



COMMUNITY REPORT

SANTA ANA RIVER WATER RIGHT APPLICATIONS FOR SUPPLEMENTAL WATER SUPPLY

UPDATED

January 2007





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Ladies and Gentlemen:

On behalf of San Bernardino Valley Municipal Water District and Western Municipal Water District of Riverside County (Muni/Western), we would like to thank you for taking the time to read this Updated Community Report.

This Updated Community Report describes a proposed diversion of water from the Santa Ana River (Project), which is a key element in our agencies' efforts to ensure that our water users continue to have a reliable supply of high quality water, now and in the future. Seasonal and regulatory storage with the subsequent controlled release of floodwater stored behind Seven Oaks Dam provides, through the use and reuse of water in the Santa Ana River basin, additional supplies of water for use within the Muni/Western service areas and for use downstream by water users and public trust resources. Our Project would capture water that would otherwise be lost to beneficial use in our service areas.

This Updated Community Report includes the full text of the Community Report that was published in October 2004, plus new information (printed on green pages) that brings the reader up-to-date on events of the past two years. The new information includes:

- ◆ This letter;
- ◆ A summary of the public's comments on the Draft Environmental Impact Report (Draft EIR) for the Project;
- ◆ A summary of our agencies' responses to those comments, which can be found in the Final Environmental Impact Report (Final EIR) for the Project; and
- ◆ A summary of the mitigation measures added to the Project as the result of public comments.

For readers interested in more detail, the inside back cover of this Updated Community Report holds two CDs: one with complete copies of the Draft EIR and the original Community Report and the other with complete copies of the Final EIR and this Updated Community Report.

Once again, thank you for your interest in the Project and in our efforts to ensure that the Inland Empire continues to have a reliable source of water to meet future needs.

Very truly yours,

Handwritten signature of Randy Van Gelder.

Randy Van Gelder
General Manager

San Bernardino Valley
Municipal Water District

Handwritten signature of John V. Rossi.

John V. Rossi
General Manager

Western Municipal Water
District of Riverside County

THE ENVIRONMENTAL REVIEW PROCESS

The Draft EIR was published in October 2004. Comments were received at public hearings (November 29 and 30, 2004) and in writing. Muni/Western offered to meet with interested agencies and non-government organizations during the comment period to facilitate discussion on the Draft EIR, its components and characteristics, potential impacts and mitigation measures. Meetings were held with staff representing the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Forest Service, California Department of Fish and Game, State Water Resources Control Board, Chino Basin Watermaster, City of Riverside, and Upper Santa Ana Water Resources Association. The public comment period closed in January 2005, after two extensions. Muni/Western received 28 letters that contained questions and concerns about the Draft EIR.

RESPONSES TO COMMENTS RECEIVED ON THE DRAFT EIR

Each of the comment letters on the Draft EIR was thoroughly reviewed. Several letters expressed concern about the same or similar subject matter. The Final EIR's responses to these frequent comments are contained in a set of "thematic responses" in Chapter 2 of the Final EIR. The Final EIR also responds to each individual comment received by our agencies; those individual comments refer to the "thematic responses" where appropriate to avoid repetitive discussions on the same subject.

Frequent comments fell into five general areas:

- 1. Impact Methodology.** These comments expressed concerns about the existing environment and the manner in which the Draft EIR analyzed potential impacts of the Project on the environment. In response, the Final EIR discusses the baseline conditions used to evaluate the potential impacts of the Project, the conditions that could occur in the absence of the Project, and the need to consider a range of conditions in order to evaluate the potential impacts of the Project on the environment.
- 2. Impacts of the Project Upstream of Seven Oaks Dam.** These comments expressed concerns about the potential impacts of the Project on biological resources, water quality and recreation upstream of Seven Oaks Dam that could result from the operation of the dam for seasonal water conservation. In response, the Final EIR discusses those potential impacts, concluding that they are less than significant because the operation of Seven Oaks Dam with seasonal conservation is very similar to the operation of Seven Oaks Dam without seasonal conservation. In particular, seasonal water conservation will occur within the same "footprint" or inundation area as flood control operations, so seasonal water conservation would have little, if any, impact on biological resources in and around the dam.

RESPONSES TO COMMENTS RECEIVED ON THE DRAFT EIR

UPDATED 2007

- 3. Impacts of the Project Downstream of Seven Oaks Dam.** These comments expressed concerns about the potential impacts of the Project on surface water hydrology, principally during low flow conditions; on groundwater hydrology and water quality, principally relating to groundwater contamination; and on biological resources, principally threatened and endangered species that rely on riparian habitat located along the Santa Ana River. In response, the Final EIR confirms that the Project will have significant and unavoidable impacts on the hydrology of the SAR by diverting water that would otherwise often flow to the Pacific Ocean during flood events. The Final EIR found that such reductions in flow would have less-than-significant effects on riparian vegetation because such vegetation is not dependent on surface water flows for its survival. Similarly, the Final EIR found that such reductions in flow would not have an adverse effect on aquatic life and riparian vegetation; where such life is presently found, it is typically dependent on upwelling groundwater rather than on surface water.
- 4. Mitigation Measures.** These comments requested additional information regarding the proposed use of high-pressure water to rejuvenate habitat for the San Bernardino Kangaroo Rat (SBKR) and requested an analysis of the feasibility of implementing bypass flows to reduce potential impacts of the Project on the environment. In response, the Final EIR expands the discussion of the use of high-pressure water to rejuvenate habitat for the SBKR and analyzes the feasibility of implementing bypass flows. The Final EIR found that the existing water supply would be insufficient to maintain hydraulic connectivity between the Project diversion location and any of three downstream locations on more than 80% of summer days. The Final EIR also found that such intermittent flows cannot (and do not currently) sustain more than a very limited set of biological resources; hence any bypass flows would not have a substantial beneficial effect on biological resources and would not be sufficient to re-establish native species.
- 5. Cumulative Impacts.** These comments requested additional information regarding the Draft EIR's analysis of cumulative impacts from the Project. In response, the Final EIR provides detailed discussions of the information used in preparing the Draft EIR. This information more fully describes the potential effects of upstream diversions to the lower segments of the Santa Ana River and, in so doing, provides a watershed-wide view of all present and future water resource development projects.

REVISIONS TO THE PROJECT RESULTING FROM THE ENVIRONMENTAL PROCESS

The following mitigation and enhancement measures were added or modified as a result of public comments:

- ♦ Elimination of the relocation of the access road to Santa Ana River #1 powerhouse – thereby reducing the impacts (erosion, loss of vegetation) upstream of Seven Oaks Dam, particularly in the San Bernardino National Forest. (Please note that this road is still shown on page 10 of the original Community Report but will not be a part of the Project.)
- ♦ MM HAZ-5. Alternative water supply for wells from which potable use may be affected by the Project – thereby eliminating any potential impact to potable drinking water quality and human health.
- ♦ MM HAZ-6. Limits spreading at Cactus Basins spreading grounds until such time as a groundwater model of the Rialto-Colton Basin is developed.
- ♦ MM BIO-10. Establishes a performance standard for SBKR habitat restoration – thereby ensuring that SBKR habitats would not be adversely affected by the Project.



Ladies and Gentlemen:

On behalf of San Bernardino Valley Municipal Water District and Western Municipal Water District of Riverside County (Muni/Western), we would like to thank you for taking the time to read this Community Report.

This Community Report describes one of the key parts of our agencies' continuing efforts to ensure that the water users of the Inland Empire have sufficient, reliable water to meet their needs. We plan to accomplish this by making more effective use of local supplies from the Santa Ana River and, thus, reduce reliance on water imported from Northern California or the Colorado River.

Specifically, the Community Report describes: the need for additional water in the Inland Empire; our proposed project, which is designed to use the waters of the Santa Ana River more effectively; and the potential impacts of that use on the environment. This Community Report summarizes the contents of the Draft Environmental Impact Report that our agencies have prepared for the proposed project. Compact discs containing a copy of the entire Draft Environmental Impact Report including appendices are included in this Community Report.

We thank you for your interest in our project and in our efforts to ensure that the Inland Empire has sufficient water in the future.

Very truly yours,

Robert L. Reiter
General Manager and Chief Engineer
San Bernardino Valley
Municipal Water District

John V. Rossi
General Manager
Western Municipal Water
District of Riverside County

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NEED FOR THE PROJECT AND PROJECT GOALS



INTRODUCTION:

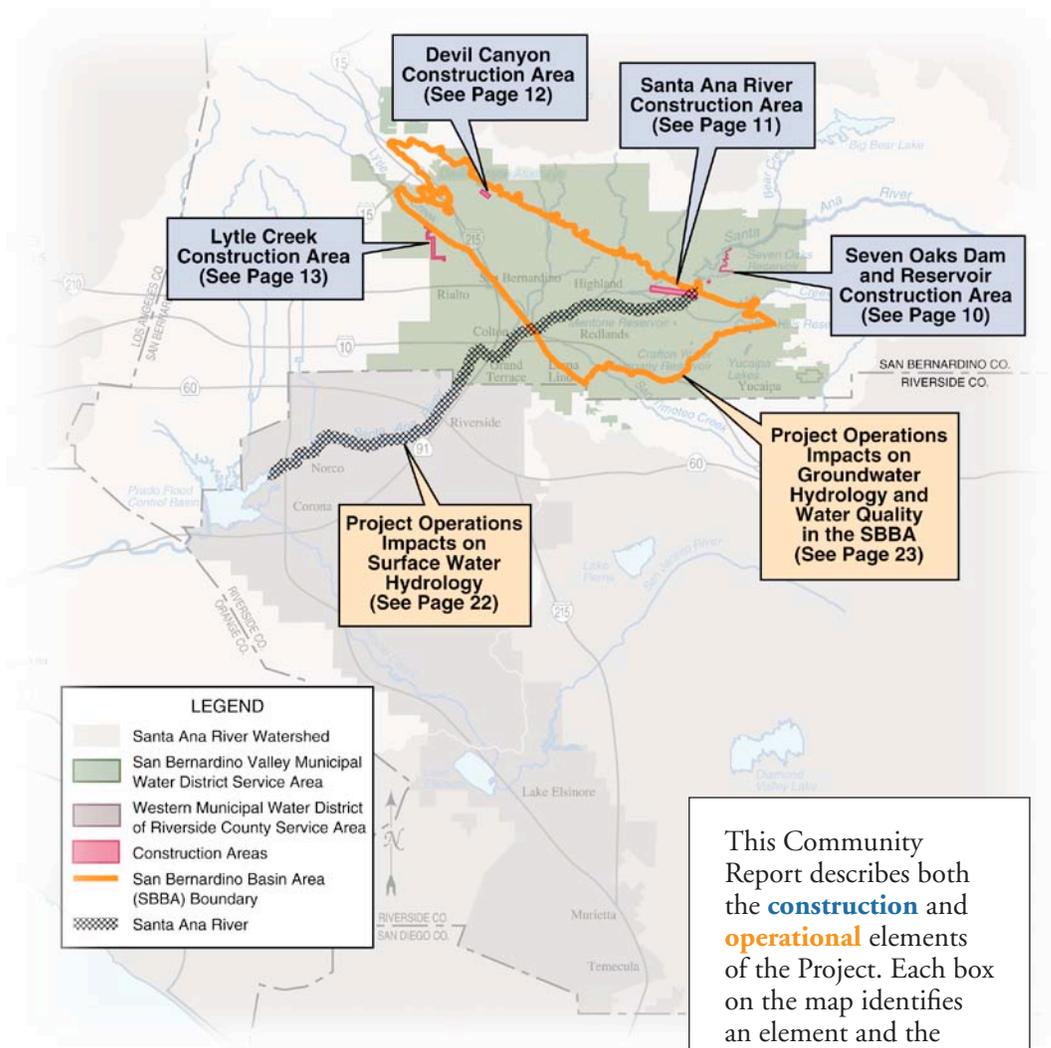
The San Bernardino Valley Municipal Water District and Western Municipal Water District of Riverside County (Muni/Western) are regional water agencies that manage groundwater and surface water supplies in portions of San Bernardino and Riverside counties in Southern California. The recent completion of Seven Oaks Dam on the Santa Ana River provides an opportunity for Muni/Western to achieve the following objectives:

- ◆ Increase water supply reliability by reducing dependence on imported water;
- ◆ Develop and deliver a new, local, high quality, long-term water supply that is needed to meet part of anticipated future demands; and
- ◆ Expand operational flexibility by adding infrastructure and varying sources of water, thereby providing Muni/Western with greater capability to match changing supply and demand.

