REGIONAL WATER QUALITY CONTROL BOARD,
CENTRAL VALLEY REGION

Amendments
To the
Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and Tulare Lake Basin

To

Establish a Region-wide Municipal and Domestic Supply (MUN) Beneficial Use Evaluation Process in Agriculturally Dominated Surface Water Bodies and Remove the MUN Beneficial Use from 231 Constructed or Modified Ag Drains in the San Luis Canal Company District

Draft Staff Report

~~January~~ July 2017

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

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DISCLAIMER

This publication is a report by staff of the California Regional Water Quality Control Board, Central Valley Region. This report contains the evaluation of alternatives and technical support for the adoption of amendments to the Water Quality Control Plan for the Sacramento and San Joaquin River Basin and for the Water Quality Control Plan for the Tulare Lake basin (Resolution No. R5-201x-xxxx). Mention of specific products does not represent endorsement of those products by the Central Valley Water Board.

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ACKNOWLEDGEMENTS:

Disclosure: Funding for this project has been provided in part through an Agreement between the State Water Resources Control Board and the Central Valley Salinity Alternatives for Long Term Sustainability (CV-SALTS) stakeholder group. This Agreement provided resources for a portion of the California Environmental Quality Act (CEQA) and economic analyses for this staff report. Additional funds and resources were provided by the San Luis Canal Company (SLCC).

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EXECUTIVE SUMMARY

The purpose of this Staff Report is to provide the justification and supporting documentation for proposed amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and for the Water Quality Control Plan for the Tulare Lake Basin (Basin Plans) to establish a Central Valley region-wide process for evaluating the municipal and domestic supply (MUN) beneficial use in agriculturally (Ag) dominated surface water bodies. The preferred project alternative would establish a water body categorization framework in the Basin Plans that the Board could utilize to determine the appropriate application of, and level of protection for, the MUN beneficial use in different types of Ag dominated surface water bodies across the Central Valley.

The Central Valley Water Board has incorporated the Sources of Drinking Water Policy, State Water Board Resolution No. 88-63 (Sources of Drinking Water Policy) into the Basin Plans, and has designated all surface and ground water bodies in the Central Valley region as supporting the MUN beneficial use unless a particular water body is specifically designated as not supporting the MUN beneficial use in the Basin Plans. The Basin Plans identify the primary and secondary Maximum Contaminant Levels (MCLs) specified in Title 22 of the California Code of Regulations, which were developed for the protection of potable water at the tap after receiving conventional treatment, as the appropriate water quality objectives to protect the MUN use. The *Sources of Drinking Water Policy* identifies exceptions to the MUN beneficial use that can apply to certain water bodies, including an exception that applies to water bodies that have been designed or modified for the primary purpose ~~to convey~~of conveying agricultural drainage ("Exception 2b"). However, these exceptions are not self-implementing – the Central Valley Water Board is required to protect the MUN beneficial use even in water bodies that meet the exception criteria in the *Sources of Drinking Water Policy* unless and until a Basin Plan amendment is adopted that specifically de-designates the MUN use in such water bodies.

In recent years, the Central Valley Water Board issued permits to facilities that discharged wastewater to agricultural drains, and set limits in these permits designed to protect the MUN beneficial use despite the fact that the agricultural drains presumptively met the exception criteria in the Sources of Drinking Water Policy. The high cost of compliance for these facilities caused the Board to focus on developing a more streamlined approach for applying the exception criteria in the Sources of Drinking Water Policy, making this issue a priority in the Board's 2011 Triennial Review (Central Valley Water Board, 2011). The Board reaffirmed this priority in the 2015 Triennial Review (Central Valley Water Board, 2015b).

Concurrently, due to fact that dischargers indicated that it would be extremely difficult to maintain agricultural operations and increase water recycling efforts while also complying with MCLs in agricultural drains that did not actually function as a source of drinking water, the Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS) initiative identified that there was a need to evaluate the way the Board regulated the MUN beneficial use in Ag dominated water bodies. CV-SALTS partnered with the Board to provide funding for water quality monitoring and environmental and economic analyses for a MUN evaluation project.

Central Valley Water Board staff initiated stakeholder meetings and CEQA scoping meetings in 2012 to solicit feedback on potential project alternatives and to develop a strategy for moving forward on related amendments to the Basin Plans. Central Valley Water Board staff coordinated with a variety of stakeholders, including representatives from USEPA, the State Water Resources Control Board (Division of Water Quality and Division of Drinking Water), the California Department of Fish and Wildlife, water supply agencies, irrigation districts, POTWs, the agricultural community, and the Delta Stewardship Council. Board staff also coordinated with other Central Valley Water Board programs, with a special focus on the Irrigated Lands Regulatory Program (ILRP), the Surface Water Ambient Monitoring Program (SWAMP), and the National Pollutant Discharge Elimination System (NPDES) program. From 2012 to 2016, Board staff kept stakeholders updated on the project via regular

meetings, an email subscription list of almost four hundred subscribers, and a publicly-available website containing meeting notes, water quality results, and other project-related documents.

During the initial planning process, stakeholders reviewed historical efforts to evaluate the appropriate beneficial uses and levels of protection in Ag dominated water bodies, including alternatives such as site-specific objectives, and agreed to build off of previously developed methodologies, which categorized water bodies based on their inherent characteristics. Board staff developed an updated water body categorization process with substantial stakeholder input – the proposed categorization process would distinguish between those surface water bodies that were constructed, modified or natural, the primary purpose of the construction or modification, and if applicable, whether the water bodies ~~were~~ are part of a closed controlled recirculation system. The process would also consider whether the water body contained agricultural drainage, irrigation supply water, or a combination of both. The resulting water body categories served as the foundation for subsequent stakeholder meetings focused on the development of consistent and streamlined protocols for reporting information to the Central Valley Water Board, assigning the appropriate MUN beneficial use designations and water quality objectives to the affected water bodies, and ensuring that downstream beneficial uses are protected.

The proposed amendments would add a standardized region-wide process to the Basin Plans that will guide the Board's evaluation of appropriate MUN beneficial use designations and associated water quality objectives in Ag dominated surface water bodies, and will set implementation provisions related to this process. The preferred alternative is based on the water body categorization approach, which uses a flowchart developed ~~with~~ in the stakeholder~~s~~ process, to distinguish between those water bodies that have been constructed or modified for the primary purpose ~~to convey~~of conveying Ag drainage (C1,M1), those water bodies that have been constructed or modified to convey Ag supply water (C2, M2), natural water bodies dominated by agricultural operations (B1, B2), and those water bodies encompassed in a permanent or seasonally closed controlled recirculating basin. The amendment proposes to utilize, where appropriate, Sources of Drinking Water Policy Exception 2b to de-designate the MUN beneficial use. For the purpose of these amendments and consistency with other regulatory programs, agricultural drainage is defined as water leaving an agricultural field either from irrigation practices or precipitation.

The Basin Plan Amendments also propose establishing a "Limited Municipal and Domestic Supply" (LMUN) beneficial use and associated narrative water quality objective for Ag dominated water bodies that do not meet the Sources of Drinking Water Policy exceptions, but that have inherent limiting conditions, such as low or intermittent flows and/or elevated natural background constituent concentrations. Table ES-1 lists the seven different Ag dominated water body categories and their proposed MUN beneficial use designations. Ag dominated water bodies that are already listed in the Basin Plan with beneficial use designations or that currently serve as a source of municipal or domestic water supply will not be eligible for the proposed MUN evaluation process and would need to be evaluated individually.

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Table ES - 1 Proposed MUN Beneficial Use Designations by water body category

Water Body Category	MUN Beneficial Use
C1 (Constructed Ag Drainage/Combo)	No MUN
M1 (Modified Ag Drainage/Combo)	No MUN
C2 (Constructed Ag Supply)	LIMITED-MUN
M2 (Modified Ag Supply)	LIMITED-MUN
B1 (Natural Ag Drainage/Combo)	LIMITED-MUN
B2 (Natural Ag Supply)	LIMITED-MUN
Closed Controlled Recirculating Systems	
Year-Round Closed	No MUN
Seasonally Closed	No MUN during closure period

The implementation provisions for the preferred alternative include three distinct steps (Figure ES-1):

1) Process Initiation and Review
2) Establishment of Interim Designations
3) Adoption into the Basin Plan

In Step 1, the MUN evaluation process would be initiated by the applicant and include the submittal of required informational documents pertaining to the water bodies under consideration. As part of this step, Central Valley Water Board staff would review and verify the material provided by the applicant, such as information on Ag operations and water uses, construction records, maps of the water bodies, water quality reports and existing monitoring programs within and downstream of the study area. The applicant would also provide initial water body category designations using the water body categorization flowchart (Figure Y in the proposed Basin Plan Language) and Central Valley Water Board staff would verify these designations by “ground truthing” all natural and modified water bodies and a portion of the constructed water bodies under consideration.

In Step 2, Central Valley Water Board staff would develop recommendations for interim water body category and MUN beneficial use designations and applicable implementation requirements, such as additional monitoring to fill data gaps in existing monitoring and/or control program efforts to track and assess potential constituents of concern and protect downstream beneficial uses. This step would include requirements for a public review and revision period, concluding with an Executive Officer approval of the interim designations. Approved interim designations would be updated into a Reference Document that could be used to set interim permit limits.

In the third and final step, updates to the Reference Document would be bundled and prepared as a Basin Plan Amendment. The Central Valley Water Board would consider adopting these amendments approximately every three years during a Triennial Review or other Public Hearing process. Adopted water bodies and their associated water body category and MUN beneficial use designations would be listed in an appendix in the Basin Plans.

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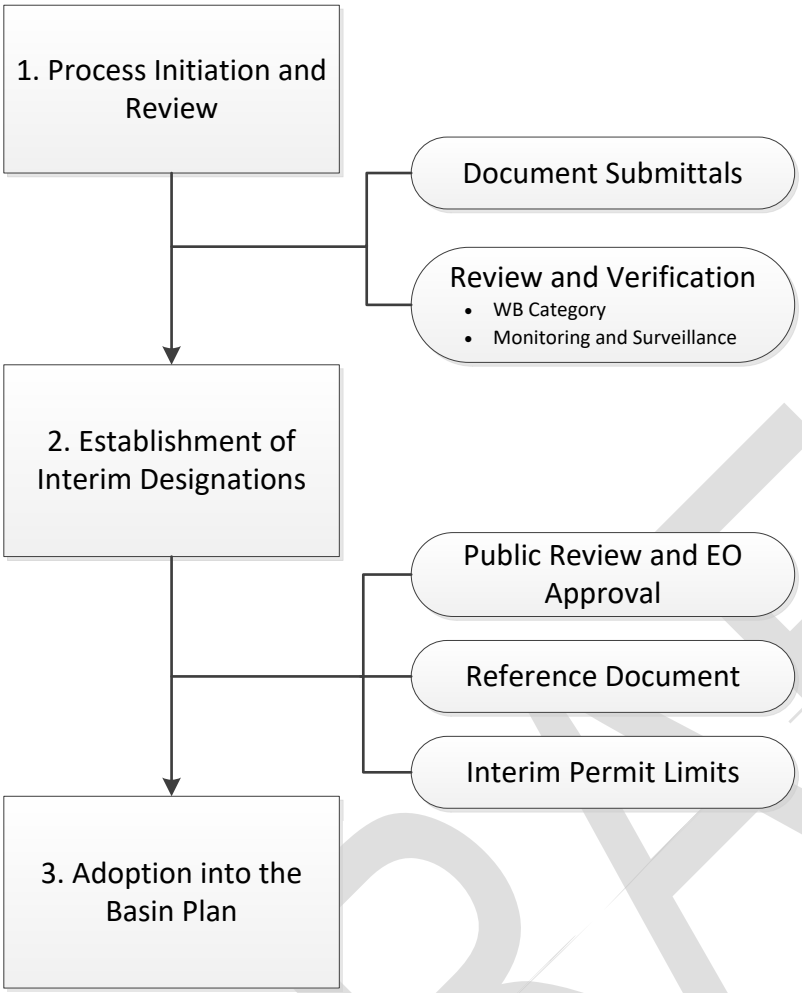
Figure ES - 1 Simplified Schematic Overview of the Proposed Implementation Program



To test the proposed MUN evaluation process, case study areas were identified in different areas of the region. These case studies represented typical agricultural operations on the Central Valley floor. Stakeholders assisted staff in gathering pertinent information such as construction history, operational activities, water quality, and flow characteristics. The proposed process was first applied in a Sacramento River Basin case study area comprised of twelve Ag dominated water bodies receiving NPDES discharges from the cities of Biggs, Colusa, Live Oak and Willows. Applying a standardized reporting and review process, these water bodies were found to be either constructed or modified to convey Ag drainage water and were not being used for municipal or domestic supply water. Through a separate Basin Plan Amendment, the Board removed the MUN beneficial use from these twelve water bodies using Exception 2b from the Sources of Drinking Water Policy (Resolution R5-2015-0022). An additional case study, San Luis Canal Company (SLCC), was identified to test the process in the San Joaquin River Basin.

Findings and recommendations from the MUN evaluation of the water bodies in SLCC's district are included as part of this Staff Report. Two hundred thirty of the two hundred thirty-one named water bodies in the SLCC case study evaluation were categorized as C1 water bodies (Constructed Ag Drainage/Combo). One water body was categorized as a M1 (Modified Ag Drainage/Combo). Information gathered during the stakeholder process and through staff surveys and monitoring efforts demonstrates that the MUN use has not occurred in the past, is not occurring presently, and is not expected to occur in the foreseeable future in all the water bodies identified by SLCC. Furthermore,

these water bodies meet the requirements of Exception 2b in the Sources of Drinking Water Policy and an evaluation of the monitoring programs downstream of SLCC concluded that there was sufficient water quality monitoring to ensure compliance with all applicable water quality objectives. In addition to establishing a MUN beneficial use evaluation process for the Central Valley's Ag dominated surface water bodies, this amendment proposes to remove the MUN beneficial use designation from the SLCC water bodies.

