

San Diego Integrated Regional Water Management Implementation Grant Proposal Reduce Delta Water Dependence

Attachment 15 consists of the following item:

- ✓ **Summary of IRWM Plan Relating to Reducing Delta Water Dependence.** This attachment describes how the San Diego IRWM Plan will reduce dependence on the Sacramento-San Joaquin Delta for water supply.
- ✓ **Assurances that IRWM Plan Update Will Continue Reducing Delta Water Dependence.** The San Diego RWMG is committed to ongoing implementation and revision of the IRWM Plan in ways that continue to reduce dependence on the Sacramento-San Joaquin Delta.

This attachment summarizes the portions of the San Diego IRWM Plan (Plan) that reduce dependence on the Sacramento-San Joaquin Delta for water supply and documents relevant Plan excerpts to support this summary.

Summary of IRWM Plan Relating to Reducing Delta Water Dependence

The San Diego IRWM Plan addresses reduced water supply dependence on the Sacramento-San Joaquin Delta water in three key areas:

- 1) IRWM Plan Objectives (Section C);
- 2) IRWM Plan Benefits (Section H); and
- 3) Selection of the Tier 1 projects that reduce the region's reliance on imported water (Section L).

These three areas are described below with Plan excerpts provided for support and documentation.

IRWM Plan Objectives Relating to Reducing Delta Water Dependence

One of the nine objectives of the San Diego IRWM Plan, Objective D, is to "Develop and maintain a diverse mix of water resources" in order to reduce dependence on imported water supplies. The presentation of that objective includes eight designated targets for the region in achieving that objective, as shown in the excerpt below from *Section C: Vision, Mission, Goals and Objectives*.

Section C: Vision, Mission, Goals and Objectives (pages C-8 to C-10)

Objective D: Develop and maintain a diverse mix of water resources.

Continue to develop diverse water resources to meet the local supply and conservation goals identified in the Region's local water plans, and reduce dependence on imported water supplies and avoid shortages during drought periods. The diverse mix of water resources being developed includes water transfers, recycled water, water conservation, seawater desalination, local surface water, and groundwater.

The focus of this objective is to meet the requirements of Goal 1 (optimize local water supply reliability). The Region's approximate population of three million and the Region's economy (gross regional product of more than \$160 billion, as shown in Table B-7) are both dependent upon a reliable water supply.

Determination and Rationale for Objective D. As documented within the *California Water Plan Update 2005* (DWR, 2005), water allocation, environmental, and hydrologic constraints present significant challenges to the sustainability of historic State Water Project and Colorado River supplies, particularly during long-term droughts. Additionally, the Region's reliance on Metropolitan water supplies renders the region vulnerable to short-term reliability issues (e.g., earthquake,

landslides, terrorism). Water demands within the region are also expected to increase, based on SANDAG’s Regional Growth Forecast despite conservation efforts (see Table B-28 on page B-67).

During the last major drought in California (1987-1992), the Region was over 90 percent reliant on supplies from Metropolitan. As a result of the drought, however, Metropolitan ordered a 50 percent cutback of the Region’s imported supplies. The results of Metropolitan’s cutback would have been devastating to the businesses and residents in the Region except for a late season “Miracle March” rainfall that allowed Metropolitan to roll back its proposed imported water reductions from 50 to 31 percent. Even at this level the Region was impacted more than other regions in Southern California because of its high dependence upon imported supplies from Metropolitan.

Since the 1987-1992 drought, the Water Authority and its member water supply agencies adopted plans and policies to diversify the Region’s supplies and reduce reliance on a single supply source. Diversification of regional water portfolios is also a key element of Initiative (see pages A-3 and A-4) of the *California Water Plan Update 2005* (DWR, 2005). Maximizing development of local supplies is a key objective of the Water Authority’s *Updated 2005 Urban Water Management Plan* and in water management plans developed by the Region’s water supply agencies. Objective D is consistent with these plans and policies.

Water conservation (reducing water demand and use) is the Region’s most cost effective option, and is a central component of the Region’s diversification program. Significant progress in water conservation has resulted in over 50,000 acre-feet of water savings within the region, and forecasted water conservation within the region is projected to result in water savings of more than 100,000 acre-feet per year by 2030 (see Table B-29 on page B-70).

Objective D Targets. Table C-4 presents quantifiable Objective D targets established by the RWMG with input from the RAC. Objective D targets were derived from the water supply targets and goals within water plans of the Water Authority and County.