To accomplish these goals, Muni/Western have jointly filed two applications with the State Water Resources Control Board (SWRCB) to appropriate water from the Santa Ana River. The applications seek the right to divert up to 200,000 acre-feet per year (afy) of local water to help meet anticipated demands.

A Draft Environmental Impact Report (Draft EIR) has been prepared to evaluate the environmental impacts associated with the proposed diversion of water from the Santa Ana River. The Draft EIR has been released for public review and comment. This Community Report summarizes the Draft EIR. The entire Draft EIR, including appendices, is included on compact discs at the back of this report.

PROJECT AREA



This Community Report describes both the **construction** and **operational** elements of the Project. Each box on the map identifies an element and the Community Report page where each element is addressed.

THE PROJECT

- ◆ Muni/Western have jointly filed applications with the State Water Resources Control Board to divert up to a maximum of 200,000 acre feet per year of water from the Santa Ana River.
- ◆ The Draft Environmental Impact Report evaluates the potential environmental impacts of this project.
- ◆ The newly appropriated water will:
 - Increase regional water supply reliability
 - Provide an additional source of local, high quality, long-term water supply
 - Improve operational flexibility in water management

CONTENTS OF THE COMMUNITY REPORT

This Community Report summarizes the Draft EIR but is not a formal part of it. The Draft EIR, including appendices, contains over 1,000 pages and presents a large amount of detailed information and analyses. This Community Report is designed to provide the reader with the basic facts about the environmental process and the potential environmental impacts associated with the water right applications.

Some of the major topics that are discussed in this Community Report include:

- ◆ An overview of Muni and Western and the legal framework applicable to Santa Ana River water resources;
- ◆ The need to meet the growing water demand in the Muni/Western service area and how the supplemental water supply would be put to beneficial use;
- ◆ A brief background and overview of the Project;
- ◆ Key environmental impacts analyzed in the Draft EIR associated with both Project construction and operational activities;
- ◆ Growth-inducing aspects of the Project;
- ◆ Assessment of potential alternatives to the Project;
- ◆ Potential permits, approvals and consultations to implement the Project; and
- ◆ Other water right applications and the water right process.

This Community Report does not take the place of the Draft EIR. The full Draft EIR provides detailed discussions of the potential impacts of the Project on environmental resources, and includes extensive data tables, maps, literature citations, and appendices. The entire Draft EIR and appendices are contained on two compact discs located on the inside of the back cover of this report.

This Community Report is structured so that it can be read in one of two ways:

- ◆ From beginning to end to obtain an overview of the Santa Ana River water right applications for supplemental water supply and the potential uses of the supplemental water; or
- ◆ By locating a Project construction or operational element of interest on the map on page 3 and turning to the indicated pages in this Community Report for a discussion of specific issues.

OVERVIEW OF MUNI AND WESTERN



Muni and Western were both created as public agencies in 1954 to address the imbalance between available water supplies and the demands of a growing population in portions of San Bernardino and Riverside counties. Muni/Western provide imported water directly to wholesale and retail customers, and augment local groundwater supplies by recharging groundwater with imported water to enable water retailers to use groundwater basins as reliable sources of water. The Muni/Western service area is shown on page three. Muni holds a contract for water from the California State Water Project (SWP). As a member agency of The Metropolitan Water District of Southern California (Metropolitan), Western receives imported water from both the SWP and Colorado River. Entities within Western also extract groundwater from the San Bernardino Basin Area (SBBA) groundwater basin located within the Muni service area (see page 3).

A key role of Muni/Western is to provide and manage groundwater and surface water supplies on a long-term, regional basis as established under state law and consistent with the Orange County Superior Court in *Orange County Water District v. City of Chino et al.*, Case No. 117628 (April 17, 1969) (*Orange County Judgment*) and by the Riverside County Superior Court in *Western Municipal Water District of Riverside County v. East San Bernardino County Water District*, Case No. 78426 (April 17, 1969) (*Western Judgment*).

Under the terms of the *Orange County* and *Western* judgments, Muni/Western are directly responsible for ensuring that groundwater and surface water are effectively managed. The *Orange County Judgment* requires entities in the upper watershed (above Prado Flood Control Basin) to deliver specific quantities of flow in the Santa Ana River at Riverside Narrows and at Prado Dam. The *Western Judgment* establishes entitlements to groundwater extractions from the SBBA and requires Muni's replenishment of the basin when surface diversions and groundwater extractions exceed the determined safe yield.

On July 21, 2004, a settlement agreement ("Seven Oaks Accord") was reached between Muni/Western and a number of water users related to the diversion of water from the Santa Ana River. The agreement calls for Muni/Western to develop and manage a groundwater spreading program that is intended to maintain groundwater levels at a number of specified monitoring wells. This integrated water resources management program will be adopted within five years of SWRCB approval of the Muni/Western applications.

MUNI AND WESTERN: THE PROJECT PROONENTS

- ◆ Muni: State Water Project contractor and wholesaler of imported water to retailers.
- ◆ Western: Member agency of The Metropolitan Water District of Southern California.
- ◆ Muni and Western manage regional surface and groundwater resources subject to conditions contained in the *Orange County Judgment* and *Western Judgment*.

THE NEED FOR ADDITIONAL WATER SUPPLIES

THE NEED FOR ADDITIONAL WATER SUPPLIES

- ♦ Population growth in the Muni/Western service area has outpaced that of Southern California.
- ♦ Demand for water in the combined Muni/Western service area is projected to increase from 505,000 af in 2000 to 680,000 af in 2025, an increase of 35 percent.

Population growth in Southern California in general, and the Inland Empire of Riverside County and San Bernardino County in particular, continues to increase rapidly. Water demand projections prepared by the Santa Ana Watershed Project Authority show demand in the combined Muni/Western service area increasing from about 505,000 af in 2000 to 680,000 af in 2025. The table to the right shows historic and projected population.

	Population		
	2000	2025	Change 2000-2025
Southern California	16,516,000	22,621,000	6,105,000 (37%)
Riverside County	1,545,000	2,832,000	1,287,000 (83%)
San Bernardino County	1,709,000	2,778,000	1,069,000 (63%)
Muni/Western Service Area	1,238,000	2,036,000	798,000 (65%)

Factors such as poor water quality, drought, legal and institutional constraints, increasing environmental demands on existing water supplies, and less than anticipated supply from the SWP dictate that Muni/Western seek additional sources of water, such as water made available by the existence of Seven Oaks Dam, to meet current and anticipated future demands. This includes water conserved through the use of Seven Oaks Dam.

Meeting the needs of projected growth requires Muni/Western, in addition to ongoing conservation and education efforts, to identify new local supplies and search for new imported water supplies. Due to the uncertain reliability associated with imported water, it is prudent for Muni/Western to look to unutilized and underdeveloped local supplies to meet a portion of expected future demand. Improved facilities will enhance the effective management of groundwater and surface water supplies in the Muni/Western service area.

The recent completion of Seven Oaks Dam on the upper Santa Ana River provides an added opportunity for Muni/Western to divert and use Santa Ana River storm flows. This new supply of water will assist Muni/Western to meet a portion of the projected demand for water in their respective service areas. More details regarding future needs for water supply in the Muni/Western service area are presented in Chapter 4 (Growth-Inducing Effects and Growth-Related Impacts) of the Draft EIR.

One acre-foot is a measure of a volume of water. If you could cover a football field one foot deep in water you would have about one acre-foot of water (about 326,000 gallons.) Even with water conservation, one acre-foot of water is required to meet the needs of between one and two families for a year.



PROJECT CHARACTERISTICS

The Project provides water management facilities needed to more efficiently use the water conserved by the operation of Seven Oaks Dam and increases the reliability of water supply. Important Project characteristics include the following:

- ◆ Provides an additional source of high quality water to meet the increasing demands placed on the resources of the SBBA while complying with the *Western* Judgment.
- ◆ Reduces the dependence of Muni and Western on imported SWP water supplies.
- ◆ Provides an annual average of between 10,000 af and 27,000 af of local, high quality water. The water available will vary in any year from zero to almost 200,000 af.
- ◆ Will not infringe upon the right or ability of other entities with existing rights to divert water from the Santa Ana River.
- ◆ Will not affect flood protection provided by Seven Oaks Dam to downstream communities.
- ◆ Includes the requirement for water releases to be made to comply with the mandates of the Biological Opinion issued by the U.S. Fish and Wildlife Service to mitigate impacts associated with operation of Seven Oaks Dam for flood control.
- ◆ Avoids adverse impacts to groundwater levels and reduces the potential for liquefaction in the Pressure Zone of the SBBA.
- ◆ Uses seasonal conservation storage at Seven Oaks Dam and Reservoir for the benefit of Muni/Western water users without causing additional significant adverse environmental effects.
- ◆ Provides a conveyance, storage and exchange system capable of effectively managing the distribution of diverted water.

PROJECT CHARACTERISTICS

- ◆ Facilitates the diversion and use of newly conserved water.
- ◆ Uses new and existing water management facilities.
- ◆ Increases water supply reliability.
- ◆ Avoids adverse environmental impacts to groundwater levels and the potential for liquefaction in the Pressure Zone of the San Bernardino Basin Area.



Floodwaters slowed by Seven Oaks Dam (in the left of this picture) would be diverted at either the plunge pool (lower right of picture) or Cuttle Weir. New facilities would be built near the plunge pool, and captured water would be conveyed in new and existing facilities for use in the Muni and Western service areas.

PROJECT OVERVIEW

PROJECT COMPONENTS

- ◆ Construction areas:
 - Seven Oaks Dam and Reservoir
 - Santa Ana River
 - Devil Canyon
 - Lower Lytle Creek
- ◆ Operations areas:
 - Muni/Western Service Area
 - San Bernardino Basin Area Groundwater Basin

Water captured from the Santa Ana River would be put to beneficial use in the Muni/Western service area through direct use, groundwater recharge, or exchange. Muni/Western have the ability to coordinate the use of water conveyance facilities on a local and regional basis. Muni/Western do not propose to export water for use outside their service areas. Any water conveyed outside the service areas would be returned via exchange as soon as practical.

Hydrologic analyses conducted by Muni/Western indicate that, after senior water right claims and environmental needs are accounted for, the Project can provide a water supply sufficient to help meet projected demands within the Muni/Western service area. Detailed descriptions of these hydrologic analyses are presented in Appendix A (Surface Water Hydrology) of the Draft EIR. This new water supply would delay the need to increase the amount of imported water. The additional Santa Ana River water would improve the reliability of regional water supplies and allow for effective conjunctive use of groundwater and surface water supplies.