The case studies discussed above for the Sacramento and San Joaquin River Basins were effective in testing the proposed process on individual Ag dominated surface water bodies. Testing the MUN evaluation process on closed controlled recirculating systems was conducted using case examples in lieu of specifically identified systems. Closed controlled recirculating systems are unique in that they are designed to retain all their water within a defined management area by recirculating irrigation water and return flows, with zero discharge to surface waters outside the system during operation. There are two types of closed controlled recirculating systems identified: 1) Year-round Closed and; 2) Seasonally Closed. Year-round Closed Controlled Recirculating Systems are designed to deliver irrigation water and retain all return flows through recirculation in natural, modified or constructed conveyance facilities through an area under single or coordinated management control. The operation and management of a portion of the valley floor in the Tulare Lake Basin managed by a distinct water district was used as a case example for a Year-round Closed Controlled Recirculating System. Seasonally Closed Controlled Recirculating Systems are designed to operate like a year-round closed controlled recirculating system with the exception that their closure is only during a specific period of the irrigation season. Once the system is opened and no longer holding all of its water, surface water would discharge into receiving waters outside the designated system. The historical rice operation in the Sacramento River Basin was used as a case example for evaluating the Seasonally Closed Controlled Recirculating System. These case examples are included in this Staff Report and provided the foundation for the review and verification requirements in the proposed implementation program for closed controlled recirculating systems.

This Staff Report provides the rationale behind each part of the amendment, addressing the areas of beneficial use designation, water quality objectives, and implementation requirements. This Staff Report contains a consideration of a range of alternatives to the preferred project, as well as the specific beneficial use, water quality objective, implementation and monitoring components that are being proposed. In addition, this Staff Report evaluates the proposed Basin Plan Amendment project's consistency with existing federal and state laws, regulations and policies, contains an environmental analysis that complies with the applicable requirements of the California Environmental Quality Act (CEQA), and includes antidegradation and economic analyses that evaluate the potential impacts of this project. The Board's Basin Planning Program is considered a certified regulatory program, which means that the Board is exempt from the requirement to prepare an environmental impact report for basin planning activities under CEQA. (Pub. Res. Code, § 21080.5; Cal. Code Regs., tit. 14, § 15251(g).) The Board's environmental review of the proposed Basin Plan Amendments is instead contained in this Staff Report, which is considered to be part of the "substitute environmental documentation" or "SED".

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AMENDMENT LANGUAGE FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASIN PLAN

The proposed changes to the Basin Plan are as follows. Text additions to the existing Basin Plan language are underlined and *italicized*. Text deletions to the existing Basin Plan are in ~~strikethrough~~.

CHAPTER 2 BENEFICAL USES

Modify the Basin Plan in Chapter 2 Beneficial Uses (page II-1.00), as follows:

Limited Municipal and Domestic Supply (LMUN) – *Uses of water for municipal and domestic supply in agriculturally dominated water bodies where the use is limited by water body characteristics such as intermittent flow, management to maintain intended agricultural use and/or constituent concentrations in the water body.*

Modify the Basin Plan in Chapter 2 Beneficial Uses under the heading, "Surface Waters" (page II-2.01), as follows:

In making any exemptions to the beneficial use designation of MUN, the Regional Water Board will apply the exceptions listed in the *Sources of Drinking Water Policy* (Appendix Item 8) and the excepted water bodies will be listed in Appendix 44.

Water bodies designated with the LMUN beneficial use are listed in Appendix 45.

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CHAPTER 3 WATER QUALITY OBJECTIVES

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, "Chemical Constituents" (page III-3.00), as follows and move under heading, "Municipal and Domestic Supply (MUN)":

~~At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain lead in excess of 0.015 mg/l. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To protect all beneficial uses the Regional Water Board may apply limits more stringent than MCLs.~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, "Water Quality Objectives for Inland Surface Waters" (page III-4.01), as follows and move under heading, "Municipal and Domestic Supply (MUN)":

~~**Cryptosporidium and Giardia**~~

~~Waters shall not contain Cryptosporidium and Giardia in concentrations that adversely affect the public water system component1 of the MUN beneficial use. This narrative water quality objective for Cryptosporidium and Giardia shall be applied within the Sacramento-San Joaquin Delta and its tributaries below the first major dams (shown in Figure A44-1) and should be implemented as specified in Section IV of the Basin Plan. Compliance with this objective will be assessed at existing and new public water system intakes.~~

~~[1] Public water system as defined in Health and Safety Code, section 116275, subdivision (h)~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, "Pesticides" (page III-6.00), as follows and move under heading, "Municipal and Domestic Supply (MUN)":

- ~~Waters designated of use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code or Regulations, Title 22, Division 4, Chapter 15.~~
- ~~Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of thiobencarb in excess of 1.0 µg/l.~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, "Radioactivity" (page III-6.01), as follows and move under heading, "Municipal and Domestic Supply (MUN)":

~~At a minimum, waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of Section 64442 and Table 64443 of Section 64443 of Title 22 of the California Code of~~

~~Regulations, which are incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, "Water Quality Objectives for Inland Surface Waters" (page III-9.00), as follows:

Municipal and Domestic Supply (MUN)

In addition to other applicable water quality objectives including but not limited to narrative and site specific, the following sections specifically address waters designated for use as domestic or municipal supply (MUN).

Chemical Constituents

At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain lead in excess of 0.015 mg/l. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To protect all beneficial uses the Regional Water Board may apply limits more stringent than MCLs.

Cryptosporidium and Giardia

Waters shall not contain Cryptosporidium and Giardia in concentrations that adversely affect the public water system component[1] of the MUN beneficial use. This narrative water quality objective for Cryptosporidium and Giardia shall be applied within the Sacramento-San Joaquin Delta and its tributaries below the first major dams (shown in Figure A44-1) and should be implemented as specified in Section IV of the Basin Plan. Compliance with this objective will be assessed at existing and new public water system intakes.

[1] Public water system as defined in Health and Safety Code, section 116275, subdivision (h)

Pesticides

Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of thiobencarb in excess of 1.0 µg/l.

Radioactivity

At a minimum, waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table

64442 of Section 64442 and Table 64443 of Section 64443 of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

Limited Municipal and Domestic Supply (LMUN)

Water quality and downstream beneficial uses will be protected consistent with the state antidegradation policy.

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CHAPTER 4 IMPLEMENTATION

Modify the Basin Plan in Chapter 4 Implementation under the heading, "Continuous Planning for Implementation of Water Quality Control" (page IV-30.01), as follows:

Municipal and Domestic Supply (MUN) Evaluation in Agriculturally Dominated Water Bodies
Agriculturally (Ag) dominated surface water bodies will be evaluated for the MUN beneficial use only as needed or desired by an interested party. The MUN evaluation process can be initiated by an outside party or the Regional Water Board. The Applicant submitting the evaluation must manage and/or control the water bodies under consideration or jointly submit the evaluation with such a party. Ag dominated surface water bodies that do not go through the MUN evaluation process will have no change to their MUN beneficial use designation. For the purposes of this evaluation, agricultural drainage is defined as water leaving an agricultural field either from irrigation practices or precipitation.

An Interim Ag Dominated Water Body Designation Reference Document will be used to list evaluated water bodies and their proposed water body categories and MUN designations until such a time that the list is incorporated into this Water Quality Control Plan via an amendment.

The Reference Document will be utilized to set interim water quality permit limits for a finite period, during which a public Board approval process would be used to incorporate evaluated water bodies and associated beneficial uses listed in the Reference Document into this Water Quality Control Plan. The finite period shall not exceed 5 years, with an allowance for a 3 year extension with Regional Water Board EO approval.

Using the process laid out in Figure X, Schematic Overview of Region-wide MUN Evaluation, the Applicant will utilize Figure Y, Water Body Categorization (WBC) Flowchart and Table X, Assigned MUN Beneficial Use Designations by Water Body Category to propose appropriate MUN beneficial use designations of Ag dominated water bodies.

The proposed designations are subject to change based on the Regional Water Board staff and public review process outlined in Figure X,

The Region-wide MUN Evaluation process will not apply to water bodies that are already listed in Table II-1 of the Basin Plan or water bodies that are currently used for municipal or domestic water supply. ~~Site specific evaluation will be conducted on these water bodies should the beneficial use change~~Such water bodies would continue to be eligible for site specific beneficial use evaluations.

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Table X Assigned MUN Beneficial Use Designations by water body category

Water Body Category	***MUN Beneficial Use***
C1 (Constructed Ag Drainage/Combo)	*No MUN*
M1 (Modified Ag Drainage/Combo)	*No MUN*
C2 (Constructed Ag Supply)	*LIMITED-MUN*
M2 (Modified Ag Supply)	*LIMITED-MUN*
B1 (Natural Ag Drainage/Combo)	*LIMITED-MUN*
B2 (Natural Ag Supply)	*LIMITED-MUN*
Closed Controlled Recirculating Systems	
Year-Round Closed	*No MUN*
Seasonally Closed	*No MUN during closure period*

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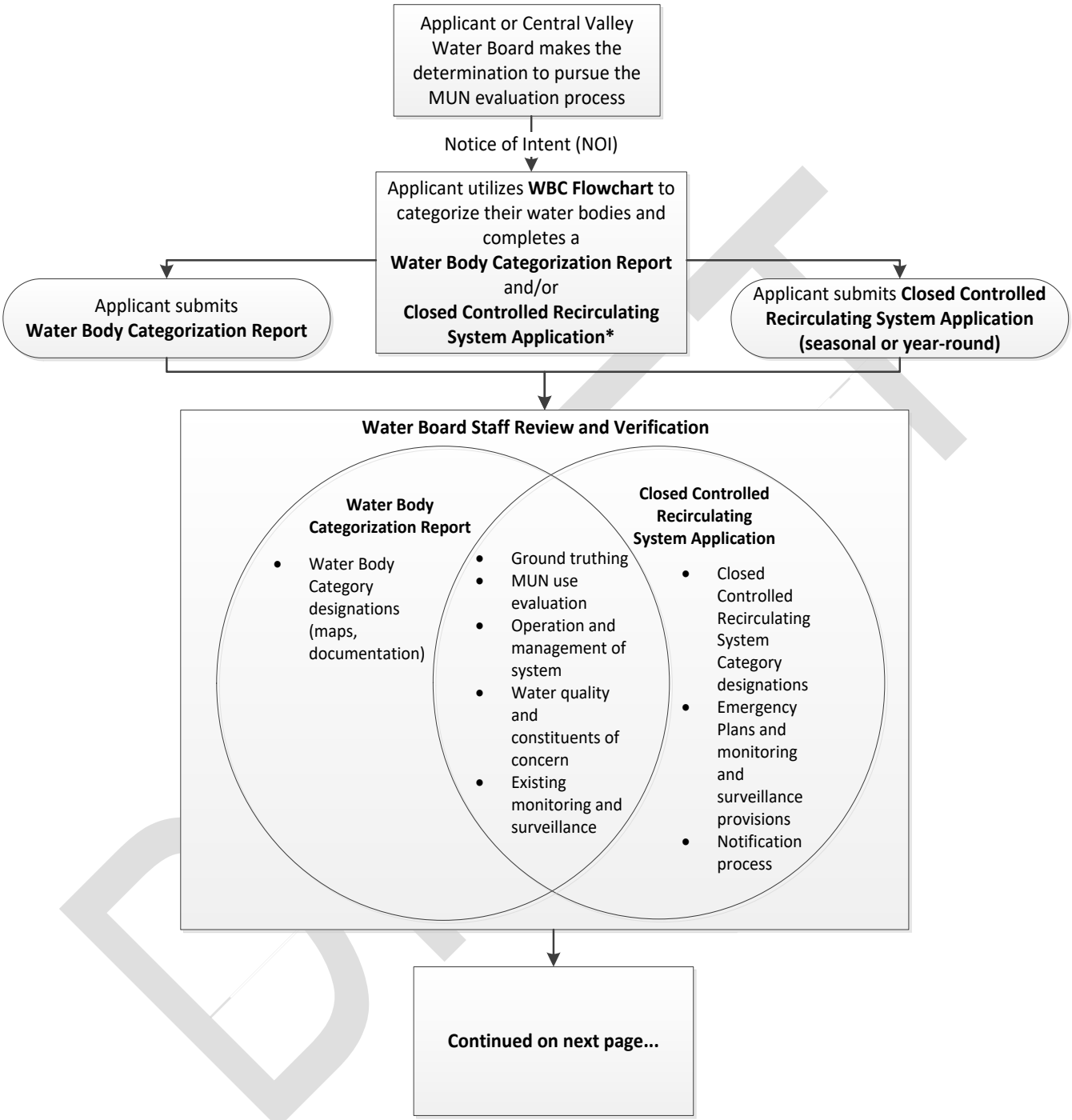
Figure X. Schematic Overview of Region-wide MUN Evaluation



** There are two types of Closed Controlled Recirculating Systems: Seasonally Closed and Year-Round Closed. For Seasonally Closed Controlled Recirculating Systems, both the Water Body Categorization Report and the Closed Controlled Recirculating System Application are required for submittal. The Regional Water Board will have the discretion to ask for a full report for Closed Controlled Recirculating Systems depending on the size and complexity of the system.*

