

## VI. AUGMENT WATER SUPPLY

The Findings for Adoption of the Water Allocation Program EIR identified a set of general mitigation measures that relate to increasing the water supply. Finding No. 403-A states that the District shall pursue construction of a major, long-term water supply project to provide water for restoration of the environment and for public water supply. Finding No. 403-B states that the District should pursue a series of smaller "near-term" water supply projects to provide additional water for drought protection and some new growth until the long-term project is completed.

In 1996, District efforts related to both long-term and near-term projects were consolidated into the MPWMD Water Augmentation Plan (WAP). The first WAP report was received by the Board in December 1996, and specific goals were adopted in January 1997. Revised WAP objectives were set in January 1998, April 2000, and March 2001. In September 2001, the MPWMD Board set its top five strategic planning initiatives, three of which entailed augmenting the water supply. Periodic Board workshops were held to receive progress reports and provide policy guidance. The MPWMD Board adopted its Strategic Plan in October 2005, which set goals and objectives for Water Year 2006 (October 1, 2005 through September 30, 2006). These objectives guided activities described in this annual report for the July 2005-June 2006 period.

To maintain consistency with the Water Allocation Program EIR, the following sections describe MPWMD efforts for long-term and near-term projects separately. In practice, District water augmentation efforts are integrated. For aquifer storage and recovery (ASR), the long-term MPWMD Phase 1 ASR Project and associated water rights will be described under Section VI-A; the annual ASR testing activities will be discussed under Section VI-B.

The following paragraphs provide a brief setting followed by action in 2005-2006. Please refer to previous Mitigation Program Annual Reports or quarterly reports to the MPWMD Board for detailed background information. District staff also prepares weekly updates to the Board on water augmentation activities. The weekly and quarterly information is available on the District website at: [www.mpwmd.dst.ca.us](http://www.mpwmd.dst.ca.us).

### A. Long-Term Water Supply Project

#### Description and Purpose

***Carmel River Basin:*** In November 1995, the electorate did not approve the then-proposed 24,000 acre-foot (AF) New Los Padres Dam and Reservoir (NLP) Project, and did not authorize the District to issue revenue bonds for the project. Since then, the District has focused its efforts on non-dam alternatives through its Water Augmentation Plan and Strategic Planning Workshops. The District extensively participated in the 1999-2002 California Public Utilities Commission (CPUC) "Plan B" process to identify a non-dam alternative to the NLP; the District continues to work with California American Water (CAW) and other local agencies on water supply solutions.

The State Water Resources Control Board (SWRCB) decisions on Carmel River issues in July 1995

continued to influence water augmentation efforts through June 2006. The SWRCB Order WR 95-10 identified an estimated 10,730 acre-feet per year (AFY) of historical unpermitted CAW diversions from the Carmel River that must be replaced by another water project or projects. Order 95-10 includes a “one-for-one replacement” requirement, whereby any new water that is developed must first completely offset the 10,730 AFY unlawful diversions from the Carmel River before any water can be used for new construction or remodels that intensify water use in the CAW system. Thus, near-term projects could potentially serve as a source of “supplemental water” to provide for the needs of existing legal lots of record and other future needs only when Order 95-10 requirements have been fully satisfied by a larger project or series of projects.

Community water augmentation efforts have focused on compliance with Order 95-10 as a primary goal. Project proposals since 1996 have included: CAW Carmel River Dam and Reservoir Project (CRDRP), off-stream reservoir storage, ASR, local and regional desalination projects, reclamation for irrigation or groundwater recovery, and storm water reuse.

Since 1996, MPWMD environmental review efforts as a lead agency under the California Environmental Quality Act (CEQA) have focused on CAW’s CRDRP (application was denied in August 2003); an MPWMD proposal to construct a local 8,400 AFY desalination project in Sand City; as well as the MPWMD Phase 1 ASR Project. MPWMD is also a responsible agency or active participant in other agencies’ environmental review of water supply proposals as described below.

