Joaquin River are insufficient to connect potential impacts of the discharge to these beneficial uses. The fact sheet contains a marginally more extensive discussion, referring to observed uses of the Drain for contact and noncontact recreation and discussing some impacts

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<sup>28</sup> *Ibid.*; Water Quality Standards Handbook (2d.ed. 1994) (EPA-823-B-94-005a).

<sup>29</sup> 40 C.F.R. 131.10(j).

<sup>30</sup> 40 C.F.R. 131.10(b).

<sup>31</sup> Although state and federal antidegradation policy requires the analysis of beneficial uses prior to permit reissuance in order to ensure protection of all existing uses, designation of uses in the Basin Plan need not be completed prior to reissuance of the permit. See, State Board Res. No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California); 40 C.F.R. § 131.12.

<sup>32</sup> See, State Board Order WQO 2002-0015, at pp. 15 -16.

<sup>33</sup> Permit, Finding No. 13. The permit discusses the following beneficial uses: domestic supply, agricultural supply, water contact and noncontact recreation and esthetic enjoyment, freshwater replenishment, and preservation and enhancement of fish, wildlife, and other aquatic resources.



to the San Joaquin River based on lack of dilution. Overall, however, the analysis must better address the basis for applying these uses to the Harding Drain. If the Harding Drain has no designated uses because the Basin Plan tributary language does not apply, the analysis contained in the permit is insufficient as a basis upon which to determine what beneficial uses must be protected in the Harding Drain and the level of protection necessary in the Drain to protect uses in downstream waters. If, on the other hand, the Regional Board finds that the tributary language does apply, the permit should so state, and additional analysis of uses would become necessary only if the discharger presents evidence that a use is not existing and is highly unlikely to become attainable.<sup>34</sup>

In sum, the permit does not provide an adequate explanation of the applicability of the Basin Plan tributary language, the nature of the Harding Drain, and the beneficial uses to be protected. On remand, the Regional Board must clarify whether the tributary language applies to constructed agricultural drains. The Regional Board must also determine whether or not the Harding Drain is a constructed agricultural drain or a modified natural stream subject to the Basin Plan tributary language. It must adopt findings to explain the basis for its conclusions. If the Regional Board concludes that the Basin Plan tributary language is inapplicable to the Harding Drain, or if the discharger presents evidence that uses are not existing and are highly improbable, a case-by-case analysis of the beneficial uses must be conducted in accordance with the standards and processes set forth above and in State Board Order WQO 2002-0015 (City of Vacaville), specifically examining all applicable beneficial uses and providing facts to support these determinations.

**Contention:** Turlock contends that the permit's requirement for tertiary treatment standards -- or the equivalent -- is contrary to state and federal law, violating technology-based requirements in the Clean Water Act as well as a state prohibition on specifying the manner of compliance with waste discharge requirements. Turlock also contends that water reclamation standards contained in the California Code of Regulations, Title 22, were inappropriately applied to the discharge.

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<sup>34</sup> See, State Board Order WQO 2002-0015, City of Vacaville, at pp. 15-16, 29.

**Finding:** Depending upon the beneficial uses identified, tertiary treatment standards may appropriately be required for publicly owned treatment works (POTWs). Although the permit may not specify the manner of compliance, the permit may require a discharger to meet standards equivalent to tertiary treatment as set forth in Title 22 where otherwise supported.

The permit requires a level of treatment necessary to meet the standards set forth in the California Code of Regulations, Title 22, which provides for minimum treatment and disinfection of recycled wastewater.<sup>35</sup> The Regional Board found that these standards were necessary to protect the beneficial uses of contact recreation and agricultural irrigation downstream in the Harding Drain and the San Joaquin River.<sup>36</sup> Although the Basin Plan contains specific bacteria objectives for waters designated for contact recreation,<sup>37</sup> the Regional Board imposed more stringent limits based upon the recommendations of the California Department of Health Services (DHS). The standards recommended by DHS direct that recycled water used for surface irrigation of food crops shall be a disinfected tertiary recycled water if the irrigation water comes into contact with the edible portion of the crop.<sup>38</sup> Coliform and turbidity limits were specified in the permit as “indicator[s] of the effectiveness of the treatment process and to assure compliance with the required level of treatment.”<sup>39</sup> The permit contains findings that describe consideration of the factors set forth in Water Code section 13241, a requirement where limits are imposed that are more stringent than the applicable objectives.<sup>40</sup>

DHS commented on the tentative permit and recommended imposing tertiary treatment standards because of low flows in the Harding Drain and potential unrestricted agricultural irrigation

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<sup>35</sup> See, Tit. 22, Cal. Code Regs., Div. 4, Chap. 3.

