

# **Draft Excerpts from the *Establishment of a Region-wide Municipal and Domestic Supply (MUN) Beneficial Use Evaluation Process in Agriculturally Dominated Surface Water Bodies Basin Plan Amendment Staff Report***

Executive Summary and Proposed Basin Plan Language for the 17 August 2016  
Central Valley Water Board Public Workshop

---

## **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 to convey 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 a priority in the Board’s 2011 Triennial Review (Central Valley Water Board, 2011). The Board reaffirmed this priority the 2015 Triennial Review (Central Valley Water Board, 2015).

Concurrently, due to fact that certain dischargers found it 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 publically-available website containing meeting notes, water quality results, and other project-related documents.

During the initial planning process, stakeholders reviewed historic efforts to evaluate the appropriate beneficial uses and levels of protection in Ag dominated water bodies, 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, and if applicable, whether the water bodies were part of a closed 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 developed with the stakeholders, which distinguishes between those water bodies that have been constructed or modified to convey 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 seasonal closed recirculating basin. The amendment proposes to utilize, where appropriate, *Sources of Drinking Water Policy* Exception 2b to de-designate the MUN beneficial use.

The proposed amendments would also establish a "Limited Municipal and Domestic Supply" (LMUN) beneficial use 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 1 lists the seven different Ag dominated water body categories and their proposed default 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.

**Table 1.** Proposed Default MUN Beneficial Use Designations by water body category

<b>Water Body Category</b>	<b>MUN Beneficial Use</b>
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
Controlled Recirculating System	No MUN

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 and the Tulare Lake Basin, and historic agricultural operations in the Sacramento River Basin were utilized as examples of closed recirculating systems.

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.

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'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 "substitute environmental documentation" or "SED".

## **REFERENCES**

- Central Valley Water Board. (2011). *Issue List and Work Plan for the 2011 Triennial Review for the Sacramento River and San Joaquin River Basins.*
- Central Valley Water Board. (2015). *Issue List and Work Plan for the 2014 Triennial Review for the Sacramento River and San Joaquin River Basins.*

## AMENDMENT LANGUAGE

The proposed changes to the Basin Plan<sup>1</sup> 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 BENEFICIAL 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 surface 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 Board will apply the exceptions listed in Resolution 88-63 (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.*

---

<sup>1</sup> Note that the changes proposed in this document are for the Water Quality Control Plan for the Sacramento River Basin and San Joaquin Basin. Similar amendments will be proposed for the Water Quality Control Plan for the Tulare Lake Basin as part of this Basin Plan Amendment project.

---

## 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 component<sup>1</sup> 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.~~

<sup>1</sup> ~~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 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.~~

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)**

#### **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<sup>1</sup> 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.

<sup>1</sup> 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**

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

DRAFT

---

## 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 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.

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 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, Default 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.

