CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

ATTACHMENT D TO ORDER NO. R5-2014-XXXX

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONDERATIONS WASTE DISCHARGE REQUIREMENTS GENERAL ORDER FOR SACRAMENTO VALLEY RICE GROWERS

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Acronyms and Abbreviations

AB	Assembly Bill
Antidegradation Policy	State Water Board Resolution 68-16
CCR	California Code of Regulations
Central Valley Water Board	California Regional Water Quality Control Board, Central Valley Region
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CRC	California Rice Commission
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
DPH	California Department of Public Health
DPM	diesel particulate matter
DPR	California Department of Pesticide Regulation
Economics Report	Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program
ECR	Existing Conditions Report for the Irrigated Lands Regulatory Program
EIR	environmental impact report
FFGO	field crops, grain and hay, irrigated pasture, rice
Framework	Recommended Long-Term Irrigated Lands Regulatory Program Framework
FWQMP	Farm Water Quality Management Plan
GHG	greenhouse gas
GQMPs	groundwater quality management plans
HAPs	hazardous air pollutants
ILRP	Long-Term Irrigated Lands Regulatory Program
ILRP Framework Report	Recommended Irrigated Lands Regulatory Program Framework Staff Report, March 2011
MLD	most likely descendant
NAHC	Native American Heritage Commission
NOA	naturally occurring asbestos
NPS Policy	State Water Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program
NRHP	National Register of Historic Places
PAMs	polyacrylamides
PEIR	Final Program EIR for the Long-Term Irrigated Lands Regulatory Program (incorporates Draft)
PRC	California Public Resources Code
Rice Order	Waste Discharge Requirements General Order for Sacramento Valley Rice Growers
SB	Senate Bill
State Water Board	State Water Resources Control Board
TACs	toxic air contaminants
TMDLs	total maximum daily loads
WDRs	waste discharge requirements

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I. Introduction

The California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] sections 21002, 21002.1, 21081, 21081.5, 21100) and State CEQA Guidelines section 15091(a) provide that no public agency shall approve or carry out a project for which an environmental impact report (EIR) has been certified when one or more significant environmental effects of the project have been identified, unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. These findings explain the disposition of each of the significant effects, including those that will be less than significant with mitigation. The findings must be supported by substantial evidence in the record.

There are three possible findings under section 15091(a). The public agency must make one or more of these findings for each significant effect. The section 15091(a) findings are:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Long-Term Irrigated Lands Regulatory Program (ILRP) Final Program EIR (PEIR) (ICF International 2011). Pub. Resources Code section 15091(a)(1).
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. Pub. Resources Code section 15091(a)(2).
3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the PEIR. Pub. Resources Code section 15091(a)(3).

II. Findings

The following findings discuss the significant direct, indirect, and cumulative effects of the program to be adopted, which is referred to throughout as Waste Discharge Requirements General Order for Rice Growers in the Sacramento Valley, Order R5-2013-XXXX (Order). The Order is described in California Regional Water Quality Control Board, Central Valley Region Order R5-2013-XXXX and supporting attachments, and is being approved consistent with the requirements of CEQA.

The requirements of this Order have been developed from the alternatives evaluated in the PEIR, and include regulatory elements contained within those alternatives. As described below (see Applicability of the Program EIR), there are no new effects that could occur or no new mitigation measures that would be required as a result of the Order that were not already identified and described in the PEIR. None of the conditions that would trigger the need to prepare a subsequent EIR under State CEQA Guidelines section 15162 exist with respect to the Order.

The findings adopted by the Central Valley Water Board address each of the Order's significant effects in their order of appearance in the PEIR certified for the Long-term ILRP. The findings also address the alternatives analyzed in the PEIR that were not selected as a basis for the Order.

For the purposes of section 15091, the documents and other materials that constitute the record of proceedings upon which the Central Valley Water Board based its decision are held by the Central Valley Water Board.

For findings made under section 15091(a)(1), required mitigation measures have been adopted for the Order. These mitigation measures are included in Attachment C of the Order. A Mitigation

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Monitoring and Reporting Program (MMRP) for these measures has been included in the Order's Monitoring and Reporting Program R5-2013-XXXX (MRP).

Where mitigation measures are within the responsibility and jurisdiction of another public agency, the finding in section 15091(a)(2) should be made by the lead agency. In order to make the finding, the lead agency must find that the mitigation measures have been adopted by the other public agency or can and should be adopted by the other public agency.

Where the finding is made under section 15091(a)(3) regarding the infeasibility of mitigation measures or alternatives, the specific economic, legal, social, technological, or other considerations are described in a subsequent section.

Each of these findings must be supported by substantial evidence in the record.

The Order implements the Long-Term ILRP for rice operations in the Sacramento Valley. The Order is intended to serve as a single implementing order in a series of orders that will implement the Long-Term ILRP for the entire Central Valley.

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III. History of the Project

In 2003 the Central Valley Water Board adopted a conditional waiver of waste discharge requirements for discharges from irrigated agricultural lands. As part of the 2003 waiver program the Central Valley Water Board directed staff to prepare an Environmental Impact Report (EIR) for a long-term irrigated lands regulatory program (ILRP).

On 5 and 6 March 2003, CEQA scoping meetings were held in Fresno and Sacramento to solicit and receive public comment on the scope of the EIR as described in the Notice of Preparation (released on 14 February 2003). Following the scoping meetings, the Central Valley Water Board began preparation of the draft *Existing Conditions Report* (ECR) in 2004 to assist in defining the baseline condition for the EIR's environmental analyses. The draft ECR was circulated in 2006, public comment on the document was received and incorporated and it was released in 2008.[1]

In March and April 2008, the Central Valley Water Board conducted another series of CEQA scoping meetings to generate recommendations on the scope and goals of the long-term ILRP. Information was also gathered as to how stakeholders would like to be involved in development of the long-term program. Stakeholders indicated in these scoping meetings that they would like to be actively involved in developing the program. To address this interest, the Central Valley Water Board initiated the Long-term ILRP Stakeholder Advisory Workgroup. The Stakeholder Advisory Workgroup assisted in the development of long-term program goals and objectives and a range of alternatives to be considered in the PEIR.

On 28 July 2010, the Central Valley Water Board, serving as the lead agency under CEQA, released the Draft PEIR for the long-term ILRP. The PEIR provides programmatic analysis of impacts resulting from the implementation of six regulatory alternatives. Five of the alternatives were developed with the Stakeholder Advisory Workgroup. The sixth alternative was developed by staff in an effort to fulfill program goals and objectives, meet applicable state policy and law, and minimize potentially adverse environmental impacts and economic effects. The PEIR does not analyze a preferred program alternative, but rather equally analyzes the environmental impacts of each alternative. Further

[1] ICF Jones & Stokes. 2008. *Irrigated Lands Regulatory Program Existing Conditions Report*. December. (ICF J&S 05508.05.) Sacramento, CA. Prepared for the State Water Resources Control Board and Central Valley Regional Water Quality Control Board, Rancho Cordova, CA.

discussion regarding the PEIR alternatives is included below in the section titled "Feasibility of alternatives Considered in the EIR."

The Central Valley Water Board provided a 60-day period for submitting written comments on the Draft PEIR. In September 2010, Central Valley Water Board staff held public workshops in Chico, Modesto, Rancho Cordova, and Tulare to receive input. The Central Valley Water Board provided substantive responses to all written comments received on the Draft PEIR. The Central Valley Water Board provided public notice of the availability of the PEIR on 8 March 2011. The Central Valley Water Board certified the PEIR on 7 April 2011 (Central Valley Water Board Resolution R5-2011-0017). The requirements of the Rice Order have been developed from the alternatives evaluated in the PEIR.

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IV. Applicability of the Program EIR

Pursuant to Guidelines Section 15168(c)(2), the Central Valley Water Board finds that the Order is within the scope of the project covered by the PEIR, and no new environmental document is required. There are no new effects that could occur or no new mitigation measures that would be required as a result of the Order that were not already identified and described in the PEIR. None of the conditions that would trigger the need to prepare a subsequent EIR under State CEQA Guidelines section 15162 exist with respect to the Order.

This Order represents one order in a series of orders that will be developed, based on the alternatives evaluated in the PEIR, for all irrigated agriculture within the Central Valley. The PEIR describes that potential environmental impacts of all six alternatives are associated with implementation of water quality management practices, construction of monitoring wells, and impacts to agriculture resources (e.g., loss of production of prime farmland) due to increased regulatory costs.

