

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER R7-2012-0047

**CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS
FOR
AGRICULTURAL WASTEWATER DISCHARGES AND DISCHARGES OF WASTE FROM
DRAIN OPERATION AND MAINTENANCE ACTIVITIES ORIGINATING WITHIN
THE PALO VERDE VALLEY AND PALO VERDE MESA
Riverside and Imperial Counties**

The California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) finds that:

Background and Purpose of this Order

1. At its January 20, 2011 meeting, the Regional Water Board approved an amendment to its Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) by adopting Resolution R7-2011-0014. The amendment established a Conditional Prohibition to regulate: (a) the quality of agricultural wastewater discharges from irrigated agricultural lands in the Palo Verde Valley and Palo Verde Mesa into Palo Verde Irrigation District (PVID) drains; and (b) the potential water quality impacts from operation and maintenance (O&M) of PVID drains to ensure that such discharges and O&M practices are not causing or contributing to exceedances of Basin Plan numeric or narrative water quality standards of the Palo Verde Valley and Palo Verde Mesa Drains, the Palo Verde Valley Lagoon, and Palo Verde Outfall Drain, all of which are tributary to the Colorado River.
2. Section 13245 of the California Water Code (CWC) requires that any Basin Plan or Basin Plan amendment must be approved by the State Water Resources Control Board (State Water Board) before it can become effective. In accordance with this statutory requirement, the Regional Water Board submitted the Conditional Prohibition to the State Water Board for its review and approval. However, at its meeting on January 10, 2012, the State Water Board disapproved the Conditional Prohibition. Its disapproval decision is reflected in State Water Board Resolution 2012-0004.
3. In relevant part in its disapproval Resolution, the State Water Board remanded the Conditional Prohibition Basin Plan amendment to the Regional Water Board. The State Water Board explained in the Resolution that while the proposed regulatory regime for irrigated agricultural discharges in the Palo Verde Valley would impose requirements comparable to other regional water boards' conditional Waivers for irrigated agriculture, it would result in a disparate fee structure for agricultural discharges from different regions. The State Water Board clarified during the meeting that as a result of state funding source changes, water board programs would need to be self-supporting. In addition, it explained that because statutory authority was provided only for Waste Discharge Requirements (WDRs) and Waivers of WDRs, no fees could be assessed from the proposed Conditional Prohibition to support its implementation. Accordingly, the State Water Board directed the Regional Water Board to adopt WDRs or a Waiver of

WDRs in lieu of, or in addition to, the proposed Conditional Prohibition for agricultural wastewater discharges.

4. To comply with the State Water Board's directives, the Regional Water Board has elected to regulate the discharges described in Finding 1, above, through this Conditional Waiver of WDRs in lieu of the proposed Conditional Prohibition, which the State Water Board disapproved.

Definitions, Responsible Parties, and Applicability

5. CWC section 13050(d) defines "waste" as including sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with the human habitation, or of human or animal origin, or from producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.
6. CWC section 13050(d) defines "waters of the state" as any surface water or groundwater, including saline waters, within the boundaries of the state.
7. As used in this Order, "agricultural wastewater" is a waste and is defined as including: 1) storm water runoff from irrigated lands, and 2) irrigation return water, which includes surface discharges (also known as "tailwater"), and subsurface discharges (known as "tile water" in tiled areas, or "seepage" in areas not tiled). This waste can contain constituents at concentrations that may adversely impact water quality and the beneficial uses of the waters of the state described in Finding 1, above.
8. "Agricultural Discharger" means the owner, renter/lessee, and operator/grower of irrigated agricultural land in the Palo Verde Valley and/or Palo Verde Mesa, who discharges, has the potential to discharge, or proposes to discharge waste, which could directly or indirectly affect the quality of waters of the state.
9. "Drain Maintenance Discharger" means any individual or entity that conducts drain operation and maintenance activities in the Palo Verde Valley and/or Palo Verde Mesa, which discharges, or has the potential to discharge, wastes that could directly or indirectly affect the quality of waters of the state.
10. "Agricultural and Drain Maintenance Dischargers" are dischargers of waste and thus, are parties responsible for complying with this Conditional Waiver (collectively, Responsible Parties).
11. "Coalition Group" means any group of dischargers and/or organizations that is developed to comply with this Conditional Waiver. Coalition Groups can be, but are not limited to, organizations developed on a geographical or other basis, such as growing similar types of crops.
12. "Compliance Program" means a nonpoint source pollution control program, as defined in the State Water Board's "State Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program," which specifies Management Practices and monitoring and reporting requirements to ensure compliance with this Conditional Waiver. A Compliance Program may be a Coalition Group Compliance Program or an

Individual Compliance Program. A Coalition Group Compliance Program is one that has been formed by Responsible Parties who have developed their own compliance group for self-management or have joined the compliance group to be organized and managed by PVID. An Individual Compliance Program is one that has been formed by an individual Responsible Party who chooses not to join a Coalition Group.

13. Unless otherwise specified, all terms used in this Conditional Waiver shall have the same definitions as those set forth in Division 7 of the CWC.
14. This Conditional Waiver does not apply to discharges from irrigated lands equal to or less than five (5) acres that are used for gardens, vineyards, orchards, pastures or greenhouses to produce crops and/or animals for personal consumption. This exemption, but without any acreage limitation, includes irrigated lands used as golf courses or polo fields. Owners and operators of irrigated lands meeting these criteria are not required to apply for coverage under this Conditional Waiver, provided that the owner/operator (a) does not hold a current Operator Identification Number/Permit Number for pesticide use reporting and/or (b) does not use the federal Department of Treasury Internal Revenue Service Form 1040 Schedule F Profit or Loss from Farming to file federal taxes.

Basin Plan and Beneficial Uses to be Protected

15. The Basin Plan, as amended to date, designates the beneficial uses of ground and surface waters in this Region.
16. The Basin Plan specifies the following beneficial uses for the Palo Verde Valley Drains, the Palo Verde Valley Lagoon and Palo Verde Outfall Drain:
 - a. Water Contact Recreation (REC I)
 - b. Water Non-Contact Recreation (REC II)
 - c. Warm Freshwater Habitat (WARM)
 - d. Wildlife Habitat (WILD)
 - e. Preservation of Rare, Threatened, or Endangered Species (only applies to the Palo Verde Lagoon and Outfall Drain)
17. The Basin Plan specifies the following beneficial uses for the Colorado River:
 - a. Municipal and Domestic Supply (MUN)
 - b. Agriculture Supply (AGR)
 - c. Aquaculture (AQUA)
 - d. Industrial Service Supply (IND)
 - e. Ground Water Recharge (GWR)
 - f. Water Contact Recreation (REC I)
 - g. Non-Contact Water Recreation (REC II)
 - h. Warm Freshwater Habitat (WARM)
 - i. Cold Freshwater Habitat (COLD)
 - j. Wildlife Habitat (WILD)
 - k. Hydropower Generation (POW)

I. Preservation of Rare, Threatened, or Endangered Species (RARE)

18. The Palo Verde Valley and Palo Verde Mesa are part of the Colorado Hydrologic Unit. The Basin Plan establishes municipal, agricultural, and industrial supply as the beneficial uses for groundwater in this Unit.
19. This Conditional Waiver is consistent with and implements the Basin Plan. It requires Responsible Parties to comply with the Basin Plan water quality standards established for the waters identified in Finding 16, 17, and 18, above.

