

**CENTRAL VALLEY DRINKING WATER POLICY DRAFT RESOLUTION
COMMENTS & REVISIONS**
This document contains comments and track changes to the Resolution

The following table provides the version of the Draft Resolution text dated 23 June 2010, comments provided by stakeholder group participants as of 1 July, staff responses to those comments, and revised Resolution text. Revisions to the Draft Resolution are noted in underlined and ~~striketrough~~ text.

Comments were received by California Urban Water Agencies, Sacramento Regional County Sanitation District (SRCSD), Carol DiGiorgio with the Department of Water Resources, City of Sacramento Stormwater Management Program (SSMP), and the Central Valley Clean Water Association (CVCWA). CVCWA did not have specific comments regarding the resolution. They did state that they wanted the resolution to clearly reflect CUWA's failure to apply for the Prop 50 grant extension and the status of the remaining work; they also noted that they supported the comments provided by SRCSD.

Commenters:

CUWA:	California Urban Water Agencies
SRCSD:	Sacramento Regional County Sanitation District
DiGiorgio:	Carol DiGiorgio with the Department of Water Resources, a Workgroup member
SSMP:	City of Sacramento Stormwater Management Program

**DRAFT RESOLUTION
CENTRAL VALLEY DRINKING WATER POLICY, COMMENTS & REVISIONS
(30 June 2010)**

#	<i>Resolution Text</i>	<i>Edits & Comments</i>	<i>Revised Resolution Text</i>
1	The Sacramento-San Joaquin Delta (Delta) provides drinking water to more than 23 million people or about 60 percent of the population of California.	CUWA: The Sacramento-San Joaquin Delta (Delta) provides drinking water to more than 23-25 million people or about 60 percent of the population of California.	Language revised. The Sacramento-San Joaquin Delta (Delta) provides drinking water to more than 23-25 million people or about 60 percent of the population of California.
2	The Central Valley Water Board recognizes that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters, including the Delta.		
		CUWA: <u>The Central Valley Water Board recognizes that meeting the goal of clean, safe drinking water requires a multi-barrier approach [A1] consisting of protecting source water quality, appropriately treating raw water, and ensuring safe distribution of treated water to consumers' taps.</u>	Additional language was added to Finding 3.
3	The degree of treatment for drinking water required by state and federal regulations depends on the quality of the source water for certain parameters.		<u>The Central Valley Water Board recognizes that meeting the goal of clean, safe drinking water requires a multi-barrier approach consisting of protecting source water quality, appropriately treating raw water, and ensuring safe distribution of treated water to consumers' taps.</u> The degree of treatment for drinking water required by state and federal regulations depends on the quality of the source water for certain parameters.
4	The surface water drinking water supplies in the Delta are currently of sufficient quality that municipal water users are required to provide the minimum level of treatment specified in the	SRCSD: The surface water drinking water supplies in the Delta are currently of sufficient quality that municipal water users are required to provide the minimum level of treatment specified in the regulations; however, there are concerns <u>by water agencies</u>	Language revised. The surface water drinking water supplies in the Delta are currently of sufficient quality that municipal water users are

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	<p>regulations; however, there are concerns about maintaining the water quality to protect future drinking water beneficial use.</p>	<p>about <u>future treatment requirements and costs associated with treatment required for drinking water</u> maintaining the water quality to protect future drinking water beneficial use.</p> <p>CUWA: The <u>high surface water quality of drinking water supplies in source water in the some Delta tributaries to the Delta</u> allows currently of sufficient quality that municipal water users purveyors are required to provide the minimum level of treatment specified in the <u>drinking water regulations</u>; however, there are concerns about maintaining the water quality to protect future drinking water beneficial use. <u>The quality of drinking water supplies in the Delta requires that municipal water purveyors provide additional treatment; often requiring more advanced treatment processes such as enhanced coagulation, ozone disinfection, and measures to control tastes and odors. There is considerable concern that population growth in the Central Valley will further degrade Delta water quality.</u></p> <p>C. DiGiorgio: In terms of organic carbon, this is not true for municipalities that use water from the North Bay Aqueduct (NBA). Users of NBA water may deal with organic carbon levels as high as 10-14 mg/L, resulting in additional treatment costs. Since several paragraphs in this resolution point out that information is inadequate to determine current and potential future drinking water quality conditions in the Delta with regard to organic carbon (for example page 6. §33), page 1, paragraph 4 should be re-worded to reflect that surface drinking water supplies in the Delta often require extra treatment costs to meet specified regulations.</p>	<p>generally required <u>allowed</u> to provide the minimum levels of treatment specified in the <u>drinking water regulations</u>. <u>Drinking water treatment needed for Delta water includes enhanced coagulation, ozone disinfection and measures to control tastes and odors.</u> ; however, †There are concerns <u>is considerable concern about that maintaining the population growth in the Central Valley could impact the high quality of the source water. Drinking water purveyors are concerned about future treatment requirements and increased costs for treatment.</u> water quality to protect future drinking water beneficial use.</p>
5	<p>The CALFED Bay-Delta Program is a cooperative effort of more than 20 state and federal agencies including the Central Valley Water Board, the State Water Resources Control Board (State Water Board), the U.S. Environmental Protection Agency (USEPA),</p>	<p>SRCS: The CALFED Bay-Delta Program is <u>was</u> a cooperative effort of more than 20 state and federal agencies including the Central Valley Water Board, the State Water Resources Control Board (State Water Board), the U.S. Environmental Protection Agency (USEPA), the California Department of Public Health (DPH), the California Resources Agencies, and the U.S.</p>	<p>Language revised.</p> <p>The CALFED Bay-Delta Program is <u>began as</u> a cooperative effort of more than 20 state and federal agencies including the Central Valley Water Board, the State Water Resources Control Board (State Water Board), the U.S. Environmental</p>