<sup>36</sup> Permit, Finding 19.

<sup>37</sup> Basin Plan, III-3.00.

<sup>38</sup> Tit. 22, Cal. Code Regs., § 60304(a)(1). The regulations define “disinfected tertiary recycled water” as “a filtered and subsequently disinfected wastewater,” using one of two disinfection processes and meeting the criteria that “[t]he median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 coliform bacteria per 100 milliliters.” Tit. 22, Cal. Code Regs., § 60301.230.

<sup>39</sup> Permit, Finding 19.

<sup>40</sup> See, Permit, Finding 20.

using relatively undiluted flows from the Drain.<sup>41</sup> Although water from Harding Drain is currently restricted to irrigation of non-food crops due to the dominance of wastewater in the stream,<sup>42</sup> the Turlock Irrigation District has asked for removal of these restrictions.<sup>43</sup> A later comment letter from DHS recommended tertiary treatment standards for protection of contact recreation uses as well.<sup>44</sup> DHS recommended the tertiary treatment standards where receiving waters provide less than 20:1 dilution.<sup>45</sup>

The standards recommended by DHS are those contained in Title 22 for use of recycled water.<sup>46</sup> Turlock argues that the Harding Drain is a water of the United States within the meaning of the Clean Water Act and that the standards contained in Title 22 are inapplicable to a discharge to such a water body.<sup>47</sup> Generally, the Title 22 standards apply to direct use of recycled water for specified purposes, not to discharges to a surface water. However, the Regional Board found that the Drain was “essentially the same as any other conveyance system (pipe or canal) when upstream flows are not present for dilution.”<sup>48</sup> The Drain is a surface water rather than a mere conveyance system, so the Title 22 regulations are not directly applicable. However, it is

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<sup>41</sup> Letter dated April 8, 1999, from David P. Spath, Division of Drinking Water and Environmental Management, California Department of Health Services, to Kenneth Landau, Supervising Engineer, California Regional Water Quality Control Board, Central Valley Region.

<sup>42</sup> *Ibid.* Title 22 directs that tertiary treatment standards are required for recycled water used to irrigate food crops where the recycled water comes into contact with the edible portion of the crop, and for irrigation of parks and playgrounds, school yards, residential landscaping, and unrestricted access golf courses. Tit. 22, Cal. Code of Regs., § 60304(a). Less stringent standards are required for water used to irrigate food crops where the edible portion of the crop does not contact the water, and for water used to irrigate cemeteries, freeway landscaping, restricted access golf courses, and other types of vegetation with lower risk of human contact. Tit. 22, Cal. Code of Regs., § 60304(b)-(d).

<sup>43</sup> See, letter dated June 1, 2000, from Debra C. Liebersbach, Water Resources Analyst, Turlock Irrigation District, to Kathryn Gaffney, California Regional Water Quality Control Board, Central Valley Region.

<sup>44</sup> Letter dated July 11, 2000, from David P. Spath, Division of Drinking Water and Environmental Management, California Department of Health Services, to Gary M. Carlton, Executive Officer, California Regional Water Quality Control Board, Central Valley Region.

<sup>45</sup> *Ibid.*

<sup>46</sup> See, State Board Order WQO 2002-0015, City of Vacaville, at pp. 32-34.

<sup>47</sup> Although Turlock agrees that the Harding Drain is a water of the U.S., a finding necessary to regulation via an NPDES permit, the Turlock Irrigation District contends that the Drain is not a water of the U.S. Because the Harding Drain is tributary to the San Joaquin River, we agree that it is a water of the U.S. and properly subject to NPDES regulation. 40 C.F.R. § 122.2. Federal courts have found that man-made water bodies are not excluded from the Clean Water Act coverage on that basis. See, *United States v. Eidson*, 108 F.3d 1336, 1343 (1997).

<sup>48</sup> Permit, Finding 17.

reasonable to use the standards as guidance for limiting discharges of wastewater that, without significant dilution, will be used for the purposes described in Title 22.

