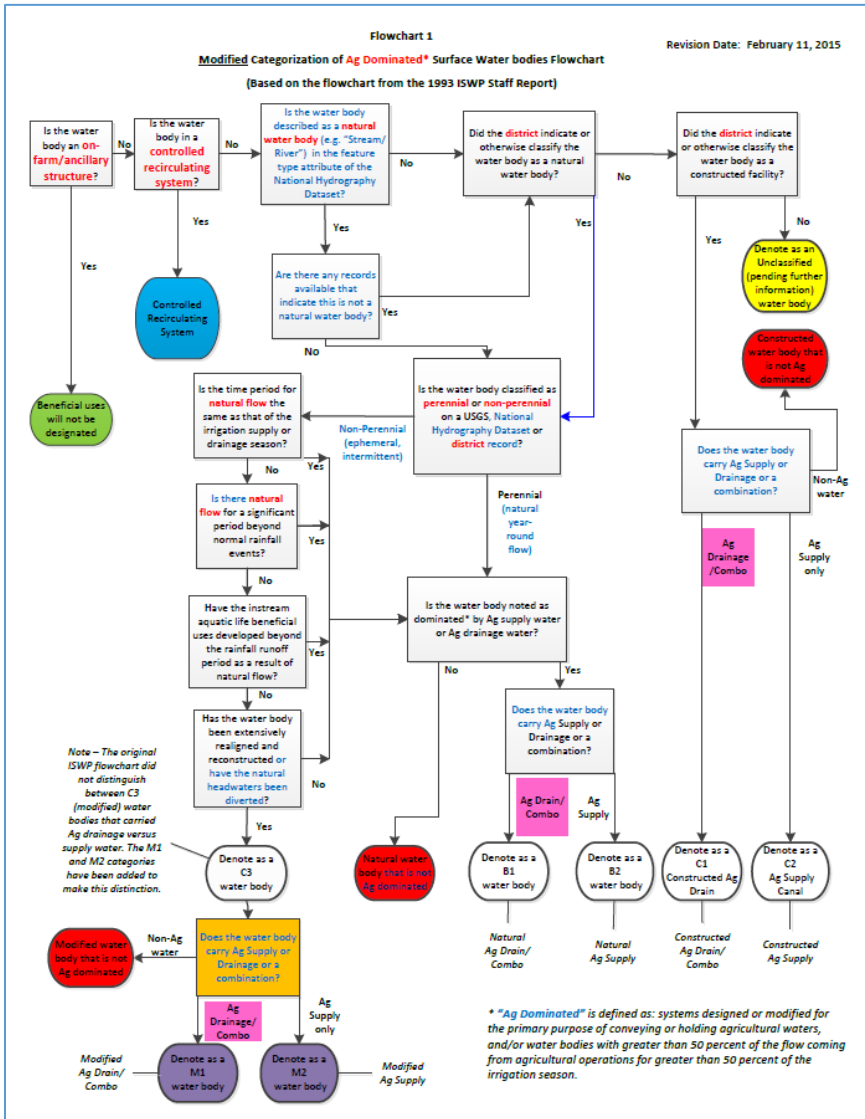


Development of LIMITED-MUN Beneficial Use Designation

Flow Chart 1 –Categorization of Ag Dominated Surface Water Bodies



Proposed MUN Beneficial Use Designations (*other options are presented in Table 4 of the Draft Evaluation of Project Alternatives document*)

Water Body Category	Beneficial Use	MUN WQOs
C1 (Constructed Ag Drain/Combo)	No MUN	N/A
M1 (Modified Ag Drain/Combo)	No MUN	N/A
C2 (Constructed Ag Supply)	LIMITED-MUN	Narrative and/or Numeric
M2 (Modified Ag Supply)	LIMITED-MUN	
B1 (Natural Ag Drain/Combo)	LIMITED-MUN	
B2 (Natural Ag Supply)	LIMITED-MUN	
Controlled Recirculating System	No MUN	N/A

Primary Topic for Discussion

- Definitions
- Selection Criteria
- Water Quality Objective – language
- Implementation considerations

Potential Options for the LIMITED-MUN Beneficial Use Definition:

LIMITED – MUN Beneficial use

1. *Non-potable uses of water for community, military, or individual water supply systems.*
2. *Uses of water for municipal and domestic supply in agriculturally dominated surface water bodies are limited based on intermittent flow conditions and/or constituent concentrations that require changes in management activities and/or water treatment beyond conventional treatment to supply drinking water.*

Management activities may include but are not limited to wheeling water year-round, prohibiting Ag drainage into the water body, and limiting maintenance activities. Treatment beyond conventional may include but not be limited to ion exchange and reverse osmosis.