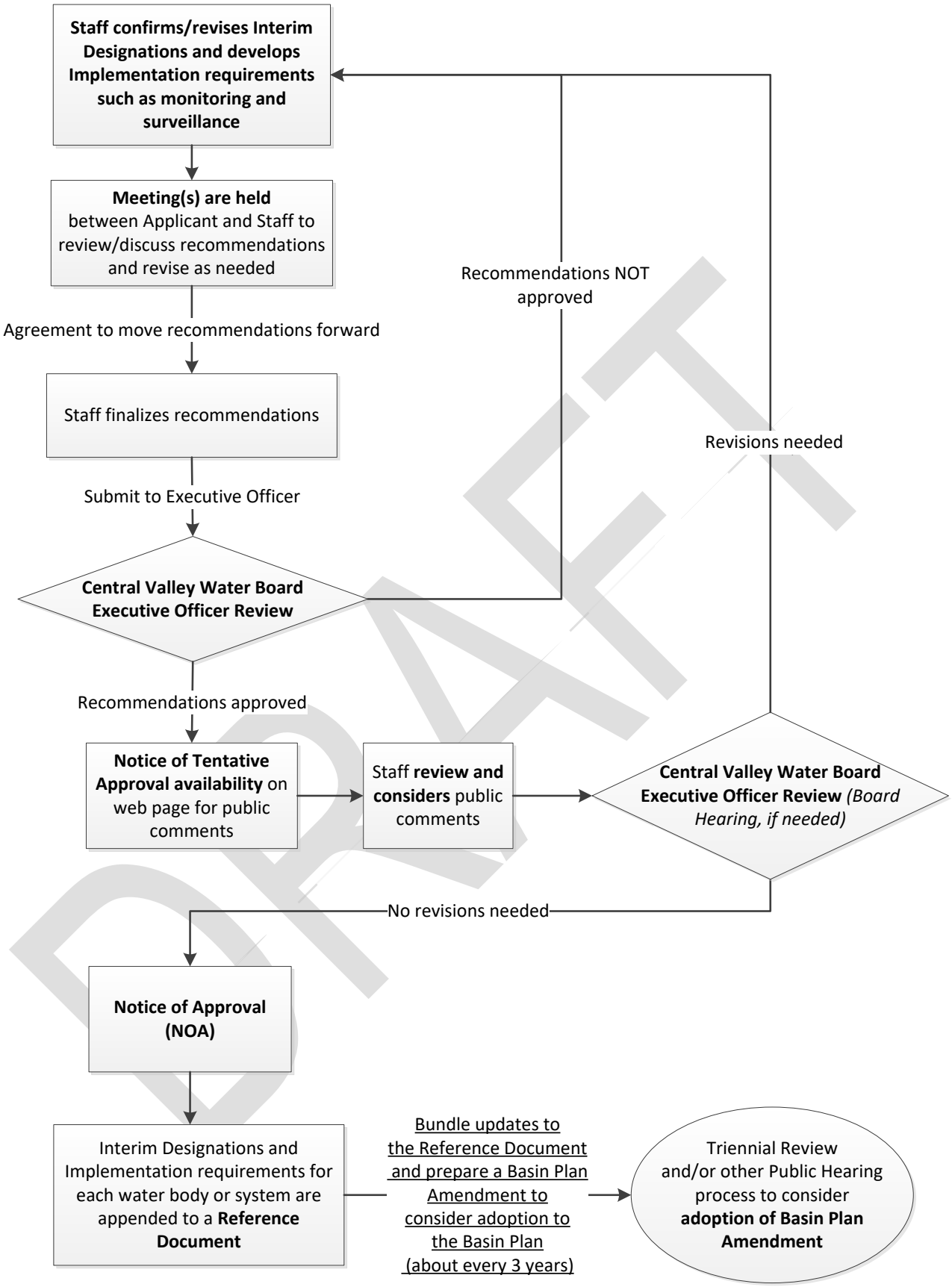

Staff confirms/revises Interim Designations and develops Implementation requirements such as monitoring and surveillance
Meeting(s) are held between Applicant and Staff to review/discuss recommendations and revise as needed
Agreement to move recommendations forward
Staff finalizes recommendations
Submit to Executive Officer
Central Valley Water Board Executive Officer Review
Recommendations NOT approved
Revisions needed
Recommendations approved
Notice of Tentative Approval availability on web page for public comments
Staff review and considers public comments
Central Valley Water Board Executive Officer Review (Board Hearing, if needed)
No revisions needed
Notice of Approval (NOA)
Interim Designations and Implementation requirements for each water body or system are appended to a Reference Document
Bundle updates to the Reference Document and prepare a Basin Plan Amendment to consider adoption to the Basin Plan (about every 3 years)
Triennial Review and/or other Public Hearing process to consider adoption of Basin Plan Amendment

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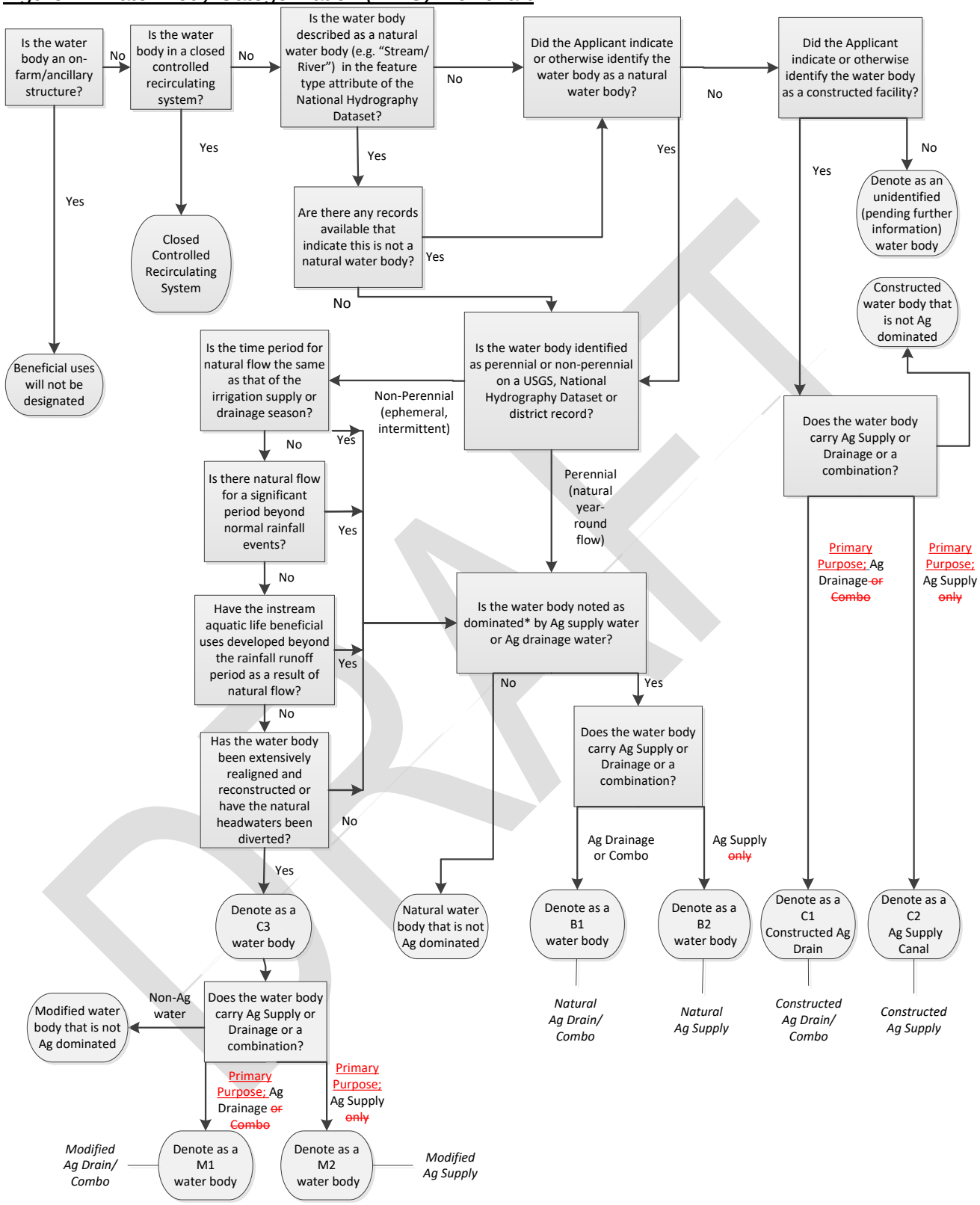
Figure Y. Water Body Categorization (WBC) Flowchart



** "**Ag Dominated"** is defined as: systems designed or modified for the primary purpose of conveying or holding waters used for or resulting from agricultural production, and/or water bodies with greater than 50 percent of the flow dependent on agricultural operations for greater than 50 percent of the irrigation season.*

~~For a~~Any non-listed constructed (C1 or C2) water body that is less than one mile and/or serving less than 640 irrigated acres from a study area that has ~~gone~~ been approved through the MUN Evaluation Process shall have their MUN beneficial use designation apply via the following rules:

- *A~~n~~ non-listed~~unidentified~~ C1 water body that provides or receives flow to or from an identified C1 water body shall be assigned the same MUN designation as the identified C1 water body*

- *A~~n~~ non-listed~~unidentified~~ C2 water body that provides or receives flow to or from an identified C2 water body shall be assigned the same MUN designation as the identified C2 water body*

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CHAPTER 5 SURVEILLANCE AND MONITORING

Modify the Basin Plan in Chapter 5 Surveillance and Monitoring under the heading, "Surveillance and Monitoring" (page V-5.01), as follows:

Municipal and Domestic Supply Beneficial Use (MUN) Evaluation in Agriculturally Dominated Water Bodies

Water Bodies with MUN Beneficial Use De-designated or LMUN Beneficial Use Designated

As resources permit, Regional Water Board staff will work with other agencies and regional monitoring programs to monitor chemical constituents, pesticides, and radionuclides contained in the Title 22 of the California Code of Regulations approximately every 3 to 5 years in major water bodies identified with existing or potential MUN use including but not limited to the Sacramento River, Feather River, San Joaquin River and Delta. The data gathered will support Watershed Sanitary Surveys (Cal. Code Regs, tit. 22, § 64665 et seq.) as well as the California Integrated Report (Clean Water Act Section 303(d)/305(b)).

The Regional Water Board will ensure that water quality monitoring data are sufficient to demonstrate that neither the de-designation of the MUN beneficial use nor the change of a MUN beneficial use designation to an LMUN beneficial use designation will result in unreasonable impacts to downstream water bodies designated as supporting the LMUN or MUN beneficial uses.

1. *As part of the MUN evaluation process initiated by the Applicant, the Regional Water Board will conduct an evaluation of all existing and available water quality data to determine whether the de-designation of the MUN beneficial use or the change of a MUN beneficial use designation to a~~n~~ LMUN beneficial use designation will result in unreasonable impacts to water quality downstream of the water body being evaluated.*
    a. *If existing and available water quality data support the conclusion that a change to a MUN beneficial use designation will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, the Regional Water Board need not require additional monitoring to comply with Exception 2b of the* Sources of Drinking Water Policy.
    b. *If existing and available water quality data are not sufficient to support the conclusion that the change to the MUN beneficial use designation will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, the Regional Water Board shall evaluate whether monitoring requirements imposed by existing regulatory programs, such as the Irrigated Lands Regulatory Program or the NPDES Permitting Program, are sufficient to ensure that discharges from the system will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses. If such monitoring programs provide sufficient monitoring to ensure the protection of the LMUN or MUN beneficial uses in downstream water bodies, the continued implementation of those monitoring programs shall satisfy the monitoring requirement of Exception 2b of the* Sources of Drinking Water Policy*. Such monitoring programs shall remain in effect at least until such time that water quality data demonstrate that the change to the MUN beneficial use designation has not resulted in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, at which point the monitoring requirements may be altered or reduced consistent with applicable regulatory requirements.*

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2. *If neither existing and available water quality data nor monitoring requirements imposed by existing regulatory programs are sufficient to support the conclusion that the change to the MUN beneficial use designation will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, the Regional Water Board shall either modify existing monitoring programs or issue an order pursuant to Water Code section 13267 to ensure that discharges from the system do not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses. Such modified requirements or orders shall remain in effect at least until such time that water quality data demonstrate that the change to the MUN beneficial use designation has not resulted in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses.*

3. *In water bodies where the MUN beneficial use has been changed, the burden of ensuring that neither new discharges into the waterbody nor material changes in the character, location, or volume of existing discharges will result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses shall be borne by the applicant initiating the new discharge or making the material changes to the character, location, or volume of the existing discharge.*

Water Bodies with LMUN Designated

To interpret the narrative objective and to evaluate compliance with the proposed objective for LMUN, existing Regional Water Board monitoring programs may use numeric triggers for chemical constituents, pesticides, and radionuclides concentrations in their process of issuing permits or waste discharge requirements. Exceedances of the triggers would not be violations of the proposed narrative objective nor are the triggers to be used for numeric effluent limits. Triggers ~~will~~ may be used to evaluate conditions in the water body itself as well as potential impacts to downstream beneficial uses and ensure appropriate management and best practical treatment actions are taken to protect those uses.

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APPENDIX

Modify the Basin Plan in Appendix 44, Water Bodies That Meet One or More of the Sources of Drinking Water Policy (Resolution 88-63) Exceptions (page XX), as follows:

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Appendix 44
Water Bodies That Meet One or More of the Sources of Drinking Water Policy (Resolution 88-63) Exceptions

County	***Primary Water Body or Main System Name (if applicable)***	Water Body Name	Description ***(optional)***	Approximate GIS Coordinates ~~(~~WGS84 Datum~~)~~ ***(optional)***		***Length of Water Body Segment (miles)***	***Water Body/System Category Designation***
				Starting Location	Ending Location		
Butte		Cherokee Canal	Cherokee Canal runs southwest from the Richvale area (near Nelson Shippee Road) to Butte Creek, west of the City of Live Oak	(39.537741, -121.707079)	(39.285685, -121.921656)	*22*	*C1*
Butte		Lateral K	Lateral K is part of Reclamation District 833 and starts near 8th Street in the City of Biggs and travels southwest past the City of Bigg's Wastewater Treatment Plant to the Main Drainage Canal	(39.421894, -121.71297)	(39.406837, -121.725361)	*1.7*	*C1*
Butte		Main Drainage Canal	The Main Drainage Canal (also known as the Main Drain C) is part of Reclamation District 833 and starts on the south end of the City of Biggs near Trent Street and runs southwest to the Cherokee Canal	(39.41041, -121.704258)	39.327924, -121.882067	*13*	*C1*
Colusa		New Ditch (2011)	New Ditch (2011) starts near the south end of the Colusa Wastewater Treatment Plant and runs south, parallel to the unnamed tributary, until the two water bodies join near the effluent outfall and weir	(39.180224, -122.031358)	(39.174267, -122.031274)	*0.4*	*C1*

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County	***Primary Water Body or Main System Name (if applicable)***	Water Body Name	Description ***(optional)***	Approximate GIS Coordinates ~~(~~WGS84 Datum~~)~~ ***(optional)***		***Length of Water Body Segment (miles)***	***Water Body/System Category Designation***
				Starting Location	Ending Location		
Colusa		Powell Slough	Powell Slough begins just north of Highway 20, downstream of Hopkins Slough, and runs south until its confluence with the Colusa Basin Drain	(39.211133, -122.062955)	(39.161267, -122.038445)	*5*	*M1*
Colusa		Sulphur Creek	Lower two miles from Schoolhouse Canyon to its confluence with Little Bear Creek	(39.035631, -122.437619)	(39.040144, -122.408168)		
Colusa		unnamed tributary (to Powell Slough)	unnamed tributary to Powell Slough starts near Will S. Green Avenue and runs west and southwest to Powell Slough	(39.188028, -122.02328)	(39.166857, -122.034722)	*2.1*	*C1*
Glenn		Ag Drain C	Glenn-Colusa Irrigation District's Ag Drain C (segments also known as North Fork Logan Creek and Logan Creek) runs southeast from Highway 5 near Highway 99W through the Sacramento Wildlife Refuge to the Colusa Basin Drain	(39.498519, -122.199216)	(39.356401, -122.082675)	*17*	*M1*
Sutter		East Interceptor Canal	The East Interceptor Canal starts at Pease Road and runs west until it meets the Wadsworth Canal.	(39.170745, -121.670588)	(39.171003, -121.727014)	*3*	*C1*