The PEIR describes and evaluates potential impacts of practices likely to be implemented to meet water quality and other management goals on irrigated lands. The representative types of water quality management practices analyzed that are applicable to rice operations include:

- Nutrient management
- Wellhead protection

As discussed in Attachment A, the requirements of the Order have been developed from the alternatives evaluated in the PEIR. Because the Order includes regulatory elements that are also contained in the six alternatives analyzed in the PEIR, the actions by Growers to protect water quality in response to the requirements of this Order are expected to be similar to those described for Alternatives 2-6 of the PEIR (Alternative 1 does not include groundwater protection). Therefore, the requirements of this Order would lead to implementation of the above practices within the Sacramento Valley to a similar degree as is described for Alternatives 2-6 analyzed in the PEIR.

Specifically, project-level review of the requirements in the Order has revealed that the requirements of the Order most closely resemble those described for Alternatives 2 and 4 of the PEIR, but do include elements from Alternatives 2-5. The Order contains the third-party lead entity structure, regional surface and groundwater management plans, surface water quality monitoring approach similar to Alternative 2 of the PEIR; farm planning, management practices tracking, nutrient tracking, and groundwater monitoring similar to Alternative 4 of the PEIR; prioritized installation of groundwater monitoring wells similar to Alternative 5; and a prioritization system based on systems described by Alternatives 2 and 4.

A. Potential impacts identified in the PEIR not applicable to the Order

The PEIR analyzed several representative management practices and identified a wide range of potential environmental impacts that may result from management practice implementation. Potentially significant impacts identified in the PEIR may be caused by management practices to be implemented by both rice and non-rice irrigated agricultural operations. Because the Order applies only to rice growing operations in the Sacramento Valley, many of the potentially significant impacts identified in the PEIR will not occur as a result of the Order, and therefore are considered less than significant potential impacts of the Order. These less-than-significant potential impacts are referenced below as "non-applicable potential impacts."

Examples of program actions to protect water quality with potentially significant impacts that have been evaluated in the PEIR, but would not be implemented by rice operations in response to the Order, include:

- Pressurized irrigation systems
- Cover cropping,
- Sediment basins
- Tailwater return systems
- Buffers
- Irrigation water management

Pressurized irrigation systems are not used on rice fields in the Sacramento Valley as rice fields are flooded for extended periods; for this same reason, cover crops are not planted by rice operations. All rice field operators subject to the Order flood their fields for extended periods and the fields essentially function as sediment basins and tailwater return systems. This is reflected in the economic evaluation[2] for the ILRP (hereafter referred to as the "Economics Report"), indicating that 100 percent of rice operations have tailwater recovery system capabilities. Because rice operations hold water for these extended periods and control release from designated locations, buffers for sediment control are not necessary.

The Economics Report also describes that 100 percent of rice operations already have irrigation water management practices in place. Therefore, these practices are already implemented on all rice fields and there would not be any additional irrigation water management practices deployed as a result of the Order.

The non-applicable potential impacts are briefly described below.

<u>Impact BIO-1: Loss of Downstream Habitat from Reduced Field Runoff</u>. This impact is due to implementation of practices that would reduce field runoff (PEIR, pg. 5.7-45). The representative practices that rice operations may implement to comply with the Order do not include any new practices that would reduce field runoff. Under the Order, Impact BIO-1 is not applicable and is therefore less-than-significant.

<u>Impacts BIO-4 and BIO-5: Potential Impacts Associated with Loss of Existing Sedimentation Ponds</u>. This potential impact is due to the potential for operations to abandon, or fill, existing tailwater/sediment ponds to protect groundwater (PEIR, pg. 5.7-47). Because rice fields function as sediment/tailwater ponds (see discussion above), rice growers regulated under the Order would not fill or abandon sediment/tailwater ponds. This practice is not expected to be implemented by rice

[2] ICF International. 2010. *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program*. July. (ICF 05508.05.) Sacramento, CA. Prepared for: Central Valley Regional Water Quality Control Board, Sacramento, CA.

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operations to comply with the Order. Under the Order, Impacts BIO-4 and BIO-5 are not applicable, and are therefore less-than-significant.

Impact FISH-4: Toxicity to Fish or Fish Prey from Particle-Coagulant Water Additives. This potential impact is due to the application of polyacrylamides (PAMs) as a practice to reduce erosion and sediment runoff (PEIR, pg. 5.8-51). As described above, rice fields function as sediment basins, which reduce erosion and sediment runoff. Because rice operations already control sediment and erosion, application of PAMs to comply with the Order is not expected to occur. Under the Order, Impact FISH-4 is not applicable, and is therefore less-than-significant.

Impact AG-1: Conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to Nonagricultural Use. This impact is due to the potential conversion of important farmland to nonagricultural use due to increased regulatory costs (e.g., monitoring, reporting, management practices implementation). The PEIR states that most of the potential loss would be where growers of low-value crops select relatively costly management practices. Rice operations would not be implementing higher cost management practices (see Table 2-9, Economics Report) and rice operations are relatively high value crops (see pg. 3-6, Economics Report, rice value exceeding $1000 per acre versus $200 per acre for irrigated pasture). Therefore, the costs to rice operations are substantially lower than other irrigated agricultural operations. As provided in the Information Sheet, the costs of the Order are similar to the costs for Alternative 4 of the PEIR. Potential loss of important rice farmland under Alternative 4 is expected to be less than 300 acres, which is less than the margin of error inherent in the model used by the Economics Report.[3] Because the estimated loss is less than the margin of error, the potential effect is effectively zero. Therefore, there is no potential loss of important rice farmland under the Order, and this potential impact is considered less-than-significant.

Cumulative Agriculture Resources Impacts. In the PEIR, the Program's contribution to the increasing conversion of important agriculture resources statewide was identified as cumulatively considerable. However, given, as described above, that the expected conversion of important farmland from implementation of the Order is effectively zero, the Order would not contribute to a cumulatively considerable impact to agriculture resources. Under the Order, this potential impact is considered less-than-significant.

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V. Impact Findings

B. Cultural Resources

Impact CUL-1. Physical destruction, alteration, or damage of cultural resources from implementation of management practices (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental effect as identified in the PEIR.

[3] Hatchett, S. 2013. Pursuant to State CEQA Guidelines section 15164, the Board has considered the 2013 Hatchett memorandum in addition to the PEIR prior to making a decision on the Order. None of the conditions that would trigger the need to prepare a subsequent EIR under CEQA exist with respect to information contained in the Hatchett memorandum.

Rationale for Finding

Upon implementation of the Order, Growers may implement a variety of management practices that include physical and operational changes to agricultural land in the Order's regulated area. Such management practices may occur near cultural resources that are historically significant and eligible for listing in the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHP). Implementation of these practices may lead to physical demolition, destruction, relocation, or alteration of cultural resources.

The location, timing, and specific suite of management practices to be chosen by Growers to improve water quality are not known at this time. This impact is considered significant. **Mitigation Measure CUL-MM-1: Avoid Impacts to Cultural Resources** has been incorporated into the Order to reduce this impact to a less-than-significant level. Mitigation measures are included in the *Mitigation Measures* section.

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Impact CUL-2. Potential Damage to Cultural Resources from Construction Activities and Installation of Groundwater Monitoring Wells (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental impact as identified in the PEIR.

Rationale for Finding

Under the Order, construction impacts would result from installation of groundwater monitoring wells. The location of monitoring wells, as well as the location, timing, and specific suite of constituents to be monitored will not be defined until the need for additional monitoring wells is established. This impact is considered significant. **Mitigation Measure CUL-MM-1: Avoid Impacts to Cultural Resources** has been incorporated into the Order to reduce this impact to a less-than-significant level. Mitigation measures are included in the *Mitigation Measures* section.

C. Noise

Impact NOI-1. Exposure of Sensitive Land Uses to Noise from Construction Activities in Excess of Applicable Standards (Responsibility of Other Agencies)

Finding

As specified in section 15091(a)(2) of the State CEQA Guidelines, implementation of the mitigation measures for this impact is within the responsibility and jurisdiction of other public agencies that can and should implement the measures.

Rationale for Finding

Under the Order, construction noise impacts would result from implementation of management practices that may require the use of heavy-duty construction equipment. Because management practices are a function of crop type and economics, it cannot be determined whether the management practices selected under this alternative would change relative to existing conditions. Accordingly, it is not possible to determine construction-related effects based on a quantitative analysis.

Noise levels from anticipated heavy-duty construction equipment are expected to range from approximately 55 to 88 A-weighted decibels (dBA) at 50 feet. These levels would be short term

and would attenuate as a function of distance from the source. Noise from construction equipment operated within several hundred feet of noise-sensitive land uses has the potential to exceed local noise standards. This is considered a potentially significant impact. Implementation of **Mitigation Measure NOI-MM-1: Implement Noise-Reducing Construction Practices**, which is described in the *Mitigation Measures* section, would reduce this impact to a less-than-significant level. Mitigation Measure NOI-MM-1 is within the responsibility and jurisdiction of local agencies, who can and should implement these measures.