***Seaside Basin:*** Though much attention is focused on the Carmel River Basin due to Order 95-10, management of the Seaside Basin also has important ramifications for long-term community water supply. SWRCB Order 95-10 directs CAW to maximize pumping in the Seaside Basin to the extent practicable in order to reduce diversions from the Carmel River. Thus, since 1995, the Seaside Basin has become an increasingly important source of water supply. Unfortunately, it has also exhibited signs of stress from over-pumping due to Order 95-10 as well as significant increases in non-CAW use. In December 2000, the MPWMD Board directed staff to begin planning activities to prepare a Seaside Basin Groundwater Management Plan (SBGMP) in compliance with protocols set by the State of California (AB 3030 as amended by SB 1938), in coordination with major well owners in the basin. In 2002, the District began evaluating two conceptual interim ordinances that would be in place until the long-term SBGMP is adopted, but this effort was terminated in 2004. Concurrently, staff continued public outreach on the SBGMP itself.

Complicating this task was litigation filed by CAW on August 14, 2003 requesting a Court adjudication of the Seaside Basin. The lawsuit involved issues such as: prioritization and quantification of water rights within the basin; rights to aquifer storage within the basin; rights to artificially introduce non-native water into the basin through direct injection or spreading grounds; a judicial determination that the basin is in overdraft; and the appointment of a water master to manage the basin water rights and resources. The District was recognized as an interested party and participated in all proceedings, including a non-jury trial in December 2005. District staff served as expert witnesses in the hearing and helped prepare extensive pre-trial documentation.

Judge Robert Randall rendered a Final Decision on March 27, 2006. The complex and lengthy

Decision determined that the Seaside Basin is in overdraft; set a reduced “natural safe yield” and a near-term “operating yield” allowed to be produced by the parties as they work toward a “physical solution” (including ASR and wastewater reclamation) to eliminate the overdraft. A nine-member Watermaster Board was created to implement the Decision with continued oversight by the Court. The MPWMD holds one seat on the Watermaster with two out of 13 votes. The MPWMD Board selected Chairwoman Michelle Knight as the MPWMD representative to the Watermaster Board. The Watermaster has held monthly meetings since its formal commencement on April 5, 2006. District staff have also participated in the Watermaster Technical Committee and contributed significantly to the Basin Monitoring and Reporting Plan that was submitted to the Court in late May 2006 (required within 60 days of the Final Decision).

**MPWMD Board Priorities:** Based on a Strategic Planning Session held on September 8, 2005, and ratified at the October 17, 2005 regular meeting, the Board identified the following water supply objectives for year 2006:

- WS1: Determine existing and future water needs.
- WS2: Evaluate water supply options to meet community needs.
- WS3: Determine MPWMD role in governance of Regional Urban Water Supply project.
- WS4: Encourage public participation and understanding.
- WS5: Pursue MPWMD water supply projects.
- WS6: Create Board Water Supply Committee and charge (*deleted January 26, 2006*).

The District Board re-confirmed that it would not proceed on further analysis of a local MPWMD-owned desalination project in the Sand City area, and instead focus its efforts on collaboration with other agencies on a regional water supply project.

At the November 21, 2005 regular meeting, the Board approved six workshop dates to address specific water supply issues consistent with the water supply objectives noted above. The workshop schedule was subsequently revised to the five workshop dates as shown below:

- 1/25/06: Aquifer Storage and Recovery – Overview and Future Possibilities
- 2/22/06: Regional Urban Water Supply Board Governance
- 3/23/06: Water Needs Analysis, Existing Setting and Demand
- 5/18/06: Water Needs Analysis, Future Demand at Buildout
- 6/29/06: Desalination Projects Assessment

The workshop and other information was used to prepare the 2006 Water Supply Augmentation Update (Comparative Matrix) which was reviewed at the August 17, 2006 Board meeting.

#### Implementation and Activities During 2005-2006

The following paragraphs describe action on Water Supply Objectives WS1 through WS5 in the July 1, 2005 through June 30, 2006 period. For clarity, background information is provided for certain objectives.