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County	***Primary Water Body or Main System Name (if applicable)***	Water Body Name	Description ***(optional)***	Approximate GIS Coordinates ~~(~~WGS84 Datum~~)~~ ***(optional)***		***Length of Water Body Segment (miles)***	***Water Body/System Category Designation***
				Starting Location	**Ending Location**		
Sutter		Lateral 1	Lateral 1 is part of Reclamation District 777 and starts near the City of Live Oak's Wastewater Treatment Plant and runs south and west to the Western Intercepting Canal	(39.257501, -121.678718)	(39.201248, -121.696329)	*5*	*C1*
Sutter		Lateral 2	Lateral 2 is part of Reclamation District 777. It starts on the south end of the City of Live Oak near Treatment Plant Access Road and runs south and then west past the City of Live Oak's Treatment Plant outfall until it meets Lateral 1	(39.264739, -121.669314)	(39.257501, -121.678718)	*1*	*C1*
Sutter		West Intercepting Canal (*not to be confused with West Interceptor Canal*)	Western Interceptor Canal is under shared management between Reclamation District 777 and Reclamation District 2056. It starts south of Sanders Road and runs south until it meets the East Interceptor Canal	(39.201248, -121.696329)	(39.17092, -121.695374)	*2*	*C1*
Sutter		Wadsworth Canal	The Wadsworth Canal starts just north of Butte House Road and runs southwest until it meets the Sutter Bypass	(39.171003, -121.727014)	(39.113605, -121.768985)	*5*	*C1*
Merced	*Arroyo Canal System*	*Arroyo Canal*				*18*	*C1*
Merced	*Arroyo Canal System*	*Belmont Ditch*				*2*	*C1*
Merced	*Arroyo Canal System*	*Clark Ditch*				*0.3*	*C1*

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County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Arroyo Canal System	Cocke Ditch				0.3	C1
Merced	Arroyo Canal System	Cowden Ditch				3	C1
Merced	Arroyo Canal System	North Toscano Ditch				4	C1
Merced	Arroyo Canal System	North Toscano Ditch No. 1				1	C1
Merced	Arroyo Canal System	Schmidt Ditch				1	C1
Merced	Arroyo Canal System	West Toscano Ditch				1	C1
Merced	Arroyo Canal System	West Toscano Ditch North Ext.				2	C1
Merced	Arroyo Canal System	West Willow Ditch				0.5	C1
Merced	Arroyo Canal System	West Willow Ditch Extension				0.5	C1
Merced	Temple- Santa Rita Canal System	Bennett Ditch				0.3	C1
Merced	Temple- Santa Rita Canal System	Boundary Ditch				1	C1
Merced	Temple- Santa Rita Canal System	Cement Lined Ditch				1	C1
Merced	Temple- Santa Rita Canal System	Dairy Field Ditch No. 1				1	C1
Merced	Temple- Santa Rita Canal System	Escano Ditch Br. 1				1	C1
Merced	Temple- Santa Rita Canal System	Escano Ditch Br. 2				0.2	C1
Merced	Temple- Santa Rita Canal System	Escano Ditch North Br.				1	C1
Merced	Temple- Santa Rita Canal System	Highway Ditch				1	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Temple- Santa Rita Canal System	Orchard Ditch Extension				3	C1
Merced	Temple- Santa Rita Canal System	Orchard Ditch No.2				1	C1
Merced	Temple- Santa Rita Canal System	Red Tank Ditch				1	C1
Merced	Temple- Santa Rita Canal System	Santa Rita Orchard Ditch				4	C1
Merced	Temple- Santa Rita Canal System	Temple Santa Rita Canal Ext.				1	C1
Merced	Temple- Santa Rita Canal System	Temple-Santa Rita Canal				12	C1
Merced	Pick Anderson System	Loop Ditch				1	C1
Merced	Pick Anderson System	Loop Ditch No. 1				1	C1
Merced	Pick Anderson System	Loop Ditch No. 2				1	C1
Merced	Pick Anderson System	Middle Ditch				1	C1
Merced	Pick Anderson System	Middle Ditch No. 1				1	C1
Merced	Pick Anderson System	Middle Ditch No. 2				1	C1
Merced	Pick Anderson System	North Bypass Lift Ditch				3	C1
Merced	Pick Anderson System	P.A. # 31 Lift Ditch				0.4	C1
Merced	Pick Anderson System	River Ditch				1	C1
Merced	Pick Anderson System	South Bypass Lift Ditch				1	C1
Merced	Pick Anderson System	South Ditch				1	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Pick Anderson System	South P. A. Ditch				1	C1
Merced	San Juan Canal System	Carlucci Ditch				0.3	C1
Merced	San Juan Canal System	Cement - Lined Ditch				0.4	C1
Merced	San Juan Canal System	Coute Ditch				2	C1
Merced	San Juan Canal System	Fagundes Ditch				1	C1
Merced	San Juan Canal System	San Juan No. 1 Canal				2	C1
Merced	San Juan Canal System	San Juan Canal				6	C1
Merced	San Juan Canal System	San Juan Canal Extension				2	C1
Merced	Delta No. 1 Canal System	Delta No. 1 Canal				6	C1
Merced	Delta No. 1 Canal System	M Ditch # 1				1	C1
Merced	Delta No. 1 Canal System	M Ditch # 2				1	C1
Merced	Delta Canal System	Boundary Lift Ditch				0.2	C1
Merced	Delta Canal System	County Road Ditch				1	C1
Merced	Delta Canal System	Dambrosia Ditch				1	C1
Merced	Delta Canal System	Delta Canal				10	C1
Merced	Delta Canal System	Delta Canal Extension				0.3	C1
Merced	Delta Canal System	Duni Ditch				1	C1
Merced	Delta Canal System	Duni Ditch Branch A				1	C1
Merced	Delta Canal System	Duni Ditch Branch B				0.3	C1
Merced	Delta Canal System	East Delta Canal				3	C1
Merced	Delta Canal System	Eastside Canal				3	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Delta Canal System	Noble Ditch				1	C1
Merced	Delta Canal System	Pugliese Ditch				1	C1
Merced	Delta Canal System	West Delta Branch No. 1				1	C1
Merced	Delta Canal System	West Delta Branch No. 2				1	C1
Merced	Delta Canal System	West Delta Canal				4	C1
Merced	Island Canal System	Island "A" Canal				4	C1
Merced	Island Canal System	Island "B" Canal				1.1	C1
Merced	Island Canal System	Island "C" Canal				1.2	C1
Merced	Island Canal System	Island "D" Canal				2	C1
Merced	Midway & San Pedro Canal System	Alberti Ditch				1	C1
Merced	Midway & San Pedro Canal System	Backer Ditch				0.1	C1
Merced	Midway & San Pedro Canal System	Cipriani Concrete - Lined Ditch				0.3	C1
Merced	Midway & San Pedro Canal System	Community Ditch				2	C1
Merced	Midway & San Pedro Canal System	Guaspari - Laveglia Comm. Ditch				1	C1
Merced	Midway & San Pedro Canal System	Lone Tree Canal				8	C1
Merced	Midway & San Pedro Canal System	Lone Tree Spur				0.4	C1
Merced	Midway & San Pedro Canal System	Mackenzie Ditch				1	C1
Merced	Midway & San Pedro Canal System	Midway - Highway Ditch				0.2	C1
Merced	Midway & San Pedro Canal System	Midway - San Pedro Intertie				0.1	C1
Merced	Midway & San Pedro Canal System	Midway Canal				7	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Midway & San Pedro Canal System	Parsley Ditch				1	C1
Merced	Midway & San Pedro Canal System	San Pedro Canal				7	C1
Merced	Midway & San Pedro Canal System	Swamp Ditch				3	C1
Merced	Midway & San Pedro Canal System	Swamp Ditch Branch No. 1				1	C1
Merced	Belmont Drain	Belmont Drain				12	C1
Merced	Belmont Drain	Belmont Drain Extension North				0.3	C1
Merced	Belmont Drain	Belmont Drain No. 1				2	C1
Merced	Belmont Drain	M-20W - Delta Seep Ditch				0.7	C1
Merced	Belmont Drain	M-20W - Delta Seep Ditch Ext. # 1				0.2	C1
Merced	Belmont Drain	M-20W - Delta Seep Ditch Ext. # 2				0.3	C1
Merced	Belmont Drain	M-20W - Delta Seep Ditch Ext. # 3				0.3	C1
Merced	Belmont Drain	Miano Seep Drain				0.8	C1
Merced	Belmont Drain	Plow Camp Drain				4	C1
Merced	Belmont Drain	Raven Drain				1	C1
Merced	Belmont Drain	San Juan Seep Drain				0.4	C1
Merced	Belmont Drain	Spina S/D Br.				0.3	C1
Merced	Belmont Drain	Spina Seep Drain				1	C1
Merced	Belmont Drain	Tallant Drain				0.6	C1
Merced	Belmont Drain	Tallant Seep Drain				0.3	C1
Merced	Boundary Drain	Boundary Drain				10	C1
Merced	Boundary Drain	Derrick Drain				0.8	C1
Merced	Boundary Drain	Derrick Drain Ext.				0.8	C1
Merced	Boundary Drain	Guaspari Drain				0.8	C1
Merced	Boundary Drain	H - R Willis Drain				0.3	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Boundary Drain	Knight Drain				0.5	C1
Merced	Boundary Drain	Mc Donald Drain				0.9	C1
Merced	Boundary Drain	Parsley Ditch Spill				0.4	C1
Merced	Boundary Drain	Sirse Drain				0.9	C1
Merced	Boundary Drain	TL-6 Drain				0.8	C1
Merced	Boundary Drain	Urzanqui Drain				0.4	C1
Merced	Boundary Drain No. 1	Boundary Drain No. 1				5	C1
Merced	Boundary Drain No. 2	Boundary Drain No. 1 Br.				0.3	C1
Merced	Boundary Drain No. 3	Boxcar / Neves Drain				0.2	C1
Merced	Boundary Drain No. 4	Brista Drain				0.8	C1
Merced	Boundary Drain No. 5	Silva Drain				0.2	C1
Merced	Boundary Drain No. 5	Boundary Drain No. 5				5	C1
Merced	Boundary Drain No. 6	Boundary Drain No. 5-2				3	C1
Merced	Boundary Drain No. 7	Boundary Drain No. 5-2-2				1	C1
Merced	Boundary Drain No. 8	Cipriani Drain				1	C1
Merced	Boundary Drain No. 9	Cipriani Drain Br. # 1				0.3	C1
Merced	Boundary Drain No. 10	Gilardi - Johnson Drain				0.3	C1
Merced	Boundary Drain No. 7	Boundary Drain No. 7				2	C1
Merced	Boundary Drain No. 8	Hooper Drain				0.4	C1
Merced	Circle Island Drain	Circle Island Drain				2	C1
Merced	Devon Drain	Borba Drain				0.4	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Devon Drain	Devon Drain				6	C1
Merced	Devon Drain	Devon Drain Br. No. 1				0.7	C1
Merced	Devon Drain	Lone Tree Seep Drain				0.6	C1
Merced	Devon Drain	Panama Ditch				0.2	C1
Merced	Hereford Drain	Hereford Drain				4	C1
Merced	Hereford Drain	Hereford Drain Br. 1				0.7	C1
Merced	Hereford Drain	Hereford Drain Br. 2				0.6	C1
Merced	Hereford Drain	Hereford Drain Br. 3				0.8	C1
Merced	Hereford Drain	Hereford Drain Br. 4				2	C1
Merced	Hereford Drain	Island "A" Spill				0.3	C1
Merced	Pick Anderson By-pass Drain	Lift Pump Slough				0.3	C1
Merced	Pick Anderson By-pass Drain	Loop Drain No. 1				1	C1
Merced	Pick Anderson By-pass Drain	Middle Drain				2	C1
Merced	Pick Anderson By-pass Drain	P. A. Drain Ext., -River Br.				0.6	C1
Merced	Pick Anderson By-pass Drain	P. A. Drain No.1				0.6	C1
Merced	Pick Anderson By-pass Drain	P.A. Drain No. 3				1	C1
Merced	Pick Anderson By-pass Drain	P.A. Drain No. 4				0.8	C1
Merced	Pick Anderson By-pass Drain	P. A. Drain No. 5				0.7	C1
Merced	Pick Anderson By-pass Drain	P. A. River Drain # 1				1	C1
Merced	Pick Anderson By-pass Drain	P. A. Seep Drain No. 2				0.8	C1
Merced	Pick Anderson By-pass Drain	Pick Anderson By-pass Drain				3	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Pick Anderson By-pass Drain	Pick Anderson Drain				5	C1
Merced	Pick Anderson By-pass Drain	River Drain No. 3				1	C1
Merced	Pick Anderson By-pass Drain	South Drain No. 1				0.8	C1
Merced	Pick Anderson By-pass Drain	South Drain No. 2				0.9	C1
Merced	Pick Anderson By-pass Drain	South P.A. Drain # 3				0.0	C1
Merced	Poso Drain	Arroyo S/D				1	C1
Merced	Poso Drain	Belmont Drain Cut Off				0.3	C1
Merced	Poso Drain	Belmont Drain Extension South				0.3	C1
Merced	Poso Drain	Branco Drain				0.7	C2
Merced	Poso Drain	Branco Drain No. 1				0.3	C3
Merced	Poso Drain	Buie Drain				1	C1
Merced	Poso Drain	Buie Drain Extension				0.9	C1
Merced	Poso Drain	Poso Drain				10	C1
Merced	Poso Drain	Poso Slough				4	M1
Merced	Poso Drain	Poso Slough Drain Re-route				0.4	C1
Merced	Salt Slough	Dairy Field 10-11 Drain				0.5	C1
Merced	Salt Slough	Dairy Field Drain No. 2				2	C1
Merced	Salt Slough	Dairy Field Drain No. 3				0.8	C1
Merced	Salt Slough	East Delta Drain				0.7	C1
Merced	Salt Slough	Intake S/D				2	C1
Merced	Salt Slough	Island B Seep Drain				1	C1
Merced	Salt Slough	Levee Drain				3	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	Salt Slough	Orchard Ditch Ext. Spill				0.3	C1
Merced	Salt Slough	Salt Slough				7	M1
Merced	Salt Slough	Salt Slough Ditch				3	C1
Merced	Salt Slough	Salt Slough Drain				8	C1
Merced	Salt Slough	San Joaquin River Drain				0.7	C1
Merced	Salt Slough	South Dairy Field Drain				2	C1
Merced	San Juan Drain	Azevedo Drain				0.3	C1
Merced	San Juan Drain	Kaljian Drain				1	C1
Merced	San Juan Drain	Ledford Drain				1	C1
Merced	San Juan Drain	Ledford Drain No. 1				1	C1
Merced	San Juan Drain	Lopes Drain				0.7	C1
Merced	San Juan Drain	Lopes Drain Ext.				0.4	C1
Merced	San Juan Drain	M-22 Drain				0.8	C1
Merced	San Juan Drain	M-22 J-39, 40 & 41 Drain				0.8	C1
Merced	San Juan Drain	San Juan Drain				10	C1
Merced	San Juan Drain	San Juan Drain No. 3				2	C1
Merced	San Juan Drain	San Juan Drain No. 3 - North Br.				0.7	C1
Merced	San Juan Drain	San Juan Drain No. 3 - South Br.				0.5	C1
Merced	San Juan Drain	Sec. 14 Road Drain				0.5	C1
Merced	San Juan Drain	Temple Santa Rita S/D				0.9	C1
Merced	West Delta Drain	Baffuna Drain				1	C1
Merced	West Delta Drain	Bisignani Drain				0.8	C1
Merced	West Delta Drain	Bisignani Drain No. 2				1	C1
Merced	West Delta Drain	Bisignani Drain No.1				2	C1
Merced	West Delta Drain	Crayne Drain				2	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	West Delta Drain	D - 36 Drain				0.7	C1
Merced	West Delta Drain	Dambrosia S/D				0.2	C1
Merced	West Delta Drain	Deep Well Road Drain				0.5	C1
Merced	West Delta Drain	Gun Club Drain				0.6	C1
Merced	West Delta Drain	H - H Willis Drain				1	C1
Merced	West Delta Drain	M-2, D-6 & D-7 Drains				0.8	C1
Merced	West Delta Drain	Pedro Drain				2	C1
Merced	West Delta Drain	TL-7 Drain				0.8	C1
Merced	West Delta Drain	Vieira Drain				0.7	C1
Merced	West Delta Drain	West Delta Drain				6	C1
Merced	West Delta Drain	West Delta Drain Br. No. 1				0.3	C1
Merced	West Delta Drain	West Delta Drain Br. No. 2				1	C1
Merced	West Delta Drain	West Delta Drain Branch "A"				0.5	C1
Merced	West Delta Drain	West Delta Drain No. 2				0.6	C1
Merced	West Delta Drain	West Delta Seep Drain No. 1				0.5	C1
Merced	West San Juan Drain	Delta 1 Spill 1				0.2	C1
Merced	West San Juan Drain	M-20-W Drain No. 1				1	C1
Merced	West San Juan Drain	M-20-W Drain No. 2				1	C1
Merced	West San Juan Drain	North San Juan No. 1 S/D				1	C1
Merced	West San Juan Drain	San Juan 1 Spill				0.2	C1
Merced	West San Juan Drain	South San Juan No. 1 S/D				1	C1

