



## 6. PROJECTS

### 6.1 PRIORITIZATION FRAMEWORK

The guiding principles directly related to the goals, objectives, and strategies of the IRWMP are the following:

- Flood risk management
- Compliance with water quality regulations
- Nonpoint source pollution
- Aging infrastructure
- Enhancement of local water supplies
- Loss of habitat and poor habitat conditions

During the Phase II IRWM planning effort, the City of Newport Beach compiled an extensive list of watershed projects for the Central Orange County WMA. That project list has been updated. The list went through an extensive review to ensure that each project has an agency or non-governmental organization that will serve as the project/proponent lead. Projects without project proponents were removed from the project list. The projects on the resulting list have been prioritized, and the list is included in Appendix A of this IRWMP.

### 6.2 RANKING CRITERIA

Planning efforts typically include an established process for prioritizing projects in terms of the goals and objectives identified in the plan. Several approaches to project prioritization were considered for this IRWMP. The point of an integrated plan, however, is to move beyond a single-focus prioritization and to prioritize across programs and jurisdictions. This is a difficult task, specifically when attempting to do so in an objective fashion. To be as objective as possible, this IRWMP includes a list of the identified ranking criteria for prioritization.

The main emphasis of this Plan is regional and local goals for water resources. Although IRWM planning does recognize the nexus between water resources, land uses, environmental stewardship, and the economy, the primary focus remains on water resources. The management committee identified four main categories of criteria that are relevant to prioritizing projects in the Central Orange County WMA:

- Regional/local objectives
- Regulatory compliance
- Project factors
- State objectives

For each criterion, the management committee assigned a weighting factor based on its importance to the WMA.

### **6.2.1 Regional/Local Objectives**

The ranking criteria for regional/local objectives are tied directly to the goals and objectives developed for the Central Orange County WMA. The goals are divided into three categories: water resources, balanced environmental sustainability, and collaboration. The objectives for water resources are further subdivided into four categories: flood risk management, water quality, water supply, and habitat. Stakeholders used the work completed for the previous two IRWMP phases to shape the current set of goals for this final phase. This process is detailed in Section 5.

The ability to meet an objective is indicated by yes or no, with a number 1 corresponding to yes and a zero corresponding to no. The 1/0 values (yes/no) are then multiplied by their assigned weighting factor.

### **6.2.2 Regulatory Compliance**

The ranking criteria for regulatory compliance are based on watershed-related regulatory requirements for the WMA. These regulatory requirements comprise the relevant local, state, and federal laws for the Central Orange County WMA that generally relate to water quality and water supply.

### **6.2.3 Project Factors**

The category project factors includes important criteria for gauging how close a project is to being implemented (permits and financing secured). The project factors category is a series of questions that evaluates how close a project is to implementation. The more “shovel-ready” a project is, the more points it receives. Many project funding opportunities request this information. The questions related to project factors are answered with 1/0 (yes or not applicable (NA)/no) values. The exception is project type, which relates to project readiness and is indicated as implementation, study, or planning stage, with 10/5/1 points assigned, respectively. A factor is determined from the maximum possible points in this category; the sum is then multiplied by the assigned weighting factor. This allows a comparison between projects in terms of scale, cost, and timing. These factors will be valuable in screening projects for future funding eligibility.

#### **6.2.4 State Objectives**

Water resources are defined by the California State Legislature for different state agencies in various documents, including statutory provisions in the California Water Code, proposed guidelines for the implementation of Proposition 84 (CNRA 2010), the California Water Plan, and the nonpoint source plan for the state (California Department of Water Resources 2009). The state objectives come from Section 2 of Proposition 84. California has a number of plans that list water resources objectives for the state, which are usually tailored to the focus of the state agency that produced the plan. This IRWMP uses the state objectives listed in Proposition 84 because that was the most comprehensive list of state water resources objectives in any of the plans that were reviewed.