Existing facilities would be used to the extent possible to divert and convey newly appropriated water from the Santa Ana River. Project-related facilities would be designed to connect existing facilities with new or modified facilities so that supplemental water supplies can be efficiently used to meet local needs. New project-related facilities would be constructed or existing ones modified in four areas as shown on the map on page three and described in detail in Appendix C (Construction and Operation Activities) of the Draft EIR.

- ◆ The Seven Oaks Dam and Reservoir Construction Area includes modification of the intake structure of Seven Oaks Dam, relocation of the access road serving the intake structure, and relocation of a section of road providing access upstream of the dam. (See page 10.)
- ◆ The Santa Ana River Construction Area includes the Plunge Pool, Low Flow Connector, and Morton Canyon Connector II pipelines. All of these are new facilities. (See page 11.)
- ◆ The Devil Canyon Construction Area includes the new Devil Canyon By-Pass Pipeline. (See page 12.)
- ◆ The Lytle Creek Construction Area includes the new Lower Lytle Creek Pipeline and Cactus Basins Pipeline. (See page 13.)

SEVEN OAKS DAM AND THE HYDROLOGY OF THE SANTA ANA RIVER

The U.S. Congress authorized construction of Seven Oaks Dam and Reservoir in 1986 as part of ongoing efforts to provide flood protection to communities in Orange, Riverside, and San Bernardino counties. Operation of Seven Oaks Dam for flood control fundamentally affects the patterns of water flow in the Santa Ana River. During most years, the Santa Ana River has little or no surface flow from its confluence with Keller Creek upstream of Seven Oaks Dam in the San Bernardino Mountains to just above the point at which the river crosses the San Bernardino/Riverside county line (see map on page three).



The U.S. Army Corps of Engineers concluded that the use of Seven Oaks Dam, pictured here from upstream, for conservation storage is feasible, beneficial, and compatible with the dam's flood-control functions.



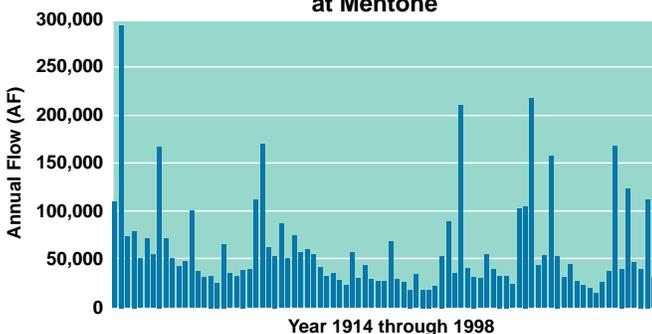
Looking southwest from the crest of Seven Oaks Dam, the plunge pool, pictured here in the foreground, with the Santa Ana River in the background, is in an area that was periodically inundated when floods occurred. The Seven Oaks Dam has dramatically reduced the potential for flooding downstream from this area.

Occasionally, storms cause large quantities of water to flow in the Santa Ana River over a very short period. Seven Oaks Dam slows the water flow in the Santa Ana River, and so decreases downstream flooding and related impacts. During 100-year storms, Seven Oaks Dam reduces flow rates in the upper Santa Ana River from 60,000 cubic feet per second (cfs) to a maximum of 7,000 cfs. Storms generally occur from the fall through the spring. Outside this period, space is available in the reservoir for conservation storage of rainfall from storms and the runoff. Conservation storage was found to be feasible and compatible with flood control operations by the U.S. Army Corps of Engineers. See Section 3.1 (Surface Water Hydrology and Water Quality) and Appendix A (Surface Water Hydrology) of the Draft EIR for more details.

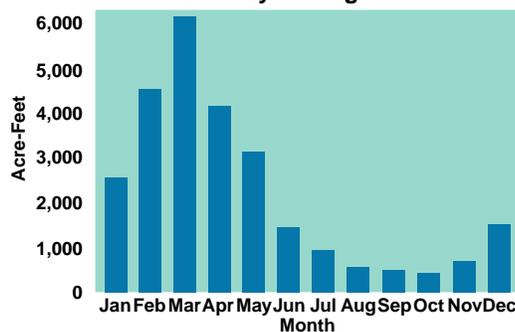
SEVEN OAKS DAM AND THE HYDROLOGY OF THE SANTA ANA RIVER

- ◆ Seven Oaks Dam regulates flood flows on the Santa Ana River.
- ◆ Seven Oaks Dam was constructed by the U.S. Army Corps of Engineers and is operated by three Local Sponsors (Orange County Flood Control District, Riverside County Flood Control and Water Conservation District, and San Bernardino County Flood Control District).
- ◆ Seven Oaks Dam reduces flood flows at the mouth of the Santa Ana River canyon from about 60,000 to a maximum of 7,000 cubic feet per second under 100-year flood conditions.

Santa Ana River Annual Flow at Mentone



Santa Ana River Historical Monthly Average Flow



Prior to construction of Seven Oaks Dam, the Inland Empire was subjected to floods related to high storm flows, e.g., in 1968, 1979, and 1992.

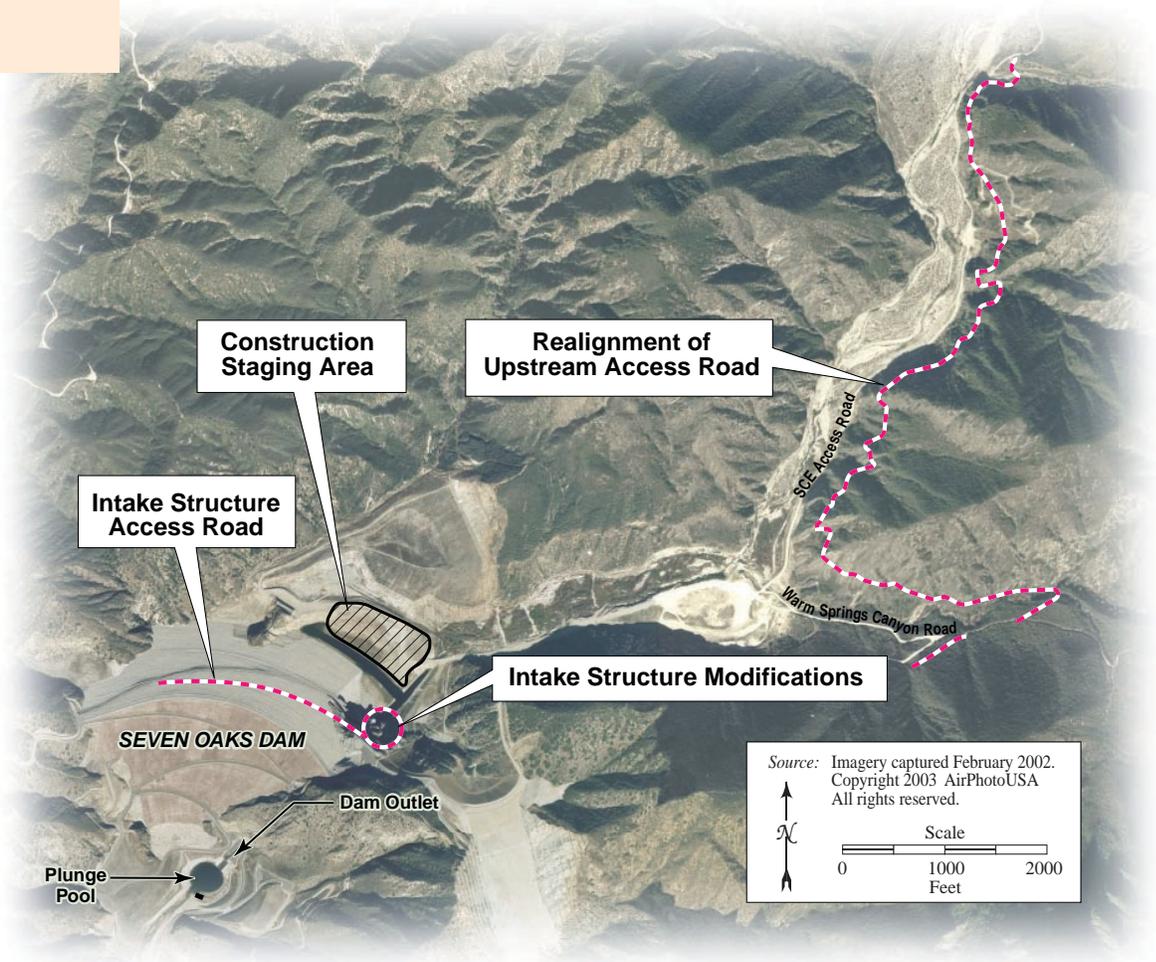
SEVEN OAKS DAM AND RESERVOIR CONSTRUCTION AREA

SEVEN OAKS DAM AND RESERVOIR CONSTRUCTION AREA

- ◆ The Project includes:
 - Modification to the intake structure of Seven Oaks Dam
 - Relocation of the intake structure access road
 - Realignment of an upstream access road

Seasonal water storage at Seven Oaks Dam would be accommodated by modifying and rebuilding the maintenance deck, the bulkhead at the base of the intake structure, and a bridge and road used to access the intake structure. Details regarding these modifications are included in Appendix C (Construction and Operation Activities) of the Draft EIR. The photograph below depicts the location and extent of project elements in the Seven Oaks Dam and Reservoir Construction Area.

Seasonal water storage after the storm season could cause periodic inundation of a section of the upstream access road leading to SCE hydroelectric facilities and a short section of the existing Warm Springs Canyon Road. This would require the relocation of sections of both roads. Although final design of the road modifications is not complete, details are contained in Appendix C (Construction and Operation Activities) of the Draft EIR.



Project-related construction activities at Seven Oaks Dam would be spread over three summers. Construction would be planned so that it would be completed within the non-flood season and, thus, would not impair the flood control function of the facility.

