

**A Guide to the  
REGIONAL WATER  
FACILITIES  
MASTER PLAN**

**DRAFT PROGRAM  
ENVIRONMENTAL  
IMPACT REPORT**



***San Diego County Water Authority***

**I**f you live in the San Diego region, care about the environment and depend on a strong regional economy, then you also depend on a safe, reliable water supply. By learning about the San Diego County Water Authority's Regional Water Facilities Master Plan, you can help shape the roadmap for ensuring the San Diego region has the water it needs long into the future.



*San Diego County Water Authority*

**SPECIAL NOTE :** This guide is for informational purposes only. Those wishing to comment on the Draft Program Environmental Impact Report, or EIR, must address their comments to the specific content of the Draft Program EIR, not to the contents of this guide.

## Introduction

This guide provides an overview of the Draft Program Environmental Impact Report, or EIR, for the San Diego County Water Authority’s Regional Water Facilities Master Plan. An environmental impact report is a document required by the California Environmental Quality Act, or CEQA, to identify the potential adverse environmental effects of a project or program (“environmental impacts”) and present proposed solutions to lessen those effects (“mitigation measures”). An EIR also identifies alternatives to the proposed project.

One of the purposes of an EIR is to provide information to better educate both the community and decision-makers on the potential environmental impacts that will occur when a program or project is implemented. This guide is intended to help the public understand the more technical aspects of the Draft Program EIR.

The Draft Program EIR starts with an executive summary, which provides more information than is included in this guide. The Draft Program EIR then presents detailed information about the master plan and the proposed project, an environmental analysis of each alternative and descriptions of mitigation measures. Lists of acronyms and abbreviations, document preparers and references are included toward the end of the document.

The California Environmental Quality Act identifies several types of EIRs for different kinds of projects. A Program EIR is appropriate for projects that encompass a series of interrelated and geographically connected actions that have similar environmental effects and require similar types of mitigation. It provides a comprehensive analysis of the anticipated environmental impacts of a group of projects as a whole.

A Program EIR is appropriate for the Regional Water Facilities Master Plan because the master plan is not a single project but a program of projects.

The master plan does not describe every proposed facility in detail, but describes the types of facilities needed to meet the region’s future water needs. For example, while the master plan describes a proposal to develop seawater desalination as a new regional water supply, it does not provide an in-depth analysis of any specific seawater desalination project.

If the master plan is approved, the individual projects it encompasses must still undergo project-specific evaluation in accordance with the California Environmental Quality Act to identify potential environmental effects not addressed in the Program EIR. Those subsequent environmental analyses will have additional opportunities for public input and must be completed before construction of specific projects is approved. Because of this two-step process, by themselves the master plan and the Program EIR do not authorize construction of any specific project.

# PURPOSE OF THE MASTER PLAN

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## The Regional Water Facilities Master Plan *at a Glance*

- ◆ The master plan is a regionwide planning effort to meet water demands through 2030.
- ◆ It analyzes three interrelated factors: water demands, water supplies and water facilities.
- ◆ After estimating future water demands, the master plan identifies several alternatives for obtaining new water supplies and evaluates the reliability of those alternatives.
- ◆ In addition to new water supply alternatives, the master plan identifies individual projects needed to rehabilitate existing Water Authority facilities, expand the capacity of the aqueduct system, increase production of treated water and provide additional water storage in the county.

The mission of the San Diego County Water Authority is to provide a safe and reliable water supply to support the region's \$126 billion economy and the quality of life of 3 million residents. Up to 90 percent of the water used in the county is imported by the Water Authority. The population of San Diego County has increased every year since 1944, the year the Water Authority was founded. The Water Authority has also faced severe drought conditions in Northern California and the Colorado River Basin, which provide the water imported to San Diego County. During these times of drought, the region can face cutbacks in the amount of imported water available to meet its needs.

As a result of these challenges, the Water Authority set out to develop a comprehensive program to accommodate expected regional growth while also planning for times when water is scarce. The Regional Water Facilities Master Plan is designed to be a roadmap for making the major infrastructure improvements needed by the Water Authority to meet water demands through 2030. The Draft Program EIR evaluates environmental impacts of the components that make up the master plan.