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	<p>the California Department of Public Health (DPH), the California Resources Agencies, and the U.S. Department of the Interior. Its mission is to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta.</p>	<p>Department of the Interior. Its mission is <u>was</u> to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta. <u>Currently, the following agencies have been convened to continue this mission.... (indicate current program and agencies)</u></p> <p>CUWA: The CALFED Bay-Delta Program is <u>is</u> a cooperative effort of more than 20 state and federal agencies, including the Central Valley Water Board, the State Water Resources Control Board (State Water Board), the U.S. Environmental Protection Agency (USEPA), the California Department of Public Health (DPH), the California Resources Agencies, and the U.S. Department of the Interior. Its mission is <u>was</u> to develop and implement a long-term comprehensive plan that will <u>to</u> restore ecological health and improve water management for beneficial uses of the Bay-Delta.</p>	<p>Protection Agency (USEPA), the California Department of Public Health (DPH), the California <u>Natural Resources Agencies</u>, and the U.S. Department of the Interior, <u>with a-</u> Its mission is <u>to</u> develop and implement a long-term comprehensive plan that will <u>to</u> restore ecological health and improve water management for beneficial uses of the Bay-Delta. <u>In 2006, the Water Quality program functions of the CALFED Bay-Delta Program were transferred to the State Water Board. Also in 2006, the executive management and Science Program functions were transferred to the Secretary for Natural Resources. In 2009, the Delta Stewardship Council was created by legislation and is now responsible for the executive management and Science Program functions as well as general oversight of the CALFED Bay-Delta Program</u></p>
6	<p>The CALFED Bay-Delta Program identified the following drinking water quality concern:</p> <p><i>Source water from the Bay-Delta poses treatment challenges and public health concerns for the 22 million Californians who drink the water. [CALFED Bay-Delta Program Water Quality Program Plan, July 2000, pgs. 3-4]</i></p>		
7	<p>In August 2000, CALFED issued the Record of Decision (ROD) for the Programmatic Environmental Impact Statement/Environmental Impact Report requiring the California Bay-Delta Authority (CBDA), with the assistance of the DPH to coordinate a comprehensive source water protection program. One element of this</p>		

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	source water protection program is to “establish a comprehensive State drinking water policy for the Delta and upstream tributaries by the end of 2004.”		
8	<p>The Central Valley Water Board is a signatory to the Implementation Memorandum of Understanding for the CALFED Drinking Water Quality Program, executed on 22 May 2002, which states that:</p> <p>CVRWQCB, in consultation with DHS [<i>now DPH</i>], SWRCB, and USEPA, will have primary responsibility for development of a State drinking water policy for the Delta and its tributaries.</p>		
9	The State Water Board sets water quality objectives for salinity that protects all beneficial uses including municipal and industrial beneficial uses in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.		
10	The State Water Board’s Sources of Drinking Water Policy (Resolution No. 88-63), as incorporated into the Central Valley Water Board’s <i>Water Quality Control Plan for the Sacramento River and San Joaquin River Basins</i> , Fourth Edition, revised September 2009 establishes that all waters within the San Joaquin River and Sacramento River basins are considered suitable or potentially suitable to support the MUN beneficial use, with certain exceptions.		The State Water Board’s Sources of Drinking Water Policy (Resolution No. 88-63), as incorporated into the Central Valley Water Board’s <i>Water Quality Control Plan for the Sacramento River and San Joaquin River Basins</i> , Fourth Edition, revised September 2009 (<u>Basin Plan</u>) establishes that all waters within the San Joaquin River and Sacramento River basins are considered suitable or potentially suitable to support the MUN beneficial use, with certain exceptions.

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11	<p>The Central Valley Water Board has authority to formulate and adopt water quality control plans, establish water quality objectives, and develop implementation plans under California Water Code §13240, §13241, and §13242. Water quality objectives are defined under State law as “the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.” (Water Code §13050(h)).</p>		
12	<p>USEPA water quality standards regulations require each state to adopt an “antidegradation” policy and specify the minimum requirements for the policy (40 CFR 131.12).</p>		
13	<p>The State Water Board’s Policy with Respect to Maintaining High Quality of Water in California (Resolution No. 68-16) incorporates the federal antidegradation policy and restricts reductions in water quality even if beneficial uses are protected. Changes in water quality are allowed only if they are consistent with maximum benefit to the people of the State, do not unreasonably affect beneficial uses, and do not result in water quality less than that prescribed in water quality control plans or policies. Administrative Procedures Update No 90-004 provides guidance for implementation of the State and federal antidegradation policies. This guidance requires an antidegradation analysis to be conducted for any new or expanded discharge</p>		

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	with the potential to degrade water quality.		
14	Water Code §13000 states that “activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those water and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.”		
15	The <i>Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> designates municipal and domestic supply (MUN) as a beneficial use of the Delta. The Basin Plan has also designated the drinking water municipal and domestic supply beneficial use (MUN) for most waters in the Central Valley, including the Sacramento-San Joaquin Delta.	CUWA: The <i>Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> designates municipal and domestic supply (MUN) as a beneficial use of the Delta. The Basin Plan <u>Water Quality Control Plan for the Sacramento and San Joaquin Basins (Basin Plan)</u> [A3]has also designated the drinking water municipal and domestic supply beneficial use (MUN) for most waters in the Central Valley, including the Sacramento-San Joaquin Delta.	Language revised in Finding 10 and 15. The <i>Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan)</i> designates municipal and domestic supply (MUN) as a beneficial use of the Delta. The Basin Plan has also designated the drinking water municipal and domestic supply beneficial use (MUN) for most waters in the Central Valley, including the Sacramento-San Joaquin Delta.
16	The Basin Plan includes narrative objectives for chemical constituents, taste and odor, sediment, suspended material, and toxicity, and numeric objectives for chemical constituents and salinity. The Basin Plan incorporates the primary and secondary maximum contaminant levels specified in Title 22 of the California Code of Regulations for waters designated MUN. The Bay-Delta Plan also includes numeric effluent limitations that apply within the Bay-Delta.		Language revised. The Basin Plan includes narrative objectives for chemical constituents, taste and odor, sediment, suspended material, and toxicity, and numeric objectives for chemical constituents and salinity. The Basin Plan incorporates <u>by reference</u> the primary and secondary maximum contaminant levels specified in Title 22 of the California Code of Regulations for waters designated MUN. The Bay-Delta Plan also includes numeric effluent limitations that apply within the Bay-Delta
17	Although the Basin Plan addresses many constituents that threaten drinking water		