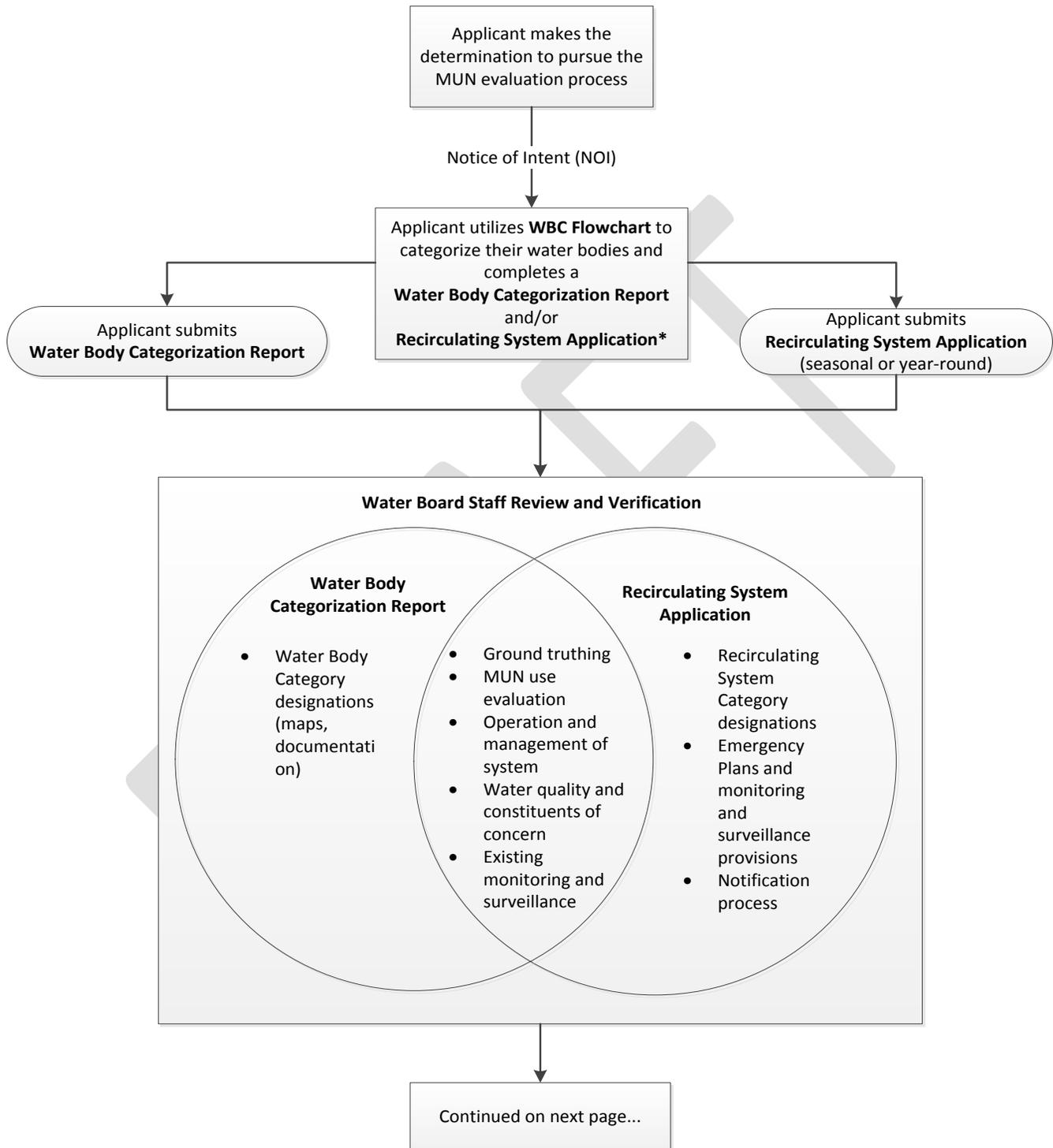
The Region-wide MUN Evaluation process will not apply to water bodies that are already listed in Table II-1 of the Basin Plan or water bodies that are currently used for municipal or domestic water supply. A site specific beneficial use evaluation will continue to be an option for these water bodies.

Table X Default MUN Beneficial Use Designations by Water Body Category

<b><u>Water Body Category</u></b>	<b><u>MUN Beneficial Use</u></b>
<u>C1 (Constructed Aq Drainage/Combo)</u>	<u>No MUN</u>
<u>M1 (Modified Aq Drainage/Combo)</u>	<u>No MUN</u>
<u>C2 (Constructed Aq Supply)</u>	<u>LMUN</u>
<u>M2 (Modified Aq Supply)</u>	<u>LMUN</u>
<u>B1 (Natural Aq Drainage/Combo)</u>	<u>LMUN</u>
<u>B2 (Natural Aq Supply)</u>	<u>LMUN</u>
<u>Controlled Recirculating System</u>	<u>No MUN</u>

DRAFT

Figure X. Schematic Overview of Region-wide MUN Evaluation



\*Seasonally-closed Recirculating Systems require both submittals of the report and application.