#### **WS1: DETERMINE EXISTING AND FUTURE WATER NEEDS**

At a March 23, 2006 special workshop, District staff concluded that, all things considered, 7,690 acre-feet per year (AFY) of replacement water would be needed at a minimum to meet existing water needs. A maximum of 13,236 AFY could be needed, depending on the assumptions made. A second workshop was held on May 18, 2006 to address future water needs, based primarily on projections made by the District's Technical Advisory Committee (TAC), comprised of jurisdiction planning staff. The TAC evaluated water needs associated with various types of uses anticipated at "build-out," based on current General Plans. An estimated 4,545 AF would be needed to meet these needs, including a 20% "contingency" factor to cover unanticipated water needs or upgrades from current restrictions as well as "paying back" current retrofit credits allowed by MPWMD Rules & Regulations ("borrowed" against a future water allocation).

## **WS2: EVALUATE WATER SUPPLY OPTIONS TO MEET COMMUNITY NEEDS**

At its February 23, 2006 meeting, the District Board approved retaining a team of water supply engineering design experts led by Bookman-Edmonston/GEI Consultants to conduct an independent technical evaluation of three proposed desalination projects previously reviewed in the comparative water supply matrix: (1) Coastal Water Project at Moss Landing proposed by CAW; (2) the Monterey Bay Regional Desalination Project at Moss Landing proposed by Pajaro/Sunny Mesa Community Services District (PSM); and (3) MPWMD desalination project proposed in the Sand City area. Through mid-June 2006, District staff and consultants reviewed available reports and worked with CAW and PSM to obtain the most recent available engineering and cost information. This culminated in a report presented to the Board at its June 29, 2006 workshop. The consultants provided an independent review of the following attributes for each of the three desalination projects:

- Function (Purpose and Water Distribution);
- Projected Performance (Desalination Process and Waste Stream);
- Economics (Cost and Financing);
- Regional Supply Considerations (Regional solutions and Redirected Impacts);
- Implementability (Permits and Readiness to Proceed).

The consultants noted that all projects are at early stages of development, which precludes accurate comparisons of component costs. Recommendations were made to increase the contingency amounts for the Moss Landing projects and reduce the estimated cost of operations for the MPWMD Sand City project. The Board requested additional information on certain report elements, which will be described in next year's report.

## **WS3: DETERMINE MPWMD ROLE IN GOVERNANCE OF REGIONAL URBAN WATER SUPPLY PROJECT**

District staff continued to coordinate with Monterey County Water Resources Agency (MCWRA), Monterey Regional Water Pollution Control Agency (MRWPCA), and Marina Coast Water District (MCWD) on regional water supply solution opportunities. The District General Manager continued to participate in Monterey County-led meetings of water district and city/county representatives regarding a potential governance structure for a regional water supply planning entity proposed to be called the Monterey Bay Regional Water Authority (MBRWA).

## **WS4: ENCOURAGE PUBLIC PARTICIPATION AND UNDERSTANDING**

District staff continued to communicate with the public through weekly updates posted to the District website and monthly presentations at Board meetings, which were carried by public access television. Public participation and understanding of water supply issues were a major goal of the five special workshops noted above.

#### **WS5: PURSUE MPWMD WATER SUPPLY PROJECTS**

The primary water supply effort in 2006 focused on ASR, specifically pursuit of the permanent Phase 1 ASR Project at the Santa Margarita test site. This entailed completion of an Environmental Impact Report (EIR) and Environmental Assessment (EA) to meet state and federal environmental review requirements. Both the existing and future ASR programs require permits from SWRCB and other entities. These efforts are described below. In addition, the Board approved a user fee adjustment to fully fund the Phase 1 ASR Project in June 2005. Testing of the existing full-scale Santa Margarita Test Injection Well is addressed in Section VI-B below.