This Board agrees that the reclamation criteria are not directly applicable to wastewater discharged into a water body subject to NPDES regulation, even where seasonal lack of dilution results in downstream irrigation uses of the flows that are nearly undiluted. However, we find that the Regional Board may properly rely upon recommendations from DHS in determining the level of treatment necessary to protect human health from pathogens. Therefore, if on remand the Regional Board appropriately assigns the beneficial uses of agricultural irrigation and contact recreation, the Regional Board may require the tertiary treatment standards. In compliance with Water Code section 13360, the permit allows for equivalent treatment processes that will meet the required standards. Where equivalent treatment processes are allowed, there is no violation of section 13360.<sup>49</sup>

**Contention:** In determining whether effluent limitations are needed for particular pollutants, the Regional Board must first analyze whether the discharge has the reasonable potential to cause or contribute to an excursion above any water quality standard, including narrative objectives.<sup>50</sup> This determination is referred to as a “reasonable potential analysis.” Turlock claims that for a number of constituents, the Regional Board inappropriately found that there is reasonable potential that those constituents will cause or contribute to exceedances of water quality standards. Specifically, Turlock argues that the Board lacked sufficient data or evidence to support a “reasonable potential finding” for the following pollutants: cyanide, bromodichloromethane, iron, manganese, tributyltin, copper, aluminum, and zinc.

**Finding:** Reconsideration of the beneficial uses for the Harding Drain may result in application of different water quality standards than those used in the current permit. Therefore, detailed analysis of the reasonable potential determinations made in the current permit is not appropriate in this order. However, we do note that the current permit does not uniformly

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<sup>49</sup> See, State Board Order WQ 80-19 (In the Matter of the Petitions of Las Virgenes Municipal Water District, et al.); State Board Order WQ 2002-0015 (City of Vacaville). See also, *Tahoe-Sierra Preservation Council v. State Water Resources Control Board* (1989) 210 Cal.App.3d 1421, 1438.

<sup>50</sup> 40 C.F.R. § 122.44(d).

explain the basis for its reasonable potential determinations. On remand, the permit should explain the basis and objectives used to determine whether specific pollutants have the reasonable potential to cause or contribute to exceedances of water quality objectives.

The permit fact sheet states that reasonable potential analyses and calculations of effluent limitations were conducted, in accordance with guidance in the Implementation Policy, for constituents listed in the CTR and National Toxics Rule (NTR),<sup>51</sup> as well as constituents that are not listed in the CTR or NTR.<sup>52</sup> The Implementation Policy provisions are applicable to priority pollutant criteria promulgated by U.S. EPA through the NTR and CTR, and for priority pollutant objectives established in regional water board basin plans.<sup>53</sup> The Implementation Policy is not applicable to non-priority pollutants. In addition to the Implementation Policy, the U.S. EPA Technical Support Document (TSD) for Water Quality-Based Toxics Control describes procedures for determination of reasonable potential for exceedance of toxicity standards and calculation of effluent limits for priority pollutants, including those that are not listed in the NTR/CTR. Neither the Implementation Policy nor the TSD addresses reasonable potential analyses and effluent limit calculation for non-toxic pollutants.

Implementation Policy provisions or the TSD may be appropriate as guidance for regulating those pollutants to which they are not applicable. In this case, the permit applies the Implementation Policy, but does not provide an explanation supporting that decision. The permit must include findings that adequately explain the basis for reasonable potential determinations and calculation of effluent limitations, what guidance is used, and the reasons for doing so. The permit must also make clear the objectives applied to those pollutants for which reasonable potential is found and the limits imposed.<sup>54</sup> On remand, the basis for reasonable potential determinations and calculation of limitations must be clarified and adequately supported.

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<sup>51</sup> See 40 C.F.R. § 131.36, 57 Fed. Reg. 60848-60923 (Dec. 22., 1992).

<sup>52</sup> Fact Sheet, Regional Board Order No. 5-01-122, p. 4.

<sup>53</sup> Implementation Policy, p. 1.

<sup>54</sup> Issues as to the applicability of the Basin Plan tributary language appear to have caused some confusion relating to the appropriate objectives for some constituents. For molybdenum, the permit cites a water quality objective for a portion of the San Joaquin River to protect use for agricultural supply. Permit, Finding No. 22.j. Elsewhere in the record, it appears that the Basin Plan narrative toxicity objective is the basis for the molybdenum limit. Fact Sheet, p. 22; hearing transcript, pp. 11, 20-22, and 76.