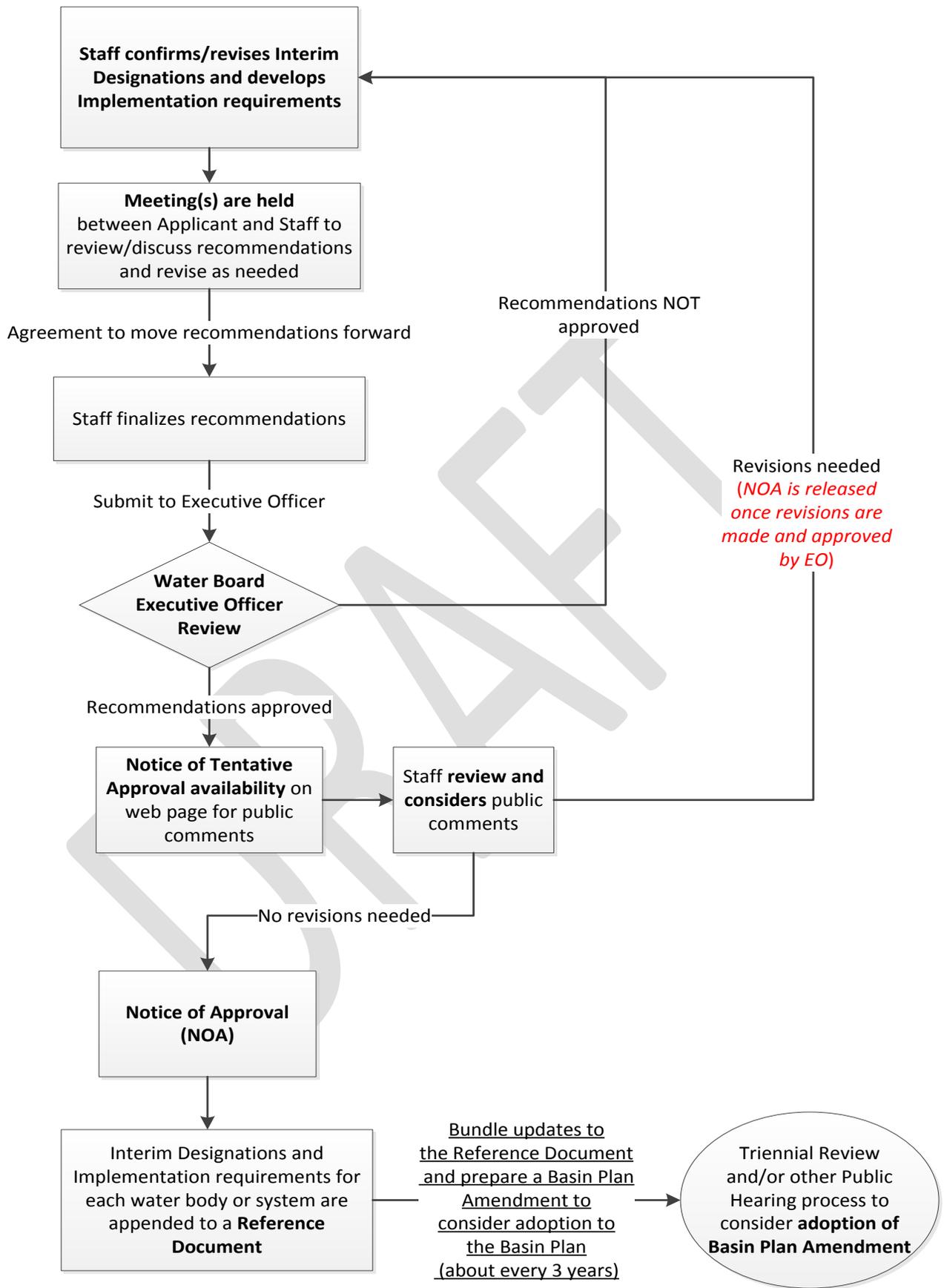
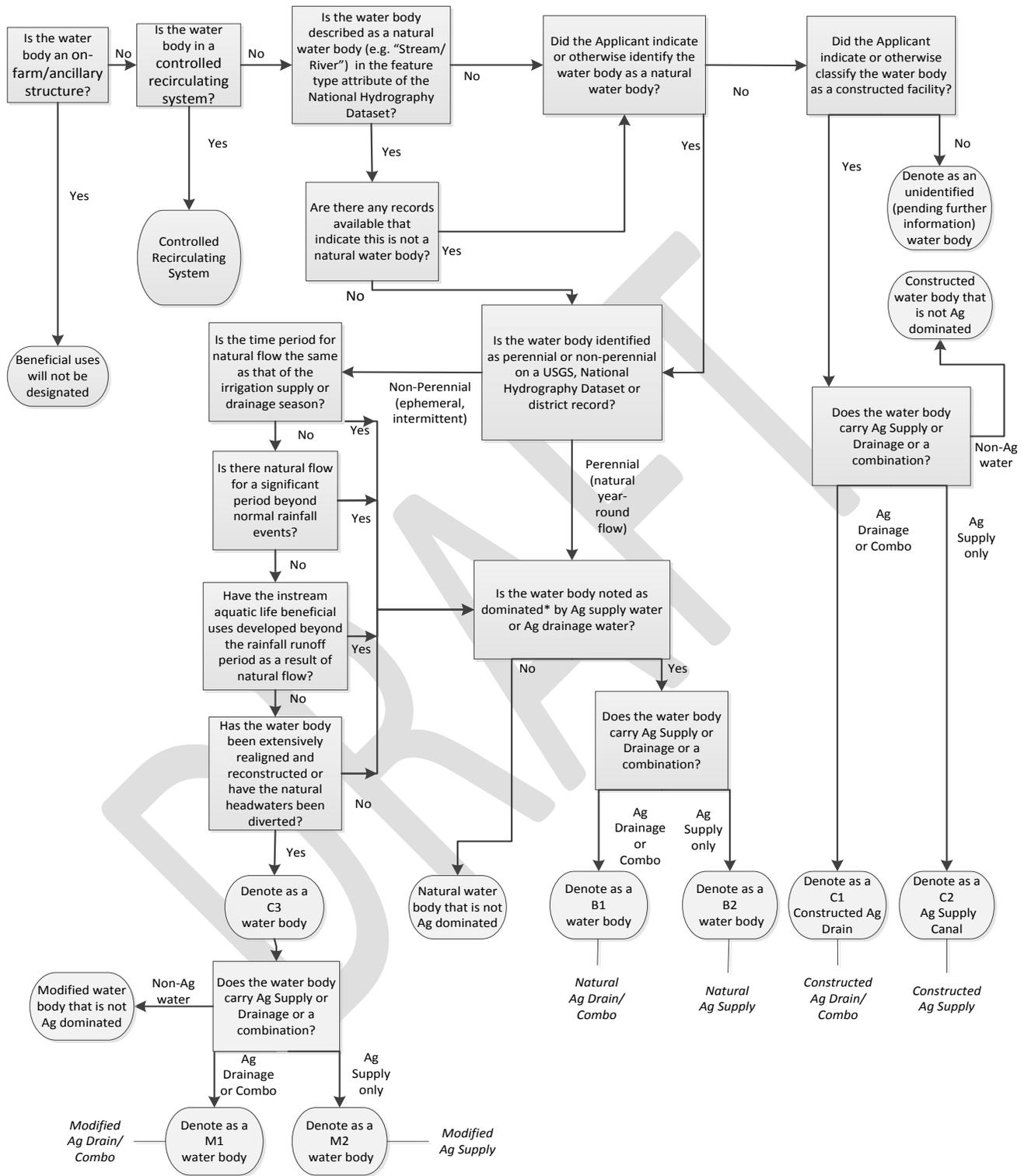