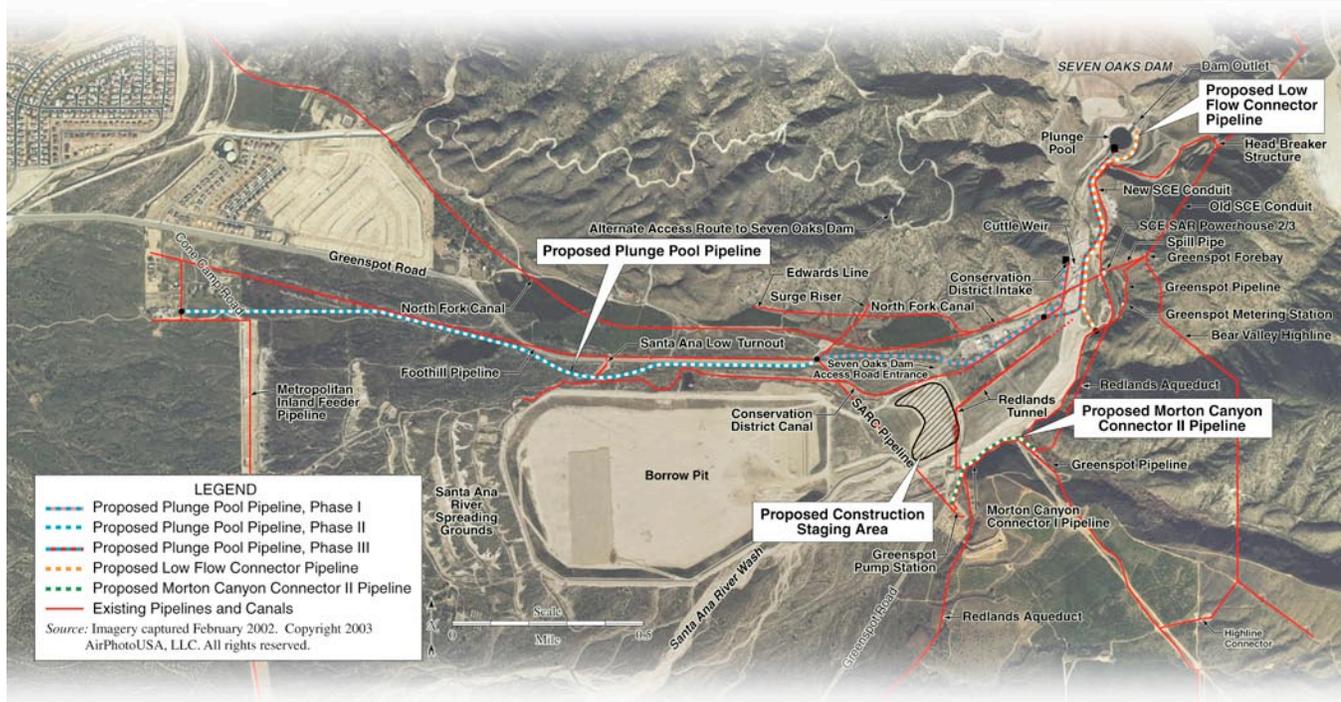
SANTA ANA RIVER CONSTRUCTION AREA

Most of the water captured from the Santa Ana River would be diverted at a new structure located adjacent to either the plunge pool of Seven Oaks Dam or the Cuttle Weir and conveyed through the proposed Plunge Pool Pipeline and/or Low Flow Connector Pipeline. The Plunge Pool Pipeline would be a 15-foot diameter, 1,500 cfs capacity pipeline. The Low Flow Connector Pipeline would be a 4-foot diameter, 100 cfs capacity pipeline. The Morton Canyon Connector II Pipeline (4-foot diameter, 100 cfs capacity) would connect the Greenspot Pipeline and Greenspot Pump Station. These pipelines would be installed in alignments designed to minimize, to the extent feasible, significant environmental impacts.

Construction of the Plunge Pool Pipeline would occur in three phases. Ultimately the pipeline could connect the plunge pool located immediately downstream of Seven Oaks Dam to both Muni's existing Foothill Pipeline and Metropolitan's Inland Feeder Pipeline. Timing of the three phases would depend on several factors. Additional details are presented in Appendix C (Construction and Operation Activities) of the Draft EIR.

SANTA ANA RIVER CONSTRUCTION AREA

- ◆ Most of the water diverted from the Santa Ana River would be diverted at either the existing plunge pool or at the Cuttle Weir.
- ◆ Diverted water would be conveyed through:
 - Plunge Pool Pipeline, connecting to
 - Muni's Foothill Pipeline and Santa Ana River Crossing Pipeline under Phase I
 - Muni's Foothill Pipeline and Metropolitan's Inland Feeder Pipeline under Phases II and III
 - Low Flow Connector Pipeline connecting to Muni's Greenspot Pipeline
 - Morton Canyon Connector II Pipeline connecting the Greenspot Pipeline to Greenspot Pump Station.



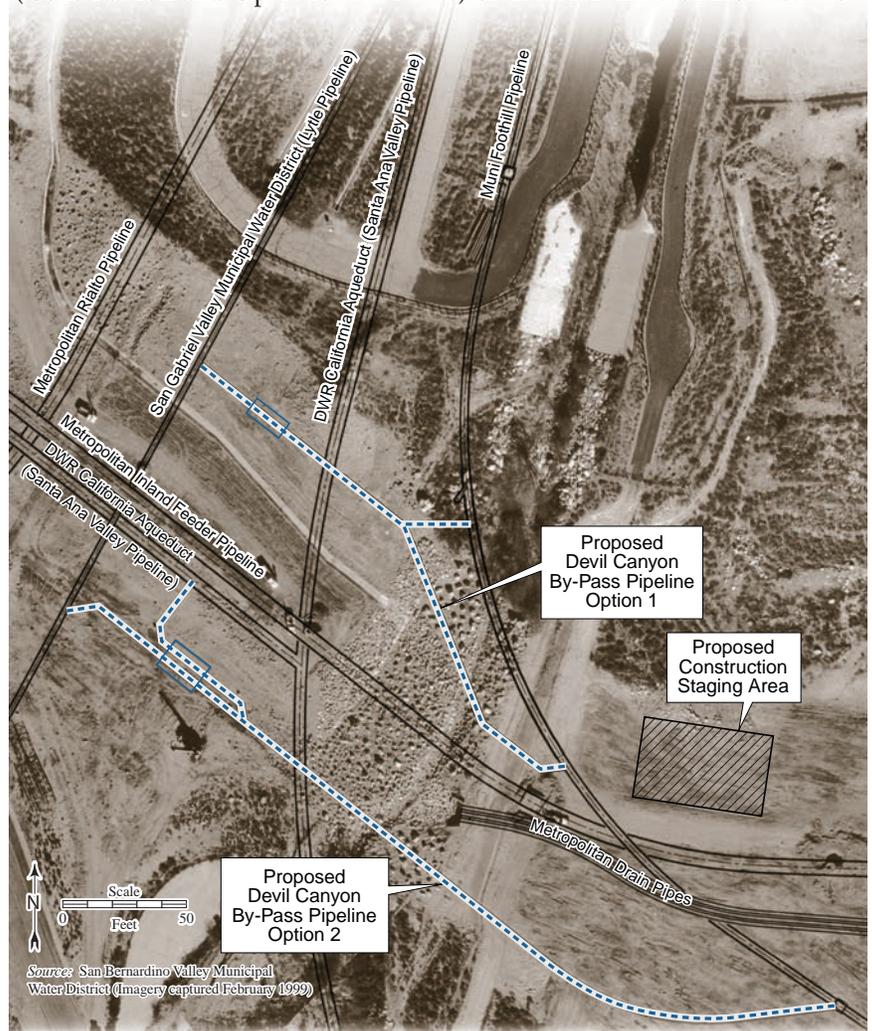
DEVIL CANYON CONSTRUCTION AREA

DEVIL CANYON CONSTRUCTION AREA

- ♦ Santa Ana River water conveyed through Muni's Foothill Pipeline will enter the Devil Canyon By-Pass Pipeline.
- ♦ The Devil Canyon By-Pass Pipeline will connect to:
 - The Lytle Pipeline owned by the San Gabriel Valley Municipal Water District
 - The Santa Ana Valley Pipeline (California Aqueduct)

The proposed Devil Canyon By-Pass Pipeline (a 4.5-foot diameter, 120 cfs capacity pipeline) would connect the Foothill Pipeline to both the Lytle Pipeline (the Devil Canyon-Azusa Pipeline), owned and operated by the San Gabriel Valley Municipal Water District and Santa Ana Valley Pipeline (California Aqueduct). This will enable improved delivery of newly conserved water in the western section of the Muni service area.

The Devil Canyon By-Pass Pipeline has two alignment options. The shorter northern alignment (Option 1) is from 250 to 570 feet long (depending on configuration) and connects the Foothill Pipeline with the Lytle Pipeline. The longer southern alignment (Option 2) is about 800 feet long and has an additional connection to the Santa Ana Valley Pipeline. Both of the options are within a previously disturbed corridor that contains Metropolitan's Inland Feeder Pipeline. See Appendix C (Construction and Operation Activities) of the Draft EIR for more details.



LYTLE CREEK CONSTRUCTION AREA

The first portion of the Lower Lytle Creek pipeline would be 2,700 feet long, 4.5 feet in diameter, with a capacity of 110 cfs. It would connect to the proposed Cactus Basins Pipeline. The second portion of the Lower Lytle Creek Pipeline would be a 3-foot diameter pipe, about 1,200 feet long. It would discharge water via an existing open channel to the Lytle Basins.

The Cactus Basins Pipeline would be 4.5 feet in diameter, approximately 11,000 feet long, with a capacity also of 110 cfs. This pipeline would end at the existing Cactus Spreading and Flood Control Basins and would include turnouts to the West Valley Water District Water Treatment Plant and the Fontana Water Company Sandhill Water Treatment Plant. See Appendix C (Construction and Operation Activities) of the Draft EIR for more details.

LYTLE CREEK CONSTRUCTION AREA

- ◆ Santa Ana River water conveyed through the Lytle Pipeline will reach water treatment plants and groundwater spreading facilities via:
 - The Lower Lytle Creek Pipeline (to the Lytle Basins)
 - The Cactus Basins Pipeline (to the West Valley Water District and Fontana Water Company water treatment plants and the Cactus Spreading and Flood Control Basins)



PROPOSED WATER MANAGEMENT STRATEGY

Muni/Western have several options available for conveying and distributing Santa Ana River water. The water can be put to direct use, stored in groundwater basins within the Muni/Western service area for later extraction and use, or conveyed to agencies outside the Muni/Western service area and later returned via an exchange for other water. The determination of how best to allocate Santa Ana River water at any given time would depend on factors such as demand for direct use, availability of alternate local supplies, potential for groundwater recharge, and conveyance capacity.

Water exchanges allow flexibility in the timing of water delivery and assist in maximizing the beneficial use of captured water. Water exchanges convey new Santa Ana River water to other agencies in consideration for the return of a like amount of water to the Muni/Western service area within a prescribed period.

The Project provides for the delivery of exchange water to other water agencies throughout Southern California. In this way, Santa Ana River water could be delivered directly to water treatment plants, both within and outside the Muni/Western service area. Existing local and regional agency conveyance systems would be used to deliver water to retail providers and to spreading facilities for groundwater recharge.

The actual amounts of conserved Santa Ana River water used in exchanges would depend on both local hydrologic conditions and the availability of alternative supplies. In the wettest years, the largest diversions from the Santa Ana River would occur. Approximately 200,000 af could be available for exchange when: (a) local purveyors were unable to take direct delivery of the water; (b) local spreading facilities with adequate capacity were not able to take the remaining water; (c) conveyance capacity was available; and (d) there was unmet demand or available storage in other parts of Southern California.

Muni/Western would have the greatest distributional flexibility in years when a limited volume of Santa Ana River water is available. In very wet years, distribution would likely be limited by low demand for direct delivery and available conveyance capacity. Additional institutional arrangements would be put in place, if needed, in order to:

- ◆ Share unused conveyance capacity of existing facilities;
- ◆ Jointly use existing spreading grounds; and
- ◆ Provide for water exchanges.

Existing facilities used by the Project would be operated in a manner consistent with historic practices and within the range of conditions applicable to their permitted use. Use of facilities would be subject to applicable regulatory compliance.

PROJECT WATER DISTRIBUTION PRIORITIES

Distribution Priorities for Santa Ana River Water

Priority 1: Meet demand in the Muni/Western service area through direct delivery, mainly to water treatment plants (WTPs), that would otherwise be met with imported water or groundwater. Groundwater that otherwise would have been extracted would remain in the local groundwater basins.

Priority 2: Conduct direct groundwater recharge within the San Bernardino Basin Area (SBBA) groundwater basin. Recharge provides groundwater benefits within the service areas and allows for the future recovery of the supplies. Project water would be used to recharge groundwater basins, provided adverse impacts on groundwater levels or water quality can be avoided.

Priority 3: Conduct direct groundwater recharge in groundwater basins outside the SBBA, but within the Muni/Western service area (Rialto-Colton, San Timoteo and Yucaipa).