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	source waters, the 1998, 2002 and 2006 Triennial Reviews of the Basin Plan identified development of a policy for maintaining water quality for drinking water as high priority.		
18	After the CALFED ROD was issued, the Central Valley Drinking Water Policy Workgroup (Workgroup) was formed to develop a comprehensive drinking water policy. The Workgroup is comprised of federal and state agencies, drinking water purveyors, and wastewater, municipal and agricultural dischargers.		
19	In 2003, the Workgroup developed a Work Plan that listed technical analysis to support the development of a drinking water policy. Technical analysis included modeling, monitoring, and source control and analysis.	<p>SRCS D: In 2003, the Workgroup developed a Work Plan that described necessary listed technical analysis to support the development of a drinking water policy. That T technical analysis included <u>identification of parameters of concern, examination of regulatory programs in other regions, states and countries, water quality and watershed modeling, water quality monitoring, and source control options, effectiveness and cost analysis, and drinking water treatment feasibility options and cost analysis.</u></p> <p>CUWA: In 2003, the Workgroup developed a Work Plan that listed described the technical analysis studies needed to support the development of a drinking water policy. Technical analysis studies included modeling, monitoring, and <u>evaluation of source control and analysis methods, effectiveness, and costs.</u></p>	<p>Language revised.</p> <p>In 2003, the Workgroup developed a Work Plan that listed technical analysis <u>described necessary technical studies</u> to support the development of a drinking water policy. The <u>technical analysis studies</u> included <u>identification of constituents of concern; examination of regulatory programs in other regions, states and countries; water quality and watershed modeling; water quality monitoring; and source control methods, effectiveness and costs; and drinking water treatment feasibility options and cost analysis</u>.</p>
20	In 2003, California Urban Water Agencies (CUWA) and Sacramento Regional County Sanitation District entered into contract with the State Water Board to reimburse staff costs for one half of a staff person per year for work performed on the development of the drinking water policy. This contract has been amended several times to continue funding staff through	<p>SRCS D: In 2003, California Urban Water Agencies (CUWA) and Sacramento Regional County Sanitation District entered into <u>a</u> contract with the State Water Board to reimburse staff costs for one half of a staff person <u>each</u> per year for work performed on the development of the drinking water policy. This contract has been amended several times to continue funding staff through June 2010.</p>	<p>Language not revised.</p> <p>The State Water Board contract with CUWA and SRCS D supports approximately 0.5 staff person per year with 1040 hours budgeted.</p>

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21	In 2004, CUWA was awarded a Proposition 50 grant of \$970,000 to develop technical studies and perform watershed monitoring to support the development of the Central Valley Drinking Water Policy.	SRCSD: In 2004, CUWA, <u>acting on behalf of the Work Group</u> , was awarded a Proposition 50 grant of \$970,000 to develop technical studies and perform watershed monitoring <u>consistent with the 2003 work plan</u> to support the development of the Central Valley Drinking Water Policy.	Language revised. In 2004, CUWA, <u>acting on behalf of the Work Group</u> , was awarded a Proposition 50 grant of \$970,000 to develop technical studies and perform watershed monitoring <u>consistent with the 2003 Work Plan</u> to support the development of the Central Valley Drinking Water Policy.
22	In July of 2004, Resolution No. R5-2004-0091 was adopted to continue support for development of a comprehensive drinking water policy after the CALFED ROD date of 2004.		Language revised. In July of 2004, <u>the Central Valley Water Board adopted Resolution No. R5-2004-0091, which formally communicated the Board's</u> was adopted to continue support for development of a comprehensive drinking water policy after the CALFED ROD date of 2004.
23	The following drinking water constituents of concern have been identified by stakeholders as high priority for study and evaluation: salt (including bromide), nutrients, organic carbon and pathogens such as <i>Cryptosporidium</i> and <i>Giardia</i> .		
24	The Workgroup gathered existing water quality data by identifying groups performing monitoring, time period covered, monitoring locations, constituents, and frequency of monitoring.	SRCSD: The Workgroup gathered <u>available existing ambient water quality data for the Delta and major tributaries. Information included by identifying the entity groups</u> performing monitoring, time period covered, monitoring locations, constituents, <u>data quality</u> , and frequency of monitoring. <u>Existing water quality data was gathered into a comprehensive database.</u> CUWA: The Workgroup gathered existing water quality data by identifying groups performing monitoring, time period covered, monitoring locations, constituents, and frequency of monitoring <u>and developed a water quality database for the drinking water constituents of concern.</u>	Language revised. The Workgroup gathered existing available ambient water quality data <u>for the Delta and major tributaries. The information included the</u> by identifying groups performing monitoring, time period covered, monitoring locations, constituents, <u>data quality</u> and frequency of monitoring. <u>This data was gathered into a water quality database for the drinking water constituents of concern.</u>