Palo Verde Valley, Irrigation and Drainage Systems

20. Palo Verde Valley (Valley) straddles southern Riverside County and northern Imperial County. The Valley is bounded to the north by the Big Maria Mountains, to the west by Palo Verde Mesa, and to the south and east by the Colorado River. The Valley is relatively flat, nine (9) miles wide and thirty (30) miles long, and ranges from 290 feet above mean sea level (MSL) in the north to 220 feet above MSL in the south.
21. The Palo Verde Mesa (Mesa), formed by flooding of the Colorado River, is divided into the upper and lower terrace. Most farming occurs in the Mesa area, west of the lower terrace, which is one (1) mile wide and sixty (60) feet higher in elevation than the Valley.
22. PVID diverts and distributes irrigation water from the Colorado River and provides agricultural drainage services for farmland in the Palo Verde Valley and Palo Verde Mesa, which cover about 189 square miles (roughly 131,000 acres) in eastern Riverside County and northeastern Imperial County.
23. Canal operational spills, field runoff, and first-encountered groundwater collect in 142 miles of open drains dug to a depth at least one (1) foot below the groundwater table to prevent rising groundwater from impacting or reducing crop productivity.
24. PVID operates a 244.23-mile network of irrigation canals and laterals that service farmland in the Palo Verde Valley. The main canals at the north end of the District handle up to 2,100 cubic feet per second (cfs), while the smaller laterals handle up to 25 cfs.
25. Farmers in the Valley divert water from a canal through a gate operated by PVID onto fields for mostly gravity flood irrigation. When uniform germination is desired, sprinkler irrigation is used on crops such as lettuce, onions, and garlic, and in the late summer on alfalfa. Drip irrigation is used for citrus plantings in the Mesa area, and for other field crops in the Valley.
26. PVID also operates and maintains a drainage system servicing about 22,000 acres of farm land with field spill pipes that remove excess irrigation water from crops. Not all spill pipes are used year-round. Generally, the only spill pipes used are those located on alfalfa fields to prevent scalding by standing water in the summer. The drainage system extends for about 142 miles and includes about 300 siphons, or submerged culverts. The drains are unlined and carry seepage and agricultural wastewater discharges. With the exception of the Shaws Drain and the Olive Lake Drain, the resulting mix eventually

goes into the Palo Verde Outfall Drain, which is the main drain within the PVID. The Shaws Drain and the Olive Lake Drain discharge directly into the Colorado River. From 2002 through 2011, the Palo Verde Outfall Drain flow leaving PVID averaged 365,676 acre-feet per year. For 2011, flows averaged 476.35 cubic feet per second and totaled 345,100 acre-feet for the year.

27. Because water from the Colorado River contains soluble salts, the amount of water applied to fields must be sufficient to flush salts accumulating in the root zone, as well as supply water for crop growth. This additional water is called the 'leaching requirement.' Water needed to flush salts varies with soil type and the crop's stage of growth, but generally averages 15% of the amount required for crop evapotranspiration. Leaching salts from the root zone is necessary to maintain soils for cultivation. The excess irrigation water (i.e., 'leaching requirement') carries the soluble salts to groundwater which eventually flows into the drains and/or the Colorado River.
28. Canal spillage, tilewater, seepage and surface water draining from fields after irrigation and storms (i.e., agricultural wastewater discharges), collect into 142 miles of open drains, most of which discharge into the Palo Verde Outfall Drain, ultimately returning to the Colorado River via an old channel of the Colorado River before joining the active channel of the river in the Cibola National Wildlife Refuge.
29. Part of the Palo Verde Outfall Drain is known as the Palo Verde Lagoon, which is located adjacent to the unincorporated community of Palo Verde in Imperial County. This community is about six (6) miles west of the Colorado River and has an estimated population of 236. Housing includes single family residences and two RV parks. Wastewater is treated by subsurface septic systems. The community has obtained technical and financial assistance from the Border Environment Cooperation Commission to build a centralized wastewater collection and treatment system for the community and to phase out the discharges from septic systems within the next five years.
30. Although there are some private drains maintained by landowners, PVID owns and maintains the vast majority of drains in the Valley and Mesa. However, PVID does not have ownership of the property on which most of their drains are located. Rather, these drains are operated under a blanket easement or by prescriptive rights.
31. Since the 1970's, PVID has used draglines and long-reach excavators to remove mud and place the excavated material on drain banks as the equipment moves downstream. In areas where the long-reach excavators are ineffective, a dragline is used to open the flow area. Weeds on the inside slope of drains are crushed and large trees are removed. Weeds and plants within the drains are also removed to restore flow. The cleaning of channels is done on an as-needed basis. For some drains, 10 or 15 years may pass before a second cleaning is necessary. PVID's drain maintenance activities are authorized via the "Lower Colorado River Multi-Species Conservation Program" (LCR MSCP) of 2005 and its related environmental documents.

32. Drain channel maintenance is done on an as-needed basis per the LCR MSCP permit. Tules growing in drains are removed to restore flow, weeds on drain slopes are crushed, and large trees are removed. From March 15th to August 1st, when the breeding season occurs for the Yuma Clapper Rail, Western Least Bittern, and California Black Rail, drain maintenance activities in the water are suspended or minimized to the extent practicable.

Hydrogeological Conditions

33. Data from the California Department of Water Resources indicate that the Palo Verde Valley Groundwater Basin is bounded on the east by the Colorado River, on the north by the Palo Verde Dam and the Big Maria Mountains, on the west by the Palo Verde Mesa, and on the south by the Palo Verde Mountains. The principal water-bearing deposits in this basin are alluvial, the Bouse Formation, and a fanglomerate deposit. The Palo Verde Mesa Groundwater Basin is bounded by nonwater-bearing rocks of the Big Maria and Little Maria Mountains on the north, of the McCoy and Mule Mountains on the west, of the Palo Verde Mesa on the east, and of the Palo Verde Mountains on the south. The northwest boundary and parts of the western boundary are drainage divides. Depth to groundwater in these two Basins varies from 160 to greater than 800 feet below ground surface (DWR, Groundwater Bulletin 118). It has been reported by PVID that some wildlife habitat areas in the region could have groundwater present at less than 1 foot below ground surface at some times of the year.
34. Mean summer temperatures in the Palo Verde Valley and Palo Verde Mesa areas range from 85° to 110° Fahrenheit. Precipitation typically averages four (4) or less inches per year, and evapotranspiration about 72 inches per year (USDA, 1974).
35. Soils in the Palo Verde Valley are well-drained, fine-grained sand and loam alluvial deposits from the Colorado River. Soils in the Palo Verde Mesa are comprised of older alluvial deposits derived from adjacent mountains (Big Maria, McCoy, Mule, and Palo Verde Mountains), consisting of excessively drained to well-drained fine to gravelly sand, and loam.
36. In the 1950's, when first-encountered groundwater¹ elevations were higher, some farmers installed tile systems beneath their fields that discharged into agricultural drains. Most of these systems were abandoned when the drains were deepened almost seven feet to lower the groundwater table. As the water table dropped, the depth to water in the drains increased. As a result, first-encountered groundwater in the Valley currently occurs at an average of 10 feet below the ground surface. The only tile systems operative today occur in the extreme southern end of the Valley, south of the town of Palo Verde.

¹ "First-encountered groundwater" is groundwater formed by Colorado River leakage and storm water and irrigation water that percolates below the root zone.

37. Considering depth to the groundwater of the Basins described in Finding 33, above and farming practices in the area, this Conditional Waiver establishes conditions that focus on preventing and addressing water quality impacts on first-encountered groundwater and on the surface waters identified in Finding 16 and 17, above.
38. The Palo Verde Outfall Drain is listed as "impaired" on the 2010 Clean Water Act (CWA) Section 303(d) List because pathogen indicator bacteria (enterococci), Dichloro-Diphenyl-Trichloroethane (DDT), and toxaphene violate WQOs that protect the following beneficial uses:
 - a. contact and non-contact water recreation (REC I and REC II);
 - b. warm freshwater habitat (WARM);
 - c. wildlife habitat (WILD); and
 - d. preservation of rare, threatened, or endangered species (RARE).

DDT has been banned from being used in California since 1972. It has not been used in the Palo Verde Valley and Palo Verde Mesa since the ban took effect. It is a residual/legacy pesticide that is slowly degrading over time.

39. Data collected by Regional Water Board staff at different locations in Palo Verde Outfall Drain from 2000 to 2003 indicated no impairment for *E. coli*, but impairment for enterococci. To comply with CWA Section 303(d), the Regional Water Board listed the Palo Verde Outfall Drain as "impaired by bacteria" and developed a Draft Total Maximum Daily Load (TMDL) and Implementation Plan to address this impairment. USEPA guidance indicates that only one bacterium indicator organism (*E. coli* or enterococci) needs to be designated as a pathogen indicator for fresh water bodies like the Palo Verde Outfall Drain.
40. The Regional Water Board intends to amend the Basin Plan to reduce pathogen WQOs for surface waters from three indicators to one indicator for fresh waters (*E. coli*), and one indicator for saline waters (enterococci). Consideration of adoption of the Draft TMDL and Implementation Plan for Palo Verde Outfall Drain is pending until the pathogen Basin Plan amendment is completed. As a result, Palo Verde Outfall Drain remains listed as impaired for pathogens, given the noncompliance with the delisting criteria for fecal coliforms and enterococci. Regardless, its pathogen impairments are attributable mainly to natural sources and to the septic systems in the area of the Palo Verde Lagoon.
41. Regarding the DDT impairment, the California 2010 CWA Section 303(d) List (State Water Board, 2010) indicates seventeen (17) of twenty-five (25) fish tissue samples from the Palo Verde Outfall Drain exceed the California Office of Environmental Health Hazard Assessment (OEHHA) Screening Value for DDT. Based on the 2004 303(d) Listing Policy, (State Water Board, 2004), this exceedance rate is sufficient to list for DDT impairment.