Priority 4: Deliver water to agencies outside the Muni/Western service area as part of an exchange. Exchange water would be returned within a reasonable period of time.

A discussion of these priorities is contained in Chapter 2 (Project Description) of the

- Direct Delivery
 - City Creek WTP
 - Hinkley WTP
 - Tate WTP
 - West Valley Water District WTP
 - Yucaipa WTP
 - Other WTPs



- Groundwater Recharge San Bernardino Basin Area
 - Badger Basins
 - City Creek Spreading Grounds
 - Devil Canyon & Sweetwater Basins
 - East Twin Creek Spreading Grounds
 - Lytle Basins
 - Mill Creek Basins
 - Patton Basins
 - Waterman Basins
 - Other Spreading Grounds



Source: AirPhotoUSA, LLC, Copyright 2003

- Groundwater Recharge Muni/Western Service Area
 - Wilson Spreading Grounds
 - Cactus Spreading and Flood Control Basins
 - Other Spreading Grounds



Source: AirPhotoUSA, LLC, Copyright 2003

- Water Exchange
 - The Metropolitan Water District of Southern California
 - San Gabriel Valley Municipal Water District
 - San Geronio Pass Water Agency
 - Other Agencies

WATER MANAGEMENT AND DISTRIBUTION PRIORITIES

- ◆ Diverted Santa Ana River water will be distributed to beneficial uses according to a priority system.

- **Priority 1**
Direct delivery within the Muni/Western service area
- **Priority 2**
Groundwater recharge within the San Bernardino Basin Area
- **Priority 3**
Groundwater recharge at other locations within the Muni/Western service area
- **Priority 4**
Water exchanges with other regional water agencies

ENVIRONMENTAL IMPACTS OF PROJECT CONSTRUCTION

PROJECT-RELATED CONSTRUCTION IMPACTS

- ◆ Direct construction-related impacts are anticipated for a number of environmental resources.
 - Air Quality: Temporary exceedance of federal and state air quality standards
 - Noise: Temporary increase in ambient noise levels
 - Cultural Resources: Disturbance to Cuttle Weir and a retaining wall at the Greenspot Bridge
 - Biological Resources: Temporary disturbance and removal of riparian, wetland, and stream habitat and Riversidean Alluvial Fan Sage Scrub
 - Public Services, Utilities, and Transportation: Temporary disruption of water supply, roadway disturbance, and temporary road closures

The Draft EIR defines specific significance criteria against which the environmental impacts of construction were evaluated. Details of these criteria and the methodology employed for each environmental resource are presented in Chapter 3 (Environmental Setting, Project Impacts, and Mitigation Measures) of the Draft EIR.

The following pages describe notable and significant environmental impacts associated with the construction phase of the Project. These impacts are summarized below.

Air Quality Temporary exceedance of state and federal air quality standards.

Impacts to air quality would primarily be related to combustive and fugitive dust emissions from mobile and stationary construction equipment and vehicles.

Noise Temporary increase in ambient noise levels and exceedance of local noise ordinances. Noise would exceed some local standards and ordinances.

Cultural Resources Modification of and construction near Cuttle Weir and retaining wall of Greenspot Bridge could affect their historical significance. Direct impacts are primarily associated with ground disturbance activities.

Biological Resources Temporary disturbance and removal of riparian, wetland, stream habitat, and Riversidean Alluvial Fan Sage Scrub. Direct impacts are primarily associated with ground disturbance activities, increased noise levels, and changes in surface water flows and quality, especially as they relate to specific types of sensitive habitats and species.

Public Services, Utilities, and Transportation Temporary disruption of water supplies, roadway disturbance, and temporary road closures. Direct impacts are primarily related to temporary changes in traffic circulation patterns and disruption of services to residences necessitated by installation of Project facilities.

CONSTRUCTION IMPACTS ON AIR QUALITY AND NOISE

Air Quality

Muni/Western are located within the South Coast air basin, where air pollution levels exceed a number of state and federal air quality standards. Emissions associated with Project construction equipment and earth-moving activities would temporarily contribute to the continued exceedance of those air quality standards.

To lessen the overall impacts to air quality, mitigation measures to protect air quality will be implemented and will include: watering of disturbed areas; covering of excavated materials during transportation; and encouraging construction contractors to use alternative diesel fuel and low emission diesel-powered equipment. See Section 3.8 (Air Quality) of the Draft EIR.



Excavation in the Muni service area, such as the pipeline pictured here, can produce air quality impacts. During excavation and grading, fugitive dust emissions would be released, and construction equipment and vehicles would generate emissions.

Noise

Construction of facilities and pipelines would temporarily increase ambient noise levels in the vicinity of the Project. In some cases, noise would exceed standards established in local general plans and noise ordinances.

To lessen construction noise impacts, noise abatement mitigation measures will be implemented: providing advance warning to residents in the vicinity of construction activities; limiting construction hours; and fitting proper noise attenuating devices on equipment. See Section 3.10 (Noise) of the Draft EIR.



Construction activities such as excavation, grading, and construction vehicles crossing the project sites can be noisy.

CONSTRUCTION IMPACTS ON CULTURAL RESOURCES



Photo courtesy Steve Burroughs, Muni

Phase I of the Plunge Pool Pipeline could include modification of the existing intake structure of the Conservation District canal.



Construction activities could disturb or alter known cultural resources such as the Cuttle Weir pictured above and a retaining wall adjacent to the Greenspot Bridge pictured here.

Cultural resources are generally defined to include: prehistoric and historic archaeological sites, districts, and objects; standing historic structures, buildings, districts, and objects; and locations of important historic events, or sites of traditional/cultural importance. The analysis of cultural resources, including prehistoric and historic sites, provides information about the cultural heritage of both local and regional populations.

Major known cultural resources in the vicinity of the Project include the following:

- ◆ Seven Oaks Dam and Reservoir Construction Area:
 - Southern California Edison System Historic District
 - Bear Valley Highline Aqueduct
- ◆ Santa Ana River Construction Area
 - North Fork Canal
 - Cuttle Weir
 - Greenspot Bridge
- ◆ Lytle Creek Construction Area
 - Fontana Powerhouse

Unknown cultural resources could be discovered during Project construction activities such as grading and pipeline installation. Ground disturbance associated with grading and pipeline installation could adversely affect or alter these cultural resources.

The Project design aims to preserve cultural resources in the Project area, and avoid disturbing these resources, if possible. If cultural resources were discovered during construction activities, ground disturbance within 150 feet of the discovery will be halted or redirected to other areas until the discovery has been documented by a qualified archaeologist, and its potential significance evaluated. Resources considered significant will be avoided by Project redesign. If avoidance is not feasible, the resource will be subject to a data recovery mitigation program. If human remains are discovered, the County Coroner will be contacted. See Section 3.9 (Cultural Resources) of the Draft EIR.

CONSTRUCTION IMPACTS ON BIOLOGICAL RESOURCES

Project-related construction activities, and general ground disturbance from construction trucks and equipment may disturb the vegetation and wildlife species in the construction areas. The temporary effects of construction activities, such as increases in noise, vibration, and dust from grading and construction equipment, could also affect the biological resources in the vicinity of construction. Impacts could include: the loss of native vegetation; temporary effects on common wildlife species in the area; and disturbance and removal of riparian, wetland and stream habitat. Construction may result in mortality of common riparian and upland wildlife species. Some of the sensitive species that could be affected include Riversidian Alluvial Fan Sage Scrub, Slender-horned spineflower, Parry's spineflower, Santa Ana River woolly-star, and the San Bernardino kangaroo rat.

Riversidian Alluvial Fan Sage Scrub is a unique vegetation community that includes an assemblage of drought-tolerant deciduous shrubs and larger evergreen woody shrubs that are characteristic of coastal sage scrub and chaparral plant communities, respectively. It is considered a threatened natural community by California Department of Fish and Game because of its limited distribution (typically occurring only on upper alluvial fans along the southern base of the San Gabriel and San Bernardino mountains) and because only remnant tracts remain. Riversidian Alluvial Fan Sage Scrub is also considered unique because it supports assemblages of sensitive plant species, some of which occur only in the Santa Ana River alluvial fan (e.g., the Santa Ana River woolly-star).

Disturbance to native habitats and to sensitive species will be lessened by:

- ◆ Restricting construction activities to previously disturbed areas, where practical;
- ◆ Identifying and avoiding biologically sensitive areas prior to construction activities;
- ◆ Training employees to become familiar with affected species, habitats, and any permit conditions; and
- ◆ Biological monitoring and relocation of species (both common and sensitive) in the construction areas prior to construction.

In addition, dust control, and erosion control measures will be implemented to minimize impacts from ground disturbances, and special efforts will be made to protect species listed under the Endangered Species Act. See Section 3.3 (Biological



Most of the biological resources upstream of Seven Oaks Dam potentially affected by the Project are within the inundation area attributable to flood control operation of the dam. Mitigation for these losses is the responsibility of the U.S. Army Corps of Engineers.



The Santa Ana wash area contains sensitive habitat and associated sensitive species. Mitigation measures would reduce significant environmental impacts.

CONSTRUCTION IMPACTS ON PUBLIC SERVICES, UTILITIES, AND TRANSPORTATION



Some pipeline construction will be in established rights-of-way. Construction will temporarily disrupt some portions of roadways, possibly requiring the temporary use of alternate routes.



Travel along Greenspot Road would be restricted at times, with detours at selected locations.

Project construction has the potential to affect water utilities and transportation services.

During Project construction, water supplies could be temporarily disrupted as new pipelines are installed and connected to the existing water conveyance system. To ensure continuation of water deliveries to local users, arrangements will be made to use alternate water facilities during these times.

Installation of the new pipelines would involve disturbance of the roadways adjacent to the pipeline alignments. Construction would temporarily disrupt portions of the roadways and could increase roadway hazards if construction equipment blocks roadways. Some roads in construction areas may be closed temporarily, which would require residents, public service providers, and emergency response vehicles to use alternate routes during those times. See Section 3.13 (Public Services, Utilities, and Transportation) of the Draft EIR.

Construction impacts on roadways will be mitigated by:

- ◆ Providing weekly updates on construction schedules and road closures to agencies providing emergency services;
- ◆ Notifying all residents in construction areas of planned construction activities one week before their commencement;
- ◆ Providing timely pickup of business and residential refuse, coordinated with construction activities; and
- ◆ Installing warning signs and construction barriers to protect pedestrians near construction areas.

ENVIRONMENTAL IMPACTS OF PROJECT OPERATIONS

The following pages present descriptions of notable and significant operations-related environmental impacts that are likely to occur as a result of the Project. Impacts are anticipated for the resources listed below.

Surface Water Hydrology Reduction in flows in the Santa Ana River.
Increased likelihood of the development of anaerobic conditions in the water detained in Seven Oaks Reservoir.
Sediment erosion and transport at a number of locations.

Groundwater Hydrology Intermittent and local exceedance of water quality objectives for total dissolved solids and nitrates.
Change in extent and location of contaminant plumes.
Management of the interaction between surface and groundwater resources would reduce the potential for liquefaction conditions in certain areas of the City of San Bernardino.

Biological Resources Reduction in the frequency and extent of flood and overbank flows could adversely impact regeneration of Riversidian Alluvial Fan Sage Scrub, San Bernardino kangaroo rat, Santa Ana River woolly-star, Slender-horned spineflower, and Parry's spineflower habitat.