## Master Plan Objectives

The objectives of the master plan are to:

- ◆ Plan for future treated and untreated water supplies and facilities to meet the projected demands of a growing population;
- ◆ Protect the public's health, safety and welfare by maintaining and enhancing a safe and reliable supply of water;
- ◆ Plan facilities that are cost-effective; and,
- ◆ Provide an ability to adjust facility plans to meet changes in future water demands.

## Regional Forecasting

Water demand projections must be based on future planned population, jobs and housing growth for the region. In 1992, the Water Authority and the San Diego Association of Governments, or SANDAG, entered into an agreement to ensure ongoing communication on future growth and water supply planning. This agreement calls for the Water Authority to use SANDAG's most recent growth forecast for planning purposes and for water supply to be a component of the region's overall growth management strategy. SANDAG's growth forecast is based

on the land use policies of the cities and the county.

Because the Water Authority does not have land use approval authority, it can neither directly cause nor prevent growth. How and where development occurs in the Water Authority's service area is decided by the 18 local cities and the county, which have the local land use approval authority. The Water Authority's job is to make sure water is available when it is needed.

SANDAG updates its growth forecast approximately every five years. The Water Authority will incorporate this new data when it reviews the master plan in conjunction with its Urban Water Management Plan, also updated every five years. Development and construction of the facilities in the master plan will be accelerated or delayed, when appropriate, based on this updated information.

## Using the Water We Have Wisely

Finding new water supplies is not the only way the Water Authority is planning to handle future water needs. An integral assumption in the Water Authority's water demand projections is that water conservation will increase significantly, more than tripling by 2020. Increased water recycling and increased use of groundwater also play important roles in making sure there is enough water in the future.

**The Regional Water Facilities Master Plan looks at future water demands and analyzes different ways to meet those demands. There are three main water supply options, called “alternatives,” identified in the Draft Program EIR. For each of the water supply alternatives, a common set of projects will be needed to expand the capacity of the existing aqueduct system and to increase water treatment and storage.**

## **ALTERNATIVE 1: Supply From the North**

This alternative calls for the construction of a new, sixth pipeline to convey water to San Diego County from the Skinner Treatment Plant, owned by the Metropolitan Water District of Southern California and located in Riverside County. The approximately 31-mile, 9-foot-diameter pipeline would have two segments. The Metropolitan Water District would construct the northern 19 miles from Lake Skinner to the Water Authority’s service connection, located approximately six miles south of the Riverside County border. The Water Authority would build the southern

12 miles of the pipeline to its Twin Oaks Valley Diversion Structure north of San Marcos. Under this alternative, the Water Authority would increase its dependence upon the Metropolitan Water District and imported water supplies.

## **ALTERNATIVE 2: Supply From the West (Proposed Project)**

Desalination of seawater from the Pacific Ocean is the alternative with the highest apparent degree of reliability, and was identified by the Water Authority’s board of directors as the preferred alternative. The Draft Program EIR identifies this alternative as the proposed project.

Seawater desalination provides many benefits. Desalted seawater is more reliable than other water sources considered in the master plan, such as imported water. It is a drought-proof local supply, it increases the amount of treated water available to the region and it produces very safe, high-quality treated water. In addition, seawater desalination helps the Water Authority meet its goal of diversifying its supply sources.



California Aqueduct delivering water to Southern California

### ALTERNATIVE 2: (cont.)

Diversification means that the region is not overly dependent on any one source of water, which improves overall water supply reliability.

Alternative 2 includes the construction of a 50-million-gallon-a-day seawater desalination facility located adjacent to the Encina Power Station in Carlsbad. Seawater desalination could eventually provide up to 150 million gallons of water a day for the region. The master plan describes a phased approach: The Carlsbad facility could be expanded in the future, and/or additional seawater desalination facilities could be built at

other locations. The increased production of desalinated seawater, if needed, would be completed in two phases, one in 2015 and the other in 2020.