***Prepare Draft EIR/EA to Evaluate MPWMD ASR Project:*** In Fall 2004, the Board retained Jones & Stokes Associates (JSA) and Padre Associates to help prepare an EIR on the District's ASR project. A Notice of Preparation of an EIR was issued on December 13, 2004. Based on comments received, the Board in March 2005 directed staff and consultants to focus only on the Phase 1 project. The primary goal of the MPWMD Phase 1 project is better management of existing water resources to help reduce current impacts to the Carmel River, especially during the dry season. The project is viewed as being complementary to other larger, long-term water augmentation projects that are currently being explored by various entities. The project entails a maximum diversion of 2,426 AFY from the Carmel River for injection, a maximum extraction of 2,000 AFY from the ASR wells in the Seaside Basin, and an average yield of about 1,050 AFY. The proposed operation of the Phase 1 ASR Project would result in reduced pumping of the Carmel River in the Summer/Fall and increased storage in the Seaside Basin, which are both considered to be environmentally beneficial.

At a December 22, 2005 meeting between the staffs of the U.S. Army, MPWMD and CAW, the Army staff confirmed that the EIR/EA adequately addressed the environmental effects of the MPWMD Phase 1 ASR Project. However, the Army also indicated that a permit (easement) for the Phase 1 ASR project could not be issued until another Environmental Assessment was also prepared for a temporary CAW pipeline to help improve existing operational flexibility and maximize the Phase 1 ASR Project performance. The Army position was a significant, substantial change from previous direction to both MPWMD and CAW. The Army recommended that the CAW temporary pipeline information be incorporated into the EIR/EA for the MPWMD Phase 1 ASR Project as the most efficient way to facilitate issuance of two separate permits – one to MPWMD for the ASR Project and one to CAW for the temporary pipeline. On January 12, 2006, CAW agreed to separately pay Jones & Stokes to add the pipeline information into the District's EIR. The new information was incorporated, then reviewed by MPWMD, CAW and the Army prior to formal release for public review in late March 2006.

On March 23, 2006, the District issued the Draft EIR/EA on the MPWMD Phase 1 ASR Project, including information on the temporary pipeline for NEPA (Army) purposes. District action only

addressed the CEQA EIR component. The document was circulated for comments through May 8, 2006, and an extension to May 22, 2006 was granted to agencies that requested it. A public hearing to receive oral comments was held on April 17, 2006. A Notice of Availability, Executive Summary and detailed impact table were placed on the District website:

[http://www.mpwmd.dst.ca.us/asr/EIREA\\_NOCmailer\\_031706.htm](http://www.mpwmd.dst.ca.us/asr/EIREA_NOCmailer_031706.htm).

A total of nine comment letters and one oral comment (referring to a letter) were received in May and early June 2006. As the 2005-2006 reporting period ended, staff and consultants continued to develop responses to public comments, with emphasis on comments submitted by California Dept. of Fish and Game (CDFG), and National Marine Fisheries Service (NMFS), which encapsulate many comments offered by other entities. These comments are also significant as both CDFG and NMFS previously filed water rights protests on the Phase 1 ASR Project (see below). Meetings and other communications to educate CDFG and NMFS staff, computer modeling, and preparing specific text for ASR operations and mitigation measures to demonstrate benefit to and protection of the Carmel River continued into the next reporting year, and a goal of August 21, 2006 was set to certify the EIR. Please see next year's report for more information.

***Obtain Water Rights Permit for ASR Project:*** District staff met with SWRCB staff on June 21, 2006 to continue to: (1) update the SWRCB on responses to comments on the Draft EIR/EA on the Phase 1 ASR project, particularly the efforts to address CDFG and NMFS concerns; (2) describe coordination with CAW; (3) determine next steps for the District's permit application for water rights for the long-term ASR project; (4) discuss other District water rights issues; and (5) describe Seaside Basin status and activities. Regarding Phase 1 water rights, two Petitions for Change were originally submitted by the District in October 2001 and revised in September 2003. The SWRCB noticed the District's Petitions on April 15, 2005. The District prepared formal responses to the NMFS and CDFG protests in mid-June and July 2005, respectively. Since then, the District has worked with NMFS and CDFG regarding protest dismissal terms. If the two protests are dismissed, the SWRCB could issue a water rights permit for the Phase 1 ASR Project administratively in a short period of time. This issue was not resolved by June 30, 2006; please see next year's report for more information.