Impact NOI-2. Exposure of Sensitive Land Uses to Noise from Operational Activities in Excess of Applicable Standards (Responsibility of Other Agencies)

Finding

As specified in section 15091(a)(2) of the State CEQA Guidelines, implementation of the mitigation measures for this impact is within the responsibility and jurisdiction of other public agencies that can and should implement the measures.

Rationale for Finding

Under the Order, a third-party group would perform regional surface water and groundwater quality monitoring. Surface and groundwater monitoring under the Order would be similar to the regional monitoring described for Alternatives 2 and 4 of the PEIR. The PEIR provides that operational noise from vehicle trips associated with water quality sampling for these alternatives is expected to be minimal.

Noise generated from individual well pumps would be temporary and sporadic. Information on the types and number of pumps, as well as the number and distances of related vehicle trips, is currently unavailable.

Depending on the type of management practice selected, the Order also may result in noise benefits relative to existing conditions. For example, improved irrigation management may reduce the amount of time that pressurized pump generators are used. Enhanced nutrient application may minimize the number of tractors required to fertilize or plow a field. Removing these sources of noise may mediate any increases related to the operation of new pumps. However, in the absence of data, a quantitative analysis of noise impacts related to operations of the Order is not possible. Potential noise from unenclosed pumps located close to noise-sensitive land uses could exceed local noise standards. This is considered a potentially significant impact. Implementation of **Mitigation Measures NOI-MM-1: Implement Noise-Reducing Construction Practices** and **NOI-MM-2: Reduce Noise Generated by Individual Well Pumps**, which are described in the *Mitigation Measures* section, should reduce this impact to a less-than-significant level. Mitigation measures NOI-MM-1and NOI-MM-2 are within the responsibility and jurisdiction of local agencies, who can and should implement these measures.

D. Air Quality

Impact AQ-1. Generation of Construction Emissions in Excess of Local Air District Thresholds (Responsibility of Other Agencies)

Finding

As specified in section 15091(a)(2) of the State CEQA Guidelines, implementation of the mitigation measures for this impact is within the responsibility and jurisdiction of other public agencies that can and should implement the measures..

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Rationale for Finding

Under the Order, construction activities would result from implementation of management practices that require physical changes or the use of heavy-duty construction equipment. It is difficult to determine how management practices selected under this Order would change relative to existing conditions. Accordingly, it is not possible to determine construction-related effects based on a quantitative analysis. However, under the Order there would be selection and implementation of additional management practices to meet surface and groundwater quality goals. Consequently, implementation of the Order may result in increased criteria pollutant emissions from construction activities relative to existing conditions.

Construction emissions associated with the Order would result in a significant impact if the incremental difference, or increase, relative to existing conditions exceeds the applicable air district thresholds shown in Table 5.5-2 of the PEIR. Management practices with the greatest potential for emissions include those that break ground or move earth matter, thus producing fugitive dust, and those that require the use of heavy-duty construction equipment (e.g., backhoes or bulldozers), thus producing criteria pollutants from exhaust.

While it is anticipated that any emissions resulting from construction activities would be miniscule on a per-farm basis, in the absence of a quantitative analysis, data are insufficient to determine whether emissions would exceed the applicable air district thresholds. Consequently, this is considered a potentially significant impact. Implementation of **Mitigation Measure AQ-MM-1: Apply Applicable Air District Mitigation Measures to Reduce Construction Emissions below the District Thresholds,** which is described in the *Mitigation Measures* section, should reduce this impact to a less-than-significant level. Mitigation Measure AQ-MM-1 is within the responsibility and jurisdiction of local air districts, who can and should implement these measures.

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Impact AQ-2. Generation of Operational Emissions in Excess of Local Air District Thresholds (Responsibility of Other Agencies)

Finding

As specified in section 15091(a)(2) of the State CEQA Guidelines, implementation of the mitigation measures for this impact is within the responsibility and jurisdiction of other public agencies that can and should implement the measures.

Rationale for Finding

Under the Order, operational emissions would result from vehicle trips ~~made by the third-party groups~~ to perform surface and groundwater monitoring. Because the Order implements regional groundwater monitoring, with sampling wells serving multiple operations, additional stationary sources associated with operating groundwater wells for monitoring are expected to be minimal. Surface water monitoring is already occurring under the existing condition; i.e., the Order's surface water monitoring program is similar to the monitoring being conducted under the previous conditional waiver (Order R5-2006-0053).

Any new emissions generated under the Order are not expected to be substantial or to exceed applicable air district thresholds. However, the difference in emissions relative to existing conditions is not known at this time and therefore cannot be compared to the significance criteria. This is considered a potentially significant impact. Implementation of **Mitigation Measure AQ-MM-2: Apply Applicable Air District Mitigation Measures to Reduce Operational Emissions below the District Thresholds,** which is described in the *Mitigation Measures* section, should reduce this impact to a less-than-significant level. Mitigation Measure AQ-MM-2 is within the responsibility and jurisdiction of local air districts, who can and should implement these measures.

Impact AQ-3. Elevated Health Risks from Exposure of Nearby Sensitive Receptors to Toxic Air Contaminants/Hazardous Air Pollutants (TACS/HAPs) (Responsibility of Other Agencies)

Finding

As specified in section 15091(a)(2) of the State CEQA Guidelines, implementation of the mitigation measures for this impact is within the responsibility and jurisdiction of other public agencies that can and should implement the measures.

Rationale for Finding

Toxic air contaminants (TACs) and hazardous air pollutants (HAPs) resulting from the Order include diesel particulate matter (DPM) from diesel construction equipment and new pumps, pesticides/fertilizers, and asbestos. Sensitive receptors near rice growers could be affected by these sources.

As discussed in Chapter 3 of the PEIR, one of the goals of the nutrient management practices is to reduce the application of pesticides/ fertilizers. Because the Order would result in greater likelihood of these management practices being implemented, it is reasonable to assume that pesticides/fertilizers—and thus the potential for exposure to these chemicals—would be reduced under the Order.

It is expected that construction emissions may increase relative to existing conditions, thus resulting in minor increases of DPM. Elevated levels of construction in areas where naturally occurring asbestos (NOA) is common may also increase the likelihood of exposure to asbestos. This is considered a potentially significant impact. Implementation of **Mitigation Measures AQ-MM-1: Apply Applicable Air District Mitigation Measures to Reduce Construction Emissions below the District Thresholds**, **AQ-MM-2: Apply Applicable Air District Mitigation Measures to Reduce Operational Emissions below the District Thresholds**, and **AQ-MM-3: Apply Applicable Air District Mitigation Measures to Reduce TAC/HAP Emissions,** which are described in *Mitigation Measures* section, should reduce this impact to a less-than-significant level). Mitigation Measures AQ-MM-1, AQ-MM-2 and AQ-MM-3 are within the responsibility and jurisdiction of local air districts, who can and should implement these measures.

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E. Vegetation and Wildlife

Impact BIO-3. Potential Loss of Sensitive Natural Communities and Special-Status Plants from Construction Activities (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental effect as identified in the PEIR.

Rationale for Finding

Under the Order, construction impacts would result from implementation of management practices that require physical changes, such as wellhead protection berms. It is difficult to determine to what extent management practices selected under the Order would change relative to existing conditions; thus, it is not possible to quantify any construction-related effects. However, it is logical to assume that implementation of the Order would result in selection of more management practices to meet water quality goals. Consequently, implementation of the Order may result in effects on vegetation from construction activities.

In general, management practices would be implemented on existing rice lands, which are unlikely to support native vegetation or special-status plants. However, construction that directly or indirectly affects natural vegetation communities adjacent to existing rice lands, particularly annual grasslands with inclusions of seasonal wetlands or vernal pools and riparian vegetation, could result in loss of sensitive wetland communities or special-status plants growing in the uncultivated or unmanaged areas. While it is anticipated that the loss of sensitive communities or special-status plants resulting from construction activities would be small, if any, data are insufficient to determine how much loss would occur. Consequently, this is considered a potentially significant impact. **Mitigation Measure BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources** has been incorporated into the Order to reduce this impact to a less-than-significant level. Mitigation measure BIO-MM-1 is described in the Mitigation Measures section.

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Impact BIO-6. Loss of Sensitive Natural Communities and Special-Status Plants from Construction Activities and Installation of Groundwater Monitoring Wells (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental impact as identified in the PEIR.