### ALTERNATIVE 3: Supply From the East

This alternative would be a new pipeline to transport Colorado River water transferred to the Water Authority from other water agencies. The pipeline, known as the Regional Colorado River Conveyance Facility, would extend from the All-American Canal in Imperial County to San Vicente Reservoir near Lakeside.

## Master Plan Supply Alternatives

### 1 Supply From the North

New pipeline to Metropolitan Water District

### 2 Supply From the West

Seawater desalination

### 3 Supply From the East

Regional Colorado River Conveyance Facility



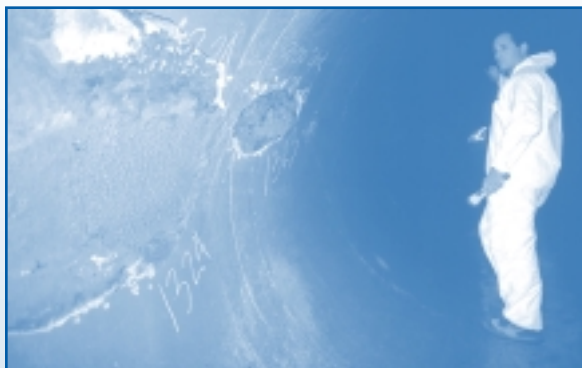
## Elements Common to All Alternatives

Each water supply alternative includes the following common groups of projects:

- ◆ Rehabilitating or replacing existing pipelines
- ◆ Identifying and addressing future bottlenecks in the existing aqueduct system and modifying the system so it can be operated more efficiently
- ◆ Increasing the amount of water that can be treated locally, which could include construction of a treatment plant owned by the Water Authority
- ◆ Adding 100,000 acre-feet of water storage capacity (One acre-foot is enough water to meet the needs of two typical four-person households for one year.)

### “No Project” Alternative

In addition to the three alternatives, the Draft Program EIR evaluates the environmental effects of not implementing any of the alternatives. This “No project” alternative is given equal weight in the Draft Program EIR and its impacts are identified in as



Inspection prior to rehabilitating pipe

much detail as the other alternatives. The “No project” alternative would result in the Water Authority having no long-range, comprehensive plan to address future water reliability for the region.

## Conservation and Local Supplies Not Enough

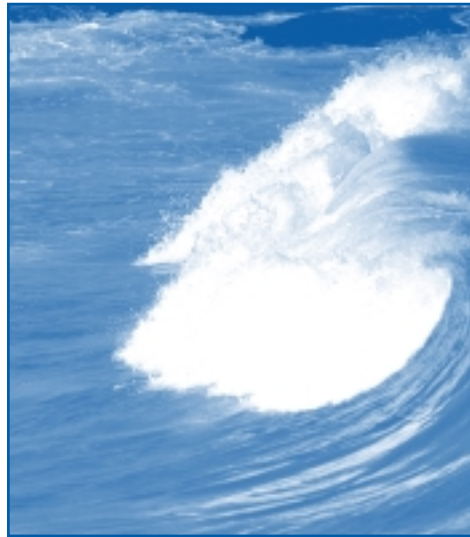
Current Water Authority plans for groundwater include projects that will triple groundwater use from approximately 17,300 acre-feet in 2003 to a projected 59,500 acre-feet per year in 2020. Likewise, projects currently planned for conservation will increase annual water savings from 43,000 acre-feet in 2003 to more than 93,000 acre-feet in 2020.

The Draft Program EIR considered increased water conservation and increased groundwater and recycled water use — beyond what is currently planned — as potential ways to meet future demands for water. Even if conservation and local supplies were increased beyond these planned levels, they would not be sufficient to meet future water needs in the region. Because they do not meet the objectives of the master plan (described on Page 5), conservation and use of groundwater and recycled water were not carried forward for detailed analysis in the Draft Program EIR.