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25	Between 2006 and 2007, conceptual models were developed for organic carbon, nutrients, pathogens and pathogen indicators, and salinity which produced preliminary loading analysis, identified data gaps, and provided recommendations for the next steps. The models identified the need for additional data for each of these constituents to refine current loading estimates from the different sources.	SRCS D: Between 2006 and 2007, conceptual models were developed <u>for the Work Group</u> for organic carbon, nutrients, pathogens and pathogen indicators, and salinity which produced preliminary loading analysis, identified data gaps, and provided recommendations for the next steps. The <u>conceptual</u> models identified the need for additional data <u>needs</u> for each of these constituents <u>of concern</u> to refine current loading estimates from the different sources.	Language revised. Between 2006 and 2007, conceptual models were developed for organic carbon, nutrients, pathogens and pathogen indicators, and salinity <u>were developed for the Workgroup</u> . The <u>conceptual models</u> which produced preliminary loading analysis, identified data gaps, and provided recommendations for the next steps. The the models identified the need for additional data <u>needs</u> for each of these constituents to refine current loading estimates from the different sources.
26	There is inadequate information to evaluate the potential for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to impact the drinking water beneficial use. The organic carbon conceptual model recommended collecting additional source data, specifically from wastewater treatment plants and fish hatcheries. The pathogen conceptual model recommended collecting additional data for <i>Cryptosporidium</i> and <i>Giardia</i> in ambient surface water, Delta pumps, and wastewater and urban storm water discharges.	SRCS D: There is <u>currently</u> inadequate information to evaluate the potential for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to impact the drinking water beneficial use. The organic carbon conceptual model recommended collecting additional source data, specifically from wastewater treatment plants and fish hatcheries. The pathogen conceptual model recommended collecting additional data for <i>Cryptosporidium</i> and <i>Giardia</i> in ambient surface water, Delta pumps, and wastewater and urban storm water discharges. CUWA: There is inadequate information to evaluate the potential for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to impact the drinking water beneficial use. The organic carbon conceptual model recommended collecting additional source data, specifically from wastewater treatment plants and fish hatcheries. The pathogen conceptual model recommended collecting additional data for <i>Cryptosporidium</i> and <i>Giardia</i> in ambient surface water, <u>at Delta pumps drinking water intakes</u> , and <u>in</u> wastewater and urban storm water discharges.	Language revised. There is <u>currently</u> inadequate information to evaluate the potential for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to impact the drinking water beneficial use. The organic carbon conceptual model recommended collecting additional source data, specifically from wastewater treatment plants and fish hatcheries. The pathogen conceptual model recommended collecting additional data for <i>Cryptosporidium</i> and <i>Giardia</i> in ambient surface water, <u>at Delta pumps drinking water intakes</u> , and <u>in</u> wastewater and urban storm water discharges.
27	The conceptual models did not recommend additional data to be collected from irrigated lands, since the Irrigated Lands Regulatory Program requires monitoring for organic	SRCS D: Existing water quality data was gathered into a comprehensive database. The conceptual models did not recommend additional data to be collected from irrigated lands, since the Irrigated Lands Regulatory Program requires monitoring	Language revised. The conceptual models did not recommend additional data to be collected from irrigated lands, since the Irrigated

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	carbon and nutrients in representative receiving waters that receive discharge(s) from irrigated lands. However, information is needed regarding practical management practices that can be implemented on irrigated lands, along with the efficacy of those practices at reducing constituents of concern and the cost estimates for implementing them.	<p>for organic carbon and nutrients in representative receiving waters that receive discharge(s) from irrigated lands. However, information is needed regarding practical management practices that can be implemented on irrigated lands, along with the efficacy of those practices at reducing constituents of concern and the cost estimates for implementing them.</p> <p>CUWA: The conceptual models did not recommend additional data to be collected from irrigated lands, since the Irrigated Lands Regulatory Program requires monitoring for organic carbon, <u>salinity</u>, and nutrients in representative receiving waters that receive discharge(s) from irrigated lands. <u>Monitoring is conducted for pathogen indicators but not for actual pathogens.</u> However, information is needed regarding practical management practices that can be implemented on irrigated lands, along with the efficacy of those practices at reducing constituents of concern and the cost estimates for implementing them.</p>	Lands Regulatory Program requires monitoring for organic carbon, <u>salinity</u> , and nutrients in representative receiving waters that receive discharge(s) from irrigated lands. <u>Monitoring is conducted for pathogen indicators but not for actual pathogens.</u> However, information is needed regarding practical management practices that can be implemented on irrigated lands, along with the efficacy of those practices at reducing constituents of concern and the cost estimates for implementing them.
New 28	<i>Please note that all numbers past this point are increased by one from initial draft resolution.</i>	CUWA: <u>Add statement similar to above about drinking water constituent monitoring that is required of storm water permittees, including which constituents are monitored and which are not. Include language about the need for information on management practices</u>	Additional language added to new Finding 28. <u>Delta municipalities regulated by municipal storm water permits are required to monitor for organic carbon, salinity and nutrients in receiving waters. Monitoring is conducted for pathogen indicators but not for actual pathogens. Information is also needed regarding practical management practices that can be implemented to reduce or treat urban runoff, along with the efficacy of those practices at reducing constituents of concern and the cost estimates for implementing them.</u>
29	The Proposition 50 grant included funding for monitoring at wastewater treatment plants and fish hatcheries, source control analysis, drinking water treatment evaluations, and the development and refinement of analytical models to evaluate the sources of pollutants at the Delta drinking water intakes under present and projected future conditions.	SRCS: The Proposition 50 grant included funding for monitoring at wastewater treatment plants and fish hatcheries, source control analysis, drinking water treatment <u>and cost</u> evaluations, and the development and refinement of <u>analytical water quality and watershed</u> models to evaluate the sources of pollutants at the Delta drinking water intakes under present and projected future conditions.	Language revised. The Proposition 50 grant included funding for monitoring at wastewater treatment plants and fish hatcheries, source control analysis, drinking water treatment <u>and cost</u> evaluations, and the development and refinement of analytical <u>water quality and watershed</u> models. <u>The models would predict how constituents of concern move</u>