42. Regarding the toxaphene impairment, the California 2010 CWA Section 303(d) List indicates that all of the three (3) fish tissue samples from the Palo Verde Outfall Drain exceed the OEHHA Screening Value for toxaphene. Based on the 2004 303(d) Listing Policy, this exceedance rate is sufficient to list for toxaphene impairment.
43. DDT and toxaphene attach to charged silt particles and are transported into receiving waters mainly by tailwater. This Conditional Waiver requires Responsible Parties to continue to implement management practices that address the DDT and toxaphene impairments.
44. From 2000 to 2003, the Regional Water Board conducted studies at key locations in the area to determine baseline water quality. The studies indicate turbidity, total suspended solids, pH, and specific conductance do not exceed the numeric water quality objectives of the Basin Plan. Further, water quality monitoring data collected by PVID in May 2005 at three locations for the drainage system, including the Palo Verde Outfall Drain, also show no exceedances in WQOs. The following table summarizes the PVID results:

Locations and Constituent Results	Intake Colorado River/Main Canal Sample #3	Eastside Drain @ Lovekin Blvd. Sample #2	Outfall Drain @ 35th Avenue Sample #1
pH (pH units)	8.0	7.6	7.8
Specific Cond. (umhos/cm)	1000	1600	2000
TSS (mg/L)	6	54	36
Nitrate as N (mg/L)	0.29	0.29	0.25
Nitrite as N (mg/L)	ND	ND	ND
Kjeldahl N (mg/L)	0.19	0.63	0.44
Total N (mg/L)	0.48	0.92	0.69
Ortho Phosphate (mg/L)	ND	0.11	ND
Total P (mg/L)	ND	0.17	0.11

45. Based on the 2005 pesticide use data report (California Department of Pesticide Regulation, December 19, 2007), the following insecticides are used in the Palo Verde Valley and Palo Verde Mesa: Chlorpyrifos, Malathion, Dimethoate, and Endosulfan. Individually or synergistically, these constituents can cause chronic or acute toxicity in aquatic organisms. Data collected under the Surface Water Ambient Monitoring Program for Palo Verde Outfall Drain indicate the presence of pesticides, including DDE(p,p') Total, Diazinon, Dieldrin, Dimethoate (Total), Dioxathion, and Hydroxyatrazine 2- (Total). The pesticides in use and detected are water quality constituents of concern.

Legal and Additional Regulatory Considerations

46. Pursuant to CWC section 13369, the State Water Board adopted the Nonpoint Source Implementation and Enforcement Policy (NPS Policy) on May 20, 2004, subsequently approved by OAL on August 26, 2004. The policy requires all of the nine regional water boards to regulate all nonpoint sources of pollution using the administrative permitting authorities in the Water Code, including, but not limited to: (1) Basin Plan prohibitions, (2) conditional Waivers of WDRs, or (3) WDRs. However, as indicated in Finding Nos. 2 and 3 above, during the January 10, 2012 State Water Board meeting that led to State Water Board Resolution 2012-0004, the State Water Board made it clear that Basin Plan prohibitions, which are not statutorily authorized to impose fees for agricultural wastewater discharges or any other type of discharge, are no longer acceptable pollution control programs for agriculture. The State Water Board is presently revising the NPS Policy to reflect that position.
47. The NPS Policy provides for Agricultural Dischargers to comply with this Conditional Waiver by participating in the development and implementation of NPS Pollution Control Programs (Compliance Programs), either individually or collectively as participants in discharger coalitions (a.k.a. "Coalition Groups"). Compliance Programs may also be developed by the Regional Water Board or a discharger coalition in cooperation with a third-party representative, organization, or government agency. Regardless of who develops the program, the NPS Policy identifies five (5) key elements required for all Compliance Programs:
- 1: Statement of Goals/Purpose
 - 2: Identification of Management Practices (MPs)
 - 3: Time schedule for Compliance
 - 4: Surveillance Program
 - 5: Consequences for failure

This Conditional Waiver is consistent with the requirements of the NPS Policy.

48. CWC section 13260(a)(1) requires that any person discharging waste or proposing to discharge waste within the Regional Water Board's jurisdiction, in a manner that could affect the quality of waters of the state, shall file a Report of Waste Discharge (ROWD) with the Regional Water Board. The Regional Water Board may, in its discretion, issue WDRs pursuant to Water Code section 13263(a).
49. CWC section 13269 allows the Regional Water Boards to waive submission of Reports of Waste Discharge (ROWDs) and/or issuance of WDRs if it is in the public interest to do so.
50. On October 10, 1999, Senate Bill 390 amended CWC section 13269. The amendments extended all Waivers in effect on January 1, 2000, for three years to January 1, 2003, unless terminated earlier, and required all existing Waivers to expire on January 1, 2003, unless renewed.

51. As amended, CWC section 13269 authorizes the Regional Water Board to waive WDRs for a specific discharge or specific types of discharges if the following conditions are met: (1) the Waiver is in the public interest, (2) the Waiver is conditional, (3) Waiver conditions include performance of individual, group, or watershed-based monitoring, except for discharges that the Regional Water Board determines do not pose a significant threat to water quality, (4) compliance with Waiver conditions is required, and (5) a public hearing has been held. The term of a Waiver cannot exceed five years, but the Regional Water Board can renew a Waiver after holding a public hearing. The Regional Water Board may terminate a Waiver at any time.
52. Prior to January 15, 2003, the Regional Water Board had a region-wide Waiver for specific discharges of wastes in the Region, which also waived WDRs for agricultural return flows (i.e., agricultural wastewater discharges). On January 15, 2003, the Regional Water Board allowed the Waiver for agricultural wastewater discharges in the Region to expire.
53. Relevant factors in determining whether a Waiver is in the public interest include the following: whether the discharge is already regulated by a local governmental entity which must continue to play a major role in regulating that type of discharge; whether the Discharger is observing reasonable practices to minimize the deleterious effects of the discharge; whether a feasible treatment method exists to control the pollutants in the discharge; and whether conditionally waiving ROWDs and/or WDRs will adequately protect beneficial uses while allowing the Regional Water Board to utilize more of its resources to conduct field oversight, public outreach and, where necessary, enforcement. Although local government entities do not regulate water quality impacts of agricultural operations, these operations are subject to pesticide regulation and reporting. In addition, various public and private entities provide education and field assistance to growers so they implement management practices to prevent and address water quality impacts. These entities include various Resource Conservation Districts and the University of California Cooperative Extension.
54. The agricultural wastewater discharges and dredging activities in the Palo Verde Valley and Palo Verde Mesa are not currently regulated by any government agency. This Conditional Waiver requires implementation of management practices to minimize water quality impacts. Reasonable management practices exist and are being implemented in Palo Verde Valley and Palo Verde Mesa that would enable Responsible Parties to comply with this Waiver. These management practices reduce the amount of wastes discharged, minimize runoff, and are more feasible and more effective than treatment methods. Attachment A, made a part of this Conditional Waiver by reference, lists and describes available MPs. This list is neither all inclusive nor prescriptive. Responsible Parties may select from the list or choose a combination of MPs for their farm operations, regardless of whether the MP is listed.
55. The adoption of the Conditional Waiver is also in the public interest because: (1) it includes conditions that are intended to reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the state; (2) it establishes a comprehensive control program for protection of water quality in the Palo Verde Valley and Palo Verde Mesa; (3) given the number of persons who discharge waste from irrigated lands and the magnitude of acreage involved, it provides for an efficient and effective use of limited

Regional Water Board resources; (4) it provides flexibility for the Agricultural Dischargers who seek coverage under the Conditional Waiver by providing them with the option of complying with monitoring requirements through participation in cooperative monitoring programs or individually; (5) requires Responsible Parties to comply with Basin Plan; and (6) promotes statewide consistency in dealing with agricultural runoff.