# How Projects Were Evaluated

The proposed project, which calls for seawater desalination as a new water supply, was evaluated in the main areas listed below:

- ◆ Land Use
- ◆ Water Resources
- ◆ Biological Resources
- ◆ Traffic/Transportation
- ◆ Noise
- ◆ Air Quality
- ◆ Utilities/Public Services
- ◆ Aesthetics
- ◆ Geology and Soils
- ◆ Cultural Resources
- ◆ Public Safety/Hazards and Hazardous Materials
- ◆ Paleontological Resources
- ◆ Agricultural Resources
- ◆ Recreation
- ◆ Other Environmental Considerations



Seawater, a future water supply



Old Mission Dam on the San Diego River

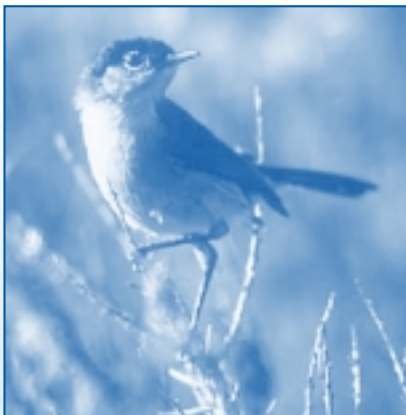
# SUMMARY OF ENVIRONMENTAL IMPACTS

The Draft Program EIR identifies program-level environmental impacts of the alternatives and mitigation measures to lessen those impacts. The program-level analysis is not intended to describe the impacts in detail, but to establish what kinds of potential impacts need to be considered in future project-specific environmental reviews. The detailed analysis of specific impacts will be included in the subsequent environmental analysis for each project proposed in the master plan.

As required by the California Environmental Quality Act, impacts are identified as either “no impact,” “less than significant,” “less than significant with incorporation of mitigation measures” or “significant but unavoidable.” For each area of potential impact, the Draft Program EIR indicates the level of significance before and after a proposed mitigation measure is implemented.

Detailed information about the potentially significant environmental impacts of the proposed project and discussion of its mitigation measures are provided in Table ES-1 in the Executive Summary of the Draft Program EIR. The table rates the impacts both before and after mitigation. Importantly, when these mitigation measures are implemented, each of these potential environmental impacts would be reduced to a level that the California Environmental Quality Act defines as less than significant.

The California Environmental Quality Act requires that the impacts of the proposed project be compared to the impacts of the other alternatives after appropriate mitigation measures have been implemented. In the following table on Page 11, the impacts of the eastern, northern and “No project” alternatives are compared with the proposed project, seawater desalination. Based on this comparative analysis, all three alternatives, including the “No project” alternative, would likely result in greater impacts than the proposed project. For this reason, the proposed project is identified as the environmentally superior alternative.



Endangered California gnatcatcher

# Rating of Potential Impacts After Mitigation

Resources	Impacts of Alternatives Compared to Proposed Project, Seawater Desalination		
	Alt. 1: Supply From the North	Alt. 3: Supply From the East	“No Project” Alternative
Land Use	=	+	+
Water Resources	=	+	+
Biological Resources (Terrestrial)	+	+	+
Biological Resources (Marine)	No impacts	No impacts	+
Transportation and Traffic	–	+	+
Noise	–	+	+
Air Quality	=	+	+
Utilities and Public Services	=	+	+
Aesthetics	+	+	+
Geology and Soils	=	+	+
Cultural Resources	+	+	+
Public Safety and Hazardous Materials	=	+	+
Paleontological Resources	+	+	+
Agricultural Resources	+	+	+
Recreation	=	=	+

## LEGEND

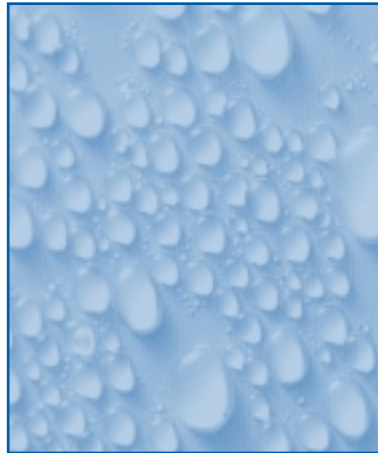
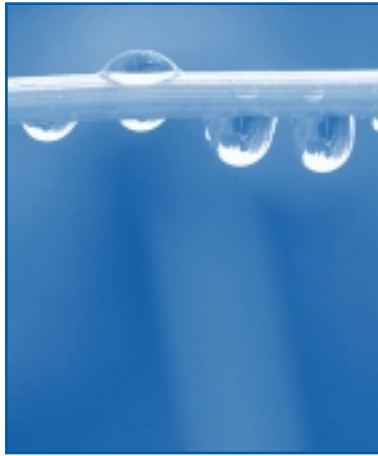
- Fewer impacts than the proposed project, seawater desalination
- = Similar impacts to the proposed project, seawater desalination
- + Greater impacts than the proposed project, seawater desalination

