

APPENDIX I—EVALUATION OF LMUN WATER QUALITY OBJECTIVE OPTIONS

Water Quality Objective options are evaluated based on their ability to meet the following selection criteria:

1. Maintain consistency with federal and state water quality laws and policies as applicable (e.g. Sources of Drinking Water Policy, [Federal Antidegradation Policy](#), [State Antidegradation Policy](#)~~Anti-degradation Policy~~)
2. Provide the appropriate protection of MUN in an Ag dominated surface water body with consideration given to the current and potential future uses
3. Allow constructed Ag dominated water bodies to be utilized for their intended design and purpose
Example - Irrigation Supply Channels
4. Make efficient (reasonable) use of Central Valley Water Board and stakeholder resources to develop and implement water quality standards
5. Provide flexibility to address naturally elevated background constituents

In addition, special consideration will be given to the implementation components of any WQO to ensure that downstream beneficial uses remain protected.

Table I - 1 Water Quality Objective Options for a “LMUN” 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 (Intended Use)	4 (Reasonable use of resources)	5 (Background levels)	
Add new NARRATIVE water quality objective	A narrative water quality objective is given in the Basin Plan for the LMUN beneficial use Proposed Options: 1. <i>Accumulation of constituents in the water body must not unreasonably affect non-potable water use.</i>	Yes	Low	Med	Med	Low	- How is accumulation determined? - “Non-potable” is a very broad term; may be difficult know whether or not the water body is protected
	2. <i>Accumulation of constituents in the water body must not unreasonably affect non-potable water use or degrade other in-stream or downstream beneficial uses.</i>	Yes	Low	Med	Med	Low	- “Non-potable” is a very broad term; may be difficult know whether or not the water body is protected - Considers in-stream and downstream beneficial uses
	3. <i>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.</i>	Yes	Med	Med	Med	Low	- “Non-potable” is a very broad term; may be difficult know whether or not the water body is protected - “potable use” may result in the use of primary and secondary MCLs as water quality objectives - “reasonable” may require examples
	4. <i>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 degrade downstream beneficial uses</i>	Yes	Med	Med	Med	High	- Need to define “natural background concentrations” - Need examples of “managed and/or treated” and some concept of relative and acceptable economic cost.

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		1 (Laws)	2 (Potential Use)	3 (Intended Use)	4 (Reasonable use of resources)	5 (Background levels)	
	5. <i>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 nor degrade downstream beneficial uses above natural background concentrations.</i>	Yes	Med	High	Med	High	<ul style="list-style-type: none"> - Includes reference to maximum benefit of the people of the state - Antidegradation - Need to define “natural background concentrations”
	6. <i>Discharge from these water bodies will not degrade downstream beneficial uses consistent with the state antidegradation policy (SWRCB Resolution No. 68-16).</i>	Yes	Low	High	Med	Low	<ul style="list-style-type: none"> - Does not protect the water body itself - Already an existing legal requirement
	7. <i>Water quality will be protected as specified in the state antidegradation policy (SWRCB Resolution No. 68-16).</i>	Yes	Med	Med	Med	Med	<ul style="list-style-type: none"> - Refers directly to Antidegradation policy - May be able to provide clarification in implementation section - Already an existing legal requirement
	8. <i>Water quality and downstream beneficial uses will be protected consistent with the state antidegradation policy.</i>	Yes	Med	Med	Med	Med	<ul style="list-style-type: none"> - Refers to Antidegradation policy but without the policy number (in case it ever changes) - May be able to provide clarification in implementation section - Already an existing legal requirement
	9. <i>Water quality will be protected consistent with state and federal antidegradation policy and will not create a trend of degradation that impacts any downstream beneficial uses.</i>	Yes	Med	Med	Med	Med	<ul style="list-style-type: none"> - Unnecessary to refer to federal antidegradation policy - Trend could be interpreted differently so would need clarification

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	10. <i>Water quality of surface waters designated for use as LMUN shall be maintained to protect the other designated beneficial uses of water body, and shall not cause degradation of water quality in downstream water bodies that impairs their beneficial uses or is consistent with the state’s antidegradation policy.</i>	Yes	Med	Med	Med	Med	<ul style="list-style-type: none"> - Refers to Antidegradation policy but without the policy number - Difficult to read and follow
Add new NUMERIC water quality objective	A numeric water quality objective is given in the Basin Plan for LMUN Proposed Options: 1. <i>Must meet primary MCLs, but not secondary MCLs. (Narrative for nuisance objective will still apply)</i>	Yes	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
	2. <i>Must meet primary and secondary MCLs with the exception of: trihalomethanes (short half-life)</i>	Yes	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 drinkingtap-water standards and these objectives are restrictive for agricultural practices - Removing trihalomethanes or other constituents would require constituent by constituent scientific justification
	3. <i>Must meet primary and secondary MCLs, but dissolved fractions can be used in place of total fractions</i>	Yes	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 - May be over-restrictive for potential MUN use of the water body itself.