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			<p><u>from their sources to the drinking water intakes, under present and projected future conditions, accounting for different treatment options, management practice application and population growth</u> to evaluate the sources of pollutants at the Delta drinking water intakes under present and projected future conditions.</p>
		<p>CUWA: <u>Add a few sentences about the development of the analytical models for the San Joaquin and Sacramento watersheds</u></p>	<p>Additional language added to Finding 29.</p>
30	<p>In December 2008, the Governor issued a stop work order on all proposition funded projects. This halted the technical studies funded by the Proposition 50 grant to support the development of the Drinking Water Policy.</p>		
31	<p>In December 2009, the Department of Financial Assistance issued a conditional restart for the Proposition 50 grant. The conditional restart stipulated that the project be completed by 31 March 2010 for a dollar value not to exceed \$200,000.</p>		<p>Language revised.</p> <p>In December 2009, the <u>State Water Board's Division</u> Department of Financial Assistance issued a conditional restart for the Proposition 50 grant. The conditional restart stipulated that the project be completed by 31 March 2010 for a dollar value not to exceed \$200,000.</p>
32	<p>In February 2010, the State Water Board's Department of Financial Assistance offered the grantee the opportunity to apply for a grant extension for the Proposition 50 grant until 1 March 2011 and reinstated the entire amount of the grant. CUWA did not act on the grant extension.</p>	<p>SRCSD: In February 2010, the State Water Board's Department of Financial Assistance offered the grantee the opportunity to apply for a grant extension for the Proposition 50 grant until 1 March 2011 and reinstated the entire amount of the grant. CUWA did not act on the grant extension <u>and the work products deemed to be necessary under the 2003 work plan have</u> was not been completed.</p>	<p>Language not revised per this comment. It is expressed in other Findings that tasks in the 2003 Work Plan have not been completed. Language was revised to indicate the Division of Financial Assistance.</p> <p>In February 2010, the State Water Board's <u>Department</u> division of Financial Assistance offered the grantee the opportunity to apply for a grant extension for the Proposition 50 grant until 1 March 2011 and reinstated the entire amount of the grant. CUWA did not act on the grant extension.</p>

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33	<p>The Governor’s stop work order and the subsequent restart of the grant more than a year later disrupted the stakeholder effort to move forward with various elements of the grant. The following work is unfinished:</p> <ul style="list-style-type: none"> • Water quality monitoring for selected constituents of concern in publicly owned treatment works and fish hatchery effluents in the Central Valley • Evaluation of potential control strategies • Refinement of drinking water treatment evaluations • Refinement of analytical modeling 	<p>SRCSD: The Governor’s stop work order and the subsequent restart of the grant more than a year later disrupted the stakeholder effort to move forward with various elements of the grant. The following work is unfinished:</p> <ul style="list-style-type: none"> • Water quality monitoring for selected constituents of concern in publicly owned treatment works and fish hatchery effluents in the Central Valley • Evaluation of potential control strategies <u>and costs</u> • <u>Completion and Refinement of drinking water treatment evaluations and costs</u> • <u>Completion and Refinement of analytical water quality modeling for the Delta watershed and Delta waters.</u> • <u>Analytical model within the Delta was not completed</u> • <u>Work Group and or other scientific peer review</u> • <u>Resolution of equity issues regarding the funding of management activities that are beneficial to various stakeholders.</u> <p>CUWA: The Governor’s stop work order and the subsequent restart of the grant more than a year later disrupted the stakeholder effort to move forward with various elements of the grant. The following work is unfinished:</p> <ul style="list-style-type: none"> • Water quality monitoring for selected constituents of concern in publicly owned treatment works and fish hatchery effluents in the Central Valley; • Evaluation of potential control strategies; • Refinement of drinking water treatment evaluations ; <u>and</u> • <u>Refinement-Completion</u> of analytical modeling <p>SSMP: The City commented that the resolution should include more detail on the drinking water treatment evaluations and the WARMF analytical models and suggested the following be inserted as part of or following this finding:</p> <p>An evaluation was performed to consider the necessary additional</p>	<p>Language revised and additional language added from the Prop 50 grant regarding specific tasks. Language also added to Finding 36.</p> <p>The Governor’s stop work order and the subsequent restart of the grant more than a year later disrupted the stakeholder effort to move forward with various elements of the grant. The following work is unfinished:</p> <ul style="list-style-type: none"> • <u>Conduct W</u>water quality monitoring for selected constituents of concern in publicly owned treatment works and fish hatchery effluents in the Central Valley • <u>Evaluate</u>on of potential <u>source control strategies and costs</u> • <u>Refinement-Complete and refine of drinking water treatment evaluations and costs</u> • <u>Complete and refinement of analytical modeling</u> • <u>Continue Workgroup and conduct a workshop with a scientific review panel to discuss conceptual models, loading analysis and major sources identification.</u> • <u>Evaluate the cost of alternative control strategies and compare to other drinking water risk reduction measures (e.g., enhanced water treatment).</u>