Figure Y. Water Body Categorization (WBC) Flowchart



\* **“Ag Dominated”** is defined as: systems designed or modified for the primary purpose of conveying or holding agricultural waters, and/or water bodies with greater than 50 percent of the flow coming from agricultural operations for greater than 50 percent of the irrigation season.

For any non-listed constructed (C1 or C2) water body that is less than 0.5 mile and/or serving less than 640 irrigated acres from a study area that has gone through the MUN Evaluation Process shall have their MUN beneficial use designation apply via the following rules:

- The MUN beneficial use designation of any specifically identified C1 water body will apply to its unidentified upstream C1 water bodies that provide flow to the identified C1 water body.
- The MUN beneficial use designation of any specifically identified C2 water body will apply to its unidentified downstream C2 water bodies that receive flow from the identified C2 water body.

DRAFT

---

## 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:

### **MUN Evaluation in Agriculturally Dominated Water Bodies**

As resources permit, Regional Water Board staff will 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 Sanitary Surveys (Title 22 California Code of Regulations) as well as the California Integrated Report (Clean Water Act Section 303(d)/305(b)).

Monitoring and surveillance for the MUN evaluation in Ag dominated water bodies consist of two elements.

#### Water Bodies with MUN De-designated

The Regional Water Board requires compliance monitoring of relevant water quality objectives to utilize the Exception 2b of the Sources of Drinking Water Policy to de-designate the MUN beneficial use from surface waters.

To meet the exception requirements, the following monitoring and surveillance options will be evaluated on a case-by-case basis as part of the implementation process outlined in Chapter 4, Implementation:

1. Utilize existing internal and/or outside local and federal agency monitoring programs when current monitoring is sufficient to ensure compliance with all relevant water quality objectives.
2. Add monitoring requirements to existing internal programs and/or utilizing other agency monitoring programs when current monitoring efforts are not sufficient to ensure compliance with all relevant water quality objectives
3. Develop a new regional monitoring program focused on impacts from affected water body discharges.