Rationale for Finding

Under the Order, construction impacts would result from implementation of management practices that require physical changes, such as formation of wellhead protection berms, or from installation of groundwater monitoring wells. The placement of these practices and monitoring wells cannot be predetermined; consequently, the potential impacts on sensitive natural communities and special-status plants cannot be quantified.

In general, management practices would be implemented on existing rice lands resulting in a less-than-significant impact. It was assumed that groundwater monitoring well placement also could be limited primarily to rice land and non-sensitive habitat. In addition, use of existing wells for groundwater monitoring is encouraged under the Order instead of requiring that new wells be constructed. However, if construction related to management practices/installation of groundwater monitoring wells required changes to managed wetlands or to natural vegetation communities that are adjacent to existing rice lands, there would be a potential for loss of vegetation in sensitive wetland communities or loss of special-status plants growing in the uncultivated or unmanaged areas. While it is anticipated that any loss of sensitive communities or special-status plants resulting from construction activities would be unlikely, data are insufficient to determine how much loss would occur. Consequently, this is considered a potentially significant impact. **Mitigation Measure BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources** has been incorporated into the Order to reduce this impact to a less-than-significant level (see section VI). Mitigation measure BIO-MM-1 is described in the *Mitigation Measures* section.

Impact BIO-7. Loss of Special-Status Wildlife from Construction Activities and Installation of Groundwater Monitoring Wells (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental impact as identified in the PEIR.

Rationale for Finding

Under the Order, construction impacts would result from implementation of management practices that require physical changes, such as formation of wellhead protection berms, and installation of groundwater monitoring wells. The placement of these practices and monitoring wells cannot be predetermined; consequently, the potential impacts on special-status wildlife species and their habitat cannot be quantified.

In general, management practices would be implemented on existing rice lands resulting in a less-than-significant impact. It was assumed that placement of groundwater monitoring wells also could be limited primarily to rice land and non-sensitive habitat. In addition, use of existing wells for groundwater monitoring is encouraged under the Order instead of requiring that new wells be constructed. However, construction of management practices/groundwater monitoring wells that requires changes to managed wetlands or to natural vegetation communities adjacent to existing rice lands could result in a loss of special-status wildlife species occurring in the uncultivated or unmanaged areas. While it is anticipated that any loss of sensitive communities or special-status wildlife species resulting from construction activities would be unlikely, data are insufficient to determine how much loss would occur. Consequently, this is considered a potentially significant impact. **Mitigation Measure BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources** has been incorporated into the Order to reduce this impact to a less-than-significant level (see section VI). Mitigation measure BIO-MM-1 is described in the *Mitigation Measures* section.

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F. Fisheries

Impact FISH-2. Temporary Loss or Alteration of Fish Habitat during Construction of Facilities for Management Practices (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental effect as identified in the PEIR.

Rationale for Finding

Under the Order, construction impacts would result from implementation of management practices that require physical changes to lands in the Sacramento Valley Area. These physical changes primarily include wellhead protection berms. Physical changes may be associated with implementation of other management practices. Installation of facilities for management practices is unlikely to significantly exceed the baseline disturbance that occurs during routine field preparation. Construction of features associated with management practices may temporarily reduce the amount or quality of existing fish habitat in certain limited circumstances (e.g., by encroachment onto adjacent water bodies, removal of riparian vegetation, or reduction in water quality—such as increases in sediment runoff during construction). It is difficult to determine whether the management practices selected under the Order would change relative to existing

conditions, and it is not possible to quantify any construction-related effects. Implementation of the Order may result in effects on fish habitat from construction activities related to management practices.

While it is anticipated that the loss of fish habitat resulting from construction activities would be small, if any, data are insufficient to determine how much loss would occur. Consequently, this is considered a potentially significant impact. **Mitigation Measure FISH-MM-1: Avoid and Minimize Impacts to Fish and Fish Habitat** has been incorporated into the Order to reduce this impact to a less-than-significant level. Mitigation measure FISH-MM-1 is described in the *Mitigation Measures* section.

Impact FISH-3. Permanent Loss or Alteration of Fish Habitat during Construction of Facilities for Management Practices (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental effect as identified in the PEIR.

Rationale for Finding

In some cases, permanent loss of fish habitat may occur as a result of construction required for implementation of management practices under the Order. Some of the impact may be due to loss of structural habitat (e.g., vegetation) whereas loss of dynamic habitat (e.g., wetted habitat) is not expected to occur. -Because the extent of the loss is not known, the impact is considered potentially significant. **Mitigation Measure FISH-MM-1: Avoid and Minimize Impacts to Fish and Fish Habitat** has been incorporated into the Order to reduce this impact to a less-than-significant level. Mitigation measures FISH-MM-1 is described in the *Mitigation Measures* section.

Impact FISH-6. Temporary Loss or Alteration of Fish Habitat during Construction of Facilities for Management Practices and Groundwater Monitoring Wells (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental impact as identified in the PEIR.

Rationale for Finding

This impact is essentially the same as *Impact FISH-2* except that, in addition to the temporary loss or alteration of habitat due to construction of management practices, further loss or alteration of fish habitat may occur from construction of groundwater monitoring wells under the Order. Accordingly, the impact is considered potentially significant. **Mitigation Measure FISH-MM-1: Avoid and Minimize Impacts to Fish and Fish Habitat** has been incorporated into the Order to reduce this impact to a less-than-significant level (see section VI). Mitigation measure FISH-MM-1 is described in the *Mitigation Measures* section.

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Impact FISH-7. Permanent Loss or Alteration of Fish Habitat during Construction of Facilities for Management Practices and Groundwater Monitoring Wells (Less than Significant with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant environmental impact as identified in the PEIR.

Rationale for Finding

This impact is essentially the same as *Impact FISH-3* except that, in addition to the temporary loss or alteration of habitat due to construction of features associated with management practices, permanent loss or alteration of fish habitat may occur from construction of groundwater monitoring wells under the Order. Accordingly, the impact is considered potentially significant. **Mitigation Measure FISH-MM-1: Avoid and Minimize Impacts to Fish and Fish Habitat** has been incorporated into the Order to reduce this impact to a less-than-significant level. Mitigation measure FISH-MM-1 is described in the *Mitigation Measures* section.

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G. Cumulative Impacts

Cumulative Cultural Resource Impacts (Less than Cumulatively Considerable with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant cumulative environmental impact as identified in the PEIR.

Rationale for Finding

Installation of monitoring wells under the Order could result in cumulatively considerable impacts to cultural resources in concert with other, non-program-related agricultural enterprises and nonagricultural development in the program area. **Mitigation Measure CUL-MM-1: Avoid Impacts to Cultural Resources** has been incorporated into the Order to reduce the Order's contribution to this impact to a level that is not cumulatively considerable (see section VI). The mitigation measure calls for identification of cultural resources and minimization of impacts to identified resources.

Cumulative Climate Change Impacts (Significant and Unavoidable)

Finding

Pursuant to CEQA Guidelines section 15091(a)(1), changes or alterations have been required in, or incorporated into, the Order, but these changes or alterations are not sufficient to reduce the significant environmental impact to less than significant as identified in the PEIR. As specified in section 15091(a)(2) of the State CEQA Guidelines, implementation of **Mitigation Measure CC-MM-1: Apply Applicable Air District Mitigation Measures to Reduce Construction and Operational GHG Emissions** for this impact is within the responsibility and jurisdiction of other public agencies that can and should implement the measure. Further, as specified in section 15091(a)(3) of the Guidelines, specific considerations make mitigation and alternatives infeasible. A statement of overriding consideration has been adopted, as indicated in the Statement of Overriding Considerations Supporting Approval of the Order presented below (section VIII).

Rationale for Finding

Unlike criteria pollutant impacts, which are local and regional, climate change impacts occur at a global level. The relatively long lifespan and persistence of greenhouse gases (GHGs) (as shown in Table 5.6-1 in the PEIR) require that climate change be considered a cumulative and global impact. As discussed in the PEIR, it is unlikely that any increase in global temperature or sea level could be attributed to the emissions resulting from a single project. Rather, it is more appropriate to conclude that, under the Order, GHG emissions would combine with emissions across California, the United States, and the globe to cumulatively contribute to global climate change.