**Contention:** The Regional Board adopted Cease and Desist Order No. 5-01-123, setting forth a schedule of actions to achieve compliance with permit limits for which Turlock had demonstrated that it was infeasible to immediately comply. Turlock contends that the Regional Board inappropriately failed to include compliance schedules within the permit itself, needlessly placing Turlock in jeopardy of immediate permit violations.

**Finding:** We agree, in part. The designation of non-existing and unattainable uses may result in limits more stringent than necessary to protect existing and likely uses. To the extent that applicable authority allows compliance schedules to be included in the permit, the Regional Board should do so.

As provided in Order WQO 2002-0015 (City of Vacaville), also adopted today, this Board finds that where a regional water quality control board has evidence that a designated use is not an existing use and likely cannot be feasibly attained, consistent with 40 CFR section 131.10, it is unreasonable to require a discharger to incur control costs to protect that use.<sup>55</sup> This is especially true for a water body such as the Harding Drain, in which wastewater and agricultural drainage often comprise the majority of the flow.

While it is recognized that the Regional Board must protect all existing beneficial uses, downstream uses, and uses presumed in the Clean Water Act and its regulations, the Regional Board should take steps to ensure that any uses for which it has concluded that designation is not warranted do not subject dischargers to enforcement penalties where interim requirements would otherwise be available. Five-year compliance schedules are allowed by the CTR and Implementation Policy.<sup>56</sup> The Regional Board's current Basin Plan provides that NPDES permits may include compliance schedules of up to ten years for water quality objectives that are adopted after September 25, 1995.<sup>57</sup>

This Board has previously found that language such as that found in the Basin Plan, allowing compliance schedules for new water quality objectives, may be reasonably construed to apply to newly interpreted objectives.<sup>58</sup> This would generally be true where the

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<sup>55</sup> State Board Order WQO 2002-0015, at p. 15.

<sup>56</sup> See 40 C.F.R. § 131.38(e); Implementation Policy, § 2.1.

<sup>57</sup> Basin Plan, IV-16.00.

<sup>58</sup> See, State Board Order WQ 2001-06 (Tosco), at p. 54.

Regional Board re-interprets the Basin Plan narrative objective to impose new effluent limitations in a discharger's permit. It appears that this may be the case for some of the objectives for which the compliance schedule was provided separately in Order No. 5-01-123. The Regional Board does not adequately explain the basis for refusing to include the compliance schedules in the permit.

The unique problems affecting effluent-dominated waterways warrant efforts to avoid unnecessary separation of permit limits and compliance schedules. To the extent that applicable legal authority provides a basis for inclusion in the permit of compliance schedules that would afford relief from limitations resulting from non-existing and likely unattainable uses, those compliance schedules should be included in the permit. Where the Regional Board finds that a compliance schedule cannot be included in the permit, that decision must be supported.

**Contention:** Turlock objects to a receiving water limit for temperature included in the permit. Turlock argues that the limit, which regulates increases over ambient temperature, is inappropriate because the Basin Plan objective addresses “natural receiving water temperature” and because the Harding Drain has no natural temperature.

**Finding:** The Basin Plan receiving water temperature objective is not clearly applicable to the Harding Drain. The Regional Board has authority to impose limits that are protective of beneficial uses, but must support those limits with appropriate findings. On remand, the Regional Board should base any temperature objective on site-specific information and include findings in support.

The permit includes a temperature limitation that prohibits Turlock's discharge from causing the ambient temperature of the receiving water to increase more than five degrees.<sup>59</sup> The Basin Plan temperature objective addresses “natural receiving water temperature.”<sup>60</sup> As noted in State Board Order WQO 2002-0015 (City of Vacaville), “natural receiving water temperature” is defined in the Board's Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (1975) (Thermal Plan) as: “[t]he temperature of the receiving water at locations, depths, and times which

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<sup>59</sup> Permit, section C.8.

<sup>60</sup> Basin Plan, III.-8.00.

represent conditions unaffected by any elevated temperature waste discharge or irrigation return waters.”

The Harding Drain flows vary seasonally but appear to significantly consist in irrigation return flow.<sup>61</sup> The permit indicates that at times, Turlock’s effluent is the only flow in the Harding Drain.<sup>62</sup> Therefore, the Board agrees that establishing a “natural” receiving water temperature may be problematic. The Regional Board’s response to the petition also notes the difficulty in limiting receiving water temperatures in the absence of dilution.<sup>63</sup> On remand, the Regional Board should base any receiving water temperature limitation on an instream temperature investigation.<sup>64</sup> Such a limit must protect downstream uses as well as appropriately-identified beneficial uses of the Harding Drain.