Table C-4
Designated Targets for Achieving IRWM Plan Objective D
Develop and Maintain a Diverse Mix of Water Resources

Targets for Measuring Progress Toward Achieving Objective D1
<ol style="list-style-type: none"> 1. Increase water conservation savings from about 51,090 AFY in 2006 to at least 79,960 AFY by 2010 and 108,400 AFY by 2030. 2. Increase seawater desalination capability within the region from zero AFY to 34,690 AFY by 2015 3. Increase recycled water use from about 14,830 AFY in 2006 to 33,670 AFY by 2010 and 47,580 AFY by 2030. 4. Increase groundwater supply within the Water Authority service area from about 14,960 AFY in 2006 to 28,580 AFY by 2010 and 31,180 AFY by 2030. 5. Implement Colorado River conservation and transfer programs, increasing deliveries from 35,000 AFY in 2006 to 277,700 AFY by 2030. 6. Include an analysis in the Water Authority 2010 Urban Water Management Plan that assesses the effect of climate change on future water supplies. 7. Develop and implement regional drinking water source protection guidelines for the Region by 2012. 8. Meet groundwater supply and water quality objectives identified in the County’s General Plan 2020 for groundwater-dependent communities by 2012.
<p>¹ IRWM Plan objective targets developed by the RWMG and RAC IRWM Plan objective targets developed by the RWMG and RAC to be collectively achieved by the Region’s IRWM institutional structure, government agencies, non-government organizations, and stakeholders. Targets are from Water Authority’s Fiscal Year 2006 Annual Report (Water Authority, 2007).</p>

The numerical targets for Objective D (water supply diversity) address water conservation, seawater desalination, recycled water use, groundwater use, water transfers, climate change effects, and drinking water source protection. The targets also address sustaining water supply in groundwater-dependent areas of the Region.

IRWM Plan Benefits Relating to Reducing Delta Water Dependence

The IRWM Plan lists reduced Delta water dependence as one of the inter-regional benefits of implementing proposed Tier 1 projects that focus on water conservation, groundwater, water transfer, desalination and recycled water, as presented in *Section H: Impacts and Benefits*:

Section H: Impacts and Benefits (page H-11)

H.3 Inter-Regional Benefits and Impacts

Tier 1 projects proposed as part of this IRWM Plan help implement recommendations presented in the *Updated 2005 Urban Water Management Plan*. Implementation of proposed Tier 1 water conservation, groundwater, water transfer, desalination, and recycled water projects within the Region are projected to result in a decreased demand for State Water Project and Colorado River supplies within the next 20 years. (As shown in Tables B-30 and B-31 on pages B-72 and B-73, this overall decline in imported water needs is forecast both for normal year and for drought conditions.)

Reduced dependency of the Region on imported water supplies will, in turn, reduce needs for Bay-Delta waters delivered through the State Water Project. This reduction in imported water need, in concert with other statewide programs, will help implement the following two objectives established as part of the CALFED Bay Delta Program for Bay-Delta waters:

- Improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species. (CALFED, 2000)
- Reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system. (CALFED, 2000)

Reducing the Region's dependence on imported water will also result in inter-regional benefits associated with reductions in capacity and flows within the State Water Project, Colorado River Aqueduct, and Metropolitan conveyance, treatment, and storage facilities. Populations within Riverside County, in particular, will benefit from reductions in the Region's capacity needs at Metropolitan's Lake Skinner Water Filtration Plant. Such a reduction in treated water needs (both as a result of reduced imported water demands and as a result of increased local water treatment capacity) will free treatment capacity within the Lake Skinner facility that will be required to serve significant growth increases within Riverside County.

Selection of Tier 1 Projects That Reduce Delta Water Dependence

According to *Section L: Statewide Priorities* of the Plan, over 30 IRWM implementation projects would help achieve the CALFED Bay-Delta goal of reducing the Region's reliance on imported water from the Sacramento-San Joaquin Bay Delta by increasing local supply or resulting in demand reduction. As noted above, these projects focus on water conservation, groundwater, water transfer, desalination and recycled water.

Section L: Statewide Priorities (pages L-5 to L-6)

L.3 Conformance of Tier I Projects with Statewide Priorities

Appendix 12 summarizes conformance of the proposed Tier I water management projects with statewide priorities. A general description of how these projects conform to the statewide priorities is presented below.

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CALFED Goals and Water Quality Objectives. Tier 1 projects that increase local supply or result in demand reduction (water use efficiency) will help to achieve CALFED Bay-Delta goals and water quality objectives by reducing the Region's reliance on imported water from the Bay-Delta. More than 20 Tier 1 projects (see Appendix 12) would help achieve CALFED Bay-Delta water quality objectives, and over 30 projects would help achieve CALFED Bay-Delta goals.

Assurances that IRWM Plan Update Will Continue Reducing Delta Water Dependence

The San Diego RWMG is committed to updating the Plan within two years of execution of the Implementation Grant Agreement (estimated June 1, 2011) to meet the IRWM Plan Standards contained within the 2010 IRWM Grant Program Guidelines (refer to Attachment 14). As such, the RWMG anticipates updating the San Diego IRWM Plan by June 1, 2013. Due to an increasing importance of issues involving water supply availability and reliability in the Delta, and the reflection of that importance within the Guidelines, the IRWM Plan update will include an increased emphasis on helping to reduce San Diego region's dependence on the Sacramento-San Joaquin Delta for water supply through expansion of local supply sources.