Given the magnitude of state, national, and international GHG emissions (see Tables 5.6-2 through 5.6-4 in the PEIR), climate change impacts from implementation of the Order likely would be negligible. However, scientific consensus concludes that, given the seriousness of climate change, small contributions of GHGs may be cumulatively considerable. Because it is unknown to what extent, if any, climate change would be affected by the incremental GHG emissions produced under the Order, the impact to climate change is considered cumulatively considerable. **Mitigation Measure CC-MM-1: Apply Applicable Air District Mitigation Measures to Reduce Construction and Operational GHG Emissions** is within the responsibility and jurisdiction of local agencies, who can and should enforce the implementation of these measures. **Mitigation Measure CC-MM-2: Apply Applicable California Attorney General Mitigation Measures to Reduce Construction and Operational GHG Emissions** has been incorporated into the Order; these measures will result in lower GHG emissions levels than had they not been incorporated, but they will not completely eliminate GHG emissions associated with implementing the Order. No feasible mitigation measures have been identified that would reduce this impact to a less-than-significant level. Mitigation measures are described in section VI.

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Cumulative Vegetation and Wildlife Impacts (Less than Cumulatively Considerable with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Order that avoid or substantially lessen the significant cumulative environmental impact as identified in the PEIR.

Rationale for Finding

Tailwater return/sediment basins require substantial construction, with potential impacts on sensitive resources. Because existing conditions on all rice lands include the capability to hold and in some cases recycle tailwater, functioning as sediment basins/tailwater return systems (see Table 2-2 in the Economics Report), growers would not be constructing these types of systems. As discussed above in Section A, there are potential impacts identified in the PEIR that are not applicable to the Order, and will therefore have a less-than-significant impact. Implementation of management measures required by the Order has less-than-significant potential to adversely impact vegetation and wildlife. Rather, the types of practices that rice growers would likely implement include formation of wellhead protection berms and construction of groundwater monitoring wells only where existing wells are not adequate for program monitoring. These practices involve limited construction and would most likely be limited to lands that do not support sensitive biological resources.

The Central Valley of California has been subjected to extensive human impacts from land conversion, water development, population growth, and recreation. These impacts have altered the physical and biological integrity of the Central Valley, causing loss of native riparian vegetation along river systems, loss of wetlands, and loss of native habitat for plant and wildlife . **Mitigation**

Measures BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources has been incorporated into the Order to reduce any potential contribution to this impact to a level that is not cumulatively considerable. Mitigation measures are described in section VI.

Cumulative Fisheries Impacts (Less than Cumulatively Considerable with Mitigation)

Finding

As specified in section 15091(a)(1) of the State CEQA Guidelines, changes or alterations have been required in, or incorporated into, the Rice Order that avoid or substantially lessen the significant cumulative environmental impact as identified in the PEIR.

Rationale for Finding

The ongoing impacts of impaired water quality from rice lands are likely to cumulatively affect fish, in combination with contaminants that remain in the Sacramento Valley from past activities. Such activities include mining and past use of pesticides such as DDT that remain within sediments. Because many of the existing impacts discussed in the PEIR section "Existing Effects of Impaired Water Quality on Fish" are cumulative, it is difficult to determine the relative contribution of rice lands and other sources. For example, application of pesticides to nonagricultural lands such as urban parks and the resultant contaminant runoff also cumulatively contribute to the impacts of inputs from rice lands.

Given the U.S. Environmental Protection Agency's ongoing federal Endangered Species Act consultation process for pesticides as a result of recent court orders, it is reasonably foreseeable that further reasonable and prudent measures would be required by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service that would improve water quality within the Sacramento Valley. Revision of water quality control plans and total maximum daily loads (TMDLs) and the continued implementation of the Rice Pesticides Program[4] also can be expected to improve water quality. These and other measures, in combination with the likely beneficial impacts of the Order, suggest that the cumulative impacts of the Order are not cumulatively considerable with implementation of mitigation. **Mitigation Measure FISH-MM-1: Avoid and Minimize Impacts to Fish and Fish Habitat** has been incorporated into the Order to reduce these impacts to a less than cumulatively considerable level. Mitigation measures are described in section VI.

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VI. Mitigation Measures

A. Cultural Resources

Mitigation Measure CUL-MM-1: Avoid Impacts to Cultural Resources

The measure described below will reduce the severity of impacts on significant cultural resources, as defined and described in sections 5.3.1 and 5.3.3 of the PEIR. Avoidance of such impacts also can be achieved when growers choose the least impactful effective management practices that will meet the Order's water quality improvement goals and objectives. Note that these mitigation measures may not be necessary in cases where no ground-disturbing activities would be undertaken as a result of implementation of the Order.

[4] The Rice Pesticides Program requires the implementation of management practices to ensure water quality performance goals and objective in the Basin Plan are met.

Although cultural resource inventories and evaluations typically are conducted prior to preparation of a CEQA document, the size of the program area and the lack of specificity regarding the location and type of management practices that would be implemented render conducting inventories prior to release of the draft Order untenable. Therefore, where the Order's water quality improvement goals cannot be achieved without modifying or disturbing an area of land or existing structure to a greater degree than through previously used farming practices, individual farmers or third-party representatives will implement the following measures to reduce potential impacts to less-than-significant levels:

- Where construction within areas that may contain cultural resources cannot be avoided through the use of alternative management practices, conduct an assessment of the potential for damage to cultural resources prior to construction; this may include the hiring of a qualified cultural resources specialist to determine the presence of significant cultural resources.
- Where the assessment indicates that damage may occur, submit a non-confidential records search request to the appropriate California Historical Resources Information System (CHRIS) information center(s).
- Implement the recommendations provided by the CHRIS information center(s) in response to the records search request.
- Where adverse impacts to cultural resources cannot be avoided, the grower's coverage under this Order is not authorized. The grower must then apply for its own individual waste discharge requirements. Issuance of individual waste discharge requirements would constitute a future discretionary action by the board subject to additional CEQA review .

In addition, California state law provides for the protection of interred human remains from vandalism and destruction. According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (section 8100), and the disturbance of Native American cemeteries is a felony (section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of the discovered human remains until the County Coroner has been notified, according to PRC section 5097.98, and can determine whether the remains are those of Native American origin. If the coroner determines that the remains are of Native American origin, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (Health and Safety Code section 7050[c]). The NAHC will identify and notify the most likely descendant (MLD) of the interred individual(s), who will then make a recommendation for means of treating or removing, with appropriate dignity, the human remains and any associated grave goods as provided in PRC section 5097.98.

PRC section 5097.9 identifies the responsibilities of the project proponent upon notification of a discovery of Native American burial remains. The project proponent will work with the MLD (determined by the NAHC) and a professional archaeologist with specialized human osteological experience to develop and implement an appropriate treatment plan for avoidance and preservation of, or recovery and removal of, the remains.

Growers implementing management practices should be aware of the following protocols for identifying cultural resources:

- If built environment resources or archaeological resources, including chipped stone (often obsidian, basalt, or chert), ground stone (often in the form of a bowl mortar or pestle), stone tools such as projectile points or scrapers, unusual amounts of shell or bone, historic debris (such as concentrations of cans or bottles), building foundations, or structures are inadvertently discovered during ground-disturbing activities, the land owner should stop work in the vicinity of the find and retain a qualified cultural resources specialist to assess the

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significance of the resources. If necessary, the cultural resource specialist also will develop appropriate treatment measures for the find.

- If human bone is found as a result of ground disturbance, the landowner should notify the County Coroner in accordance with the instructions described above. If Native American remains are identified and descendants are found, the descendants may—with the permission of the owner of the land or his or her authorized representative—inspect the site of the discovery of the Native American remains. The descendants may recommend to the owner or the person responsible for the excavation work means for treating or disposing of the human remains and any associated grave goods, with appropriate dignity. The descendants will make their recommendation within 48 hours of inspection of the remains. If the NAHC is unable to identify a descendant, if the descendants identified fail to make a recommendation, or if the landowner rejects the recommendation of the descendants, the landowner will inter the human remains and associated grave goods with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

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B. Noise

Mitigation Measure NOI-MM-1: Implement Noise-Reducing Construction Practices

Growers should implement noise-reducing construction practices that comply with applicable local noise standards or limits specified in the applicable county ordinances and general plan noise elements.

Mitigation Measure NOI-MM-2: Reduce Noise Generated by Individual Well Pumps

If well pumps are installed, Growers should enclose or locate them behind barriers such that noise does not exceed applicable local noise standards or limits specified in the applicable county ordinances and general plan noise elements.

C. Air Quality

Mitigation Measure AQ-MM-1: Apply Applicable Air District Mitigation Measures to Reduce Construction Emissions below the District Thresholds

Growers should apply appropriate construction mitigation measures from the applicable air district to reduce construction emissions. These measures will be applied on a project-level basis and may be tailored in consultation with the appropriate air district, depending on the severity of anticipated construction emissions.