County	Primary Water Body or Main System Name (if applicable)	Water Body Name	Description (optional)	Approximate GIS Coordinates (WGS84 Datum) (optional)		Length of Water Body Segment (miles)	Water Body/System Category Designation
				Starting Location	Ending Location		
Merced	West San Juan Drain	W. San Juan Silva Branch Drain				1	C1
Merced	West San Juan Drain	West San Juan Carlucci Drain				1	C1
Merced	West San Juan Drain	West San Juan Carlucci Drain No. 1				0.9	C1
Merced	West San Juan Drain	West San Juan Drain				6	C1
Merced	West San Juan Drain	West San Juan Drain Ext.				0.4	C1
Merced	West San Juan Drain	West San Juan Drain No. 1				2	C1
Merced	West San Juan Drain	West San Juan Drain No. 1-1				0.3	C1
Merced	West San Juan Drain	West San Juan Drain No. 1-2				0.4	C1
Merced	West San Juan Drain	West San Juan Drain No. 1-3				0.5	C1
Merced	West San Juan Drain	West San Juan Drain Reroute				0.8	C1
Merced	West San Juan Drain	Willis Drain				2	C1
Merced	West Santa Rita Drain	Auxiliary Drain				1	C1
Merced	West Santa Rita Drain	Christiana Drain				2	C1
Merced	West Santa Rita Drain	Elgin Co-op Drain				0.4	C1
Merced	West Santa Rita Drain	Escano Drain				2	C1
Merced	West Santa Rita Drain	Fialho Drain				0.4	C1
Merced	West Santa Rita Drain	North Escano Drain				0.4	C1

County	*Primary Water Body or Main System Name (if applicable)*	Water Body Name	Description *(optional)*	Approximate GIS Coordinates (WGS84 Datum) *(optional)*		*Length of Water Body Segment (miles)*	*Water Body/System Category Designation*
				Starting Location	Ending Location		
Merced	*West Santa Rita Drain*	*West Santa Rita Drain*				*4*	*C1*
Merced	*West Santa Rita Drain*	*West Santa Rita Drain Branch No. 1*				*0.6*	*C1*
Merced	*West Santa Rita Drain*	*West Santa Rita Drain By-pass*				*0.5*	*C1*

Modify the Basin Plan by adding Appendix 45, Water Bodies with LMUN Beneficial Use (page XX), as follows:

Appendix 45
Water Bodies with LMUN Beneficial Use

County	*Primary Water Body or Main System Name (if applicable)*	*Water Body Name*	*Description (optional)*	*Approximate GIS Coordinates (optional)*		*Length of Water Body Segment (miles)*	*Water Body/System Category Designation*
				Starting Location	*Ending Location*		

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AMENDMENT LANGUAGE FOR THE TULARE LAKE BASIN PLAN

The proposed changes to the Basin Plan are as follows. Text additions to the existing Basin Plan language are underlined and *italicized*. Text deletions to the existing Basin Plan are in ~~strikethrough~~.

CHAPTER 2 BENEFICAL USES

Modify the Basin Plan in Chapter 2 Beneficial Uses (page II-1), as follows:

Limited Municipal and Domestic Supply (LMUN) – *Uses of water for municipal and domestic supply in agriculturally dominated water bodies where the use is limited by water body characteristics such as intermittent flow, management to maintain intended agricultural use and/or constituent concentrations in the water body.*

Modify the Basin Plan in Chapter 2 Beneficial Uses (page II-2), as follows:

The existing and probable future beneficial uses which currently apply to surface waters are presented in Figure II-1 and Table II-1. The beneficial uses of any specifically identified water body generally apply to its tributary streams. In some cases a beneficial use may not be applicable to the entire body of water. In these cases the Regional Water Board's judgement will be applied. It should be noted that it is impractical to list every surface water body in the Region. For unidentified water bodies, the beneficial uses will be evaluated on a case-by-case basis.

In making any exemptions to the beneficial use designation of MUN, the Regional Water Board will apply the exceptions listed in the Sources of Drinking Water Policy (Appendix Item 8) and the excepted water bodies will be listed in Appendix 35.

Water bodies designated with the LMUN beneficial use are listed in Appendix 36.

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CHAPTER 3 WATER QUALITY OBJECTIVES

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, “Chemical Constituents” (page III-3), as follows and move under heading, “Municipal and Domestic Supply (MUN)”:

~~At a minimum, water designated MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated MUN shall not contain lead in excess of 0.015 mg/l. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, “Pesticides” (page III-4), as follows and move under heading, “Municipal and Domestic Supply (MUN)”:

~~At a minimum, waters designated MUN shall not contain concentrations of pesticide constituents in excess of the maximum contaminant levels (MCLs) specified in Table 64444-A (Organic Chemicals) of Section 64444 of Title 22 of the California Code of Regulations, which is incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, “Radioactivity” (page III-4), as follows and move under heading, “Municipal and Domestic Supply (MUN)”:

~~At a minimum, waters designated MUN shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of Section 64442 and Table 64443 of Section 64443 of Title 22, California Code of Regulations, which are incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.~~

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, “Water Quality Objectives for Inland Surface Waters” (page III-7), as follows:

Municipal and Domestic Supply (MUN)

In addition to other applicable water quality objectives including but not limited to narrative and site specific, the following sections specifically address waters designated for use as domestic or municipal supply (MUN).

Chemical Constituents

At a minimum, water designated MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated MUN shall not contain lead in excess of 0.015 mg/l. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs

Pesticides

At a minimum, waters designated MUN shall not contain concentrations of pesticide constituents in excess of the maximum contaminant levels (MCLs) specified in Table 64444-A (Organic Chemicals) of Section 64444 of Title 22 of the California Code of Regulations, which is incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.

Radioactivity

At a minimum, waters designated MUN shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of Section 64442 and Table 64443 of Section 64443 of Title 22, California Code of Regulations, which are incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

Limited Municipal and Domestic Supply (LMUN)

Water quality and downstream beneficial uses will be protected consistent with the state antidegradation policy.

CHAPTER 4 IMPLEMENTATION

Modify the Basin Plan in Chapter 4 Implementation under the heading, "Continuous Planning for Implementation of Water Quality Control" (page IV-30), as follows:

Municipal and Domestic Supply (MUN) Evaluation in Agriculturally Dominated Water Bodies

Agriculturally (Ag) dominated surface water bodies will be evaluated for the MUN beneficial use only as needed or desired by an interested party. The MUN evaluation process can be initiated by an outside party or the Regional Water Board. The Applicant submitting the evaluation must manage and/or control the water bodies under consideration or jointly submit the evaluation with such a party. Ag dominated surface water bodies that do not go through the MUN evaluation process will have no change to their MUN beneficial use designation. For the purposes of this evaluation, agricultural drainage is defined as water leaving an agricultural field either from irrigation practices or precipitation.

An Interim Ag Dominated Water Body Designation Reference Document will be used to list evaluated water bodies and their proposed water body categories and MUN designations until such a time that the list is incorporated into this Water Quality Control Plan via an amendment.

The Reference Document will be utilized to set interim water quality permit limits for a finite period, during which a public Board approval process would be used to incorporate evaluated water bodies and associated beneficial uses listed in the Reference Document into this Water Quality Control Plan. The finite period shall not exceed 5 years, with an allowance for a 3 year extension with Regional Water Board EO approval.

Using the process laid out in Figure X, Schematic Overview of Region-wide MUN Evaluation, the Applicant will utilize Figure Y, Water Body Categorization (WBC) Flowchart and Table X, Assigned MUN Beneficial Use Designations by Water Body Category to propose appropriate MUN beneficial use designations of Ag dominated water bodies.

The proposed designations are subject to change based on the Regional Water Board staff and public review process outlined in Figure X,

The Region-wide MUN Evaluation process will not apply to water bodies that are already listed in Table II-1 of the Basin Plan or water bodies that are currently used for municipal or domestic water supply. ~~Site specific evaluation will be conducted on these water bodies should the beneficial use change~~Such water bodies would continue to be eligible for site specific beneficial use evaluations.

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Table X Assigned MUN Beneficial Use Designations by Water Body Category

Water Body Category	***MUN Beneficial Use***
C1 (Constructed Ag Drainage/Combo)	*No MUN*
M1 (Modified Ag Drainage/Combo)	*No MUN*
C2 (Constructed Ag Supply)	*LIMITED-MUN*
M2 (Modified Ag Supply)	*LIMITED-MUN*
B1 (Natural Ag Drainage/Combo)	*LIMITED-MUN*
B2 (Natural Ag Supply)	*LIMITED-MUN*
Closed Controlled Recirculating Systems	
Year-Round Closed	*No MUN*
Seasonally Closed	*No MUN during closure period*

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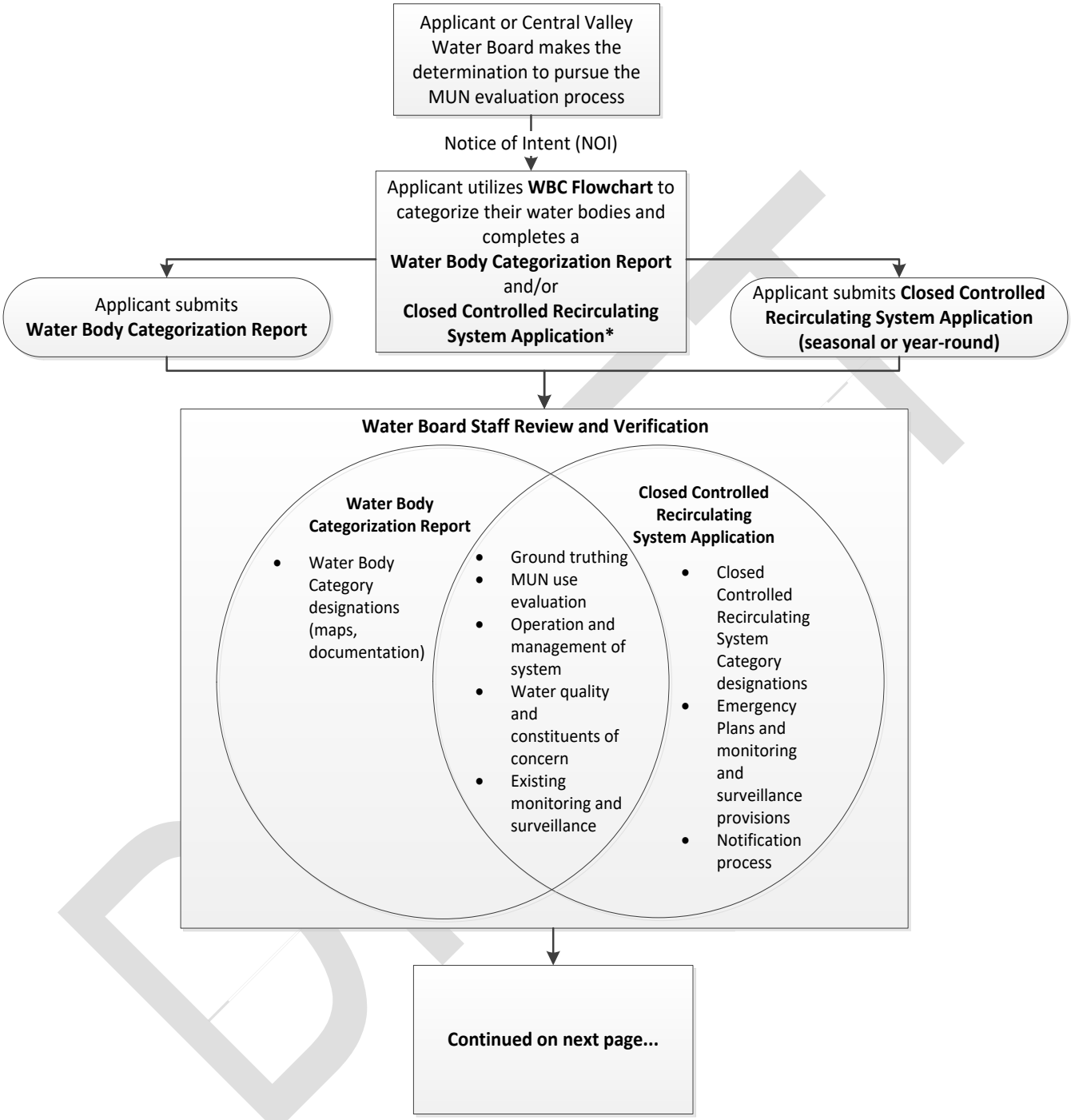
Figure X. Schematic Overview of Region-wide MUN Evaluation