Muni/Western have developed a series of models and other analytical tools to estimate how much water could be reasonably diverted from the Santa Ana River. These computer-based tools are also useful for determining the Project's effects on surface and groundwater hydrology and on other environmental resources. When combined with a detailed understanding of the historic hydrology of the Santa Ana River, this suite of tools provides the numerical basis for many of the determinations of impact significance made in the Draft EIR.

PROJECT-RELATED OPERATIONS IMPACTS

Direct operations-related impacts are anticipated to the following environmental resources:

- ◆ Surface Water Hydrology
 - Reduction of in-stream flows
- ◆ Groundwater Hydrology
 - Changes in water quality
 - Changes in extent and location of contaminant plumes
 - Changes in area susceptible to liquefaction
- ◆ Biological Resources
 - Reduction in “overbank flooding” could affect local sage scrub habitat, Santa Ana River woolly-star, Slender-horned spineflower, Parry's spineflower, and San Bernardino kangaroo rat

PROJECT OPERATIONS IMPACTS ON SURFACE WATER HYDROLOGY

During Project operations, the amount of water flowing in the Santa Ana River downstream from the points of diversion would decrease. Flow rates which would be reduced under all hydrologic conditions, whether high or low, and the frequency and extent of flooding in some areas along the river would decrease. Also, the frequency and amount of water flowing between Cuttle Weir and the confluence with Mill Creek, under low flow conditions, would be substantially reduced.

Under certain conditions, water detained in Seven Oaks Reservoir develops anaerobic conditions. Project operations, without mitigation measures, would increase the possibility of anaerobic conditions developing. Should anaerobic conditions develop in the conservation pool, Muni/Western will participate in a preventative program designed to reverse the water quality degradation.

Erosion of the channel leading to the Lytle Basins could result from water conveyed to the spreading grounds. An energy dissipation structure placed at the discharge end of the water delivery pipeline will be installed to prevent or reduce these effects.

Muni/Western will use water exchanges when groundwater basins approach capacity. Agreements with other agencies would be established or expanded. Santa Ana River water diverted by Muni/Western could be conveyed to regional distribution systems. The diverted water would be distributed to these locations until daily water demand within Muni/Western increases to levels that require return of the water.

The Draft DEIR does not predict direct or indirect environmental consequences of water exchanges. Such exchanges would involve the use of existing facilities and would not involve changes in the manner in which these facilities are operated or maintained. See Section 3.0 of the Draft EIR.



With the Project, the average number of days in the year when there is no flow in the upper Santa Ana River channel will be similar to the number prior to operation of Seven Oaks Dam.

PROJECT OPERATIONS IMPACTS ON GROUNDWATER HYDROLOGY AND WATER QUALITY IN THE SAN BERNARDINO BASIN AREA (SBBA)

Lytle Basins

Managed recharge of Santa Ana River water would occur directly by using selected spreading basins, and indirectly through the delivery of surface water to water treatment plants in lieu of groundwater pumping.



Source: AirPhoto USA, LLC, Copyright 2003

Devil Canyon and Sweetwater Basins

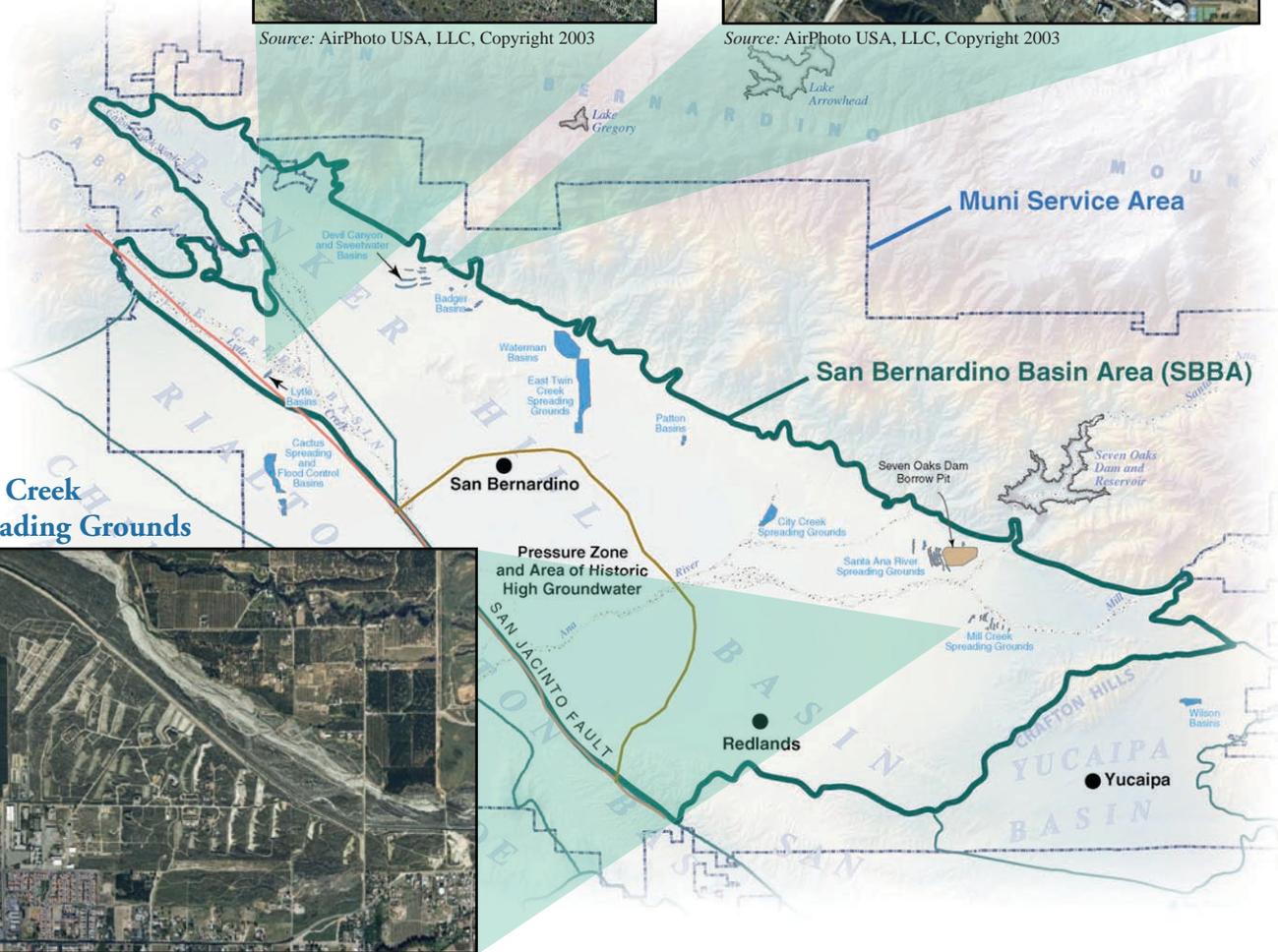


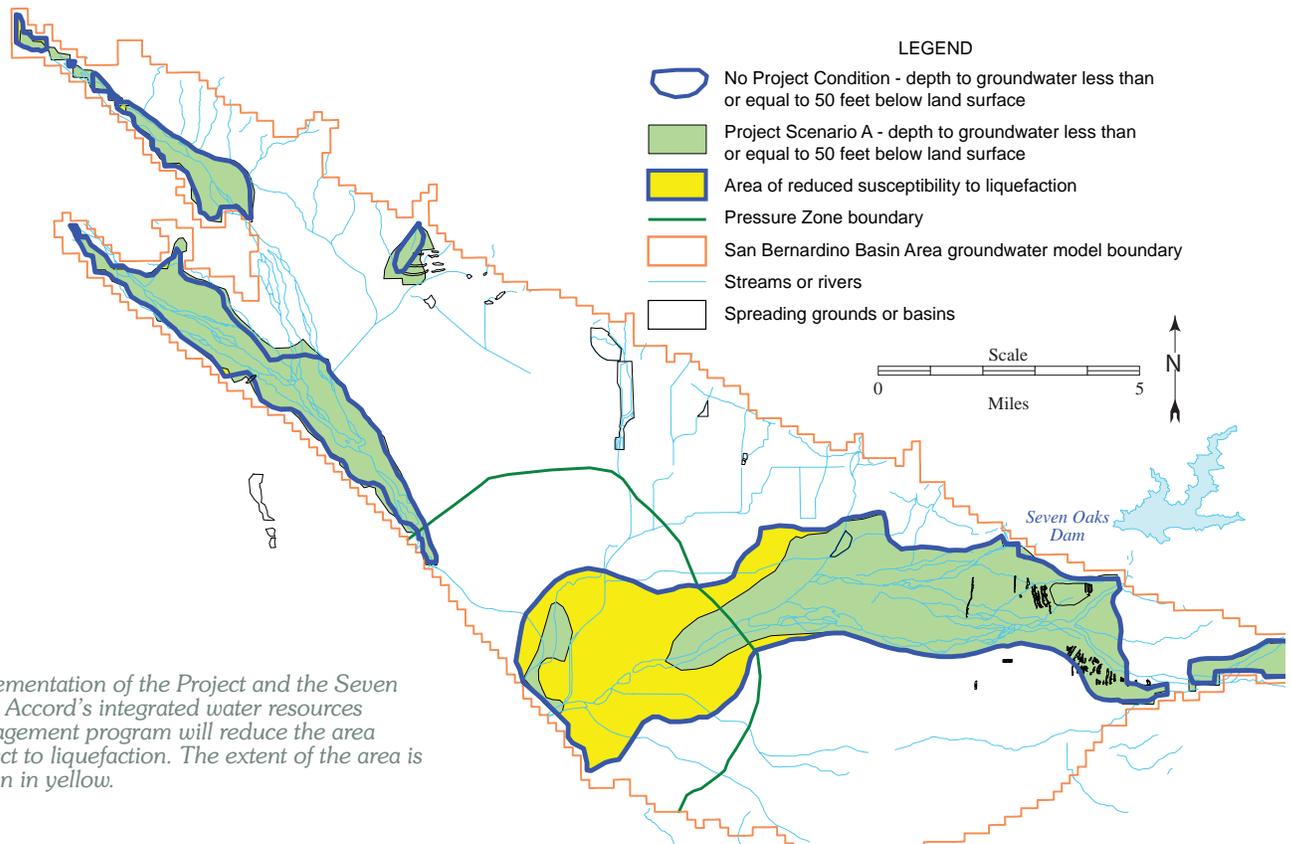
Source: AirPhoto USA, LLC, Copyright 2003

Mill Creek Spreading Grounds



Source: AirPhoto USA, LLC, Copyright 2003





Implementation of the Project and the Seven Oaks Accord's integrated water resources management program will reduce the area subject to liquefaction. The extent of the area is shown in yellow.

Excessively high groundwater levels can create conditions conducive to liquefaction during an earthquake. Liquefaction occurs when the strength and stiffness of a soil is reduced by earthquake shaking or other rapid, strong loading. Liquefaction and related phenomena have been responsible for extensive damage to structures in strong earthquakes. Consistent year-round water extraction in the Pressure Zone and controlled recharge in the Santa Ana River Spreading Grounds are the most effective ways to mitigate excessively high groundwater levels, and reduce the potential for liquefaction.