56. CWC section 13269(a)(4)(A) authorizes the Regional Water Board to include as a condition of a Waiver the payment of an annual fee established by the State Water Board. The State Water Board has adopted regulations in Title 23, Division 3, Chapter 9, Article 1 (commencing with Section 2200), which establish a fee schedule for agricultural Waivers. This Conditional Waiver requires each Agricultural Discharger who participates in a Coalition Group, or the Coalition Group itself on behalf of its participants, to pay an annual fee to the State Water Board in accordance with the fee schedule specified in Title 23, Section 2200.6.
57. Technical reports are necessary to evaluate each Coalition Group's compliance with the terms and conditions of the Conditional Waiver and to assure protection of waters of the state.
58. To obtain coverage under this Conditional Waiver, Agricultural Dischargers must choose one of the two following options: (1) submit a Notice of Intent (NOI) to comply with this Conditional Waiver; or (2) participate in a Coalition Group that submits a letter of intent to develop and implement a Compliance Program to comply with this Conditional Waiver. Under option 1, above, the Agricultural Discharger must also: (a) prepare a Water Quality Management Plan (WQMP) and, if applicable, a Drain Water Quality Improvement Plan (DWQIP) for review and approval by the Regional Water Board; (b) conduct periodic water quality monitoring of the discharge and its receiving water(s); (c) prepare a Quality Assurance Project Plan for the proposed monitoring; and (d) submit annual monitoring reports to the Regional Water Board.
59. PVID has agreed to organize and manage a Coalition Group and develop and implement a Compliance Program to comply with this Conditional Waiver. The scope of this management includes: developing program elements, outreach programs, and mechanisms to encourage and foster an effective self-determined approach to attain water quality objectives. To implement this program, PVID has committed to provide every Agricultural Discharger enrolled in PVID's Coalition Group the information necessary to comply with this Compliance Program. Specific goals of the Compliance Program to be managed by PVID include:
 - Coordinating an educational program to educate farmers on how to reduce pollutants leaving their fields,
 - Coordinating workshops with local technical assistance agencies, and
 - Cooperating with Regional Board staff to track and report Management Practice (MP) effectiveness.

PVID is also obtaining approval from the State Water Board to manage fee collection and payment for its Coalition Group.

60. PVID and the Regional Water Board staff have developed a Monitoring and Reporting Program (MRP) titled "Palo Verde Water Quality Monitoring Plan," which was updated on August 8, 2012, to assist group participants in complying with this Conditional Waiver. Attachment I, made a part of this Order by reference, contains the updated MRP.
61. Regional Water Board staff prepared a Staff Report titled "*Staff Report on Conditional Waiver for Agricultural Wastewater Discharges Originating within the Palo Verde Valley and the Palo Verde Mesa, Riverside and Imperial Counties, California,*" dated August 2, 2012 (hereafter referred to as Staff Report). The Staff Report details key provisions of this Conditional Waiver, how to comply with it, existing management practices that are being implemented to protect water quality, additional management practices that can be implemented to protect water quality, cost estimates for compliance, and potential sources of financing.
62. State Water Board Resolution 68-16, *Policy with Respect to Maintaining High Quality Waters of the State* (Resolution 68-16), requires a regional water board when regulating a discharge of waste, to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that a change in quality is consistent with:
 - i. the maximum benefit to the people of the state,
 - ii. will not unreasonably affect present and anticipated beneficial uses of waters, and
 - iii. will not result in water quality less than that prescribed in policies (e.g., violation of any WQO).
63. This Conditional Waiver requires Responsible Parties to implement management practices that achieve compliance with WQOs, and therefore protect beneficial uses for the Palo Verde Valley Drains, Lagoon, and Outfall Drain. As such, the Regional Water Board finds the Conditional Waiver consistent with Resolution No. 68-16 in that any change in water quality is consistent with paragraphs i. – iii. set forth in Finding 62, above.
64. It is the intent of the Regional Water Board to hold public hearings at least once every two years to review the effectiveness of this Conditional Waiver, Coalition Groups and Individual Compliance Programs, and management practices; and evaluate compliance with applicable water quality objectives. The first public hearing is tentatively scheduled to be held within three (3) years from the date of adoption of this Conditional Waiver.

California Environmental Quality Act and Public Participation

65. For purposes of adoption of this Conditional Waiver, the Regional Water Board is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The action to adopt this Conditional Waiver is intended to protect and improve water quality. Accordingly, the Conditional Waiver sets forth conditions that will require Responsible Parties to implement management practices to protect water quality and to conduct monitoring to ensure that such practices are effective and are protecting and improving water quality. Because the Regional Water Board has not regulated the discharges subject to this Conditional Waiver to this

extent in the past, it expects that adoption of the Conditional Waiver will result in the protection, maintenance, and improvement of water quality.

66. Regional Water Board staff held a CEQA scoping meeting on April 16, 2012, to receive comments on the drafting of the Conditional Waiver and to identify significant issues to consider and address. It also prepared an Initial Study dated August 2012 in support of a proposed Negative Declaration for this Waiver.
67. On August 23 and September 11, 2012, Regional Water Board staff held Public Workshops regarding this proposed Conditional Waiver to provide affected stakeholders and Responsible Agencies with an additional opportunity to comment on the proposed Conditional Waiver.
68. On August 8, 2012, the Regional Water Board notified interested agencies and persons of its Intent to Adopt a Negative Declaration for this Conditional Waiver, and provided them with an opportunity to submit comments during a 30-day comment period that ended September 10, 2012, regarding the proposed Negative Declaration and Initial Study prepared in support of the Negative Declaration. The Regional Water Board, in a public hearing, considered all comments received during the public comment period and at the hearing regarding the proposed Negative Declaration and Initial Study.
69. On September 20, 2012, the Regional Water Board adopted the proposed Negative Declaration in Resolution R7-2012-0046 after finding on the basis of the whole record before it (including the Initial Study and all comments received) that there was no substantial evidence that the Conditional Waiver will have a significant effect on the environment and that the Negative Declaration reflects its independent judgment and analysis.
70. The Regional Water Board has notified the Responsible Parties and all known interested agencies and persons of its intent to draft this Conditional Waiver of WDRs for this discharge, and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
71. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to this Conditional Waiver.

IT IS HEREBY ORDERED that, pursuant to CWC sections 13263, 13267, and 13269, Agricultural Dischargers and Drain Maintenance Dischargers (collectively, Responsible Parties), who file for coverage under this Conditional Waiver in order to meet the provisions contained in Division 7 of the CWC and regulations and plans and policies adopted thereunder, and who request a Waiver of WDRs, shall comply with the following terms and conditions:

A. Eligibility

1. Existing and future Agricultural Dischargers and Drain Maintenance Dischargers are potentially eligible for coverage under this Conditional Waiver.
2. Agricultural Dischargers and Drain Maintenance Dischargers seeking coverage under this Order shall submit to the Regional Water Board a Notice of Intent (NOI) as specified below.
3. Agricultural Dischargers and Drain Maintenance Dischargers eligible under this Order bear the responsibility of complying with this Conditional Waiver.
4. Agricultural Dischargers and Drain Maintenance Dischargers seeking coverage as a member of a Coalition Group Compliance Program shall be in good standing with the membership requirement of the program as approved by the Regional Water Board.

B. General Waiver Conditions

1. The Regional Water Board waives the submittal of a Report of Waste Discharge (ROWD) and WDRs for Agricultural Dischargers and Drain Maintenance Dischargers in the Palo Verde Valley and Palo Verde Mesa if these dischargers of wastes comply with the conditions established by this Conditional Waiver.
2. Agricultural Dischargers and Drain Maintenance Discharger shall take action to comply with this Conditional Waiver and to protect the quality of the waters of the state.
3. Agricultural Dischargers, both those seeking coverage and those who obtain coverage under this Conditional Waiver, shall pay to the State Water Board the fee(s) it has established under Title 23, California Code of Regulations (CCR), Division 3, Chapter 9 for Waivers of WDRs for irrigated lands.
4. This Waiver shall not create a vested right and all such discharges shall be considered a privilege, as provided for in CWC section 13263.
5. Pursuant to CWC section 13269, this action to waive the issuance of WDRs for certain specific types of discharges: (a) is conditional, (b) may be terminated at any time, (c) does not permit an illegal activity, (d) does not preclude the need for permits which may be required by other local or governmental agencies, and (e) does not preclude the Regional Water Board from taking enforcement actions (including civil liability) pursuant to the CWC.
6. This Conditional Waiver becomes effective upon adoption by the Regional Water Board and expires on **September 20, 2017**.
7. Technical and monitoring reports specified in this Order, including Compliance Programs, Water Quality Management Plans, and Drain Water Quality Plans, are requested pursuant to CWC section 13267 and shall comply with Attachment B ("*Contents of Technical and Monitoring Reports*"), which is attached hereto and made

part of this Order by reference; and shall be approved by the Executive Officer prior to implementation. Failure to furnish complete reports by the specified deadlines and falsification of any information in the reports are misdemeanors that may result in the assessment of civil liability against the Responsible Party.

