

**Table 3-8**  
**Summary Matrix of OBMP Goals, Impediments, Action Items, Implications, and Implementation Elements**

Impediments to the Goal	Action Items to Implement Goal	Implications	Program Elements to be Implemented in the OBMP
			El. No./ Element Description
<b>Goal 1 -- Enhance Basin Water Supplies</b>			
<b>1 Unless certain actions are taken the safe yield of the basin will be reduced.</b>			
<b>1a Basin yield is lost due to groundwater outflow from the southern part of basin.</b>	Maintain or increase groundwater production in southern part of the basin; treat and serve contaminated groundwater from southern third of the basin.	This action will maintain and possibly increase safe yield; reducing production to levels below 1965-74 will result in a loss of safe yield.  This action will result in improved water quality in the Santa Ana River.	<b>3</b> Develop and implement a comprehensive water supply plan for existing and future impaired areas
	Locate new recharge facilities in the upper half of the basin.	Recharge in the upper half of the basin ensures that the water recharged can be recovered and put to beneficial use; recharge in the lower half of the basin may be lost to the Santa Ana River.	<b>2</b> Develop and implement a comprehensive recharge program.
	Locate new recharge facilities in the lower half of the basin when recovery of recharged water can be ensured.	This action will result in localized water quality and supply improvements in the lower half of the basin.	<b>2</b> Develop and implement a comprehensive recharge program.
	Develop and implement a comprehensive basin-wide ground level, groundwater level, quality, and production monitoring program.	This action will provide Watermaster with the information necessary to determine outflow to the river, actual production, and to design groundwater treatment facilities. This action is necessary to maintain yield.	<b>1</b> Develop and implement a comprehensive basin-wide ground level, groundwater level, quality, and production monitoring program.
<b>1b The basin is not using as much high quality stormwater as it could for recharge.</b>	Develop and implement a comprehensive plan of stormwater recharge.	This action will result in a list of feasible recharge projects that when implemented will maintain/increase basin yield, improve surface water and groundwater quality, and reduce the cost of flood control projects.	<b>2</b> Develop and implement a comprehensive recharge program.
	Develop a comprehensive stormwater flow and quality monitoring program in partnership with other agencies charged with flow and quality monitoring.	This action will provide data that can be used to quantify the increase in yield through stormwater recharge and will provide water quality benefits.  This action will quantify offset credits for recycled water recharge.	<b>2</b> Develop and implement a comprehensive recharge program.
	Develop new stormwater recharge projects at existing and future flood control facilities.	This action will maintain/increase yield and improve groundwater quality.	<b>2</b> Develop and implement a comprehensive recharge program.

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1c The current manner Watermaster manages cyclic and local storage accounts will cause overdraft.	Maximize recharge capacity at existing recharge facilities through improved maintenance.	This action will maintain/increase yield and improve groundwater quality.	2 Develop and implement a comprehensive recharge program.
2 Unless certain actions are taken, groundwater levels in Management Zone (MZ) 1 will continue to decline adding to the potential for additional subsidence and fissures, lost production capability, and water quality problems.	Develop methods to account for losses from cyclic and local storage accounts; and set limits on storage.	This action will help maintain the safe yield and ensure that basin water is put to maximum beneficial use.	8 Develop and implement a storage management program.
	Develop comprehensive ground level, groundwater level and quality monitoring program in MZ 1.	This action will provide engineering and scientific information that can be used to accurately assess groundwater conditions and manage MZ 1.	4 Develop comprehensive ground level, groundwater level and quality monitoring program in MZ 1.
	Develop groundwater management program for MZ 1 consisting of:	This action will result in a plan that will reduce potential future subsidence and occurrence of ground fissures, maintain minimum levels of production, and improve water quality.	4 Develop and implement a groundwater management program for MZ 1.
	Increase recharge of stormwater and supplemental water in MZ 1.	This action will help maintain or increase groundwater levels and reduce the potential for subsidence and ground fissures.	
	Manage groundwater production in MZ 1 to a sustainable level to minimize subsidence.	This action will help maintain or increase groundwater levels and reduce the potential for subsidence and ground fissures.	
	Increase direct use of supplemental water in MZ 1 (including in lieu deliveries).	This action will help maintain or increase groundwater levels and reduce the potential for subsidence and ground fissures.	
3 Because there is limited assimilative capacity for total dissolved solids (TDS) and nitrogen in the basin, there are economic limitations on the recharge of recycled water.	Create new assimilative capacity through the development of offset programs and through other mitigation programs.	This action will result in increased use of reclaimed water and will decrease the dependence on expensive and less reliable imported sources.	5 Develop and Implement Regional Supplemental Water Master Plan
4 Because future demands are increasing and there are limitations on basin and traditional supplemental supplies, new sources of supplemental water need to be developed.	Maximize the direct use of recycled water.	This action will reduce the dependence on expensive and less reliable imported sources.	5 Develop and Implement Regional Supplemental Water Master Plan
	Develop new sources of supplemental water from the Bunker Hill Basin, the Santa Ana River and other outside basin sources.	This action will ensure that there will be adequate supplies of high quality water to meet future demands.	5 Develop and Implement Regional Supplemental Water Master Plan