***Obtain Use Permit from City of Seaside for ASR Project:*** After an initial consultation meeting, the District submitted an application and fees for a Conditional Use Permit (CUP) to the City of Seaside on May 26, 2006. In a letter dated June 25, 2006, the City determined that the application was not complete. It asked for certain property owner and construction-related information and requested consideration of an altered site location. The letter also asserted proposed terms for a joint easement from the U.S. Army, which the District questioned as a real estate issue rather than a use permit issue. In response, the District requested a meeting with City officials in July 2006 to discuss these issues. Please see next year's report for additional information.

**Interagency Cooperation:** District staff continued to work with CAW staff and consultants to discuss ways to further ASR as a needed component of the “water portfolio” for the Peninsula, both now and in the future. District staff led the effort to obtain \$497,000 of Proposition 50 grant funds to prepare an Integrated Regional Water Management Plan (IRWMP) for the Monterey Bay Area. Final written approval of State Department of Water Resources (DWR) funding was made in early January 2006. Since then, the District staff has worked closely with its local public and non-profit partners to complete the IRWMP, including retaining specialized consultants for this type of work. Completion of a professional IRWMP will position our area to receive implementation funds for specific projects, such as the MPWMD ASR Project.

## **B. Near-Term Water Supply Projects**

Section VI-A above describes non-dam alternatives to help meet the requirements of SWRCB Order 95-10, including the long-term MPWMD Phase 1 ASR Project. This section focuses on the annual ASR testing aspect. Since 1996, the District has evaluated Seaside Basin ASR because it has the most promise, in the near-term, to improve drought protection for existing consumers, help reduce diversions from the Carmel River, and better protect the Seaside Basin from drawdown impacts. ASR testing entails diverting excess water flows (typically in Winter/Spring) from the Carmel Valley Alluvial Aquifer through existing CAW facilities and injecting the water into the Seaside Groundwater Basin for later recovery in dry periods. To date, the District has constructed two test wells in the Seaside Basin. District staff first installed a shallower ASR pilot test well into the Paso Robles Formation in Spring 1998, and completed a 720-foot deep well full-scale test well into the Santa Margarita Formation in March 2001. Injection now primarily occurs at the MPWMD Santa Margarita Test Injection Well (SMTIW) located on the former Fort Ord military base, just east of General Jim Moore Boulevard near Eucalyptus Avenue. The injection phase of testing occurs in Winter-Spring, and the recovery phase of testing occurs in Summer-Fall. Diversions for injection are based on annual temporary permits from the SWRCB. MPWMD then submits detailed annual reports to the SWRCB after each testing season.

### Implementation and Activities During 2005-2006

On December 14, 2005, the District received a temporary permit #21175 from the SWRCB for continued ASR testing through May 2006, pending adequate flows in the Carmel River as set by the SWRCB in consultation with federal and state fishery agencies. An annual diversion limit of 650 AF was set for 2006. Injection testing began on January 4, 2006 and proceeded until January 31, 2006, when flows dwindled. Diversions began anew on February 27, 2006, and continued through May 2006. In Water Year 2006, a total of 411 AF were diverted and injected into the Seaside Basin. Thus, the injection grand total to date is 1,861 AF at the SMTIW site. As water was injected, various testing efforts associated with water quality and storage were carried out. District and CAW representatives finalized a Management and Operations Agreement (MOA) regarding ASR testing, mutual aid, cost-sharing, water rights and other issues. The MOA was signed by both parties in late March 2006. Since then, cooperative meetings and action on ASR technical issues and water rights have occurred.