Mitigation Measure AQ-MM-2: Apply Applicable Air District Mitigation Measures to Reduce Operational Emissions below the District Thresholds

Growers should apply appropriate mitigation measures from the applicable air district to reduce operational emissions. These measures were suggested by the district or are documented in official rules and guidance reports; however, not all districts make recommendations for operational mitigation measures. Where applicable, measures will be applied on a project-level basis and may be tailored in consultation with the appropriate air district, depending on the severity of anticipated operational emissions.

Mitigation Measure AQ-MM-3: Apply Applicable Air District Mitigation Measures to Reduce TAC/HAP Emissions

Growers should apply appropriate TAC and HAP mitigation measures from the applicable air district to reduce public exposure to DPM, pesticides, and asbestos. These measures were suggested by the district or are documented in official rules and guidance reports; however, not all

districts make recommendations for mitigation measures for TAC/HAP emissions. These measures will be applied on a project-level basis and may be tailored in consultation with the appropriate air district, depending on the severity of anticipated TAC/HAP emissions.

D. Vegetation and Wildlife

Mitigation Measure BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources

Implementation of the following avoidance and minimization measures will ensure that the construction activities related to implementation of management practices and installation of monitoring wells on irrigated lands will minimize impacts on sensitive vegetation communities (such as riparian habitat and wetlands adjacent to the construction area) and special-status plants and wildlife species, as defined and listed in section 5.7.3 of the PEIR. In each instance where particular management practices could result in impacts on the biological resources listed above, growers should use the least impactful effective management practice to avoid such impacts. Where the Order's water quality improvement goals cannot be achieved without incurring potential impacts, individual farmers or third-party representatives will implement the following measures to reduce potential impacts to less-than-significant levels:

- Where construction in areas that may contain sensitive biological resources cannot be avoided through the use of alternative management practices, conduct an assessment of habitat conditions and the potential for presence of sensitive vegetation communities or special-status plant and animal species prior to construction. This may include hiring a qualified biologist to identify riparian and other sensitive vegetation communities and/or habitat for special-status plant and animal species.
- Avoid and minimize disturbance of riparian and other sensitive vegetation communities.
- Avoid and minimize disturbance to areas containing special-status plant or animal species.
- Where adverse impacts on sensitive biological resources cannot be avoided, the grower's coverage under this Order is not authorized. The Grower must then apply for its own individual waste discharge requirements. Issuance of individual waste discharge requirements would constitute a future discretionary action by the board subject to additional CEQA review.

E. Fisheries

Mitigation Measure FISH-MM-1: Avoid and Minimize Impacts to Fish and Fish Habitat

This mitigation measure incorporates all measures identified in Mitigation Measure BIO-MM-1: Avoid and Minimize Impacts on Sensitive Biological Resources. In each instance where particular management practices could result in impacts to special-status fish species (see "Regulatory Classification of Special-Status Species" in section 5.8.2 of the PEIR), growers should use the least impactful effective management practice to avoid such impacts. Where the Order's water quality improvement goals cannot be achieved without incurring potential impacts, individual growers or third-party representatives will implement the following measures to reduce potential impacts to less-than-significant levels. Note that these measures may not be necessary in many cases and are dependent on the location of construction in relation to water bodies containing special-status fish:

- Where construction in areas that may contain special-status fish species cannot be avoided through the use of alternative management practices, conduct an assessment of habitat conditions and the potential for presence of special-status fish species prior to construction;

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this may include hiring a qualified fisheries biologist to determine the presence of special status fish species.

- Based on the species present in adjacent water bodies and the likely extent of construction work that may affect fish, limit construction to periods that avoid or minimize impacts to special-status fish species.
- Where construction periods cannot be altered to minimize or avoid impacts on special-status fish, the grower's coverage under this Order is not authorized. The grower must then apply for its own individual waste discharge requirements. Issuance of individual waste discharge requirements would constitute a future discretionary action by the board subject to additional CEQA review.

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F. Climate Change

Mitigation Measure CC-MM-1: Apply Applicable Air District Mitigation Measures to Reduce Construction and Operational GHG Emissions

Several of the standard mitigation measures provided by Central Valley local air districts to reduce criteria pollutant emissions would also help to minimize GHG emissions (see section 5.6.5 of the PEIR). Measures to reduce vehicle trips and promote use of alternative fuels, as well as clean diesel technology and construction equipment retrofits, should be considered by rice operations under the Order.

Mitigation Measure CC-MM-2: Apply Applicable California Attorney General Mitigation Measures to Reduce Construction and Operational GHG Emissions

A 2008 report by the California Attorney General's office entitled *The California Environmental Quality Act: Addressing Global Warming at the Local Agency Level* identifies various example measures to reduce GHG emissions at the project level (California Department of Justice 2008). The following mitigation measures and project design features were compiled from the California Attorney General's Office report. They are not meant to be exhaustive, but to provide a sample list of measures that could be incorporated into future project design. Only those measures applicable to the Order are included.

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers.

Transportation and Motor Vehicles

- Limit idling time for commercial vehicles, including delivery and construction vehicles.
- Use low- or zero-emission vehicles, including construction vehicles.

VII. Feasibility of Alternatives Considered in the EIR

The following text presents findings relative to the project alternatives. Findings about the feasibility of project alternatives must be made whenever the project within the responsibility and jurisdiction of the lead agency will have a significant environmental effect.

In July 2010, the Central Valley Water Board released, for public review, the Draft PEIR and Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory

Program (Economics Report). In these reports, Alternatives 1-6 were evaluated considering environmental and economic impacts, and consistency with applicable state policies and law.[5] In Volume II: Appendix A of the PEIR, at page 136, each alternative was found to achieve some of the program evaluation measures but not others. As is shown in Table 11 of Appendix A, no single alternative of Alternatives 1-5 achieved complete consistency with all evaluation measures. However, after review of each of the alternatives and their common elements (lead entity, monitoring type), it was clear that a program that more completely satisfied the evaluation measures could be developed by selecting from the best-performing elements of the proposed alternatives. Alternative 6, described in Appendix A of the Draft PEIR, was developed by selecting these best-performing elements and became the draft staff recommended alternative.

In consideration of comments received concerning Alternative 6 during the Draft PEIR review process, staff developed the recommended ILRP Framework, and prepared the *Staff Report on Recommended Irrigated Lands Regulatory Framework,* or ILRP Framework Report (Central Valley Water Board 2011). The Central Valley Water Board did not adopt the Framework, but advised staff to use the Framework as a starting point to support the development of ILRP Orders. The Framework is based upon the sixth alternative, and is composed of elements from the range of alternatives evaluated in the PEIR. The requirements of the Order were developed considering the Framework as a starting point per Central Valley Water Board direction (Central Valley Water Board hearing, June 2011). Project-level review of the requirements in the Order has revealed that the requirements of the Order most closely resemble those described for Alternatives 4 and 2 of the PEIR, but do include elements from Alternatives 2-5.

The Order implements the long-term irrigated lands program for rice lands in the Sacramento Valley. The Alternatives in the PEIR have been developed for implementation throughout the entire Central Valley Region. The Order is intended to serve as a single implementing order in a series of orders that will implement the long-term irrigated lands program for the entire Central Valley. The findings below summarize why particular program alternatives are not being pursued.

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A. Alternative 1: Full Implementation of the Current Program—No Project

Under Alternative 1, the Central Valley Water Board would renew the current program and continue to implement it into the future. This would be considered the “No Project” Alternative per CEQA guidance at Title 14 California Code of Regulations (CCR) section 15126.6(e)(3)(A): “When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the ‘No Project’ Alternative will be the continuation of the existing plan, policy, or operation into the future.” Given the reasonably foreseeable nature of the extension or renewal of the ongoing waiver, which would allow continuation of the existing program, Alternative 1 is best characterized as the “No Project” Alternative. This approach best serves the purpose of allowing the Central Valley Water Board to compare the impacts of revising the ILRP with those of continuing the existing program (14 CCR section 15126.6[e][1]).

Coalition groups would continue to function as lead entities representing growers (owners of irrigated lands, wetland managers, nursery owners, and water districts). This alternative is based on continuing representative monitoring to determine whether operations are causing water quality problems. Where monitoring indicates a problem, third-party groups and growers would be required to implement management practices to address the problem and work toward compliance

[5] Economic impacts of Alternatives 1-5 have been evaluated in the Economics Report. Staff was also able to use that analysis to estimate costs of the recommended program alternative (Alternative 6), since the recommended program alternative fell within the range of the five alternatives. This cost estimate is found in Appendix A of the PEIR.

with applicable water quality standards. This alternative would not establish any new Central Valley Water Board requirements for discharges to groundwater from irrigated agricultural lands.