### **III. STAY REQUEST**

Turlock has requested that the Board stay those provisions of the permit that may be inadequately supported. In State Board Order WQ 2001-13, we stayed a number of provisions of the permit, pending final action by the Board on Turlock’s petition for review. Those provisions stayed include: final effluent limitations for aluminum, copper, cyanide, zinc, bromodichloromethane, molybdenum, tributyltin, iron, ammonia, and manganese, in Effluent Limitations B.1 of the permit; effective date of final effluent limitations for copper, cyanide, zinc, and bromodichloromethane, presently set for May 1, 2006, as noted in fn. 1 of Effluent Limitations B.1. of the permit; the compliance schedule for copper and zinc contained in Provision G.8 of the permit; and the compliance schedule for aluminum and molybdenum, presently set for May 1, 2006, as noted in Directive 4 of Cease and Desist Order No. 5-01-123.

The Board concludes that it is appropriate to continue in effect the stay as set forth above. In addition, the receiving water temperature objective contained in section C.8 should be stayed. The stay shall be effective until the Regional Board acts on the remand.

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<sup>61</sup> See, Permit, Finding 2.

<sup>62</sup> Permit, Finding 15.

<sup>63</sup> Regional Board Response, at p. 23.

<sup>64</sup> See, State Board Order WQO 2002-0015 (City of Vacaville), pp. 47-49.



#### **IV. CONCLUSIONS**

Based on the above, the Board concludes that:

1. The Regional Board must clarify and support its determinations on whether the Harding Drain is a constructed agricultural drain or a modified natural stream with continuing beneficial uses.
2. If the Regional Board determines that the Harding Drain is a constructed agricultural drain, the permit must clarify and support its conclusions on whether or not the tributary language in the Central Valley Basin Plan is applicable to a constructed agricultural drain.
3. If the Basin Plan tributary language does not apply, or if the discharger presents evidence that uses are not existing and are unlikely to be attainable, the Regional Board must conduct more thorough case-by-case analysis of the beneficial uses of the Harding Drain.
4. Tertiary treatment standards may be appropriate to protect properly identified beneficial uses where the permit allows for equivalent treatment processes that will meet the required standards.
5. The Regional Board may appropriately rely on Department of Health Services recommendations in determining the level of treatment necessary to protect human health from pathogens.
6. The permit and fact sheet must include findings that explain the basis for reasonable potential determinations and calculation of effluent limitations.
7. In order to avoid overly stringent limits resulting from non-existing and unattainable uses, properly granted compliance schedules should be placed in the permit where there is a basis for doing so.
8. The Regional Board should impose appropriate temperature controls on Turlock's discharge based upon a site-specific study.

#### **V. ORDER**

IT IS HEREBY ORDERED that Order No. 5-01-122 and Order 5-01-123 are remanded to the Central Valley Regional Board for review and revision consistent with the findings of this Order.

IT IS FURTHER ORDERED that the following provisions of Order No. 5-01-122 are stayed from the effective date of this order until the Central Valley Regional Board acts on the remand:

(a) final Effluent Limitations for aluminum, copper, cyanide, zinc, bromodichloromethane, molybdenum, tributyltin, iron, ammonia, and manganese in Effluent Limitations B.1;

(b) effective date of final Effluent Limitations for copper, cyanide, zinc, and bromodichloromethane, presently set for May 1, 2006, as noted in fn. 1 of Effluent Limitations B.1;

(c) Receiving Water Limitation for temperature contained in C.8.

(d) compliance schedule for copper and zinc contained in Provision G.8.

IT IS FURTHER ORDERED that the compliance schedule for aluminum and molybdenum, presently set for May 1, 2006, as noted in Directive 4 of Cease and Desist Order No. 5-01-123, shall be stayed until the Central Valley Regional Board acts on the remand.

#### CERTIFICATION

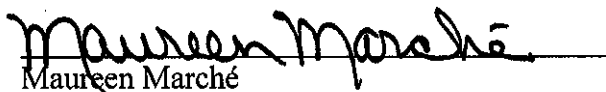
The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 3, 2002.

AYE: Arthur G. Baggett, Jr.  
Peter S. Silva  
Richard Katz

NO: None

ABSENT: None

ABSTAIN: Gary M. Carlton

  
Maureen Marché  
Clerk to the Board