# California Environmental Quality Act (CEQA) Process for the Regional Water Facilities Master Plan

- ▶ Project Description  
*Defined December 2002*
- ▶ Notice of Preparation  
*Issued Feb. 10, 2003*
- ▶ Scoping Meeting  
*Mar. 5, 2003*
- ▶ Draft Program EIR  
*Available for public review Aug. 14, 2003*
- ▶ Public hearing on Draft Program EIR  
*Sept. 25, 2003*
- ▶ Final Program EIR and Response to Comments  
*Anticipated fall 2003*
- ▶ Water Authority board of directors certifies Program EIR  
*Anticipated December 2003*
- ▶ Water Authority board adopts Findings and Mitigation Monitoring Program  
*Anticipated December 2003*
- ▶ Water Authority board issues Notice of Determination  
*Anticipated December 2003*

## What's Next

As specified by the California Environmental Quality Act, the Water Authority will receive public comments on the Draft Program EIR for the Regional Water Facilities Master Plan for 45 days, through Sept. 29, 2003. In December, the Water Authority board of directors will review the Final Program EIR. This document will include the written and verbal public testimony received during the comment period, responses addressing the issues raised in the comments and the mitigation measures required for any significant environmental impacts identified in the EIR. The board will take the Final Program EIR and staff recommendations into consideration when deciding whether to certify that the EIR has adequately analyzed the potential environmental impacts of the master plan. At that time, it is anticipated that the board of directors will also approve the final master plan document.



## For More Information

For more information, please visit [www.sdcwa.org](http://www.sdcwa.org) or call the toll-free information line at (877) 682-9283, Ext. 7004. Your call will be returned within one business day.

To obtain the Draft Program EIR on CD-ROM or a copy of the Regional Water Facilities Master Plan, please call (858) 522-6600. Both documents are also available on the Water Authority's Web site. In addition, a printed copy of the Draft Program EIR is available at these public libraries:

- ◆ Escondido Public Library
- ◆ Carlsbad City Library
- ◆ Mission Valley Branch Library
- ◆ Lakeside Public Library
- ◆ Chula Vista Public Library



# GLOSSARY OF TERMS

## **Acre-foot**

A term commonly used in measuring volumes of water. One acre-foot is equal to the quantity of water required to cover one acre to a depth of one foot or 325,851 gallons of water. One acre-foot is an amount of water two typical four-person households use in one year.

## **Aqueduct**

The Water Authority's five major pipelines are grouped into two alignments or corridors. The First Aqueduct contains pipelines 1 and 2, and the Second Aqueduct contains pipelines 3, 4 and 5. When used by the Water Authority, the term "aqueduct" means the land through which these buried pipelines run.

## **CEQA**

An acronym for the California Environmental Quality Act, a state law that requires California public agencies to identify the significant environmental impacts of their actions or projects and describe measures which can be taken to avoid or mitigate those impacts, if feasible.

## **Certification**

A decision by the lead agency that the EIR has been completed in compliance with CEQA and that the information it contains reflects the lead agency's independent judgment and analysis.

## **Cubic foot per second (cfs)**

The rate of discharge representing a volume of one cubic foot of water passing a given point during one second. This rate is equivalent to approximately 7.48 gallons per second, or 1.98 acre-feet per day.

## **EIR**

An acronym for Environmental Impact Report, a document prepared under CEQA when an agency determines that a project may have potential significant effects on the environment. An EIR evaluates a proposed project's impacts on the environment and recommends mitigation measures to minimize or avoid those impacts. Decision-makers use information in an EIR to help determine whether or not to approve a project. The term "EIR" may mean either a draft or final EIR depending on the context.