Weighting factors were developed for each category and for each subcategory. At each level, the weighting factors were developed as relative weights stated as percentages, where the factors for that level sum to 100 percent. The Newport Bay Watershed Management Committee was surveyed to initially establish relative weighting factors for the criteria. Then the management committee met and discussed the survey results, reaching consensus on the weighting factors for each criterion. In assigning the weighting factors for the ranking criteria, the Newport Bay Watershed Management Committee gave the highest preference to regional and local objectives because of the stringent regulatory requirements that local jurisdictions have to meet. Regulatory compliance was ranked second, with only a few points separating these top choices. The total sum for all the categories are tabulated and designated as a percentage.

The ranking percentages established for each of the main categories of criteria are as follows:

- Regional/local objectives: 33 percent
- Regulatory compliance: 28 percent
- Project factors: 21 percent
- State objectives: 18 percent

### **6.3 METHODOLOGY FOR PROJECT PRIORITIZATION**

After working on the goals and objectives for the Phase III Central Orange County IRWMP, the Newport Bay Watershed Steering Committee began to examine project prioritization methodologies.

The steering committee explored several different processes and found it difficult to refine a quantitative method for prioritization that was concise, transparent, and easy to understand. Recognizing the difficulties associated with in quantified prioritization, but also its inherent value, the steering committee decided that a hybrid prioritization methodology would be appropriate for the Phase III IRWMP. It would prioritize projects from low to high priority and from short to long term. In addition, it would prioritize projects based on a quantified methodology upon which the IRWMP participants agree. This process of exploring prioritization processes caused the steering committee to recognize a need to clarify the primary watershed issues in the Central Orange County WMA.

On February 11, 2009, a second special stakeholder workshop was conducted, this time to focus on developing issue statements. At this workshop, the revised goals, objectives, and strategies were also presented to the stakeholders. After the workshop, OC Watersheds staff compiled the stakeholder input and, with help from the steering committee, refined the issue statements. On March 3, staff distributed the goals, objectives, strategies, and issue statements for the four water resource areas to stakeholders who are considered experts in those areas. The staff requested feedback on the appropriateness of the information. Comments from the experts were received and the staff made the necessary revisions.

On June 24, 2009, a stakeholder meeting was convened to discuss draft prioritization methodologies. Stakeholder comments were heard. The prioritization had been improved by the Newport Bay Watershed Management Committee, which reconvened in March 2009. In addition, the management committee continued to refine the goals, objectives, strategies, prioritization, and other draft information for the IRWMP.

The prioritization methodology has two main uses. First, it will generate scores for an entire list of projects within the region based on all of the considerations that are imbedded in the spreadsheet. The most important function of the prioritization tool is to help the region identify and agree on priorities. Then the combined influence of the community can promote projects that address the priorities. Ranking all projects against all of the criteria will inform the region of which projects should be most heavily promoted.

Second, the prioritization methodology will refine additions to lists of future projects. Dividing the criteria into categories allows the ranking to be readily updated or

manipulated in the future. Each category can be turned on or off when scoring projects for different purposes, performing sensitivity analyses, or for other reasons. Separate scoring can be performed for projects that are driven solely by TMDLs or by Measure M funding from the Orange County Transportation Authority, or by any desired future factors. Categories of criteria can be turned off or their assigned weights can be adjusted to answer specific questions. This will facilitate prioritization for different purposes, which is useful specifically when applying for project funding. However, for the prioritization of projects in this IRWMP, all categories will be used. The ranking will be for overall regional priorities, not for specific funding programs at this time.

Tables 6-1, 6-2, 6-3, and 6-4 detail the ranking percentages developed by the Newport Bay Watershed Management Committee to be used for prioritizing projects.

<i>Table 6.1 Ranking Percentages for Regional/Local Objectives</i>	
<b>Regional/Local Objectives</b>	<b>33%</b>
Water resources	55%
Balanced environmental sustainability	23%
Collaboration	22%
	<b>100%</b>
<b>Water Resources Subcategories</b>	
Flood risk management	26%
Water quality	30%
Water supply	22%
Habitat	22%
	100%
<b>Water Resource Objectives</b>	
<b>Flood Risk Management Subobjectives</b>	
FRM-1: Provide appropriate public safety and property protection based on risk-management standards.	34%
FRM-2: Minimize the potential impact of stormwater on canyon and channel stability, water quality, and habitat.	36%
FRM-3: Implement stream channel naturalization efforts to promote riparian habitat and natural water quality treatment in concert with stable sediment transport.	30%
	100%
<b>Water Quality Subobjectives</b>	
WQ-1: Address pollution issues in a holistic, integrated manner.	42%
WQ-2: Meet TMDL, NPDES, and other requirements throughout the region.	58%
	100%