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<b>Goal 2 -- Protect and Enhance Water Quality</b>			
1 Watermaster lacks comprehensive, long term information on groundwater quality.	Develop and implement a comprehensive groundwater quality monitoring program.	<p>This action will provide a comprehensive assessment of current and future water quality problems and solutions in the basin.</p> <p>This action will contribute to the least-cost and most expedient plans to protect, enhance and use groundwater to the maximum extent possible.</p>	1 Develop and implement a comprehensive basin-wide ground level, groundwater level, quality, and production monitoring program.
2 Watermaster does not have sufficient information to determine whether point and non-point sources are being adequately addressed in the basin.			
2a RWQCB may not have adequate resources to address all the water quality problems within its jurisdiction in the Chino Basin.	<p>Coordinate with regulatory agencies to share monitoring and other information to detect and define water quality problems.</p> <p>Take coordinated action regarding Watermaster priorities of mutual interest.</p> <p>Participate in projects of mutual interest including the RWQCB Watershed management efforts in the Chino Basin</p>	<p>This action will result in more efficient use of Watermaster, producer and regulatory agency resources.</p> <p>This action will improve timeliness and success in preventing water quality degradation and in cleaning up existing degradation; may include Watermaster entering litigation to assist in clean up.</p> <p>This action will result in more efficient use of resources of Watermaster, producers, and dischargers.</p>	<p>6 Develop a cooperative program with the regulatory agencies where Watermaster and producer resources can be used to improve regulatory agency effectiveness.</p> <p>6 Develop cooperative programs where Watermaster and producer resources can be used to improve basin management.</p> <p>6 Develop and implement programs to address problems as identified and determined beneficial.</p>
2b A comprehensive approach to addressing point and non-point source problems does not exist.	Develop and implement programs to address problems posed by specific contaminants such as TDS, nitrate, methyl ter -butyl ether (MTBE), perchlorate and others.	This action will improve timeliness and success in preventing water quality degradation and in cleaning up existing degradation.	6 Develop and implement programs to address problems posed by specific contaminants.
2c There is ongoing salt and nitrogen loading from dairies. Source water quality available to the dairies is often too degraded to be discharged.	<p>Export manure.</p> <p>Treat dairy sewage and eliminate discharge to groundwater, or export dairy sewage.</p>	<p>This action will reduce TDS and nitrogen degradation of surface water and groundwater at less cost than treatment of receiving waters.</p> <p>This action will reduce TDS and nitrogen degradation of surface water and groundwater at less cost than treatment of receiving waters.</p>	<p>7 Develop and implement programs that result in maximum animal waste export</p> <p>7 Develop and implement programs that result in maximum animal waste export</p>

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3 There is ongoing and legacy contamination in vadose zone with TDS and nitrogen from historic dairy and other irrigated agricultural practices.	Develop regional and local groundwater treatment systems to treat groundwater for direct beneficial use.	This action will improve groundwater quality, maintain/increase safe yield, and maximize beneficial use of basin water.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas