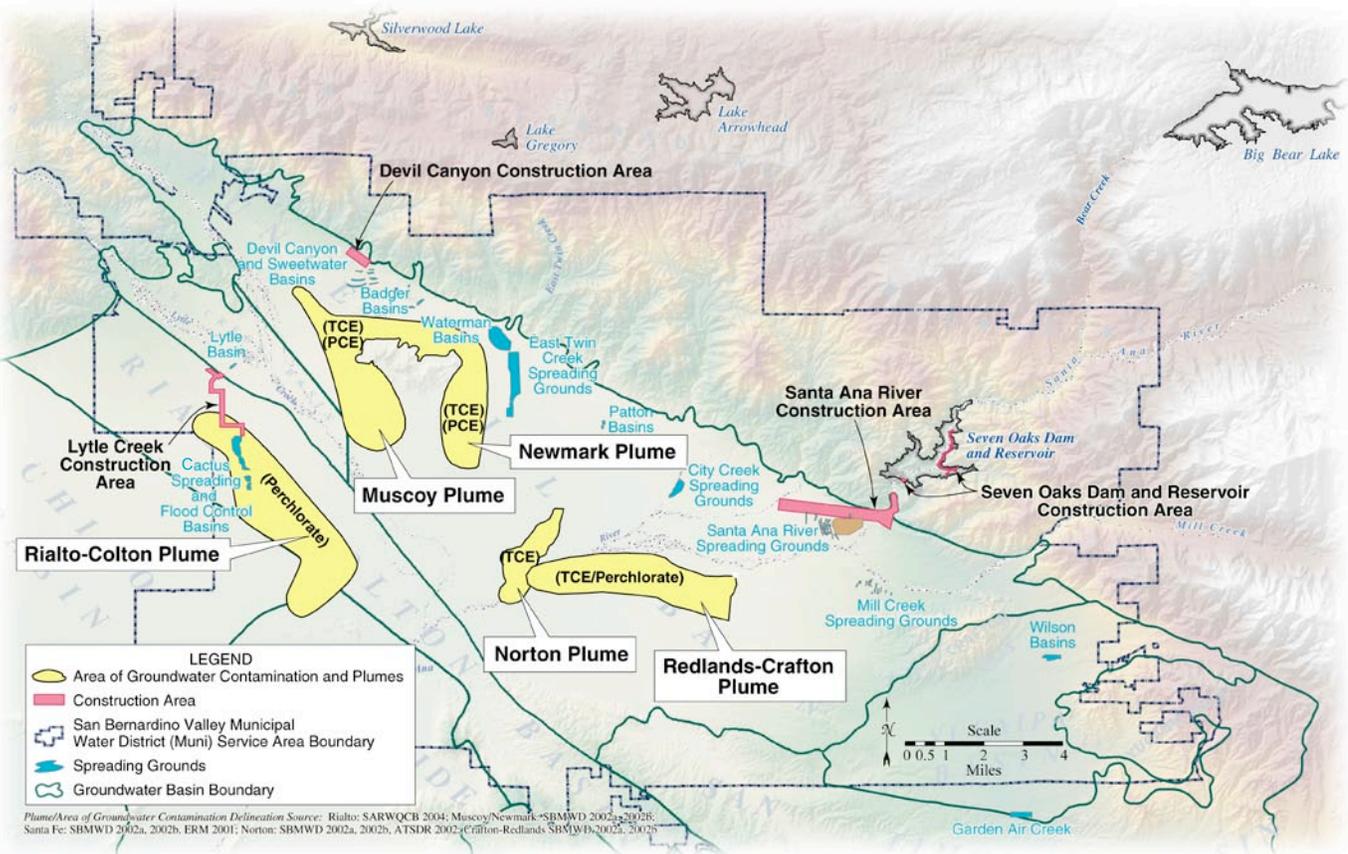
High groundwater conditions in the Pressure Zone of the SBBA are directly related to the amount of surface flow in the main channel of the Santa Ana River, and to the quantity of water recharged in the Santa Ana River Spreading Grounds. The Project diverts water from the Santa Ana River to spreading facilities mostly along the base of the San Bernardino Mountains. This change in both the pattern and timing of groundwater recharge within the SBBA reduces high groundwater conditions in the Pressure Zone and diminishes the risk of liquefaction. See Section 3.2 (Groundwater Hydrology and Water Quality) and Appendix B (Groundwater Hydrology) of the Draft EIR.

PROJECT OPERATIONS IMPACTS ON GROUNDWATER QUALITY

There are several areas of groundwater contamination in the SBBA, the most extensive of which are the Muscoy, Newmark, Redlands-Crafton, and Norton plumes. The Rialto-Colton plume is located just outside the SBBA in the Rialto-Colton Groundwater Basin. The **Muscoy and Newmark Plumes** primarily affect City of San Bernardino water supply wells, however, with groundwater pump-and-treat systems in place, the produced water meets drinking water standards and is delivered to local water distribution systems. The **Redlands-Crafton Plume** requires well-head treatment for some domestic wells. The **Norton Plume** is migrating southwesterly from its origin on the former Norton Air Force Base towards Riverside. Two pump-and-treat systems installed in the plume are slowing the migration and reducing the concentration of contaminants in the aquifer. The **Rialto-Colton Plume** has forced the closure of numerous public drinking water supply wells in the Rialto-Colton groundwater basin.

The Project could influence the extent, direction, and rate of movement of groundwater contamination. Due to the spatial and temporal variability of plume boundaries, the Project could result in beneficial as well as significant impacts. Beneficial impacts including reduced footprint size are expected in relation to TCE (trichloroethylene) and PCE (tetrachloroethylene) contamination in the Muscoy, Newmark, Norton, and Redlands-Crafton plumes. In the case of perchlorate in the Redlands-Crafton Plume, a slight increase in the size of the footprint is forecast.

Using available data, in conjunction with the integrated surface and groundwater models, Muni/Western will identify groundwater trends, including plume movement, and isolate changes attributable to the Project. To the extent feasible, and consistent with meeting other basin management objectives, Muni/Western will direct Project water spreading to limit adverse plume movements.



PROJECT OPERATIONS IMPACTS ON BIOLOGICAL RESOURCES

For much of its length, the upper Santa Ana River has a dry, wide riverbed. The Project would decrease flows in the Santa Ana River, resulting in a reduction in the frequency and extent of flooding in some areas along the river. The term “overbank flooding” describes the condition where flows overtop riverbanks and spill out of the main channel onto adjacent land. Reduced overbank flooding and changes in flow regimes along the Santa Ana River could adversely affect natural habitat such as the Riversidian Alluvial Fan Sage Scrub, and sensitive species including the Santa Ana River woolly-star, Slender-horned spineflower, Parry’s spineflower, and San Bernardino kangaroo rat.

Impacts on biological resources associated with changes in surface flow in the Santa Ana River will be minimized by: monitoring and removing invasive non-native plant species that diminish the value of the affected species; and by implementing a program, prepared in cooperation with federal and state resource agencies, to restore/renew habitat. These measures may be modified and additional measures may be identified as part of compliance with federal and state Endangered Species Act requirements. See Section 3.3 (Biological Resources) and Appendix E (Biological Resources) of the Draft EIR.

The Santa Ana sucker (a federally listed fish native to portions of the Santa Ana River) does not occur in the upper portions of the Santa Ana River. Project-related changes in hydrology are not expected to adversely affect the Santa Ana sucker. This fish is present in the Santa Ana River (below the RIX and Rialto outfall channel) where water reclamation plant discharges maintain water flows. Changes in the flow regime of the Santa Ana River attributable to the Project are virtually indiscernible in these lower portions of the Santa Ana River, so adverse impacts to the habitat are highly unlikely. Additionally, reductions of flood flows could result in benefits to this species by reducing flood flows that may otherwise wash some individuals downstream.

Periodic surface disturbance by overbank flooding outside the main channel can lead to habitat renewal. This process is thought to be important to the persistence of sensitive resources associated with the Santa Ana River alluvial fan.



GROWTH-RELATED AND INDIRECT IMPACTS

The Draft EIR evaluates the reasonably foreseeable indirect physical changes attributable to the Project. Indirect physical changes are those that are not immediately related to the Project, but that are caused indirectly by the Project. Growth-related impacts are the indirect impacts of growth or development, such as the conversion of open land to developed land, added traffic, and increased demand for public services.

The Project, even though consistent with local and regional population projections and plans, would remove an obstacle to population growth by providing additional local water within the Muni/Western service area. Therefore, the Project may indirectly foster economic or population growth or the construction of additional housing within the Muni/Western service area.

Growth accommodated by the Project would indirectly affect the following resources:

- ◆ Hydrology and Water Quality
- ◆ Biological Resources
- ◆ Geology, Soils and Mineral Resources
- ◆ Land Use and Planning
- ◆ Agricultural Resources
- ◆ Recreational Resources
- ◆ Cultural Resources
- ◆ Air Quality
- ◆ Noise
- ◆ Aesthetics
- ◆ Hazardous Materials
- ◆ Public Services, Utilities, and Transportation

Mitigating the growth-related impacts on these environmental resources is primarily the responsibility of local governments and regulatory agencies. See chapter 4 (Growth-Inducing Effects and Growth-Related Impacts) of the Draft EIR.



On a long-term basis, the quantity of additional water provided by the Project could support between about 33,000 and 83,000 persons in the Muni/Western service area. This represents between 4 and 10 percent of the population increase anticipated in the combined service areas between 2000 and 2025.

GROWTH-INDUCING AND INDIRECT IMPACTS

- ◆ Newly conserved water would remove an obstacle to growth.
- ◆ Growth accommodated by the Project would affect the following resources:
 - Hydrology and Water Quality
 - Biological Resources
 - Geology, Soils and Mineral Resources
 - Land Use and Planning
 - Agricultural Resources
 - Recreational Resources
 - Cultural Resources
 - Air Quality
 - Noise
 - Aesthetics
 - Hazardous Materials
 - Public Services, Utilities, and Transportation

ALTERNATIVES TO THE PROJECT

The Draft EIR addresses three water supply alternatives in addition to the No Project Alternative. These alternatives were designed to avoid or substantially reduce the Project's significant impacts to environmental resources by eliminating or reducing Santa Ana River diversions. A brief description of each of the alternatives follows. A detailed discussion can be found in Chapter 5 (Alternatives) of the Draft EIR.

No Project Alternative

The Project would not be built if Muni/Western chose not to go forward with the Project or did not receive a permit from the SWRCB. Construction activities (for diversion or conveyance facilities) and the diversion of Santa Ana River water would not occur. However, since neither Muni nor Western has the authority to restrict use of local groundwater resources or grant or deny land use permits, regional growth would continue and cause growth-related impacts to occur. It is likely that Muni and Western would become more dependent on imported water supplies and groundwater overdrafting could occur.



Well-head treatment facilities to remove water contamination.



Drought-tolerant landscape demonstration garden, Western.



Devil Canyon Power Plant of the State Water Project.

Alternative 1 – New Local Water Supplies

The Draft EIR evaluates three types of new local water supplies in lieu of diversions of Santa Ana River water:

- ◆ Brackish groundwater desalination;
- ◆ Regional water recycling; and
- ◆ Groundwater extraction, with wellhead treatment, from the Riverside Basin.

Distribution of the new local water within the Muni/Western service area would involve construction activities with environmental impacts similar to those of the Project.

Alternative 2 – Enhanced Conservation

The Enhanced Conservation Alternative would provide a similar amount of water to the annual average provided by the Project, i.e., 27,000 afy. This alternative would be primarily implemented in the Muni service area, since Western currently has an active conservation program and Western could achieve only minimal conservation gains. Obtaining an extra savings of 27,000 afy would require new conservation activities to be implemented and maintained over a long period.