#### Water Bodies with LMUN Designated

To interpret the narrative objective and to evaluate compliance with the proposed objective for LMUN, existing Water Boards monitoring programs may use numeric triggers for chemical constituents, pesticides, and radionuclides concentration 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 be used to evaluate impacts to downstream beneficial uses and ensure appropriate management and best practical treatment actions are taken to protect those uses.

---

**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:

DRAFT

Appendix 44

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

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <i>(optional)</i>	Approximate GIS Coordinates (WGS84 Datum) <i>(optional)</i>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				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)	<u>22</u>	<u>C1</u>
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)	<u>1.7</u>	<u>C1</u>
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	<u>13</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
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)	<u>0.4</u>	<u>C1</u>
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)	<u>5</u>	<u>M1</u>
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)	<u>2.1</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
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)	<u>17</u>	<u>M1</u>
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)	<u>3</u>	<u>C1</u>
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)	<u>5</u>	<u>C1</u>
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)	<u>1</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
Sutter		West Intercepting Canal <i>(not to be confused with West Interceptor Canal)</i>	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)	<u>2</u>	<u>C1</u>
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)	<u>5</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>Arroyo Canal</u>				<u>18</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>Belmont Ditch</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>Clark Ditch</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>Cocke Ditch</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>Cowden Ditch</u>				<u>3</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>North Toscano Ditch</u>				<u>4</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>North Toscano Ditch No. 1</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Arroyo Canal System</u>	<u>Schmidt Ditch</u>				<u>1</u>	<u>C1</u>

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

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

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

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>Delta Canal System</u>	<u>Delta Canal Extension</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>Duni Ditch</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>Duni Ditch Branch A</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>Duni Ditch Branch B</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>East Delta Canal</u>				<u>3</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>Eastside Canal</u>				<u>3</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>Noble Ditch</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>Puglise Ditch</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>West Delta Branch No. 1</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>West Delta Branch No. 2</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Delta Canal System</u>	<u>West Delta Canal</u>				<u>4</u>	<u>C1</u>
<u>Merced</u>	<u>Island Canal System</u>	<u>Island "A" Canal</u>				<u>4</u>	<u>C1</u>
<u>Merced</u>	<u>Island Canal System</u>	<u>Island "B" Canal</u>				<u>1.1</u>	<u>C1</u>
<u>Merced</u>	<u>Island Canal System</u>	<u>Island "C" Canal</u>				<u>1.2</u>	<u>C1</u>
<u>Merced</u>	<u>Island Canal System</u>	<u>Island "D" Canal</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Alberti Ditch</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Backer Ditch</u>				<u>0.1</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Cipriani Concrete - Lined Ditch</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Community Ditch</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Guaspari - Laveglia Comm. Ditch</u>				<u>1</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Lone Tree Canal</u>				<u>8</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Lone Tree Spur</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Mackenzie Ditch</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Midway - Highway Ditch</u>				<u>0.2</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Midway - San Pedro Intertie</u>				<u>0.1</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Midway Canal</u>				<u>7</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Parsley Ditch</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>San Pedro Canal</u>				<u>7</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Swamp Ditch</u>				<u>3</u>	<u>C1</u>
<u>Merced</u>	<u>Midway &amp; San Pedro Canal System</u>	<u>Swamp Ditch Branch No. 1</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Belmont Drain</u>				<u>12</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Belmont Drain Extension North</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Belmont Drain No. 1</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>M-20W - Delta Seep Ditch</u>				<u>0.7</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>M-20W - Delta Seep Ditch Ext. # 1</u>				<u>0.2</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>Belmont Drain</u>	<u>M-20W - Delta Seep Ditch Ext. # 2</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>M-20W - Delta Seep Ditch Ext. # 3</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Miano Seep Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Plow Camp Drain</u>				<u>4</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Raven Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>San Juan Seep Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Spina S/D Br.</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Spina Seep Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Tallant Drain</u>				<u>0.6</u>	<u>C1</u>
<u>Merced</u>	<u>Belmont Drain</u>	<u>Tallant Seep Drain</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Boundary Drain</u>				<u>10</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Derrick Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Derrick Drain Ext.</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Guaspari Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>H - R Willis Drain</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Knight Drain</u>				<u>0.5</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Mc Donald Drain</u>				<u>0.9</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Parsley Ditch Spill</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Sirse Drain</u>				<u>0.9</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>TL-6 Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain</u>	<u>Urzanqui Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 1</u>	<u>Boundary Drain No. 1</u>				<u>5</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 2</u>	<u>Boundary Drain No. 1 Br.</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 3</u>	<u>Boxcar / Neves Drain</u>				<u>0.2</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>Boundary Drain No. 4</u>	<u>Brista Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 5</u>	<u>Silva Drain</u>				<u>0.2</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 5</u>	<u>Boundary Drain No. 5</u>				<u>5</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 6</u>	<u>Boundary Drain No. 5-2</u>				<u>3</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 7</u>	<u>Boundary Drain No. 5-2-2</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 8</u>	<u>Cipriani Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 9</u>	<u>Cipriani Drain Br. # 1</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 10</u>	<u>Gilardi - Johnson Drain</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 7</u>	<u>Boundary Drain No. 7</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>Boundary Drain No. 8</u>	<u>Hooper Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>Circle Island Drain</u>	<u>Circle Island Drain</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>Devon Drain</u>	<u>Borba Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>Devon Drain</u>	<u>Devon Drain</u>				<u>6</u>	<u>C1</u>
<u>Merced</u>	<u>Devon Drain</u>	<u>Devon Drain Br. No. 1</u>				<u>0.7</u>	<u>C1</u>
<u>Merced</u>	<u>Devon Drain</u>	<u>Lone Tree Seep Drain</u>				<u>0.6</u>	<u>C1</u>
<u>Merced</u>	<u>Devon Drain</u>	<u>Panama Ditch</u>				<u>0.2</u>	<u>C1</u>
<u>Merced</u>	<u>Hereford Drain</u>	<u>Hereford Drain</u>				<u>4</u>	<u>C1</u>