<b>Water Supply Subobjectives</b>	
WS-1: Manage groundwater resources to maintain a sustainable groundwater supply into the future.	32%
WS-2: Maximize the use of recycled water.	34%
WS-3: Maximize water conservation efforts.	34%
	<b>100%</b>
<b>Habitat Subobjectives</b>	
H-1: Provide functioning habitat that sustains viable populations of native species.	52%
H-2: Minimize the occurrence of invasive species.	48%
	<b>100%</b>
<b>Balanced Environmental Sustainability Objectives</b>	
	<b>23%</b>
BES-1: Promote sustainable principles within the watershed	29%
BES-2: Seek grants and encourage public-private financing partnerships.	42%
BES-3: Support water quality improvement efforts that enhance public recreation.	29%
	<b>100%</b>
<b>Collaboration Objectives</b>	
	<b>22%</b>
C-1: Promote inclusive and participatory watershed governance.	20%
C-2: Encourage data collaboration between the state, county, cities, universities, and the public.	16%
C-3: Promote intraregional agency collaboration and cooperation.	28%
C-4: Promote interregional agency collaboration and cooperation.	20%
C-5: Promote watershed public education and citizen involvement.	16%
	<b>100%</b>

*Table 6.2 Ranking Percentages for Regulatory Compliance*

<b>Regulatory Compliance</b>	<b>28%</b>
Addresses total maximum daily loads	30%
Addresses National Pollutant Discharge Elimination System requirements	24%
Protects endangered and/or threatened species	15%
Benefits areas of special biological significance	14%
Addresses water use reduction per current regulations	11%
Addresses reduction in greenhouse gas emissions per Assembly Bill 32	6%
	<b>100%</b>

Table 6.3 Ranking Percentages for Project Factors

Project Factors	21%
Project type (study, plan, or implementation)?	Study = 1, plan = 3, implementation = 10
Environmental review(s) complete? Y/N	Y or N/A = 5, N = 0
Permits secured? Y/N	Y or N/A = 5, N = 0
Required supporting studies complete? Y/N	Y or N/A = 5, N = 0
Matching funds secured? Y/N	Y or N/A = 5, N = 0
Operation and maintenance costs and responsibilities identified? Y/N	Y or N/A = 5, N = 0
Promotes multiagency collaboration? Y/N	Y = 1, N = 0
Included in agency master planning program (water, sewer, recycled water master plan, general plan, and capital improvement program)? Y/N	Y or N/A = 1, N = 0
Demonstrates organizational capacity to complete project? Y/N	Y = 1, N = 0
<b>Total points</b>	This total number will be multiplied by 21% to determine the factor for overall project prioritization.

Table 6-4. Ranking Percentages for State Objectives

State Objectives	18%
Water supply reliability, water conservation, and water use efficiency	5.5%
Stormwater capture, storage, cleanup, treatment, and management	7.0%
Removal of invasive nonnative species, creation and enhancement of wetlands, and acquisition, protection, and restoration of open space and watershed lands	4.5%
Nonpoint source pollution reduction, management, and monitoring	7.5%
Groundwater recharge and management projects	3.0%
Containment and salt removal through reclamation, desalting, and other treatment technologies and conveyance or reclaimed water for distribution to users	2.5%
Water banking, exchange, reclamation, desalting, and improvement of water quality	2.0%
Planning and implementation of multipurpose flood management programs	5.0%
Watershed protection and management	5.0%
Drinking water treatment and distribution	3.5%
Ecosystem and fisheries restoration and protection	4.5%
Is "integrated" with other projects (Section 75026 (b)(1) of Prop. 84, Chapter 2)	13.0%
Integrates water management with land use planning (Section 75026 (b)(2) of Prop. 84, Chapter 2)	10.5%
Resolves significant water-related conflicts within or between regions (Section 75026 (b)(3) of Prop. 84, Chapter 2)	8.5%
Contributes to the attainment of one or more of the objectives of the CALFED Bay-Delta Program (Section 75026 (b)(4) of Prop. 84, Chapter 2)	7.5%
Addresses critical water supply or water quality issues for disadvantaged communities within the region (Section 75026 (b)(6) of Prop. 84, Chapter 2)	10.5%
	<b>100.0%</b>