Alternative 3 – New Imported Water Supply

The development of new imported water sources, the acquisition of existing water sources followed by the transfer of that water for use in the Muni/Western service area, or a combination of both is considered a feasible alternative to the Project. Two options for new imported water sources are considered: (1) additional SWP Table A Amount, and (2) cooperation in a seawater desalination facility and water exchange. Under this alternative, only those facilities needed to convey water within the Muni/Western service area would be required.

COMPARISON OF ALTERNATIVES

The Project has both beneficial and adverse direct environmental effects. None of the direct impacts would occur if the **No Project Alternative** is selected. The No Project Alternative would reduce the significant indirect (growth-related and development-related) impacts of the Project in the Western/Muni service area. This alternative would not increase water supply reliability and therefore would not meet the Project objectives.

Selection of any of the components of the **New Local Water Supplies Alternative** would result in the same indirect impacts as the Project and, thus, would not reduce or avoid the Project's growth-related impacts. These water supply alternatives would result in greater direct impacts to several environmental resources because new treatment and conveyance facilities would have to be constructed from the water sources to the existing water distribution system. New water conveyance facilities would be required to distribute recycled water to customers able to use this water source. Depending on the specifics of implementation, this alternative could result in greater impacts to water resources and water quality in the lower reaches of the Santa Ana River as well as greater and significant impacts to aquatic species, air quality, aesthetics, and hazardous materials.

Selection of the **Enhanced Conservation Alternative** would result in the same indirect impacts as the Project and thus would not reduce or avoid the Project's growth-related impacts. It would result in fewer direct impacts to all environmental resources since it would not require new construction of conveyance facilities and would not reduce flows in the Santa Ana River. Water demand forecasts prepared by the Santa Ana Watershed Project Authority assume a conservation rate of about 10 percent. To achieve the required conservation of 27,000 afy (the Project's average annual yield) from an annual increase in demand in the Muni service area of about 43,000 af (over the period 2000 through 2025) would require a conservation rate of over 60 percent. Implementation of sufficient conservation measures to permanently decrease regional demand equal to the additional supply provided by the Project could face substantial institutional and consumer resistance and, therefore, may not be achievable or sustainable.

Selection of either of the components of the **New Imported Water Supply Alternative** would result in the same indirect impacts as the Project and, thus, would not reduce or avoid the Project's growth-related impacts. This alternative would result in fewer direct impacts in some environmental resources and more impacts in other resource areas.

ALTERNATIVES TO THE PROJECT

Three alternatives to the Project, each of which avoid or substantially reduce some of the adverse environmental impacts associated with the Project, were identified for detailed analysis. The No Project alternative was also assessed.

- ◆ No Project Alternative
- ◆ Alternative 1: New Local Water Supplies
 - Desalination of brackish groundwater
 - Regional water recycling
 - Increased groundwater extraction (with water quality treatment) from the Riverside Basin
- ◆ Alternative 2: Enhanced Conservation
- ◆ Alternative 3: New Imported Water Supply
 - Additional SWP Table A Amount
 - Desalination of seawater and water exchange

POTENTIAL PERMITS, APPROVALS AND CONSULTATIONS TO IMPLEMENT THE PROJECT



Seven Oaks Dam was constructed by the U.S. Army Corps of Engineers and is managed and operated for flood control by the Local Sponsors.



The U.S. Army Corps of Engineers would be requested to approve alterations to the Seven Oaks Dam, including proposed changes to the intake structure pictured here.

In addition to the agencies listed below, Muni and Western would enter into agreements with agencies to facilitate water exchanges and gain access to, and use of, various pipelines, spreading grounds, and other facilities. As examples, Muni/Western could enter into agreements with Metropolitan and other adjacent water agencies for exchange of Santa Ana River water; and Muni/Western could enter into agreements with the San Bernardino County Flood Control District for access to that agency’s spreading grounds. See Chapter 2 (Project Description) of the Draft EIR.

Agency	Potential Permits/Approvals
U.S. Army Corps of Engineers	<ul style="list-style-type: none"> Approval for any alterations to Seven Oaks Dam and its operations Approval for new pipelines to connect to facilities of Seven Oaks Dam Permits/approvals per Section 404 of the Clean Water Act (for the discharge of dredged or fill material into waters of the United States) Permits/approvals per Section 10 of the Rivers and Harbors Act (for construction in waterways)
U.S. Fish and Wildlife Service	<ul style="list-style-type: none"> Permits/approvals per the Federal Endangered Species Act
U.S. Forest Service	<ul style="list-style-type: none"> Access agreements/permits for construction within the San Bernardino National Forest
California State Water Resources Control Board	<ul style="list-style-type: none"> Approval of Muni/Western water rights applications 31165 and 31370
Santa Ana Regional Water Quality Control Board	<ul style="list-style-type: none"> Section 401 certification for water quality/storm-water runoff during construction National Pollutant Discharge Elimination System permit for pipeline construction activities
California Department of Fish and Game	<ul style="list-style-type: none"> Section 2081 permit per the California Endangered Species Act Section 1600 Streambed Alteration Agreement
State Historic Preservation Officer	<ul style="list-style-type: none"> Consultations per Section 106 of the National Historic Preservation Act
South Coast Air Quality Control Board	<ul style="list-style-type: none"> Permit to Construct Approval of fugitive dust emissions plan
County of San Bernardino	<ul style="list-style-type: none"> Road Encroachment and Closure permit Flood Control Right-of-Way (for construction in the floodplain) Soil Erosion and Sediment Control Permit
City of Highland	<ul style="list-style-type: none"> Road encroachment and closure permits
City of Rialto	<ul style="list-style-type: none"> Road encroachment and closure permits
San Bernardino County Flood Control District, Orange County Flood Control District, and Riverside County Flood Control and Water Conservation District (Local Sponsors of Seven Oaks Dam)	<ul style="list-style-type: none"> Encroachment permits and access agreements
The Metropolitan Water District of Southern California	<ul style="list-style-type: none"> Encroachment permits and access agreements

OTHER WATER RIGHT APPLICATIONS

As a result of many factors, including the urbanization of the Santa Ana River watershed, the importation of water from the Colorado River and SWP, and management actions by others (including the operation of Big Bear Lake and the construction of Seven Oaks Dam), several public entities, in addition to Muni/Western, have made application to the California State Water Resources Control Board (SWRCB) to be granted an appropriative right to some of the additional water now carried by the Santa Ana River. These applications include:

- ◆ Muni/Western (Application Number 31165)
- ◆ Orange County Water District (Application Number 31174)
- ◆ Chino Basin Watermaster (Application Number 31369)
- ◆ Muni/Western (Application Number 31370)
- ◆ San Bernardino Valley Conservation District (Application Number 31371)
- ◆ City of Riverside (Application Number 31372)

Some of these applications overlap and compete for the same water while others are independent and seek to appropriate different water.

The SWRCB has received information on the hydrology and other resources of the Santa Ana River, and the amount and timing of anticipated diversions. The Board has a well-established public process to determine the amounts and nature of water rights. Following this process, it is expected that the Board will hold one or more water right hearings on the Santa Ana River.

SUMMARY OF KEY POINTS

Muni/Western's Santa Ana River Water Right Applications will:

- ◆ Increase water supply reliability by reducing dependence on imported water;
- ◆ Develop and deliver a new, local, high quality, long-term water supply that is needed to meet part of anticipated future demands; and
- ◆ Expand operational flexibility by adding infrastructure and varying sources of water, thereby providing Muni/Western with greater capability to match varying supply and demand.

Project diversions from the Santa Ana River will vary depending on a number of factors. Over a 39-year future period, Muni/Western could have the opportunity to capture over one million acre feet of water from the Santa Ana River. Over the long-term, the average annual amount could be as high as 27,000 af.

	Maximum Diversion Rate (1,500 cfs)	Minimum Diversion Rate (500 cfs)*
Average Annual	27,000 af	10,000 af
Cumulative Total	1,054,000 af	401,000 af
Maximum Annual	198,000 af	104,000 af

**In the first printing of this Community Report, for the Minimum Diversion Rate (500 cfs), Average Annual Diversion was shown as 11,400 af, Cumulative Total as 445,000 af, and Maximum Annual as 121,000 af.*

Most of the Project's significant environmental impacts can be reduced to a less than significant level through implementation of a number of mitigation measures. However, some significant impacts in the following environmental resources are unavoidable: surface water hydrology and water quality; groundwater hydrology and water quality; geology and soils; air quality; cultural resources; noise; and public services, utilities, and transportation.

The Project will meet Muni and Western's primary goals and objectives by providing the additional facilities to improve water management operational flexibility, while increasing water supply reliability and reducing the dependence on imported supplies.

For Further Information

San Bernardino Valley Municipal Water District

1350 South E Street, San Bernardino, CA 92408-2725
Post Office Box 5906, San Bernardino, CA 92412-5906
(909) 387-9211 (Telephone) (909) 387-9247 (Fax)
Contact: Robert L. Reiter, General Manager and Chief Engineer

Western Municipal Water District of Riverside County

450 Alessandro Boulevard, Riverside, CA 92508-2449
Post Office Box 5286, Riverside, CA 92517-5286
(951) 789-5000 (Telephone) (951) 780-3837 (Fax)
Contact: John V. Rossi, General Manager

For Review of Printed Copies of Documents

This Community Report, along with the Draft EIR and its Appendices, will be available for public review at the libraries listed below and at the offices of both Muni and Western, the co-lead agencies.

- ◆ A.K. Smiley Public Library
125 West Vine Street, Redlands, CA 92373 (909) 798-7565
- ◆ City of San Bernardino Public Library
555 West Sixth Street, San Bernardino, CA 92410 (909) 381-8201
- ◆ Riverside Public Library
3581 Mission Inn Avenue, Riverside, CA 92501 (951) 826-5213
- ◆ San Bernardino County Library, Highland Branch
27167 Baseline, Highland, CA 92346 (909) 862-8549
- ◆ San Bernardino County Library, Mentone Branch
1870 Mentone Boulevard, Mentone, CA 92354 (909) 794-2657
- ◆ City of Colton Library
656 North Ninth Street, Colton, CA 92324 (909) 370-5083
- ◆ Corona Public Library
650 South Main Street, Corona, CA 92882 (951) 736-2382
- ◆ Riverside County Library, Lake Elsinore Branch
600 West Graham, Lake Elsinore, CA 92530 (951) 674-4517

Public Hearing and Comments on the Draft EIR

Public hearings on the Draft EIR will be held. Please see the Notice of Availability for times, dates, and locations.

Every effort has been made in this Community Report to represent accurately the information contained in the Draft EIR. If there are any discrepancies, please rely on the discussion in the Draft EIR.

NOTES

COMPACT DISCS CONTAINING THE DRAFT EIR AND APPENDICES, ORIGINAL
COMMUNITY REPORT, FINAL EIR AND APPENDICES, UPDATED COMMUNITY REPORT



**DRAFT ENVIRONMENTAL IMPACT REPORT
(INCL. APPENDICES) AND
ORIGINAL COMMUNITY REPORT**
SANTA ANA RIVER WATER RIGHT APPLICATIONS
FOR SUPPLEMENTAL WATER SUPPLY

Second Printing

October 2004



**FINAL ENVIRONMENTAL IMPACT REPORT
(INCL. APPENDICES) AND
UPDATED COMMUNITY REPORT**
SANTA ANA RIVER WATER RIGHT APPLICATIONS
FOR SUPPLEMENTAL WATER SUPPLY

January 2007

SANTA ANA RIVER WATER RIGHT APPLICATIONS FOR SUPPLEMENTAL WATER SUPPLY COMMUNITY REPORT

UPDATED

January 2007