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		<p>drinking water treatment facilities for future (2030) conditions under varying assumptions of future projected drinking water regulations. These ‘virtual” treatment plants were developed to characterize existing drinking water treatment facilities that use Delta or upstream waters. Based on the virtual treatment facilities and projected source water quality from other modeling the Regional Board and stakeholders could project future improvement requirements and estimate the associated costs. A study report was prepared but not finalized.</p> <p>A watershed model was developed based on the Watershed Analysis Risk Management Framework (WARMF) toolsets for the Sacramento River watershed to Hood and the San Joaquin River watershed to Vernalis. This model considers tributary, point, non-point and land use based sources. The model can next be extended to interact with Delta models to provide tools to assess the impacts and benefits of treatment and control measures in the watersheds at the source water intake locations. The model could also e used to assess data gaps and monitoring needs. The model calibration is nearly complete, however, a final report has not been finalized.</p>	
34	<p>There are ongoing efforts to address salt and nutrients in surface waters, including the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) program and the State Water Board effort to develop nutrient numeric endpoints. The CV-SALTS effort is addressing salinity and nitrate problems in the Central Valley. The State Water Board, with the support of US EPA, is working to develop nutrient numeric endpoints to regulate nutrient levels in the State’s waters, with the primary goal of maintaining nutrient levels that support the health of aquatic systems. The nutrient numeric endpoints are</p>	<p>SRCSD: There are ongoing efforts to address salts and nutrients in surface waters, including the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) program and the State Water Board effort to develop nutrient numeric endpoints. The CV-SALTS effort is addressing salinity and nitrate problems in the Central Valley. The State Water Board, with the support of US EPA, is working to develop nutrient numeric endpoints to <u>provide guidance regarding the potential regulatione of nutrients levels</u> in the State’s waters, with the primary goal of maintaining nutrient levels that support the health of aquatic systems. The nutrient numeric endpoints are also to <u>provide guidance regarding the role of nutrient management in the control of limit excessive growth</u> of macrophytes or phytoplankton, potentially harmful algal blooms leading to oxygen declines, <u>and</u></p>	<p>Language revised. Comment suggests that the NNE effort only provides guidance, which it does for the short term. For the long term, the NNE is intended to be used as a regulatory tool.</p> <p>There are ongoing efforts to address saltinity and nutrients in surface waters, including the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) program and the State Water Board effort to develop nutrient numeric endpoints. The CV-SALTS effort is addressing salinity and nitrate problems in the Central Valley. The State Water Board, with the support of US EPA, is working to develop nutrient numeric endpoints to regulate nutrient levels in the State’s waters, with the</p>

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	also to limit excessive growth of macrophytes or phytoplankton, potentially harmful algal blooms leading to oxygen declines, imbalance of aquatic species, public health threats, and a general decline in aquatic resources.	other potential adverse effects imbalance of on aquatic species, public health threats [LysaV4], and a general decline in aquatic resources.	primary goal of maintaining nutrient levels that support the health of aquatic systems. The nutrient numeric endpoints are <u>will also be used</u> to limit excessive growth of macrophytes or phytoplankton, potentially harmful algal blooms leading to oxygen declines, imbalance of aquatic species, public health threats, potential impacts to municipal and domestic supplies, and a general decline in aquatic resources. <u>The technical work that has been completed to date on salinity and nutrients, as well as the work yet to be completed (i.e., monitoring), can be used to inform the CV-SALTS and State Water Board's nutrient numeric endpoint process.</u>
		CUWA: <u>The technical work that has been completed to date on salinity and nutrients, as well as the work yet to be completed (i.e., monitoring), can be used to inform the CV-SALTS and State Water Board nutrient effortsNutrient Numeric Endpoint Process.</u>	Additional language added to Fining 34.
35	Work in the Delta by a multi-agency workgroup which is focused on determining the causes of the ongoing pelagic organism decline (POD) has recently been focused on the pelagic food web and the role of nutrients.	SRCS: Work in the Delta by a multi-agency workgroup [LysaV5] which is focused on determining the causes of the ongoing pelagic organism decline (POD) has recently been focused on the pelagic food web and the role of nutrients. <u>The results of that work are inconclusive at this time.</u>	Language revised. Work in the Delta by a multi-agency workgroup <u>the Interagency Ecological Program</u> which is focused on determining the causes of the ongoing pelagic organism decline (POD) has recently been focused on the pelagic food web and the role of nutrients. <u>The results of that work are inconclusive at this time.</u>
36	The Workgroup has concluded that adequate information has not been collected to determine current and potential future drinking water quality conditions in the Delta with regard to organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> . In addition, the Workgroup has concluded there is inadequate information to develop a comprehensive drinking water policy. Many of the data needs have been identified by the Workgroup.		Language revised. The Workgroup has concluded that adequate information has not been collected to determine current and potential future drinking water quality conditions in the Delta with regard to organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> . In addition, the Workgroup has concluded there is inadequate information to develop a comprehensive drinking water policy. Many of the data needs have been identified by the Workgroup. <u>The Workgroup discussed potential cost</u>