Monitoring under this alternative would be the same as the representative monitoring required under the current ILRP. Under this monitoring scheme, coalition groups would work with the Central Valley Water Board to develop monitoring plans for Central Valley Water Board approval. These plans would specify monitoring parameters and site locations.

Finding

An order based on Alternative 1 is not being pursued as to regulate rice operations in the Sacramento Valley in lieu of the Order because it would not substantially reduce or eliminate any of the significant adverse impacts of the Order (listed in the findings above) and it would not meet all of the goals and objectives of the program (program goals and objectives are described in Appendix A of the PEIR). Because Alternative 1 does not address discharges of waste from agricultural lands to groundwater, it would not be fully consistent with Program Goals 1 and 2:

- **Goal 1**—Restore and/or maintain the highest reasonable quality of state waters considering all the demands being placed on the water.
- **Goal 2**—Minimize waste discharge from irrigated agricultural lands that could degrade the quality of state waters.

In addition, the lack of a groundwater discharge component to this alternative makes it inconsistent with Goal 4 of the program:

- **Goal 4**—Ensure that irrigated agricultural discharges do not impair access by Central Valley communities and residents to safe and reliable drinking water.

Alternative 1 is also inconsistent with sections 13263 and 13269 of the California Water Code, the State Water Board's nonpoint source (NPS) program, and the State's antidegradation policy. These inconsistencies are documented in detail in the (PEIR), Appendix A, at pages 96-130. The Order is considered superior to Alternative 1 for implementation in the rice lands of the Sacramento Valley.

B. Alternative 2: Third-Party Lead Entity

Under Alternative 2, the Central Valley Water Board would develop a single mechanism or a series of regulatory mechanisms (WDRs or conditional waivers of WDRs) to regulate waste discharges from irrigated agricultural lands to ground and surface waters.

Third-party groups would function as lead entities representing growers. Regulation of discharges to surface water would be similar to Alternative 1 (the current ILRP). However, this alternative allows for a reduction in monitoring under lower threat circumstances and where watershed or area management objective plans are being developed. This alternative also includes requirements for development of groundwater quality management plans (GQMPs) to minimize discharge of waste to groundwater from irrigated lands. Under Alternative 2, local groundwater management plans or integrated regional water management plans could be utilized, all, or in part for ILRP GQMPs, with Central Valley Water Board approval. This alternative relies on coordination with the California Department of Pesticide Regulation (DPR) for regulating discharges of pesticides to groundwater.

Growers would be required to track implemented management practices and submit the results to the third-party group. Surface water monitoring under this alternative would be similar to Alternative 1. The third-party group would report summary results to the Central Valley Water Board. The third-party group would be required to summarize the results of groundwater and

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surface water monitoring and tracking in an annual monitoring report to the Central Valley Water Board.

Finding

An order based wholly on Alternative 2 is not being pursued to regulate rice operations in the Sacramento Valley in lieu of the Order because it would not substantially reduce or eliminate any of the significant adverse impacts of the Order (listed in section IV) and because it would not as consistently meet the program's goals and objectives as would the Order. As indicated in Appendix A, pages 96–130 of the PEIR, Alternative 2 would be consistent with most of the program's goals and objectives, but would be only partially consistent with the State Water Board's nonpoint source policy and the state's antidegradation policy. Alternative 2 includes third-party GQMPs, but does not require groundwater quality monitoring. The Order is considered superior to Alternative 2 for implementation in the rice lands of the Sacramento Valley.

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C. Alternative 3: Individual Farm Water Quality Plans

Under Alternative 3, growers would have the option of working directly with the Central Valley Water Board or another implementing entity (e.g., county agricultural commissioners [CACs]) in development of an individual farm water quality management plan (FWQMP). Growers would individually apply for a conditional waiver or WDRs that would require Central Valley Water Board approval of their FWQMP.

On-farm implementation of effective water quality management practices would be the mechanism to reduce or eliminate waste discharge to state waters. This alternative would provide incentive for individual growers to participate by providing growers with Central Valley Water Board certification that they are implementing farm management practices to protect state waters. This alternative relies on coordination with DPR for regulating discharges of pesticides to groundwater.

Unless specifically required in response to water quality problems, owners/operators would not be required to conduct water quality monitoring of adjacent receiving waters or underlying groundwater. Required monitoring would include evaluation of management practice effectiveness. The Central Valley Water Board, or a designated third-party entity, would conduct annual site inspections on a selected number of operations. They also would review available applicable water quality monitoring data as additional means of monitoring the implementation of management practices and program effectiveness.

Finding

An order based on Alternative 3 is not being pursued to regulate rice operations in the Sacramento Valley in lieu of the Order because it would not substantially reduce or eliminate any of the significant adverse impacts of the Order (listed in section V) and because it would not as consistently meet the ILRP's goals and objectives as would the Order. As indicated in Appendix A, pages 96–130 of the PEIR, Alternative 3 would be only partially consistent with the Central Valley Water Board's program objectives (Objectives 4 and 5) to coordinate with other programs such as TMDL development, Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) and WDRs for dairies; and to promote coordination with other agriculture-related regulatory and non-regulatory programs of the DPR, the California Department of Public Health (DPH), and other agencies. These objectives are:

- **Objective 4**—Coordinate with other Central Valley Water Board programs, such as the Grassland Bypass Project WDRs for agricultural lands, total maximum daily load development, CV-Salts, and WDRs for dairies.
- **Objective 5**—Promote coordination with other regulatory and non-regulatory programs associated with agricultural operations (e.g., DPR, DPH Drinking Water Program, the

California Air Resources Board, the California Department of Food and Agriculture, Resource Conservation Districts, the University of California Extension, Natural Resource Conservation Service, National Organic Program, California Agricultural Commissioners, State Water Board Groundwater Ambient Monitoring and Assessment program, U.S. Geological Survey, and local groundwater programs [Senate Bill (SB) 1938, Assembly Bill (AB) 3030, Integrated Regional Water Management Plans]) to minimize duplicative regulatory oversight while ensuring program effectiveness.

Alternative 3 makes it more difficult to coordinate with these programs because it involves direct interaction by the Central Valley Water Board with individual growers, rather than with third-party entities. Also, the lack of mandatory surface and groundwater quality monitoring and the primary reliance on visual inspection of management practices reduces this alternative's ability to be consistent with all key considerations in the State Water Board's nonpoint source program. The Order is considered superior to Alternative 3 for implementation in rice lands in the Sacramento Valley.

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D. Alternative 4: Direct Oversight with Regional Monitoring

Under Alternative 4, the Central Valley Water Board would develop WDRs and/or a conditional waiver of WDRs for waste discharge from irrigated agricultural lands to groundwater and surface water. As in Alternative 3, growers would apply directly to the Central Valley Water Board to obtain coverage ("direct oversight"). As in Alternative 3, growers would be required to develop and implement individual FWQMPs to minimize discharge of waste to groundwater and surface water from irrigated agricultural lands. Alternative 4 would also allow for formation of responsible legal entities that could serve a group of growers who discharge to the same general location and thus could share monitoring locations. In such cases, the legal entity would be required to assume responsibility for the waste discharges of member growers, to be approved by the Central Valley Water Board, and ultimately to be responsible for compliance with ILRP requirements.

Discharge of waste to groundwater and surface water would be regulated using a tiered approach. Fields would be placed in one of three tiers based on their threat to water quality. The tiers represent fields with minimal (Tier 1), low (Tier 2), and high (Tier 3) potential threat to water quality. Requirements to avoid or minimize discharge of waste would be the least comprehensive for Tier 1 fields and the most comprehensive for Tier 3 fields. This would allow for less regulatory oversight for low-threat operations while establishing necessary requirements to protect water quality from higher-threat discharges. This alternative relies on coordination with DPR for regulating discharges of pesticides to groundwater.

For monitoring, growers would have the option of enrolling in a third-party group regional monitoring program. In cases where responsible legal entities were formed, these entities would be responsible for conducting monitoring. All growers would be required to track nutrient, pesticide, and implemented management practices and submit the results to the Central Valley Water Board (or an approved third-party monitoring group) annually. Other monitoring requirements would depend on designation of the fields as Tier 1, Tier 2, or Tier 3. Similar to Alternative 3, this alternative also includes requirements for inspection of regulated operations.