8. Based on monitoring results, the Executive Officer may modify MRPs as appropriate, pursuant to CWC section 13267.
9. All documents and reports requested herein shall be signed and dated by a duly authorized representative and contain a statement regarding the accuracy of the documented/reported information and the following in the title: "Conditional Waiver for Palo Verde and Palo Verde Mesa Ag Dischargers."
10. The discharge of any wastes not specifically regulated by this Conditional Waiver is prohibited unless the Responsible Party complies with CWC section 13260(a) and the Regional Water Board issues either WDRs pursuant to CWC section 13263 or an individual Waiver pursuant to CWC section 13269, or the time frames specified in CWC section 13264(a) have elapsed.
11. The discharges of wastes authorized by this Conditional Waiver shall not cause a condition of pollution or nuisance as defined in CWC sections 13050(l) and (m).
12. The Regional Water Board may review this Conditional Waiver at any time and may modify or terminate the Conditional Waiver in its entirety. The Executive Officer may terminate applicability of the Conditional Waiver with respect to a Coalition Group or an individual Responsible Party who is a participant in a Coalition Group upon notice to the Coalition Group or Responsible Party.

C. Waiver Conditions for Individual Compliance Programs

Any Agricultural Discharger who elects to develop an Individual Compliance Program shall comply with the following:

1. **Within 30 days** following adoption of this Conditional Waiver, file with the Regional Water Board a complete NOI using Attachment C, attached hereto and a part of this Order by reference.

Following review of the NOI, if the Executive Officer determines that coverage under this Conditional Waiver is appropriate for the Agricultural Discharger, the Executive Officer shall issue a Notice of Applicability (NOA) to the Agricultural Discharger. If coverage is not appropriate, the Executive Officer shall inform the Agricultural Discharger in writing that coverage is not appropriate and request instead that the Agricultural Discharger file a ROWD for the proposed or actual discharge of waste.

2. **Within 120 days** following adoption of this Conditional Waiver, submit to the Regional Water Board the proposed:
 - a. Individual Water Quality Management Plan (WQMP) and Monitoring and Reporting Program (MRP). In this case, the MRP shall also include proposed monitoring to determine the quality and quantity of the wastes discharged; and, if applicable--
 - b. Individual Drain Water Quality Plan (DWQP) and Drain Monitoring and Reporting Program (DMRP).

Following approval, these documents shall become components of the Individual Compliance Program.

3. **Within 60 days** following approval of the Individual Compliance Program Plan(s), prepare and submit a Quality Assurance Project Plan (QAPP).
4. **Within 30 days** following QAPP approval, begin implementing the MRP and, if applicable, the DMRP.
5. **By March 1st of every year**, submit to the Regional Water Board an Annual Monitoring Report. The Annual Monitoring Report is for the previous calendar year (January 1 through December 31).

D. Waiver Conditions for the PVID Coalition Group

In order for PVID to manage its Group Compliance Program in full compliance with the Nonpoint Source Policy, PVID shall comply with the following:

1. **By October 31, 2012**, file with the Regional Water Board a letter of intent to develop and implement a complete Coalition Group Compliance Program and obtain coverage under this Conditional Waiver for its group's Agricultural Dischargers, their drain O&M activities (if any), and for PVID's drain O&M activities.
2. **By November 30, 2012**, submit to the Regional Water Board a list with the names, address, and contact information for all PVID current customers who receive water for irrigated land; and the location and Assessor's Parcel Number (APN) of the irrigate land. To the extent that a particular customer has multiple water accounts with PVID for parcels with unique APNs, the list shall reflect so. The list shall be submitted in electronic format. In lieu of the APN, and subject to the approval of the Executive Officer, PVID may submit an alternative identification number system to track every parcel of irrigated land covered under the Coalition Group's Compliance Program so long as the alternative identification system allows for identifying the physical location of the parcel, its acreage, and its Responsible Parties.

3. **By March 30, 2013**, file with the Regional Water Board the Coalition Group's proposed Compliance Program. The Compliance Program shall include, but need not be limited to:
 - a) suggested format(s) to prepare Individual WQMPs and DWQPs, including deadlines for submittal;
 - b) a proposal to establish and maintain membership requirements, including forms and requirements to enroll group member applicants into the Program; and
 - c) outreach and education activities, and scheduled workshops to coordinate with technical assistance agencies; and
 - d) a map (scale 2" = 1-mile or better) showing the Coalition Group's boundaries, PVID's main irrigation canals, and PVID's main drains.

Once approved, these documents and PVID's DWQP and DMRP shall become components of the PVID Coalition Group Compliance Program.

4. **By April 30, 2013**, begin implementing the approved Compliance Program and issue letters to all potential group members within the Coalition Group's boundaries within the Palo Verde Valley and Palo Verde Mesa that provide instructions on how to enroll into the PVID-approved Compliance Program.
5. **By May 31, 2013**, submit: (a) a letter to the Regional Water Board certifying the Coalition Group has begun implementing the approved Compliance Program, and (b) a QAPP for approval.
6. **By June 30, 2013**, begin implementing the approved QAPP, the Coalition Group's MRP, its DWQP, and DMRP; and submit to the Regional Water Board monitoring results within fourteen (14) days of receipt from the laboratory.
7. **By June 30, 2013**, submit to the Regional Water Board the Coalition Group's WQMP/DWQP in electronic and tabular format. The submittal shall also include copies of all individual WQMPs/DWQPs.
8. **By March 1st of every year**, submit to the Regional Water Board an Annual Monitoring Report for the Coalition Group. The Annual Monitoring Report is for the previous calendar year (January 1 through December 31).

E. Waiver Conditions for Other Coalition Groups

Dischargers of waste electing to either form and/or join other Coalition Groups shall comply with the following:

1. **Within 30 days** following adoption of this Conditional Waiver, file with the Regional Water Board a complete NOI using Attachment D to obtain coverage under this Conditional Waiver for the Coalition Group's Agricultural and Drain Maintenance Dischargers.

2. **120 days** following adoption of this Conditional Waiver, submit the proposed Coalition Group's Compliance Program. The Compliance program shall include:
 - a) name of the Coalition Group Compliance Program;
 - b) names and business addresses of the Coalition Group participants;
 - c) names, addresses, and phone numbers of group's primary contact(s) or representative(s);
 - d) suggested format(s) to prepare Individual WQMPs and DWQPs, including deadlines for submittal (if deadlines not prescribed by this Conditional Waiver);
 - e) a proposal to establish and maintain group membership requirements, including protocols to enlist;
 - f) outreach and education activities;
 - g) scheduled workshops to coordinate with technical assistance agencies; and
 - h) the Coalition Group's proposed MRP (including DMRP if applicable).

Once approved, these documents shall become components of the Coalition Group's Compliance Program.

3. **Within 30 days** following approval of the Coalition Group's Compliance Program, begin implementing the approved Compliance Program and submit a letter to the Regional Water Board certifying that it began implementing the program.
4. **Within 60 days** following approval of the Compliance Program, prepare and submit to the regional Water Board a QAPP.
5. **Within 30 days** following approval of the QAPP, begin implementing the Coalition Group's MRP, and submit and submit all monitoring results to the Regional Water Board within fourteen (14) days of receipt from the laboratory.
6. **Within 180 days** following approval of the Compliance Program, submit to the Regional Board the Coalition Group's WQMP/DWQP in electronic and tabular format. The submittal shall also include copies of all Individual WQMPs/DWQPs.
7. **By March 1st of every year**, submit to the Regional Water Board, an Annual Monitoring Report. The Annual Monitoring Report is for the previous calendar year (January 1 through December 31).

F. Enforcement

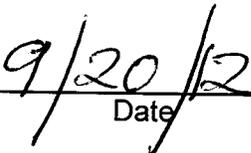
1. The Executive Officer shall use any combination of the following actions, as the circumstances warrant, to address violations of this Conditional Waiver and ensure water quality impacts identified by Compliance Programs or by the Regional Water Board are promptly and effectively corrected:
 - a) Terminate coverage under this Conditional Waiver to any Individual or Coalition Group. Coverage termination shall be in writing, specify the effective date of coverage termination, describe the reason(s) for the termination, and specify additional potential enforcement actions that the Regional Water Board may take once coverage termination becomes effective.