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			<u>sharing mechanisms, where interested parties share the costs of measures implemented to improve drinking water quality.</u>
37	The Workgroup has discussed whether development of water quality objectives should be a high priority for organic carbon and <i>Cryptosporidium</i> and <i>Giardia</i> at this time, taking into consideration the resource requirements for objective development and the lack of data to determine current trends in constituent concentrations or loads. At this time, subsequent data, information and analysis would be required to develop water quality objectives for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to protect the drinking water beneficial use. It would be necessary to have a better understanding of the ecosystem needs for organic carbon in the Delta, more data on background levels of these constituents in the Delta and tributaries to the Delta, and completion of the source control and analysis work. There is currently no funding to accomplish this work.	SRCS D: The Workgroup has discussed whether development of water quality objectives should be a high priority for organic carbon and <i>Cryptosporidium</i> and <i>Giardia</i> at this time, taking into consideration the resource requirements for objective development and the lack of data to determine current trends in constituent concentrations or loads. At this time, subsequent data <u>and information on the effects and fate and transport analysis of these parameters</u> would be required to develop water quality objectives for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to protect the drinking water beneficial use. It would be necessary to have a better understanding of the ecosystem needs for organic carbon in the Delta, more data on background levels of these constituents in the Delta and tributaries to the Delta, and completion of the source control, <u>drinking water treatment options and costs</u> and analysis work. There is currently no funding to accomplish this work.	Language revised. The Workgroup has discussed whether development of water quality objectives should be a high priority for organic carbon and <i>Cryptosporidium</i> and <i>Giardia</i> at this time, taking into consideration the resource requirements for objective development and the lack of data to determine current trends in constituent concentrations or loads. At this time, <u>additional</u> subsequent data, information and analysis would be required to develop water quality objectives for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> to protect the drinking water beneficial use. It would be necessary to have a better understanding of the ecosystem needs for organic carbon in the Delta, more data on background levels of these constituents in the Delta and tributaries to the Delta, <u>information on the fate and transport of these parameters, drinking water treatment options and costs, and completion of the source control and analysis work</u> options and costs. There is currently no funding to accomplish this work.
	Resolution Resolve Text		
1	The Central Valley Water Board is committed to developing a comprehensive Drinking Water Policy for the Delta and tributaries and the Board encourages the Workgroup to continue to work with us to develop a comprehensive policy.	Regional Board edits	Language revised. The Central Valley Water Board is committed to developing a comprehensive Drinking Water Policy for the Delta and tributaries, and the <u>Central Valley Water Board</u> encourages the Workgroup to continue to work with <u>staff</u> us to develop a comprehensive policy <u>if adequate resources are available.</u>
2	The Central Valley Water Board believes that other efforts that are underway are the	DiGiorgio: This resolution states that other efforts, already underway, are the appropriate venues for working on nutrients	Addressed in Resolved 5.

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	appropriate venues for working on salt and nutrients. These efforts include CV-SALTS, the State Water Board's development of nutrient numeric endpoints and work of the Pelagic Organism Decline (POD) workgroup directed toward addressing questions related to the Delta aquatic food web and nutrients.	(the document references efforts by CV-SALTS the SWB's work on numeric objectives, and POD), however nitrosamines and their precursors are an emerging constituent of concern for drinking water. The US EPA has indicated that these disinfection by products will likely be regulated in the near future. Therefore, we suggest, that like organic carbon and <i>Cryptosporidium</i> and <i>Giardia</i> , nutrients and nitrosamines in the Delta require continued research to protect drinking water quality and current research does not adequately address this important question from a drinking water perspective. As such, nutrients and nitrosamines should be added to the list of resolutions on page 7 §5 directing board staff to evaluate whether monitoring should be required for organic carbon and <i>Cryptosporidium</i> and <i>Giardia</i> from significant sources of these constituents.	The Central Valley Water Board believes that other efforts that are underway are the appropriate venues for working on salinity † and nutrients. These efforts include CV-SALTS, <u>and</u> the State Water Board's development of nutrient numeric endpoints and work of the Pelagic Organism Decline (POD) workgroup directed toward addressing questions related to the Delta aquatic food web and nutrients.
		<u>SRCS</u> : <u>The Central Valley Water Board directs staff to identify and assist in procuring funding sufficient to allow the Workgroup to reconvene and complete the remaining unfinished tasks</u>	Addressed in Resolved 5.
3	The Central Valley Water Board recommends that continued efforts of this Workgroup focus on organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> .		
		<u>CUWA</u> : <u>The Central Valley Water Board recognizes that where supported by the technical studies, the Drinking Water Policy should include numeric objectives for organic carbon and pathogens.</u>	Addressed in Resolved 7.
4	The Central Valley Water Board recognizes that, while the Workgroup has not agreed upon the ultimate content and scope of the policy, collection of additional data and information on discharges and practices will enhance the effective use of existing models and those under development to predict	<u>SRCS</u> : The Central Valley Water Board recognizes that, while the Workgroup has not agreed upon the ultimate content and scope of the policy, collection of additional data and information on discharges and <u>alternative control</u> practices will enhance the effective use of existing models and those under development to predict changes in ambient conditions and loading from significant source categories. <u>Additionally, it is necessary to complete the</u>	Needed for policy development, not for determining elements of policy. Some language revised. The Central Valley Water Board recognizes that, while the Workgroup has not agreed upon the ultimate content and scope of the policy, collection of additional data and information on discharges and <u>alternative control</u> practices