** There are two types of Closed Controlled Recirculating Systems: Seasonally Closed and Year-Round Closed. For Seasonally Closed Controlled Recirculating Systems, both the Water Body Categorization Report and the Closed Controlled Recirculating System Application are required for submittal. The Regional Water Board will have the discretion to ask for a full report for Closed Controlled Recirculating Systems depending on the size and complexity of the system.*

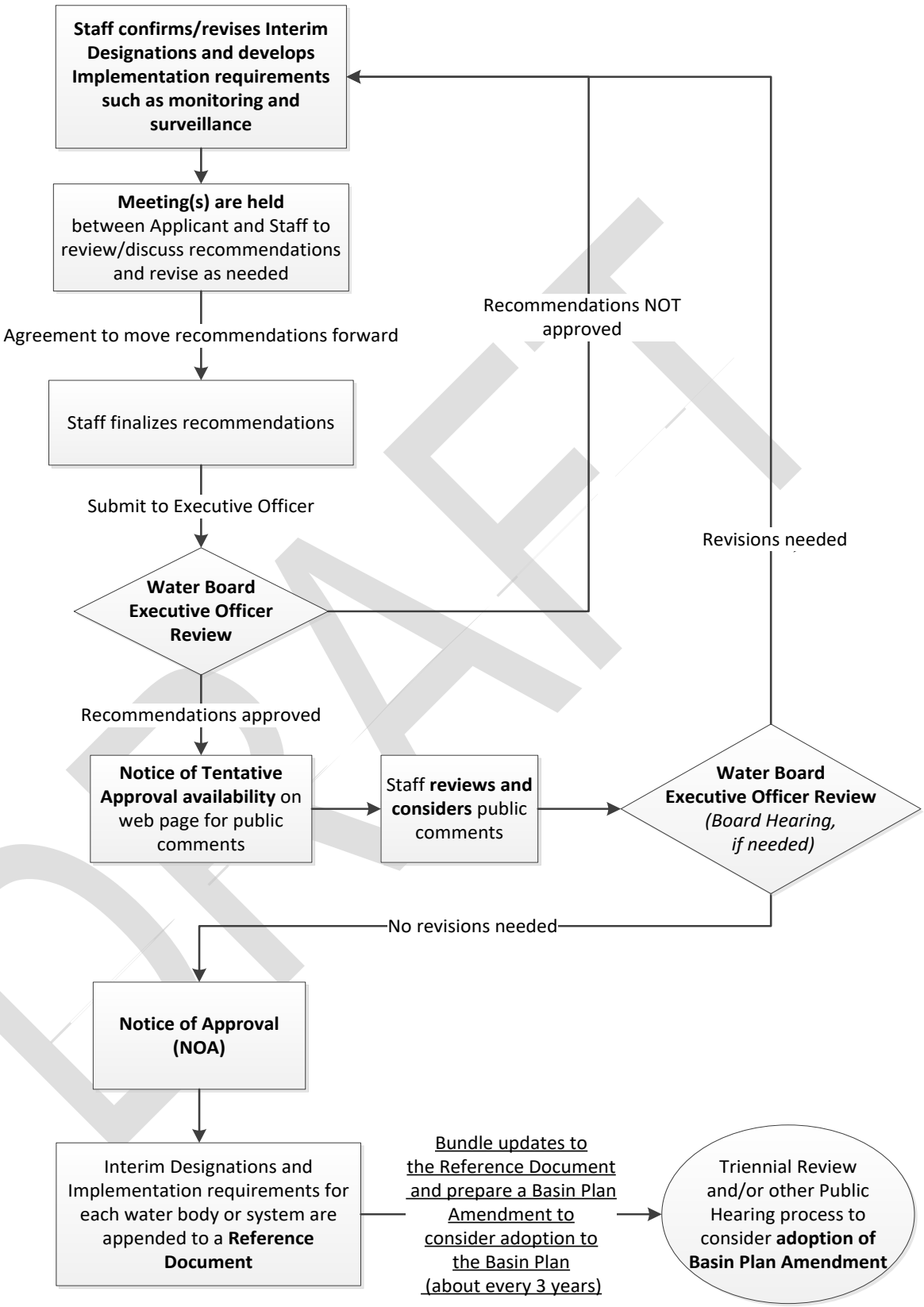

Staff confirms/revises Interim Designations and develops Implementation requirements such as monitoring and surveillance
Meeting(s) are held between Applicant and Staff to review/discuss recommendations and revise as needed
Agreement to move recommendations forward
Recommendations NOT approved
Staff finalizes recommendations
Submit to Executive Officer
Revisions needed
Water Board Executive Officer Review
Recommendations approved
Notice of Tentative Approval availability on web page for public comments
Staff reviews and considers public comments
Water Board Executive Officer Review (Board Hearing, if needed)
No revisions needed
Notice of Approval (NOA)
Interim Designations and Implementation requirements for each water body or system are appended to a Reference Document
Bundle updates to the Reference Document and prepare a Basin Plan Amendment to consider adoption to the Basin Plan (about every 3 years)
Triennial Review and/or other Public Hearing process to consider adoption of Basin Plan Amendment

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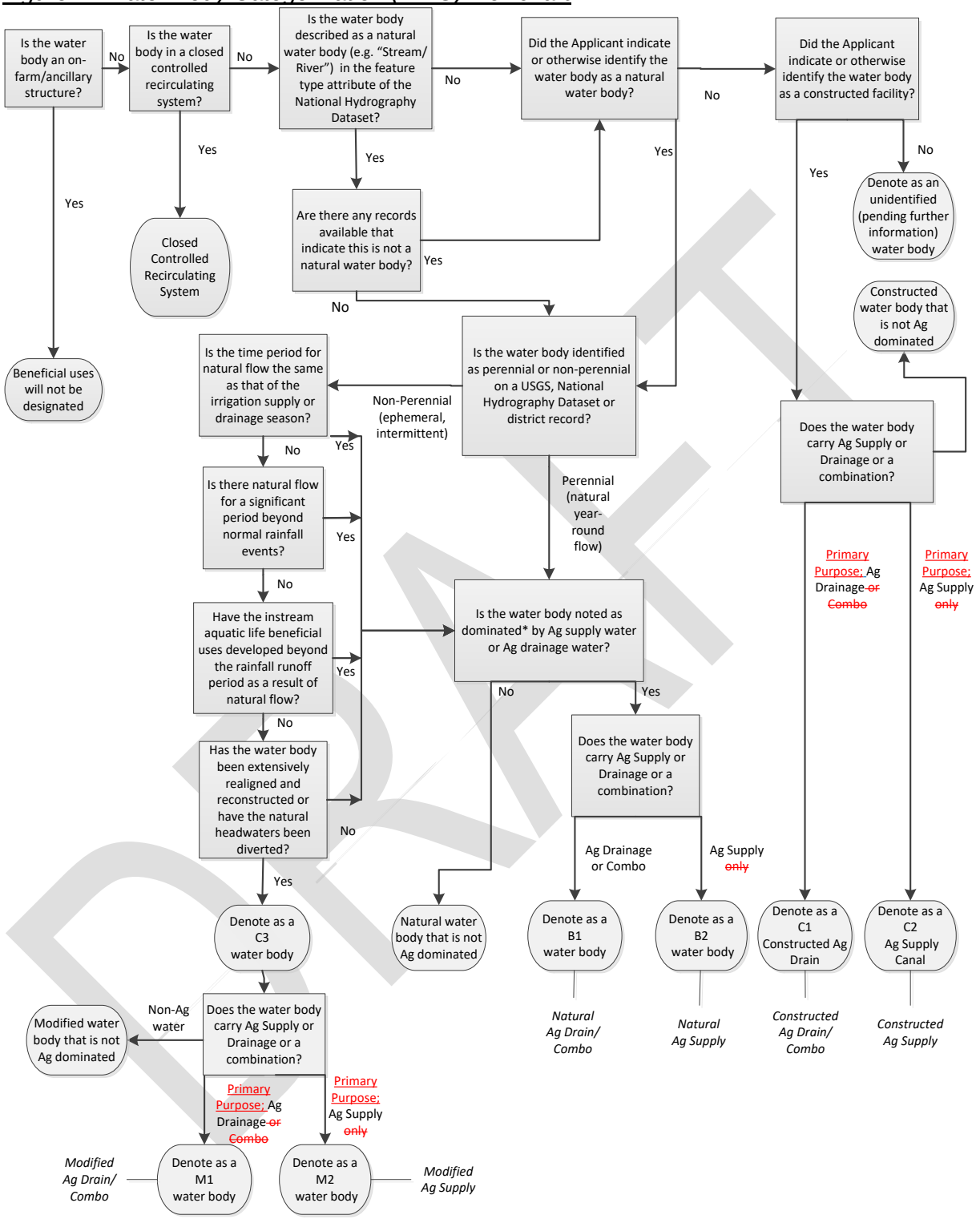
Figure Y. Water Body Categorization (WBC) Flowchart



** "**Ag Dominated**" is defined as: systems designed or modified for the primary purpose of conveying or holding waters used for or resulting from agricultural production, and/or water bodies with greater than 50*

percent of the flow dependent on agricultural operations for greater than 50 percent of the irrigation season.

~~For a~~Any non-listed constructed (C1 or C2) water body that is less than one mile and/or serving less than 640 irrigated acres from a study area that has ~~gone~~ been approved through the MUN Evaluation Process shall have their MUN beneficial use designation apply via the following rules:

- *A~~n~~ non-listed~~unidentified~~ C1 water body that provides or receives flow to or from an identified C1 water body shall be assigned the same MUN designation as the identified C1 water body*

- *A~~n~~ non-listed~~unidentified~~ C2 water body that provides or receives flow to or from an identified C2 water body shall be assigned the same MUN designation as the identified C2 water body*

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Municipal and Domestic Supply Beneficial Use (MUN) Evaluation in Agriculturally Dominated Water Bodies

Water Bodies with MUN Beneficial Use De-designated or LMUN Beneficial Use Designated

As resources permit, Regional Water Board staff will work with other agencies and regional monitoring programs to monitor chemical constituents, pesticides, and radionuclides contained in the Title 22 of the California Code of Regulations approximately every 3 to 5 years in major water bodies identified with existing or potential MUN use. The data gathered will support Watershed Sanitary Surveys (Cal. Code Regs, tit. 22, § 64665 et seq.) as well as the California Integrated Report (Clean Water Act Section 303(d)/305(b)).

The Regional Water Board will ensure that water quality monitoring data are sufficient to demonstrate that neither the de-designation of the MUN beneficial use nor the change of a MUN beneficial use designation to an LMUN beneficial use designation will result in unreasonable impacts to downstream water bodies designated as supporting the LMUN or MUN beneficial uses.

1. *As part of the MUN evaluation process initiated by the Applicant, the Regional Water Board will conduct an evaluation of all existing and available water quality data to determine whether the de-designation of the MUN beneficial use or the change of a MUN beneficial use designation to a~~n~~ LMUN beneficial use designation will result in unreasonable impacts to water quality downstream of the water body being evaluated.*
    a. *If existing and available water quality data support the conclusion that a change to a MUN beneficial use designation will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, the Regional Water Board need not require additional monitoring to comply with Exception 2b of the* Sources of Drinking Water Policy*.*
    b. *If existing and available water quality data are not sufficient to support the conclusion that the change to the MUN beneficial use designation will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, the Regional Water Board shall evaluate whether monitoring requirements imposed by existing regulatory programs, such as the Irrigated Lands Regulatory Program or the NPDES Permitting Program, are sufficient to ensure that discharges from the system will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses. If such monitoring programs provide sufficient monitoring to ensure the protection of the LMUN or MUN beneficial uses in downstream water bodies, the continued implementation of those monitoring programs shall satisfy the monitoring requirement of Exception 2b of the* Sources of Drinking Water Policy*. Such monitoring programs shall remain in effect at least until such time that water quality data demonstrate that the change to the MUN beneficial use designation has not resulted in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, at which point the monitoring requirements may be altered or reduced consistent with applicable regulatory requirements.*

2. *If neither existing and available water quality data nor monitoring requirements imposed by existing regulatory programs are sufficient to support the conclusion that the change to the MUN beneficial use designation will not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses, the Regional Water Board shall either modify existing monitoring programs or issue an order pursuant to Water Code section 13267 to ensure that discharges from the system do not result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses. Such modified requirements or orders shall remain in effect at least until such time that water quality data demonstrate that the change to the MUN beneficial use designation has not resulted in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses.*
3. *In water bodies where the MUN beneficial use has been changed, the burden of ensuring that neither new discharges into the waterbody nor material changes in the character, location, or volume of existing discharges will result in unreasonable impacts to water quality in downstream water bodies that are designated as supporting the LMUN or MUN beneficial uses shall be borne by the applicant initiating the new discharge or making the material changes to the character, location, or volume of the existing discharge.*

Water Bodies with LMUN Designated

To interpret the narrative objective and to evaluate compliance with the proposed objective for LMUN, existing Regional Water Board monitoring programs may use numeric triggers for chemical constituents, pesticides, and radionuclides concentrations in their process of issuing permits or waste discharge requirements. Exceedances of the triggers would not be violations of the proposed narrative objective nor are the triggers to be used for numeric effluent limits. Triggers ~~will~~ may be used to evaluate conditions in the water body itself as well as potential impacts to downstream beneficial uses and ensure appropriate management and best practical treatment actions are taken to protect those uses.