- b) Require technical reports to correct violations or for additional water quality investigations pursuant to CWC section 13267.
- c) Require submission of a ROWD pursuant to CWC section 13260, so that the Regional Board may consider prescribing WDRs, pursuant to CWC section 13263, to Responsible Parties failing to comply with the requirements of an Individual or Coalition Group Compliance Program.
- d) Issue Administrative Civil Liability Complaints (ACLs), pursuant to CWC sections 13226, against violators of CWC sections 13261, 13264, or 13267; or violators of other Board directives.
- e) Issue cleanup and abatement enforcement orders pursuant to CWC section 13304 to Responsible Parties who threaten or are causing water quality pollution or nuisance conditions.
- f) Refer recalcitrant violators of this Order to the District Attorney or Attorney General for criminal prosecution or civil enforcement.

I, Robert Perdue, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 20, 2012.



ROBERT PERDUE
Executive Officer



Date

Recommendation to Place Palo Verde Outfall Drain and Lagoon Listings of Organochlorine Pesticides in the Being Addressed Portion of the 303(d) List

This is a justification for placing 303(d) listings of Palo Verde Outfall Drain and Lagoon (PVOD) organochlorine (OC) pesticides dichlorodiphenyltrichloroethane (DDT) and toxaphene in the Being Addressed portion of the 303(d) list (Category 5C) because:

- 1- An existing regulatory action [Regional Water Board Order # R7-2012-0047 that established the Palo Verde Valley Agricultural Waiver (Palo Verde Ag Waiver)] is expected to result in attainment of the water quality standards (WQSs). This includes the order currently in effect and renewals of it. The waiver is funded through fees, and includes management practices (MPs), water monitoring plan and enforceable actions;
- 2- The MPs required by the waiver are being implemented;
- 3- Regional Water Board staff is not aware of any other feasible and more effective MPs to reduce the concentrations of DDT and toxaphene in PVOD.
- 4- DDT and toxaphene are no longer legally sold or used in the U.S. ; and
- 5- Concentrations of DDT and toxaphene in PVOD have been reduced significantly.

Major responsible parties for implementing the Palo Verde Ag Waiver are Palo Verde Valley farmers/growers and Palo Verde Irrigation District (PVID). PVOD WQSs for DDT and toxaphene are expected to be attained through continued implementation and improvement of sediment and pesticide MPs by Palo Verde Valley farmers/growers, and PVID. Regional Water Board staff estimates that PVOD will meet WQSs for DDT and toxaphene by the year 2020. The Regional Water Board will update this recommendation when new data and information become available and are assessed.

Problem Statement

PVOD is listed on section 303(d) of the federal Clean Water Act as impaired due to the legacy OC pesticides DDT and toxaphene. PVOD does not currently attain the WQSs for these OC pesticides set forth in the Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region adopted by the Regional Water Board. PVOD listings of DDT and toxaphene occurred because of violations of WQSs in fish tissues. These pesticides are present in PVOD at levels not protective of beneficial uses associated with human health. The size of PVOD segment that is impaired by DDT and toxaphene is about 10 miles.

WQSs and PVOD

In California, WQSs include designated beneficial uses (BUs), narrative and/or numeric water quality objectives (WQOs) or numeric water quality criteria to protect the BUs, and an anti-degradation policy. The Basin Plan requires that all waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Additionally, the Basin Plan states that there shall be no increase in hazardous chemical concentrations found in bottom sediments or aquatic life. PVOD is designated for Warm Fresh Water Habitat (WARM), Wildlife Habitat (WILD), Preservation of Rare, Threatened

or Endangered Species (RARE), Water Contact Recreation (REC1), and Water Non-Contact Recreation (REC2) uses, and at a minimum WQOs must be set to protect these uses.

OC Pesticides and PVOD

PVOD is located in Palo Verde Valley which is located in both Riverside and Imperial Counties of California (Figures 1 to 3). Palo Verde Valley is relatively flat, nine (9) miles wide and thirty (30) miles long, and ranges from 290 feet above mean sea level (MSL) in the north to 220 feet above MSL in the south. The Palo Verde Mesa (Mesa), formed by flooding of the Colorado River, is divided into the upper and lower terrace. Mean summer temperatures range from 85° to 110° Fahrenheit. Precipitation typically averages four or less inches per year, and evapotranspiration is about 72 inches per year.

Agriculture in Palo Verde Valley is sustained by irrigation water provided by PVID. Most farming occurs in the Mesa area, west of the lower terrace, which is one mile wide and sixty feet higher in elevation than the Valley. The Valley has a canal delivery system and an agricultural drainage system, which serves approximately 189 square miles (roughly 131,000 acres) in Riverside and Imperial Counties. Most drains discharge into the Palo Verde Outfall Drain. The drains include a large outfall drain and a lagoon around which the community of Palo Verde is centered. PVOD discharges its waters into the Colorado River upstream of the Cibola National Wildlife Refuge.

OC pesticides, which include chlordane, DDT, dieldrin, and toxaphene, are man-made chemicals. There are no natural sources of these OC pesticides. Their uses were restricted in the 1970s, 1980s, and 1990s. They were mainly used as agricultural pesticides. They are commonly referred to as legacy pollutants because of their persistence and residual effects in the environment. In the environment OC pesticides are bound to fine-grained sediment particles and can accumulate in the tissue of benthic organisms to levels that may affect the organism's health and the health of those that may consume them.

OC pesticides have strong tendencies to bind to fine-grained soil particles (silt, clay). The soil-bound OC pesticides are then carried by water flow from both point and non-point sources from upstream locations to new downstream locations in silt and clay sediments, where they settle and accumulate in the bottom sediments. The main source of OC pesticides in PVOD is from nonpoint source runoff from areas with high residual OC pesticide concentrations in soil. Nonpoint source runoff also includes the load from atmospheric deposition, although this is a much smaller contribution compared to the load from runoff. Point source inputs from National Pollutant Discharge Elimination System discharges are also a much smaller contribution of the overall load compared to the load from runoff.

Description of Existing Regulatory Action as an Implementation Strategy to Achieve DDT and Toxaphene WQs

An existing Regional Water Board agricultural waiver [Conditional Waiver of Waste Discharge Requirements for Agricultural Wastewater Discharges and Discharges of

Waste from Drain Operation and Maintenance Activities Originating within the Palo Verde Valley and Palo Verde Mesa – Riverside and Imperial Counties (Regional Water Board Order # R7-2012-0047) (Palo Verde Ag Waiver)] is expected to result in attainment of DDT and toxaphene WQSs for PVOD. The Waiver is funded through fees, and includes MPs, water monitoring plan and enforceable actions to ensure that the WQSs are met. The responsible parties for implementing the Palo Verde Ag Waiver are:

- (1) farmland owners, renters/lessees, and operators/growers in the Palo Verde area who discharge or may discharge agricultural wastewater to PVOD; and
- (2) PVID and individuals who conduct drain operation and maintenance (O&M) activities that could affect the quality of water in PVOD.

Requirements outlined in the Ag Waiver will prioritize implementation efforts in PVOD watershed aimed at addressing discharges agricultural pollutants, including requirements to:

- Develop Water Quality Management Plans (WQMPs) and Monitoring and Reporting Programs (MRPs); and
- Identify and implement MPs that effectively manage nutrients and pesticides, and improve irrigation efficiency and sediment control to achieve compliance with WQOs, and therefore protect beneficial uses for the Palo Verde Valley Drains, Lagoon, and Outfall Drain.

PVID has agreed to organize and manage a coalition group and develop and implement a compliance program to comply with Palo Verde Ag Waiver. The Ag Waiver complied with the requirements of California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).

Regional Water Board staff plans to conduct water, sediment, and fish tissue monitoring through the State Surface Water Ambient Monitoring Program (SWAMP) twice a year to track and ensure attainment of DDT and Toxaphene WQSs. Water Board staff will evaluate impairments caused by DDT and Toxaphene when monitoring data is submitted and during renewals of the Ag Waiver. Water Board staff will propose modifications of the Ag Waiver or other regulatory mechanisms, if necessary, to address remaining impairments.