## **6.4 CONTRIBUTION TO STATE AGENCY PRIORITIES**

The Central Orange County Plan is consistent with the program preferences for IRWM planning identified in the California Water Code and implementing legislation for Proposition 50, Chapter 8. It is also consistent with the priorities outlined in the 2004 Watershed Management Initiative Chapter (SARWQCB 2004) and assists in implementing the TMDLs that have been adopted and are pending for this region. It further supports implementation of the California Ocean Plan and the nonpoint source plan for the state (California Water Board 2009, 2003). The program preferences and Watershed Management Initiative priorities are listed in the following sections.

### **6.4.1 California Water Code IRWM Program Preferences**

- Include integrated projects with multiple benefits.
- Support and improve local and regional water supply reliability.
- Contribute expeditiously and measurably to the long-term attainment and maintenance of water quality standards.
- Eliminate or significantly reduce pollution in impaired waters and sensitive habitat areas, including ASBSs.
- Include safe drinking water and water quality projects that serve disadvantaged communities.

### **6.4.2 Santa Ana Regional Water Board Watershed Management Initiative Chapter (November 2004):- Priorities for Grant Projects**

1. Projects that implement approved TMDLs, including studies called for in TMDL implementation plans
2. Projects that support development of scheduled TMDLs
3. Projects that address pollutant loadings in urban runoff discharges
4. Projects that protect and improve the quality of local groundwater resources
5. Removal and prevention of invasive, exotic aquatic and riparian vegetation to enhance and protect water quality standards, including habitat and recreation beneficial uses
6. In support of WARM, COLD, RARE, WILD, SPWN, MAR, SHEL, and EST beneficial uses, projects that protect, restore, and/or enhance aquatic, wetland, and riparian habitat and habitat connectivity, particularly habitat of rare, threatened, or endangered species

7. Projects that support watershed management planning efforts, especially those that build local capacity in watershed management through citizen involvement and public education
8. Projects that provide tools for managing and/or enhancing access to regional water resources data, water quality data, and watershed data
9. Projects that include opportunities to build or expand organizational capacity to implement watershed management
10. Projects that lead to water quality improvements within the CCAs of the region
11. Projects that utilize partnerships among diverse stakeholders and that integrate the priorities of regional water boards with those established by other watershed stakeholders.

The following discussion demonstrates how this Plan, its strategies, and the integrated, multibenefit projects support these priorities.

### 6.4.3 Plan Contribution

Implementation of the Plan represents progress toward achieving the stated priorities of the Santa Ana Regional Water Board, as well as IRWM program preferences. High-priority projects incorporate a number of strategies to achieve results. As discussed in Section 1, the watershed stakeholders within the Central Orange County WMA represent a diverse group of people, including municipalities, local water districts, state agencies, environmental organizations, academic institutions, and the general public. The stakeholders have a long history of collaboration on projects and studies and have participated in each of the planning efforts that have been conducted for the Newport Bay and Newport Coast Watersheds. Through their involvement, they have established regional priorities for water quality, habitat restoration, and ecosystem enhancement, as well as local water supply reliability. This Plan builds on those previous efforts, providing a structure for implementation that supports the use of multiple strategies and the leveraging of resources to increase the level of benefit. The goals and objectives of this IRWMP are consistent with state IRWM program preferences and the priorities of the Santa Ana Regional Water Board.

For many years, significant effort has been exerted to improve water quality conditions in the region, and it continually advances as new technologies and resources become available. The County of Orange's Drainage Area Management Plan (DAMP) includes watershed action plans for each watershed, which were prepared in cooperation with the NPDES stormwater permittees. Samples of

activities within the Newport Bay Watershed that support the priorities identified by the Santa Ana Regional Water Board are shown in Table 6.5. The new NPDES stormwater permit for Orange County requires the creation of Watershed Master Plans, which will integrate water quality, hydromodification, water supply, and habitat.