Finding

An order based wholly on Alternative 4 is not being pursued to regulate rice operations in the Sacramento Valley in lieu of the Order because it would not substantially reduce or eliminate any of the significant adverse impacts of the Order (listed in the findings above) and because it would not as consistently meet the program's goals and objectives as would the Order. As indicated in Appendix A, pages 96–130 of the PEIR, Alternative 4 would meet most of the program goals and objectives. However, it relies on Central Valley Water Board staff interacting directly with each

irrigated agricultural operation, making it less effective at meeting the coordination objectives (Objectives 4 and 5) (page 103 of Appendix A in the PEIR):

- **Objective 4**—Coordinate with other Central Valley Water Board programs total maximum daily load development, CV-Salts, and WDRs for dairies.
- **Objective 5**—Promote coordination with other regulatory and non-regulatory programs associated with agricultural operations (e.g., DPR, DPH Drinking Water Program, the California Air Resources Board, the California Department of Food and Agriculture, Resource Conservation Districts, the University of California Extension, Natural Resource Conservation Service, National Organic Program, California Agricultural Commissioners, State Water Board Groundwater Ambient Monitoring and Assessment program, U.S. Geological Survey, and local groundwater programs [SB 1938, AB 3030, Integrated Regional Water Management Plans]) to minimize duplicative regulatory oversight while ensuring program effectiveness.

Alternative 4 makes it more difficult to coordinate with these programs because it involves direct interaction by the Central Valley Water Board with individual growers, rather than with coalitions or third-party entities. The Order is considered superior to Alternative 4 for implementation in rice lands in the Sacramento Valley.

E. Alternative 5: Direct Oversight with Farm Monitoring

Alternative 5 would consist of general WDRs designed to protect groundwater and surface water from discharges associated with irrigated agriculture. All irrigated agricultural operations would be required to individually apply for and obtain coverage under the general WDRs working directly with the Central Valley Water Board ("direct oversight"). This alternative would include requirements to (1) develop and implement a FWQMP; (2) monitor (a) discharges of tailwater, drainage water, and storm water to surface water; (b) applications of irrigation water, nutrients, and pesticides; and (c) groundwater; (3) keep records of (a) irrigation water; (b) pesticide applications; and (c) the nutrients applied, harvested, and moved off the site; and (4) submit an annual monitoring report to the Central Valley Water Board. Similar to Alternative 3, Alternative 5 also includes requirements for inspection of regulated operations.

Finding

An order based on Alternative 5 is not being pursued to regulate rice operations in the Sacramento Valley in lieu of the Order because it would not substantially reduce or eliminate any of the significant adverse impacts of the Order (listed in the findings above) and it would not as consistently meet the program's goals and objectives as would the Order. As indicated in Appendix A, pages 96–130 of the PEIR, Alternative 5 would be only partially consistent with the Central Valley Water Board's Program objectives (Objectives 4 and 5) to coordinate with other programs such as TMDL development, CV-SALTS and WDRs for dairies; and to promote coordination with other agriculture-related regulatory and non-regulatory programs of the DPR, DPH, and other agencies. These objectives are:

- **Objective 4**—Coordinate with other Central Valley Water Board programs, such as the Grassland Bypass Project WDRs for agricultural lands, total maximum daily load development, CV-Salts, and WDRs for dairies.
- **Objective 5**—Promote coordination with other regulatory and non-regulatory programs associated with agricultural operations (e.g., DPR, DPH Drinking Water Program, the California Air Resources Board, the California Department of Food and Agriculture, Resource Conservation Districts, the University of California Extension, Natural Resource Conservation Service, National Organic Program, California Agricultural Commissioners, State Water Board Groundwater Ambient Monitoring and Assessment program, U.S. Geological Survey, and local

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groundwater programs [SB 1938, AB 3030, Integrated Regional Water Management Plans]) to minimize duplicative regulatory oversight while ensuring program effectiveness.

Alternative 5 makes it more difficult to coordinate with these programs because it involves direct interaction by the Central Valley Water Board with individual growers, rather than with coalitions or third-party entities.

Also, an order based on Alternative 5, due to its high relative cost as compared to the Order, would not be consistent with Program Goal 3:

- **Goal 3**—Maintain the economic viability of agriculture in California's Central Valley.

As indicated in the Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (ICF International 2010), the program costs funded by growers and operators would be significantly higher than other alternatives (see Economics Report Tables 2-18 through 2-22). This high cost could affect the viability of a substantial amount of rice acres in the Sacramento Valley. The Order is considered superior to Alternative 5 for implementation in the rice lands in the Sacramento Valley.

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F. Alternative 6: Staff Recommended Alternative in the Draft PEIR

Under Alternative 6, 8–12 general WDRs or conditional waivers of WDRs would be developed that would be geographic and/or commodity-based. The alternative would establish requirements for waste discharge from irrigated agricultural lands to groundwater and surface water. Similar to Alternatives 1 and 2, water quality coalitions or other third-party groups would be responsible for general administration of the ILRP. The alternative would establish prioritization factors for determining the type of requirements and monitoring that would be applied. The prioritization would be applied geographically as a two tier system, where Tier 1 areas would be "low priority", and Tier 2 would be "high priority."

Program requirements, monitoring, and management would be dependent on the priority (Tier 1 or 2). Generally, this alternative requires regional management plans to address water quality concerns and regional monitoring to provide feedback on whether the practices implemented are working to solve identified water quality concerns. In Tier 1 areas, irrigated agricultural operations and third-party groups would be required to describe management objectives to be achieved, report on management practices implemented, and assess groundwater and surface water quality every 5 years. In Tier 2 areas, irrigated agricultural operations and third-party groups would be required to develop and implement ground and/or surface water quality management plans, as appropriate to address water quality concerns, report on management practices, and provide annual regional groundwater and surface water quality monitoring. Similar to Alternative 2, Alternative 6 would allow local groundwater management plans or integrated regional water management plans to substitute, all or in part, for ILRP GQMPs, with Central Valley Water Board approval.

Alternative 6 would establish a time schedule for compliance in addressing surface water and groundwater quality problems. The schedule would require compliance with water quality objectives within 5 to 10 years for surface water problems and demonstrated improvement within five to ten years for groundwater problems.

Finding

An order based wholly on Alternative 6 is not being pursued to regulate rice operations in the Sacramento Valley in lieu of the Order because it would not substantially reduce or eliminate any of the significant adverse impacts of the Order (listed in section V) and does not adequately reflect the clarifications and minor adjustments that were requested in comments on the Draft PEIR. The

Order is considered superior to Alternative 6 for implementation in rice lands in the Sacramento Valley.

VIII. Statement of Overriding Considerations Supporting Approval of Waste Discharge Requirements General Order for Rice Growers in the Sacramento Valley

Pursuant to the requirements of CEQA (PRC sections 21002, 21002.1, and 21081) and the State CEQA Guidelines (15 CCR 15093), the Central Valley Water Board finds that approval of the Order, whose potential environmental impacts have been evaluated in the PEIR, and as indicated in the above findings, will result in the occurrence of a significant impact which is not avoided or substantially lessened, as described in the above findings. This significant impact is:

- Cumulative climate change.

Pursuant to PRC section 21081(b), specific overriding economic, legal, social, technological, or other benefits outweigh the unavoidable adverse environmental impacts associated with the Order. The specific reasons to support this approval, given the potential for the significant unavoidable adverse impact, are based on the following:

A. Economic Benefits

Control of waste discharges from rice operations under the Order is expected to result in, and maintain broad economic benefits for residents of the state associated with high surface and groundwater quality. These benefits include reduced water supply and treatment costs associated with improvements in water quality for irrigation and drinking.[6]

B. Consistency with NPS Policy and State Water Board Resolution 68-16 (Antidegradation Policy)

Waste discharge from rice operations has the potential to affect surface and groundwater quality. As documented in the *Irrigated Lands Regulatory Program Existing Conditions Report*, many state waters have been adversely affected due in part to waste discharges from irrigated agriculture, including rice operations. State policy and law requires that the Central Valley Water Board institute requirements that will implement Water Quality Control Plans (California Water Code sections 13260, 13269), the State Water Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy) and applicable antidegradation requirements (State Water Board Resolution 68-16). The Order is a necessary component of the Central Valley Water Board's efforts to be consistent with state policy and law through its regulation of discharges from rice operations in the Sacramento Valley. As documented in the PEIR Hydrology and Water Quality analysis, implementation of a long-term ILRP, of which the Order is an implementing mechanism, will improve water quality through development of farm management practices that reduce discharges of waste to state waters.

After balancing the above benefits of the Order against its unavoidable environmental risks, the specific economic, legal, and social benefits of the proposal outweigh the unavoidable adverse environmental effects, and these adverse environmental effects are considered acceptable, consistent with the Order, Central Valley Water Board Order R5-2014-XXXX.

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[6] PEIR, Appendix A, pg. 123.

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