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APPENDIX

Modify the Basin Plan by adding Appendix 35, Water Bodies That Meet One or More of the Sources of Drinking Water Policy (Resolution 88-63) Exceptions (page XX), as follows:

Appendix 35
Water Bodies That Meet One or More of the* Sources of Drinking Water Policy *(Resolution 88-63) Exceptions

County	***Primary Water Body or Main System Name (if applicable)***	***Water Body Name***	***Description (optional)***	***Approximate GIS Coordinates (optional)***		***Length of Water Body Segment (miles)***	***Water Body/System Category Designation***
				Starting Location	***Ending Location***		

Modify the Basin Plan by adding Appendix 36, Water Bodies with LMUN Beneficial Use (page XX), as follows:

Appendix 36
Water Bodies with LMUN Beneficial Use

County	***Primary Water Body or Main System Name (if applicable)***	***Water Body Name***	***Description (optional)***	***Approximate GIS Coordinates (optional)***		***Length of Water Body Segment (miles)***	***Water Body/System Category Designation***
				Starting Location	***Ending Location***		

DRAFT

TABLE OF CONTENTS

Executive Summary v
Amendment language for the Sacramento River and San Joaquin River Basin Plan xi
Amendment language for the Tulare Lake Basin Plan xxxix
Table of Contents li
List of Acronyms lxii
Definitions Developed For This Project lxiv
1 Introduction 1
1.1 Background and Need for Proposed Basin Plan Amendments 1
1.1.1 Current Application of the MUN Beneficial Use 1
1.1.2 MUN challenges in NPDES Permits 1
1.1.3 Joint Initiative with CV-SALTs for the Development of a Region-wide Framework 2
1.1.4 Stakeholder/Public Participation Process 2
1.2 Recent Basin Planning Efforts 2
1.2.1 Adoption of the Sacramento MUN POTW Basin Plan Amendments 2
1.2.2 Proposed MUN Evaluation Basin Plan Amendments 3
2 Study Area 5
2.1 Sacramento River Basin 7
2.2 San Joaquin River Basin 9
2.3 Tulare Lake Basin 11
3 Laws, Regulations, and Policies Relevant to Basin Planning 13
3.1 Legal Requirements for Establishing and Amending the Basin Plan 13
3.2 Legal Requirements for Establishing, Designating and Modifying Beneficial Uses 14
3.2.1 Federal Regulations and Guidance 14
3.2.2 State Regulations and Guidance 15
3.2.3 State Water Board Sources of Drinking Water Policy (Resolution 88-63) 16
3.3 Laws that Apply to the Establishment of Water Quality Objectives 17
3.3.1 Federal Regulations and Guidance 17
3.3.2 State Statute, Regulations and Guidance 17
3.4 Laws that Apply to the Establishment of an Implementation Program in the Basin Plan 18
3.4.1 Federal Regulations and Guidance 18
3.4.2 State Statues, Regulations, and Guidance 18
3.5 Economic Review 18
3.5.1 Water Code section 13241 18
3.5.2 Water Code section 13141 19
3.5.3 Public Resources Code section 21159 19
3.6 Environmental Review – CEQA 19
3.7 Antidegradation Policies 19
3.7.1 Federal Antidegradation Policy 19
3.7.2 State Antidegradation Policy 20
3.8 Overlap Between Federal Regulations Pertaining to The Establishment, Designation or Removal of Non-Fishable/Swimmable Uses and State Policies and Statutes Pertaining to Basin Planning Actions 20

DRAFT

3.8.1 Use and Value of the Waterbody as a Public Water Supply, Use and Value of the Waterbody as Supporting the Protection and Propagation of Fish, Shellfish and Wildlife, Use and Value of the Waterbody for Recreation In and On the Water and Use and Value of te Waterbody for Agricultural, Industrial, and Other Purposes and the *Sources of Drinking Water Policy* 22
3.8.2 Downstream Uses and the *Sources of Drinking Water Policy* 22
3.8.3 Exceptions in the Sources of Drinking Water Policy and 40 CFR section 131.10(g) factors for modified natural water bodies 23
3.8.4 40 CFR section 131.10(g) factors and 13241 considerations 23
4 Developing Project Alternatives 25
4.1 Historical Efforts to Address Agricultural Waters 25
4.2 Continued Consensus Recommendations 25
4.3 Non-Consensus Issue 26
4.5 Definition of "Ag Dominated" 26
4.6 Proposed Project Alternatives 26
4.6.1 No Action Alternative 27
4.6.2 Region-Wide Water Body Categorization Framework Alternative 27
4.6.3 Basin-By-Basin Water Body Categorization Framework Alternative 28
4.6.4 Site Specific Objectives Alternative 28
4.7 Development of Selection Criteria 28
4.8 Initial Evaluation of Project Alternatives 28
5 Development of A Water Body Categorization Flowchart (For Alternatives 2 & 3) 31
5.1 Flowchart Development 31
5.2 Water Body Categorization Flowchart – Key Considerations 32
5.3 Water Body Categories 34
5.3.1 Constructed Water Bodies 34
5.3.2 Modified Water Bodies 34
5.3.3 Natural Water Bodies 34
5.3.4 Year-round Closed Controlled Recirculating System 34
5.3.5 Seasonally Closed Controlled Recirculating System 34
6 Case Studies (for Alternatives 2 & 3) 35
6.1 Sacramento River Basin Case Study 35
6.1.1 MUN POTW Amendment Overview 35
6.1.2 Development of Water Body Categorization (WBC) Reports 35
6.1.3 Water Body Categorization Reports – Findings 35
6.1.4 Outcome of Sacramento Case Study Basin Plan Amendment Project 36
6.2 San Joaquin River Basin Case Study 36
6.2.1 San Luis Canal Company Overview 36
6.2.2 Water Body Categorization Report Findings 37
6.2.3 Evaluation of Water Quality in the San Joaquin River Basin Study Area 37
6.2.4 Outcome of the San Joaquin River Basin Case Study 38
6.3 Case Example for Closed Controlled Recirculating Systems 40
6.3.1 Tulare Lake Basin Case Example – Year-Round Closed Controlled Recirculating System 40
6.3.2 Historical Rice Operations Case Example – Seasonally Closed Controlled Recirculating System 41

DRAFT

6.3.3 Outcome of the Closed Controlled Recirculating System Case Examples 41
7 Beneficial Uses (for Alternatives 2 &3) 43
7.1 Development of the LMUN Beneficial Use 43
7.1.1 Options for a LMUN Definition 43
7.1.2 Recommended LMUN Definition.....44
7.2 Assigning MUN Beneficial Use Designations Based on Water Body Category 45
7.2.1 Review of Potential Options.....45
7.2.2 Preferred MUN Beneficial Use Designation Scheme 45
7.3 Removal of the MUN beneficial use From 231 Water Bodies in San Luis Canal Company Study Area 46
8 Water Quality Objectives (LMUN).....49
8.1 Considerations for establishing a LMUN Water Quality Objective 49
8.1.1 Selection Criteria for LMUN WQO.....49
8.1.2 Water Code section 13241 Factors.....49
8.2 Options for a LMUN Water Quality Objective.....50
8.3 Selection of the Preferred LMUN WQO 50
8.3.1 Evaluation of Water Code section 13241 Factors 51
9 Selection of a Preferred Alternative 53
9.1 Evaluation of Project Alternatives 53
9.2 Preferred Project Alternative.....54
10 Program of Implementation 55
10.1 Review of Implementation Options 55
10.1.1 “As Needed Basis”.....55
10.1.2 Time Schedule.....55
10.1.3 Evaluation of Implementation Options and Recommendation 56
10.2 Proposed Implementation Program 57
10.2.1 Three Key Steps of the Implementation Program.....57
10.2.2 Step 1: Process Initiation and Review.....58
10.2.3 Step 2: Establishment of Interim Designations 62
10.2.4 Step 3: Adoption into the Basin Plan.....65
10.2.5 Time Schedule.....66
11 Monitoring and Surveillance Program.....69
11.1.1 Water Bodies with MUN De-designated 69
11.1.2 Water Bodies designated with LMUN.....69
11.2 Proposed Case-by-Case Monitoring Program Options 69
11.3 Regular Updates to the Monitoring Reference Guides 70
11.4 Ensuring Sufficient Compliance 70
11.5 Periodic Monitoring by the Central Valley Water Board.....72
12 Consistency with Laws, Plans, and Policies 73
12.1 Antidegradation Policies 73
12.1.1 Consistency with the *State Antidegradation Policy*.....73
12.1.2 Consistency with the *Federal Antidegradation Policy* 74
12.2 Consistency with Federal and State Laws 74
12.2.1 Clean Water Act.....75
12.2.2 Federal and State Endangered Species Act.....78
12.2.3 Consistency with Water Code 106.3 79

DRAFT

12.2.4 Assembly Bill 32 – California Global Warming Solutions Act 79
12.3 Consistency with State Water Board Policies 80
12.3.1 State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Antidegradation Policy*) 80
12.3.2 Water Quality Control Policy for the Enclosed Bays and Estuaries of California. 81
12.3.3 *Sources of Drinking Water Policy* 81
12.3.4 Pollutant Policy Document 81
12.3.5 Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code section 13304 82
12.3.6 Consolidated Toxic Hot Spots Cleanup Plan 82
12.3.7 Nonpoint Source Management Plan & the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program 82
12.3.8 Water Quality Enforcement Policy 83
12.3.9 Policy for Developing California's Clean Water Act Section 303(d) List (*Listing Policy*) 83
12.3.10 Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California 84
12.3.11 Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options 84
12.3.12 Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits 85
12.3.13 Policy for Water Quality Control for Recycled Water 86
12.3.14 Human Right to Water as a Core Value and Directing its Implementation in Water Board Programs and Activities 86
12.3.15 Exception 2b and the Division of Drinking Water's "Extremely Impaired Sources Policy" 86
12.4 Consistency with Central Valley Regional Water Quality Board Policies 87
12.4.1 Urban Runoff Policy 87
12.4.2 Controllable Factors Policy 87
12.4.3 Water Quality Limited Segment Policy 87
12.4.4 Antidegradation Implementation Policy 88
12.4.5 Application of Water Quality Objectives Policy 88
12.4.6 Watershed Policy 88
12.4.7 Drinking Water Policy for Surface Waters of the Delta and its Upstream Tributaries 89
13 Environmental and Economic Analysis 90
13.1 Environmental Review 90
13.1.1 Background 90
13.1.2 Setting/Baseline 90
13.1.3 Proposed Project Analysis 91
13.1.4 Cumulative Impact Analysis 92
13.1.5 No Action Alternative Analysis 99
13.2 ECONOMIC ANALYSIS 100
13.2.1 Background 100
13.2.2 Overview of the Economic Analysis 101
13.2.3 No Action Alternative Analysis 101

DRAFT

13.2.4 Proposed Basin Plan Amendment Project Alternative 110
13.2.5 Summary 113
14 References 115
15 Appendices 119
Appendix A—Water Body Categorization Report Template 120
Appendix B—Summary Information for San Luis Canal Company Surface Water Bodies 125
Appendix C—Constituents of Concern in Lower San Joaquin River 152
Appendix D—Lower San Joaquin River Water Comprehensive Monitoring Guide 159
Appendix E—Staff Review of San Luis Canal Company Water Body Categorization Report 277
Appendix F—Year-Round Closed Controlled Recirculating System Application Template 302
Appendix G—Seasonally Closed Controlled Recirculating System Application Template 305
Appendix H—Evaluation of Region-wide MUN Evaluation Process Project Alternatives and Options 307
Appendix I—Evaluation of LMUN Water Quality Objective Options 317
Appendix J—Staff Review Process Checklist 321
Appendix K – No Peer Review Justification 324
Appendix L— Environmental Checklist 327
~~Executive Summary ..... v~~
~~..... xi~~
~~Amendment language for the Tulare Lake Basin Plan ..... xxxix~~
~~Table of Contents ..... li~~
~~List of Acronyms ..... lvii~~
~~Definitions Developed For This Project ..... lix~~
~~1 Introduction ..... 1~~
~~1.1 Background and Need for Proposed Basin Plan Amendments ..... 1~~
~~1.1.1 Current Application of the MUN Beneficial Use ..... 1~~
~~1.1.1 MUN challenges in NPDES Permits ..... 1~~
~~1.1.2 Joint Initiative with CV-SALTs for the Development of a Region-wide Framework ..... 2~~
~~1.1.3 Stakeholder/Public Participation Process ..... 2~~
~~1.2 Recent Basin Planning Efforts ..... 2~~
~~1.2.1 Adoption of the Sacramento MUN POTW Basin Plan Amendments ..... 2~~
~~1.2.2 Proposed MUN Evaluation Basin Plan Amendments ..... 3~~
~~2 Study Area ..... 5~~
~~2.1 Sacramento River Basin ..... 7~~
~~2.2 San Joaquin River Basin ..... 9~~
~~2.3 Tulare Lake Basin ..... 11~~
~~3 Laws, Regulations, and Policies Relevant to Basin Planning ..... 13~~
~~3.1 Legal Requirements for Establishing and Amending the Basin Plan ..... 13~~
~~3.2 Legal Requirements for Establishing, Designating and Modifying Beneficial Uses ..... 14~~
~~3.2.1 Federal Regulations and Guidance ..... 14~~
~~3.2.2 State Regulations and Guidance ..... 14~~
~~3.2.3 State Water Board Sources of Drinking Water Policy (Resolution 88-63) ..... 15~~
~~3.3 Laws that Apply to the Establishment of Water Quality Objectives ..... 16~~
~~3.3.1 Federal Regulations and Guidance ..... 16~~
~~3.3.2 State Statute, Regulations and Guidance ..... 16~~