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

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

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

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>West Delta Drain</u>	<u>Baffuna Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Bisignani Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Bisignani Drain No. 2</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Bisignani Drain No. 1</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Crayne Drain</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>D - 36 Drain</u>				<u>0.7</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Dambrosia S/D</u>				<u>0.2</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Deep Well Road Drain</u>				<u>0.5</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Gun Club Drain</u>				<u>0.6</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>H - H Willis Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>M-2, D-6 &amp; D-7 Drains</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Pedro Drain</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>TL-7 Drain</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>Vieira Drain</u>				<u>0.7</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>West Delta Drain</u>				<u>6</u>	<u>M1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>West Delta Drain Br. No. 1</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>West Delta Drain Br. No. 2</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>West Delta Drain Branch "A"</u>				<u>0.5</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>West Delta Drain No. 2</u>				<u>0.6</u>	<u>C1</u>
<u>Merced</u>	<u>West Delta Drain</u>	<u>West Delta Seep Drain No. 1</u>				<u>0.5</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>Delta 1 Spill 1</u>				<u>0.2</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>West San Juan Drain</u>	<u>M-20-W Drain No. 1</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>M-20-W Drain No. 2</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>North San Juan No. 1 S/D</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>San Juan 1 Spill</u>				<u>0.2</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>South San Juan No. 1 S/D</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>W. San Juan Silva Branch Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Carlucci Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Carlucci Drain No. 1</u>				<u>0.9</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain</u>				<u>6</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain Ext.</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain No. 1</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain No. 1-1</u>				<u>0.3</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain No. 1-2</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain No. 1-3</u>				<u>0.5</u>	<u>C1</u>

County	<u>Primary Water Body or Main System Name (if applicable)</u>	Water Body Name	Description <u>(optional)</u>	Approximate GIS Coordinates (WGS84 Datum) <u>(optional)</u>		<u>Length of Water Body Segment (miles)</u>	<u>Water Body/System Category Designation</u>
				Starting Location	Ending Location		
<u>Merced</u>	<u>West San Juan Drain</u>	<u>West San Juan Drain Reroute</u>				<u>0.8</u>	<u>C1</u>
<u>Merced</u>	<u>West San Juan Drain</u>	<u>Willis Drain</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>Auxiliary Drain</u>				<u>1</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>Christiana Drain</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>Elgin Co-op Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>Escano Drain</u>				<u>2</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>Fialho Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>North Escano Drain</u>				<u>0.4</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>West Santa Rita Drain</u>				<u>4</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>West Santa Rita Drain Branch No. 1</u>				<u>0.6</u>	<u>C1</u>
<u>Merced</u>	<u>West Santa Rita Drain</u>	<u>West Santa Rita Drain By-pass</u>				<u>0.5</u>	<u>C1</u>

Appendix 45  
Water Bodies with LMUN Beneficial Use

DRAFT