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4 Poor ambient groundwater quality limits direct use of groundwater and can lead to loss of basin yield.	Develop programs (regional treatment, incentives, etc) to pump and treat degraded groundwater and to put the treated water to direct use.	This action will speed up the cleanup of degraded water, stop the spreading of degradation and maintain/increase safe yield.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas
5 The basin is not using as much high quality stormwater as it could for recharge.	Develop and implement a comprehensive plan of recharge for stormwater.	This action will result in a list of feasible recharge projects that when implemented will maintain/increase basin yield, improve surface water and groundwater quality, and reduce the cost of flood control projects.	2 Develop and implement a comprehensive recharge program.
	Develop a comprehensive stormwater flow and quality monitoring program in partnership with other agencies charged with flow and quality monitoring.	This action will provide data that can be used to quantify the increase in yield through stormwater recharge and will provide water quality benefits.	1 Develop a comprehensive stormwater flow and quality monitoring program in partnership with other agencies charged with flow and quality monitoring.
	Develop new stormwater recharge projects at existing and future flood control facilities.	This action will maintain/increase yield and improve groundwater quality.	2 Develop and implement a comprehensive recharge program.
	Maximize recharge capacity at existing recharge facilities through improved maintenance.	This action will maintain/increase yield and improve groundwater quality.	2 Develop and implement a comprehensive recharge program.
6 The basin is hydrologically closed.			
6a The southern part of the basin will accumulate TDS and nitrogen if yield is maintained or increased.	Periodically assess the salt balance of the basin.	This action will provide one of a group of metrics from which the success of the water quality component of the OBMP will be assessed. A declining salt balance will indicate an improvement in water quality.	1 Develop and implement a comprehensive basin-wide ground level, groundwater level, quality, and production monitoring program.  6 Develop new tools to compute salt balance
6b There is a lack of cost-effective groundwater salt export facilities.	Develop new TDS export facilities and/or find means of using Non Reclaimable Waste Line and the Santa Ana Regional Interceptor with less cost.	This action will result in TDS and and nitrogen removal, improvement in groundwater quality, will maintain/increase basin yield, and improve Santa Ana River quality.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas
	Establish financial incentives to ensure that existing groundwater is pumped and that high quality water is used to replenish the basin.	This action will result in more TDS and and nitrogen removal, improvement in groundwater quality, will maintain/increase basin yield, and improve Santa Ana River quality.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas

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6c Existing production patterns in the basin cause salt and nitrate to accumulate in the southern end of the basin.	Increase recharge without an increase in production to cause an increase in rising water	This action will result in a gradual improvement in groundwater quality in the southern part of the basin and an increase in TDS and nitrogen degradation in the Santa Ana River.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas
7 Pesticide and chemical use, and petroleum product disposal habits	Public education.	Members of the public will be encouraged to become individually involved in protecting both surface and groundwater quality	6 Develop and implement programs to address problems posed by specific contaminants.
<b>Goal 3 -- Enhance Management of the Basin</b>			
1 The way Watermaster manages cyclic and local storage accounts will cause overdraft.	Develop methods to account for losses from cyclic and local storage accounts; set limits on storage.	This action will help maintain the safe yield and ensure that basin water is put to maximum beneficial use.	8 Develop and implement a storage management program.
2 Existing production patterns are not balanced, cause losses, can cause local subsidence, and water quality problems.	Develop and implement a comprehensive basin-wide ground level, groundwater level, quality, and production monitoring program.	This action will provide information that can be used to understand the groundwater flow system and quality conditions.	1 Develop and implement a comprehensive basin-wide ground level, groundwater level, quality, and production monitoring program.
	Develop new production patterns that maximize yield and beneficial use; and develop incentive programs and policies that encourage (or rules that enforce) new production patterns.	This action will maximize yield and beneficial use of basin water; improve basin water quality, and improve Santa Ana River quality.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas
	Develop programs (regional treatment, incentives, etc) to pump and treat degraded groundwater and to put the treated water to direct use.	This action will maximize yield and beneficial use of basin water; improve basin water quality, and improve Santa Ana River quality.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas
3 About 500,000 to 1,000,000 acre-ft of storage in the Chino Basin cannot be used due to water quality and institutional issues.	Develop conjunctive use programs that take into account water quantity and quality	This action will result in lower water supply costs to basin producers.	9 Develop conjunctive use programs that take into account water quantity and quality
4 Poor ambient groundwater quality limits direct use of groundwater and can lead to loss of basin yield.	Develop programs (regional treatment, incentives, etc) to pump and treat degraded groundwater and to put the treated water to direct use.	This action will speed up the cleanup of degraded water, stop the spreading of degradation and maintain/increase safe yield.	3 Develop and implement a comprehensive water supply plan for existing and future impaired areas
1 - 9 Develop basin-wide groundwater management program			

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<b>Goal 4 -- Equitably Finance the OBMP</b>			
1 The equitable distribution of cost associated with the OBMP is not defined.	Identify an equitable approach to spread the cost of OBMP implementation either on a per acre-ft basis or some other equitable means.	This action will improve the likelihood that the OBMP will be implemented.	Develop and implement a financial plan to implement the OBMP
	Identify ways to recover value from utilizing basin assets including storage and rising water leaving the basin.	This action will lower the cost of the OBMP to producers and improve the likelihood that OBMP will be implemented.	Develop and implement a financial plan to implement the OBMP
2 Limited resources restrict potential water resources improvements of the OBMP.	Evaluate project and management components and rank components with equal consideration given to water quantity, water quality and cost.	This action will result in the optimum set of project and management components of the OBMP being implemented.	