Concentrations of DDT and Toxaphene in PVOD Have Been Reduced Significantly

2011 data shows that concentrations of PVOD DDT and toxaphene have been reduced significantly from their peaks in the 1970s, 1980s, and 1990s. , The reductions were about 87% for DDT (Figure 4; and Table 1) and more than 96% for toxaphene (Figure 5; and Table 2). The PVOD water quality criteria for DDT and toxaphene are expected to be attained through continued implementation and improvement of sediment and pesticides MPs by Palo Verde Valley farmers/growers and PVID.

Reasonable Schedule for Implementing Necessary Pollution Controls and an Estimate Timeline when WQSs Will be Met

Based on this analysis, Regional Water Board staff estimates that PVOD will meet WQSs for DDT and toxaphen by the year 2020. Monitoring programs by State and the Regional Water Board that include sediment and OC pesticides in fish tissues will continue to provide data and information to assess meeting targets and criteria, effectiveness of MPs, and any needed revisions.

Summary

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing these water segment-pollutant combinations from the section 303(d) list. However, there is sufficient justification to place them in the Being Addressed portion of the 303(d) list. An existing regulatory action other than new TMDLs (Regional Water Board Order R7-2012-0047 to establish an agricultural waiver in Palo Verde Valley) is expected to result in attainment of the standards by 2020. The Ag Waiver, which addresses agricultural water quality impairments including DDT and toxaphene, is now being implemented. Also, DDT and toxaphene are no longer legally sold or used in the U.S., and their concentrations have been reduced significantly. The Regional Water Board will update this recommendation when new data and information become available and are assessed.

Figure 1: Palo Verde Valley

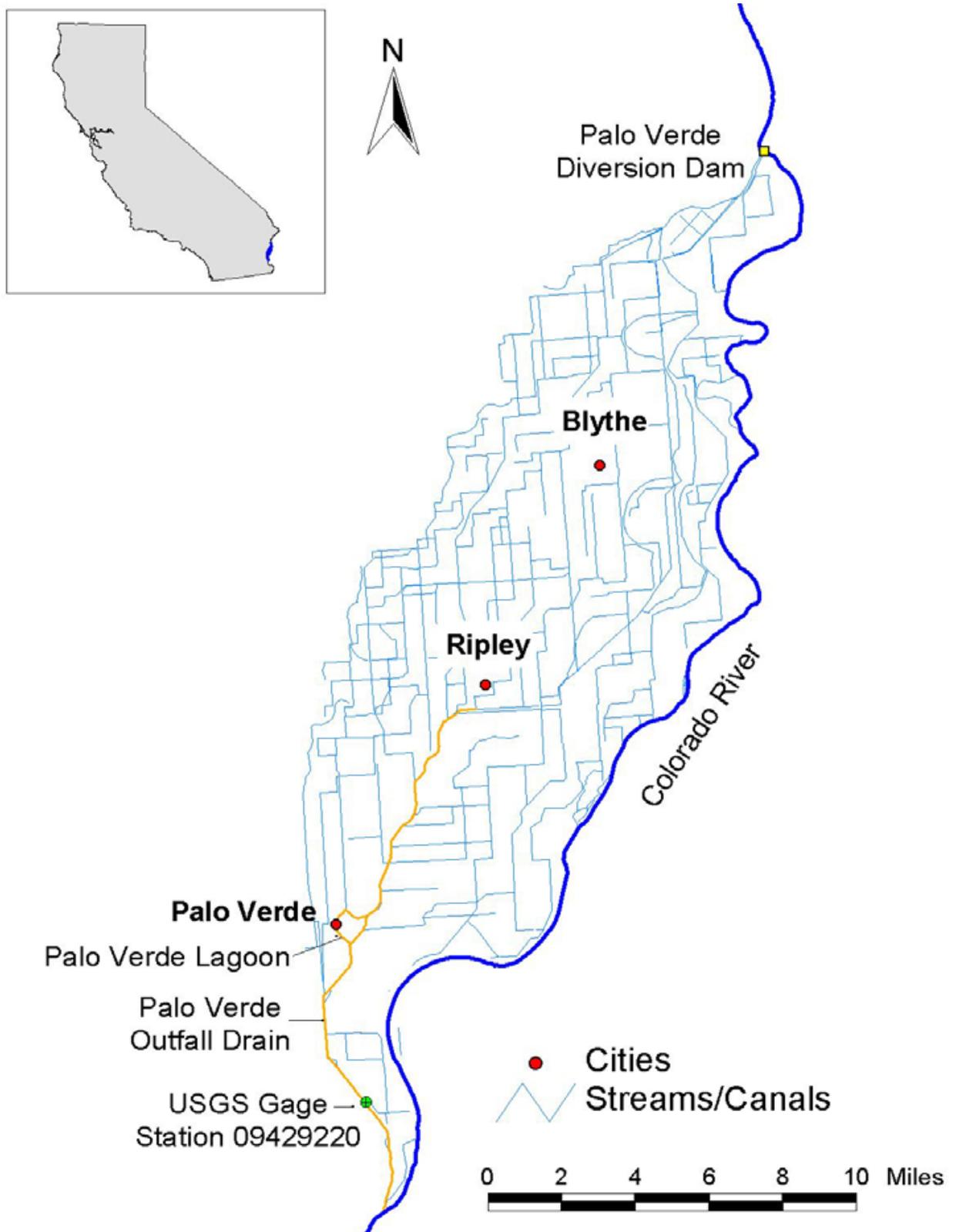
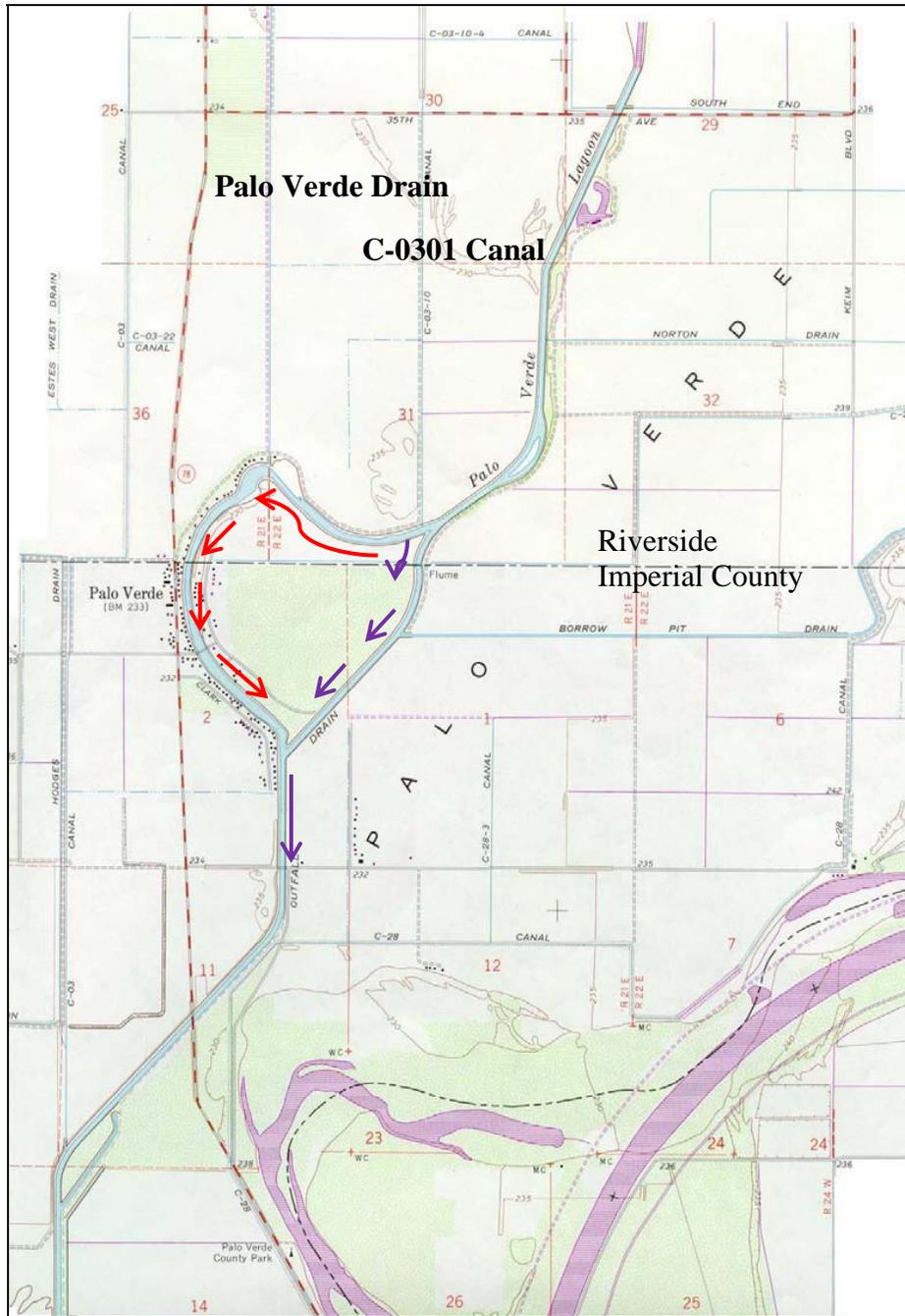