## **Environmental impacts or effects**

The terms "impacts" and "effects" are used in this guide interchangeably. The terms refer to direct and indirect physical changes to the environment that are caused by the project. CEQA classifies impacts in four general categories: 1) no impact, 2) less than significant impact, 3) less than significant impact with incorporation of mitigation measures, or 4) significant but unavoidable impact.

## **Environmental setting**

The physical conditions that exist within the vicinity of the project at the time the EIR is prepared. The environmental setting will serve as the baseline to determine whether or not an impact is significant.

## **Groundwater**

Water within the earth that supplies wells and springs.

## **Lead agency**

The public agency that has the principal responsibility for carrying out or approving the project. The lead agency will decide what type of environmental document will be required for the project and will prepare the appropriate document.

### **Mitigation measure**

Feasible measures that could minimize, eliminate, compensate for or avoid significant adverse impacts; mitigation is not necessary for impacts that are not significant.

### **Mitigation Monitoring or Mitigation Reporting Plan**

A written document, adopted when the lead agency decides to take an action to approve a project, to make certain that mitigation measures or other project revisions identified in the final EIR are implemented. Inspectors/monitors may be placed on-site during construction to ensure implementation of mitigation measures. The plan remains active until all mitigation measures have been completed.

### **Project alternatives**

A reasonable range of alternatives to the proposed project whereby most of the basic project objectives can be feasibly attained and significant environmental impacts can be avoided or substantially lessened. An analysis of the “No project” alternative is required in an EIR. The EIR also identifies those alternatives to the project that were considered, but were rejected as infeasible. An explanation of why alternatives were rejected is also included in the document.

### **Project description**

A project description is an essential element of an EIR under CEQA. It should include a statement of the project’s objectives, the location of the project with maps, a description of facilities to be built, construction techniques, the location of any additional work and staging areas as well as any access roads. It should also include a description of the long-term operation and maintenance of the facility and identify any permits and other approvals required to implement the project.

### **Reverse osmosis**

A water treatment method whereby water is forced through semi-permeable membranes to separate water molecules from impurities such as salts, bacteria and viruses.

### **Seawater desalination**

The process of removing salts and other impurities from seawater to produce water suitable for drinking and other potable uses. Frequently uses reverse osmosis technology.

### **Statement of Overriding Considerations**

A written statement by the lead agency to support a decision to approve a project even though it results in significant and unavoidable impacts to the environment. The statement contains the specific reasons why the benefits of the proposed project outweigh the detrimental environmental impacts.

### **Storage**

Water artificially impounded in surface or underground reservoirs for future use.

### **Treated and untreated water**

Drinking water must be treated to meet rigorous state and federal water quality standards. The Water Authority purchases both treated and untreated water for delivery to member agencies. Some member agencies purchase untreated water that they treat in their water treatment facilities; other agencies purchase treated water that can be delivered directly to customers.



# PROVIDING COMMENTS *on the Draft Program EIR*

**Special Note:** This guide is for informational purposes only. Those wishing to comment on the Draft Program EIR must address their comments to the specific content of the Draft Program EIR, not to the contents of this guide.



The San Diego County Water Authority is a public agency serving the San Diego region as a wholesale supplier of water. The Water Authority works through its 23 member agencies to provide a safe, reliable water supply to support the region's \$126 billion economy and the quality of life of 3 million residents.

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Attn: Public Affairs ♦ 4677 Overland Ave. ♦ San Diego, CA 92123-1233  
phone 858-522-6600 ♦ fax 858-268-7841 ♦ [www.sdcwa.org](http://www.sdcwa.org)

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WRITTEN COMMENTS on the Draft Program EIR should be sent to the following address, and must be received by Sept. 29, 2003:

Ms. Kelley Gage  
Water Resources Specialist  
San Diego County Water Authority  
4677 Overland Ave.  
San Diego, CA 92123-1233

VERBAL COMMENTS on the Draft Program EIR can be given at a public hearing to be held at 1 p.m. on Sept. 25, 2003, during the Planning and Environmental Committee meeting of the Water Authority's board of directors. The hearing will be conducted at the Water Authority's administrative office at 4677 Overland Ave. in San Diego.