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	changes in ambient conditions and loading from significant source categories. The information is essential for evaluating what elements should be included in a comprehensive policy and what resources will be required to develop the policy.	<u>evaluation of the effects of ambient water quality changes on drinking water treatment needs and costs.</u> The information is essential for evaluating what elements should be included in a comprehensive policy and what resources will be required to develop the policy.	will enhance the effective use of existing <u>analytical</u> models and those under development to predict changes in ambient conditions and loading from significant source categories. The information is essential for evaluating what elements should be included in a comprehensive policy and what resources will be required to develop the policy.
5	<p>The Central Valley Water Board directs staff to take the following actions:</p> <ul style="list-style-type: none"> - Coordinate with Workgroup to seek grant funding. - Continue to ensure that the drinking water constituents of concern are considered when NPDES facilities conduct their anti-degradation analyses. - Evaluate whether monitoring should be required for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i> from significant sources of these constituents. - Ensure that the priority constituents of concern for drinking water supplies are integrated into the Regional Monitoring Program for the Delta. 	<p>SRCSD: The Central Valley Water Board directs staff to take the following actions:</p> <ul style="list-style-type: none"> - Coordinate with Workgroup to seek grant funding. - Continue to ensure that the drinking water constituents of concern are considered when NPDES facilities conduct their anti-degradation analyses. - Evaluate whether <u>ambient monitoring to evaluate fate and transport uncertainties</u> monitoring should be <u>implemented</u> required for organic carbon, <i>Cryptosporidium</i> and <i>Giardia</i>. <u>If that work is performed, also evaluate whether -monitoring</u> from significant sources of these constituents <u>should be required</u>. - Ensure that the priority constituents of concern for drinking water supplies are integrated into the Regional Monitoring Program for the Delta. <p>CUWA: The Central Valley Water Board directs staff to take the following actions:</p> <ul style="list-style-type: none"> - Coordinate with the <u>Coordinate with the</u> Workgroup to seek grant funding. [mmt6] - Continue to ensure that the drinking water constituents of concern are considered when NPDES facilities conduct their anti-degradation analyses. - Evaluate whether monitoring should be required for organic carbon, Cryptosporidium and Giardia, nutrients and salinity - <u>Evaluate whether monitoring should be required for organic carbon, Cryptosporidium and Giardia, nutrients and salinity</u> - from significant sources of these constituents. [mmt7] - Ensure that the priority constituents of concern for drinking water supplies are integrated into the Regional Monitoring Program for the Delta. 	<p>Language regarding fate and transport for pathogens has been added to Resolved 6. Language regarding evaluation of ecosystem vs. drinking water needs has been Added to Resolved 7. Language revised.</p> <p>The Central Valley Water Board directs staff to take the following actions:</p> <ul style="list-style-type: none"> - Coordinate with <u>the</u> Workgroup to seek grant Funding <u>and to complete the Proposition 50 grant</u>. - Continue to ensure that the drinking water constituents of concern are considered when NPDES facilities conduct their anti-degradation analyses. - Evaluate whether monitoring should be required for organic carbon, <u>salinity, nutrients,</u> <i>Cryptosporidium</i> and <i>Giardia</i> from significant sources of these constituents. - Ensure that the priority constituents of concern for drinking water supplies are integrated into the Regional Monitoring Program for the Delta. - <u>Stay abreast of research on emerging contaminants and periodically assess the need to conduct monitoring of discharges and receiving waters.</u> - <u>Consult with the California Department of Public Health on reports and evaluation of monitoring data and request input on potential public health impacts at the levels detected</u>

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		<ul style="list-style-type: none"> - <u>Stay abreast of research on emerging contaminants and periodically assess the need to conduct monitoring of discharges and receiving waters.</u> - <u>Proactively consult with the California Department of Public Health on reports and evaluation of monitoring data and request input on potential public health impacts at the levels detected.</u> - <u>Evaluate the relationship between water quality parameters associated with the health of the ecosystem and water quality parameters needed to protect the drinking water beneficial use.</u> <p>SSMP: City requests that the resolution be modified to specifically identify completion of the treatment alternatives and WARMF modeling studies in Resolution 5 in with the addition of the following item:</p> <p>Finalize the drinking water treatment facility study report and complete the calibration and verification of the WARMF model for both the Sacramento River and the San Joaquin River watersheds. A similar source, fate and transport model should be developed for the Delta to interface with those watershed models.</p>	
6	<p>The Central Valley Water Board recommends that the following actions be implemented by other entities:</p> <ul style="list-style-type: none"> - Municipal Water Quality Investigations Program of the Department of Water Resources should monitor for <i>Cryptosporidium</i> and <i>Giardia</i> in the Delta waterways as well as the tributaries of the Delta. - Department of Public Health should evaluate data collected for the drinking water constituents of concern and provide input on potential public health impacts at 	<p>CUWA: The Central Valley Water Board recommends that the following actions be implemented by other entities:</p> <ul style="list-style-type: none"> - Municipal Water Quality Investigations Program of the Department of Water Resources should monitor for <i>Cryptosporidium</i> and <i>Giardia</i> in the Delta waterways as well as the tributaries of the Delta <u>in conjunction with the discharger and monitoring of effluent quality if the Regional Board determines that discharge or monitoring is needed.</u> - Department of Public Health should evaluate data collected for the drinking water constituents of concern and provide input on potential public health impacts at the levels detected. 	<p>Language revised.</p> <p>The Central Valley Water Board recommends that the following actions be implemented by other entities:</p> <ul style="list-style-type: none"> - Municipal Water Quality Investigations Program of the Department of Water Resources <u>and other appropriate entities should monitor and conduct fate and transport analyses for <i>Cryptosporidium</i> and <i>Giardia</i> in the Delta waterways as well as the tributaries of the Delta.</u> - Department of Public Health should evaluate data collected for the drinking water constituents of concern and provide input on potential public

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	the levels detected.	DiGiorgio: The MWQI unit agrees that more data is required to understand the distribution of <i>Cryptosporidium</i> and <i>Giardia</i> , however, we are unclear why MWQI has been singled out specifically to undertake this research.	health impacts at the levels detected
7	The Central Valley Water Board directs staff to work with the Workgroup to develop an outline for what should be contained in the comprehensive policy and develop a workplan and funding proposal for completion of information needed to support each of the policy elements. The Board recommends that the outline and workplan be completed within a year of adoption of this resolution.	CUWA: The Central Valley Water Board directs staff to work with the Workgroup to develop an outline for what should be contained in the comprehensive policy and develop a workplan and funding proposal for completion of information needed to support each of the policy elements. The Board <u>directs staff recommends that to complete the technical work and develop a draft policy a draft drinking water policy be completed</u> within a year of adoption of this Resolution, and bring a final drinking water policy to the Board no later than three years after adoption of this Resolution.	Language revised. The Central Valley Water Board directs staff to work with the Workgroup to develop an outline for what should be contained in the comprehensive policy, and develop a work plan and funding proposal for completion of information needed to support each of the policy elements. <u>One element of the policy could be development of water quality objectives, which would involve evaluating water quality concentrations needed to sustain a healthy ecosystem and to protect the drinking water beneficial use.</u> The Board recommends directs staff to complete that the outline, and work plan and funding proposal be completed within a year of adoption of this resolution <u>and to bring a final drinking water policy to the Board no later than three years after adoption of this Resolution, assuming that resources are available to support policy development.</u>