Figure 2: Palo Verde Outfall Drain Area



Palo Verde Outfall Drain
 Section 36, R21E, T8S; Section 31, R22E, T8S;
 Sections 1 and 2, R21E, T9S

Palo Verde USGS Quadrangle
 Scale 1" = 2000'

Notes:

—
 Flow Direction in
 Outfall Drain

—

Flow Direction in
 Lagoon

Figure 3: PVOD Sampling Location



Figure 4: PVOD DDT in Fish Tissue

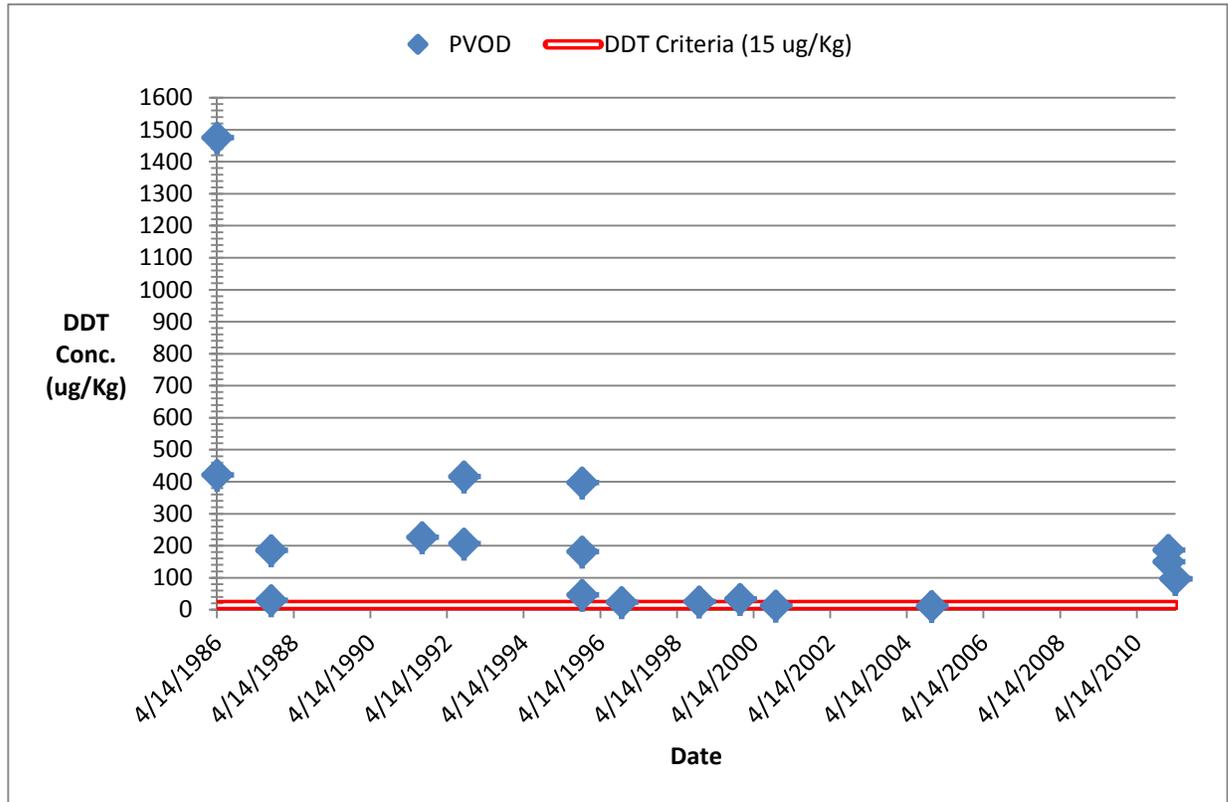


Table 1: PVOD DDT in Fish Tissue (ug/Kg)

Date	PVOD Conc.
4/14/1986	1,475
4/14/1986	421
9/9/1987	30
9/9/1987	186
8/19/1991	226
9/22/1992	207
9/22/1992	416
10/25/1995	397
10/25/1995	182
10/25/1995	46
11/2/1996	24
11/12/1998	25.3
12/7/1999	33.2
11/10/2000	12.6
12/8/2004	11.4
2/10/2011	149.5
2/10/2011	186.5
4/19/2011	96.9
4/19/2011	96.23

Figure 5: PVOD Toxaphene in Fish Tissue

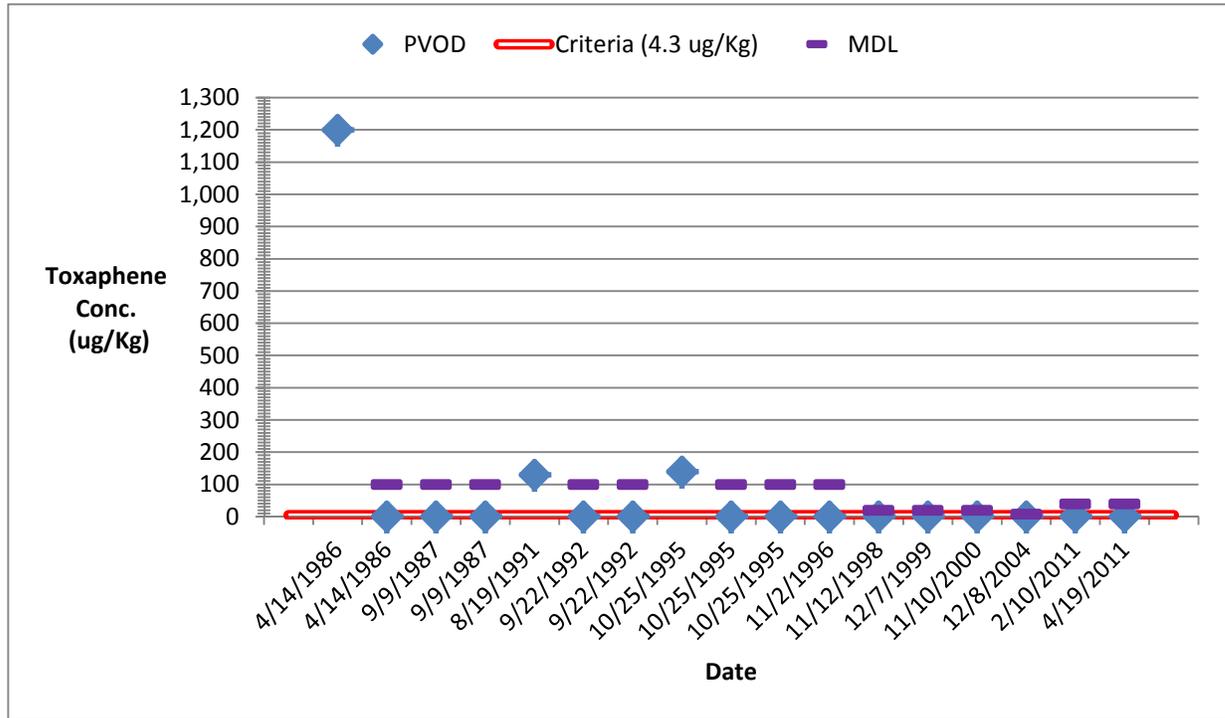


Table 2: PVOD Toxaphene in Fish Tissue (ug/Kg)

Date	PVOD	MDL
4/14/1986	1,200	
4/14/1986	ND	100
9/9/1987	ND	100
9/9/1987	ND	100
8/19/1991	130	
9/22/1992	ND	100
9/22/1992	ND	100
10/25/1995	140	
10/25/1995	ND	100
10/25/1995	ND	100
11/2/1996	ND	100
11/12/1998	ND	20
12/7/1999	ND	20
11/10/2000	ND	20
12/8/2004	ND	7.98
2/10/2011	ND	40
4/19/2011	ND	40

MDL = Method Detection Limit