DRAFT

~~3.4 Laws that Apply to the Establishment of an Implementation Program in the Basin Plan 17~~
~~3.4.1 Federal Regulations and Guidance 17~~
~~3.4.2 State Statues, Regulations, and Guidance 17~~
~~3.5 Economic Review 17~~
~~3.5.1 Water Code section 13241 18~~
~~3.5.2 Water Code section 13141 18~~
~~3.5.3 Public Resources Code section 21159 18~~
~~3.6 Environmental Review – CEQA 18~~
~~3.7 Antidegradation Policies 18~~
~~3.7.1 Federal Antidegradation Policy 18~~
~~3.7.2 State Antidegradation Policy 19~~
~~3.8 Overlap Between Federal Regulations Pertaining to The Designation of Uses and State Policies and Statutes Pertaining to Basin Planning Actions 19~~
~~3.8.1 Exceptions in the Sources of Drinking Water Policy and 40 CFR section 131.10(g) factors for modified natural water bodies 20~~
~~3.8.2 40 CFR section 131.10(g) factors and 13241 considerations 20~~
~~3.8.3 Exception 2b and Division of Drinking Water's "Extremely Impaired Sources" policy 21~~
~~4 Developing Project Alternatives 23~~
~~4.1 Historical Efforts to Address Agricultural Waters 23~~
~~4.2 Continued Consensus Recommendations 23~~
~~4.3 Non-Consensus Issue 24~~
~~4.5 Definition of "Ag Dominated" 24~~
~~4.6 Proposed Project Alternatives 24~~
~~4.6.1 No Action Alternative 25~~
~~4.6.2 Region-Wide Water Body Categorization Framework Alternative 25~~
~~4.6.3 Basin-By-Basin Water Body Categorization Framework Alternative 26~~
~~4.6.4 Site Specific Objectives Alternative 26~~
~~4.7 Development of Selection Criteria 26~~
~~4.8 Initial Evaluation of Project Alternatives 26~~
~~5 Development of A Water Body Categorization Flowchart (For Alternatives 2 & 3) 29~~
~~5.1 Flowchart Development 29~~
~~5.2 Water Body Categorization Flowchart – Key Considerations 30~~
~~5.3 Water Body Categories 32~~
~~5.3.1 Constructed Water Bodies 32~~
~~5.3.2 Modified Water Bodies 32~~
~~5.3.3 Natural Water Bodies 32~~
~~5.3.4 Year-round Closed Recirculating System 32~~
~~5.3.5 Seasonally Closed Recirculating System 32~~
~~6 Case Studies (for Alternatives 2 & 3) 33~~
~~6.1 Sacramento River Basin Case Study 33~~
~~6.1.1 MUN POTW Amendment Overview 33~~
~~6.1.2 Development of Water Body Categorization Reports 33~~
~~6.1.3 Water Body Categorization Reports – Findings 33~~
~~6.1.4 Outcome of Sacramento Case Study Basin Plan Amendment Project 34~~

DRAFT

~~6.2 San Joaquin River Basin Case Study ..... 34~~
~~6.2.1 San Luis Canal Company Overview ..... 35~~
~~6.2.2 Water Body Categorization Report Findings ..... 35~~
~~6.2.3 Evaluation of Water Quality in the San Joaquin River Basin Study Area ..... 35~~
~~6.2.4 Outcome of the San Joaquin River Basin Case Study ..... 36~~
~~6.3 Case Example for Closed Controlled Recirculating Systems ..... 38~~
~~6.3.1 Tulare Lake Basin Case Example – Year-Round Closed Controlled Recirculating System ..... 38~~
~~6.3.2 Historical Rice Operations Case Example – Seasonally Closed Controlled Recirculating System ..... 39~~
~~6.3.3 Outcome of the Closed Controlled Recirculating System Case Examples ..... 39~~
~~7 Beneficial Uses (for Alternatives 2 &3) ..... 41~~
~~7.1 Development of the LMUN Beneficial Use ..... 41~~
~~7.1.1 Options for a LMUN Definition ..... 41~~
~~7.1.2 Recommended LMUN Definition ..... 42~~
~~7.2 Assigning MUN Beneficial Use Designations Based on Water Body Category ..... 43~~
~~7.2.1 Review of Potential Options ..... 43~~
~~7.2.2 Preferred MUN Beneficial Use Designation Scheme ..... 43~~
~~7.3 Removal of the MUN beneficial use From 231 Water Bodies in San Luis Canal Company Study Area ..... 44~~
~~8 Water Quality Objectives (LMUN) ..... 45~~
~~8.1 Considerations for establishing a LMUN Water Quality Objective ..... 45~~
~~8.1.1 Selection Criteria for LMUN WQO ..... 45~~
~~8.1.2 Water Code section 13241 Factors ..... 45~~
~~8.2 Options for a LMUN Water Quality Objective ..... 46~~
~~8.3 Selection of the Preferred LMUN WQO ..... 46~~
~~8.3.1 Evaluation of Water Code section 13241 Factors ..... 47~~
~~9 Selection of a Preferred Alternative ..... 49~~
~~9.1 Evaluation of Project Alternatives ..... 49~~
~~9.2 Preferred Project Alternative ..... 50~~
~~10 Program of Implementation ..... 51~~
~~10.1 Review of Implementation Options ..... 51~~
~~10.1.1 "As Needed Basis" ..... 51~~
~~10.1.2 Time Schedule ..... 51~~
~~10.1.3 Evaluation of Implementation Options and Recommendation ..... 52~~
~~10.2 Proposed Implementation Program ..... 53~~
~~10.2.1 Three Key Steps of the Implementation Program ..... 53~~
~~10.2.2 Step 1: Process Initiation and Review ..... 54~~
~~10.2.3 Step 2: Establishment of Interim Designations ..... 58~~
~~10.2.4 Step 3: Adoption into the Basin Plan ..... 61~~
~~10.2.5 Time Schedule ..... 62~~
~~11 Monitoring and Surveillance Program ..... 65~~
~~11.1.1 Water Bodies with MUN De-designated ..... 65~~
~~11.1.2 Water Bodies designated with LMUN ..... 65~~
~~11.2 Proposed Case-by-Case Monitoring Program Options ..... 65~~
~~11.3 Regular Updates to the Monitoring Reference Guides ..... 66~~

DRAFT

~~11.4 Ensuring Sufficient Compliance ..... 66~~
~~11.5 Periodic Monitoring by the Central Valley Water Board ..... 68~~
~~12 Consistency with Laws, Plans, and Policies ..... 69~~
~~12.1 Antidegradation Policies ..... 69~~
~~12.1.1 Consistency with the *State Antidegradation Policy* ..... 69~~
~~12.1.2 Consistency with the *Federal Antidegradation Policy* ..... 70~~
~~12.2 Consistency with Federal and State Laws ..... 70~~
~~12.2.1 Clean Water Act ..... 71~~
~~12.2.2 Federal and State Endangered Species Act ..... 72~~
~~12.2.3 Consistency with Water Code 106.3 ..... 72~~
~~12.2.4 Assembly Bill 32 – California Global Warming Solutions Act ..... 73~~
~~12.3 Consistency with State Water Board Policies ..... 73~~
~~12.3.1 State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Antidegradation Policy*) ..... 74~~
~~12.3.2 Water Quality Control Policy for the Enclosed Bays and Estuaries of California. 74~~
~~12.3.3 *Sources of Drinking Water Policy* ..... 74~~
~~12.3.4 Pollutant Policy Document ..... 75~~
~~12.3.5 Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code section 13304 ..... 75~~
~~12.3.6 Consolidated Toxic Hot Spots Cleanup Plan ..... 75~~
~~12.3.7 Nonpoint Source Management Plan & the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program ..... 76~~
~~12.3.8 Water Quality Enforcement Policy ..... 76~~
~~12.3.9 Policy for Developing California's Clean Water Act Section 303(d) List (*Listing Policy*) 76~~
~~12.3.10 Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California ..... 77~~
~~12.3.11 Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options ..... 77~~
~~12.3.12 Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits ..... 78~~
~~12.3.13 Policy for Water Quality Control for Recycled Water ..... 79~~
~~12.3.14 Human Right to Water as a Core Value and Directing its Implementation in Water Board Programs and Activities ..... 79~~
~~12.4 Consistency with Central Valley Regional Water Quality Board Policies ..... 80~~
~~12.4.1 Urban Runoff Policy ..... 80~~
~~12.4.2 Controllable Factors Policy ..... 80~~
~~12.4.3 Water Quality Limited Segment Policy ..... 81~~
~~12.4.4 Antidegradation Implementation Policy ..... 81~~
~~12.4.5 Application of Water Quality Objectives Policy ..... 81~~
~~12.4.6 Watershed Policy ..... 82~~
~~12.4.7 Drinking Water Policy for Surface Waters of the Delta and its Upstream Tributaries ..... 82~~
~~13 Environmental and Economic Analysis ..... 83~~
~~13.1 Environmental Review ..... 83~~
~~13.1.1 Background ..... 83~~

DRAFT

~~13.1.2 Setting/Baseline ..... 83~~
~~13.1.3 Proposed Project Analysis ..... 84~~
~~13.1.4 Cumulative Impact Analysis ..... 85~~
~~13.1.5 No Action Alternative Analysis ..... 91~~
~~13.2 ECONOMIC ANALYSIS ..... 92~~
~~13.2.1 Background ..... 92~~
~~13.2.2 Overview of the Economic Analysis ..... 93~~
~~13.2.3 No Action Alternative Analysis ..... 93~~
~~13.2.4 Proposed Basin Plan Amendment Project Alternative ..... 101~~
~~13.2.5 Summary ..... 104~~
~~14 References ..... 105~~
~~15 Appendices ..... 109~~
~~Appendix A – Water Body Categorization Report Template ..... 110~~
~~Appendix B – Summary Information for San Luis Canal Company Surface Water Bodies ..... 115~~
~~Appendix C – Constituents of Concern in Lower San Joaquin River ..... 142~~
~~Appendix D – Lower San Joaquin River Water Comprehensive Monitoring Guide ..... 149~~
~~Appendix E – Staff Review of San Luis Canal Company Water Body Categorization Report ..... 264~~
~~Appendix F – Year-Round Closed Controlled Recirculating System Application Template ..... 289~~
~~Appendix G – Seasonally Closed Controlled Recirculating System Application Template ..... 291~~
~~Appendix H – Evaluation of Region-wide MUN Evaluation Process Project Alternatives and Options ..... 293~~
~~Appendix I – Evaluation of LMUN Water Quality Objective Options ..... 303~~
~~Appendix J – Staff Review Process Checklist ..... 307~~
~~Appendix K – No Peer Review Justification ..... 310~~
~~Appendix L – Environmental Checklist ..... 313~~

Table of Figures

Executive Summary

Figure ES - 1 Simplified Schematic Overview of the Proposed Implementation Program viii

Sections

Figure 2-1 Study Area: Central Valley Region Basins 6
Figure 2-2 Sacramento River Basin 8
Figure 2-3 San Joaquin River Basin 10
Figure 2-4 Tulare Lake Basin 12
Figure 5-1 Water Body Categorization Flowchart 33
Figure 7-1 Proposed MUN Beneficial Use Designations by water body category 46
Figure 10-1 Simplified Schematic Overview of Region-wide MUN Evaluation 57
Figure 10-2 Schematic Overview of Region-wide MUN Evaluation 67
~~Figure 2-1 Study Area: Central Valley Region Basins ..... 6~~
~~Figure 2-2 Sacramento River Basin ..... 8~~
~~Figure 2-3 San Joaquin River Basin ..... 10~~
~~Figure 2-4 Tulare Lake Basin ..... 12~~
~~Figure 5-1 Water Body Categorization Flowchart ..... 31~~

DRAFT

~~Figure 10-1 Simplified Schematic Overview of Region-wide MUN Evaluation .....53~~
~~Figure 10-2 Schematic Overview of Region-wide MUN Evaluation .....63~~

Appendix D
Figure D - 1 Monitoring Sites in the Lower San Joaquin River Basin.....165
~~Figure D - 1 Monitoring Sites in the Lower San Joaquin River Basin.....155~~

Table of Tables

Executive Summary
Table ES - 1 Proposed Assigned MUN Beneficial Use Designations by water body category... vii

Sections
Table 4-1 Project Alternatives Matrix.....27
Table 10-1 Time Estimates for tasks associated with each step of the MUN Evaluation Process 66
Table 13-1 Estimate of Pipeline Costs to Replace Canals and Drains.....103
Table 13-2 Estimated Costs for Treatment Plant Upgrades.....107
Table 13-3 Summary of Stormwater BMP Costs 109
~~Table 4-1 Project Alternatives Matrix.....25~~
~~Table 7- 1 Proposed MUN Beneficial Use Designations by water body category .....44~~
~~Table 10-1 Time Estimates for tasks associated with each step of the MUN Evaluation Process .....62~~
~~Table 13-1 Estimate of Pipeline Costs to Replace Canals and Drains.....95~~
~~Table 13-2 Estimated Costs for Treatment Plant Upgrades.....99~~
~~Table 13-3 Summary of Stormwater BMP Costs .....101~~

Appendix B
Table B - 1 Water Body Information (Canals).....126
Table B - 2 Water Body Information (Drains).....135
~~Table B - 1 Water Body Information (Canals).....116~~
~~Table B - 2 Water Body Information (Drains).....125~~

Appendix D
Table D - 1 Summary of Monitoring Programs in the Lower San Joaquin River Basin 161
Table D - 2 Monitoring Sites.....166
Table D - 3 Field & Bacteria/Pathogens 174
Table D - 4 General Chemistry & Organic Carbon 184
Table D - 5 Metals & Trace Elements Part I 194
Table D - 6 Metals & Trace Elements Part II 207
Table D - 7 Metals & Trace Elements Part III 220
Table D - 8 Organics, Minerals & Nutrients 232
Table D - 9 Pesticide.....244
Table D - 10 Toxicity 260
~~Table D - 1 Summary of Monitoring Programs in the Lower San Joaquin River Basin .....151~~

DRAFT

~~Table D - 2 Monitoring Sites ..... 156~~
~~Table D - 3 Field & Bacteria/Pathogens ..... 164~~
~~Table D - 4 General Chemistry & Organic Carbon ..... 174~~
~~Table D - 5 Metals & Trace Elements Part I ..... 184~~
~~Table D - 6 Metals & Trace Elements Part II ..... 197~~
~~Table D - 7 Metals & Trace Elements Part III ..... 210~~
~~Table D - 8 Organics, Minerals & Nutrients ..... 222~~
~~Table D - 9 Pesticide ..... 234~~
~~Table D - 10 Toxicity ..... 250~~

Appendix H

Table H - 1 Project Alternatives 308
Table H - 2 Flowchart Options for a Water Body Categorization Framework 310
Table H - 3 MUN Beneficial Use Components (to be applied to different options in Table H - 4) 312
Table H - 4 MUN Beneficial Use Designation Options for a Water Body Categorization Framework 313
Table D - 5 Implementation Options for a Water Body Categorization Framework 316
~~Table H - 1 Project Alternatives ..... 294~~
~~Table H - 2 Flowchart Options for a Water Body Categorization Framework ..... 296~~
~~Table H - 3 MUN Beneficial Use Components (to be applied to different options in Table H - 4) ..... 298~~
~~Table H - 4 MUN Beneficial Use Designation Options for a Water Body Categorization Framework ..... 299~~
~~Table D - 5 Implementation Options for a Water Body Categorization Framework ..... 302~~

Appendix I

Table I - 1 Water Quality Objective Options for a “LMUN” Category 318
~~Table I - 1 Water Quality Objective Options for a “LMUN” Category ..... 304~~

DRAFT