3. *Uses of water that support only agricultural activities from water bodies which have the potential to be used as municipal or domestic water supply in the future. Water bodies designated with this beneficial use do not currently support municipal or domestic uses, but should be managed in such a way that they are able to serve as a municipal or domestic water supply in the future.*

4. Other suggestions?

Draft Selection criteria for LIMITED-MUN water quality objective:

1. Maintain consistency with federal and state water quality laws and policies as applicable (e.g. Sources of Drinking Water Policy, Anti-degradation Policy)
2. Provide the appropriate protection of MUN in Ag dominated surface water bodies with consideration given to the current and potential future use of drinking water.
Does it appropriately protect the water quality in the water body itself?
3. Assure compliance with all relevant water quality objectives downstream.
4. Allow constructed Ag dominated water bodies to be utilized for their intended design and purpose
Example - Irrigation Supply Channels
5. Make efficient (reasonable) use of Central Valley Water Board and stakeholder resources to develop and implement water quality standards
Note – this is a combination of previous selection criteria #5 and #6 in the Draft Evaluation of Project Alternatives document
6. Provide flexibility to address naturally elevated background constituents
*Note – this is an additional selection criterion added for evaluating LIMITED-MUN water quality objectives
Example – Addressing naturally occurring high arsenic values*

Draft Water Quality Objective Options for a “LIMITED MUN” Category

Water Quality Objective Options	Brief Description	Level of Consistency with Selection Criteria Ratings = Yes/No or High/Medium/Low						Notes
		1 (Laws)	2 (Potential Use)	3 (Downstream Protection)	4 (Intended Use)	5 (Reasonable use of resources)	6 (Background levels)	
Add new NARRATIVE water quality objective	A narrative water quality objective is given in the Basin Plan for the LIMITED MUN beneficial use Proposed Options (other options?):							- How is accumulation determined? - Does not consider potable use.
	1. Accumulation of constituents in the water body must not unreasonably affect non-potable water use.	Yes	Low	Low	Med	Med	Low	
	2. Accumulation of constituents in the water body must not unreasonably affect non-potable water use and cannot preclude potable use with reasonable management and/or treatment.	Yes	Med	Low	Med	Med	Low	- Considers potable use
	3. Accumulation of constituents in the water body above natural background concentrations cannot preclude managed and/or treated use of the water for Municipal or Domestic Supply (MUN) use or impact downstream beneficial uses	Yes	Med	High	Med	Med	High	- Need to define “natural background concentrations”
	4. Accumulation of constituents in the water body must be found to provide maximum benefit to the people of the state and not unreasonably affect managed and/or treated use of the water for Municipal or Domestic Supply (MUN) use or impact downstream beneficial uses, and not exceed natural background concentrations.	Yes	Med	High	High	Med	High	- Includes reference to maximum benefit of the people of the state - Antidegradation - Need to define “natural background concentrations”
5. Discharge from these water bodies will not impair downstream Municipal or Domestic Supply (MUN) beneficial uses.	No	Low	High	High	Med	Low	- Does not protect the water body itself	

Draft Water Quality Objective Options for a "LIMITED MUN" Category

Water Quality Objective Options	Brief Description	Level of Consistency with Selection Criteria Ratings = Yes/No or High/Medium/Low						Notes
		1 (Laws)	2 (Potential Use)	3 (Downstream Protection)	4 (Intended Use)	5 (Reasonable use of resources)	6 (Background levels)	
Add new NUMERIC water quality objective	<p>A numeric water quality objective is given in the Basin Plan for LIMITED MUN</p> <p>Proposed Options:</p> <p>1. <i>Must meet primary MCLs, but not secondary MCLs. (Narrative for nuisance objective will still apply)</i></p>	Yes	Med	Med	Low	Low	Low	<ul style="list-style-type: none"> – Secondary MCLs are for taste, odor and appearance, and do not reflect a human health criteria – Water purveyors still must report exceedances to secondary MCLs in source water to the public
	<p>2. <i>Must meet primary and secondary MCLs with the exception of: trihalomethanes (short half-life) and ...????</i></p>	Yes	High	High	Low	Low	Low	<ul style="list-style-type: none"> – Trihalomethanes have a short half-life and are a low human health threat in waters that are not currently being used for the MUN use. – MCLs are tap water standards and these objectives are restrictive for agricultural practices – Removing trihalomethanes or other constituents from the water quality objectives may require more thorough scientific justification
	<p>3. <i>Must meet primary and secondary MCLs, but dissolved fractions can be used in place of total fractions</i></p>	Yes	High	High	Low	Low	Low	<ul style="list-style-type: none"> – Using dissolved fractions reflects the use of filtration in conventional water treatment – Water purveyors use total fractions for reporting secondary MCL values

Proposed Implementation Language:

1. *Maintenance of a constructed water body for its intended purpose is considered a maximum benefit as long as the discharge does not impact downstream beneficial uses.*
2. *Agricultural supply channels with a LIMITED MUN beneficial use designation shall be managed in a manner that water quality does not exclude the fulfillment of the MUN beneficial use in the future.*

3. *Other Implementation language?*

Other related definitions - Draft language:

Natural background concentration

The natural background concentration is the lowest average annual concentration of a constituent since 1975 or a time period based on a previously approved regulatory action (e.g. reservoir construction).

Agricultural supply channel

Agricultural facility constructed and/or modified to be managed for irrigation water supply operations (e.g. C2 and M2 water bodies).

Other definitions?

DRAFT