Project	Location	Constituents of Concern
Sediment trapping basins	Hicks Canyon, East Hicks Canyon, Round Canyon, Agua Chinon, Bee Canyon, Marshburn, and Orchard Estates	Sediment
In-channel sediment basins	San Diego Creek; Jamboree Road – Michelson Drive	Sediment
In-Bay Sediment Basins	Upper Newport Bay	Sediment
Serrano Creek rehabilitation (Reach 1)	Lake Forest	Sediment
San Joaquin Marsh	San Diego Creek; near IRWD wastewater treatment plant	Nutrients – primary
Sewer diversion projects	Newport Dunes	Bacteria – primary
Santa Ana–Delhi Channel trash boom	At Mesa Drive in Newport Beach	Trash
El Modena-Irvine Channel trash boom	Near Eastern Transportation Corridor	Trash
San Diego Creek trash boom	Near IRWD treatment plant facility	Trash

Similar to the efforts to improve water quality described above, the water agencies within the region have worked collaboratively over the past two decades to ensure water supply reliability and enhance local water supplies to meet the water demands associated with the significant growth that has occurred within this region. The efforts include groundwater management and treatment programs, regional infrastructure improvements, indoor and outdoor water conservation programs, and an extensive recycled water system. A number of water recycling projects are included in the Plan to expand the regional system and provide additional storage. Water conservation programs are included, along with a water quality program, to address the disposal of pharmaceutical products that are adversely affecting wastewater. The objectives and projects of the IRWMP support IRWM preferences

for integrated regional planning to improve the reliability of the local and regional water supply and ensure safe drinking water supplies for disadvantaged communities.

The objectives of the Central Orange County Plan are consistent with these priorities and preferences, and the proposed projects will provide measurable contributions toward their attainment. This Plan is intended to be used as a regional and local planning tool. To ensure that it remains an effective tool for project planning and funding, a basic tenet of the Plan is to support the state's goals for integrated regional water management planning.

### 6.5 PROJECT INTEGRATION

The IRWMP's approach to integration includes the use of several strategies for implementing the projects in a manner that supports synergistic watershed management. Full integration of strategies is achieved through well-planned implementation of the various projects. Although the projects must incorporate at least one of the strategies, the majority incorporate several complementary strategies, often to achieve multiple objectives. Full synergy is achieved through the identification of an appropriate mix of projects such that the majorities incorporates several complementary strategies and are able to achieve multiple objectives. Strategies and projects that address multiple objectives are typically the most cost-effective and resource-efficient and are, for the most part, given higher priority in the IRWMP.

The watershed issues identified for the Central Orange County WMA are inherently integrated. For example, several of the issues refer to land use as an underlying element of several challenges associated with water resources. Overlap is prevalent among the issues. For example, the loss of marine habitat is identified as a habitat issue, but water quality degradation contributes to this habitat loss.

The plan addresses integration from two perspectives: in the development of goals, objectives and strategies; and in the scoring and prioritization of projects. For example, projects that incorporate the water conservation strategy by nature incorporate other strategies, including the following:

- Water quality by reducing wastewater and runoff
- Water supply reliability and imported water offsetting
- Imported water supply needs
- Watershed planning through implementation of conservation measures throughout the watershed to enhance water use efficiency

- Environmental and habitat protection and improvement by using recycled water supplies
- Land use planning by effectively addressing water issues and identifying ways to incorporate water conservation measures in proposed development

It follows logically that project prioritization also reflects integration. The project prioritization methodology emphasizes integrated projects that address multiple goals and produce multiple benefits. For example, a project that uses low-impact development strategies and reduces polluted runoff, enhances local habitat, improves water supply, reduces peak flows, and reduces flood risk would be addressing multiple water resources objectives and strategies. Such a project would score higher than a project that addressed only water quality concerns. Placing an emphasis on projects that provide multiple benefits encourages stakeholders to develop projects that integrate strategies to achieve multiple goals. Integration for the plan stems from the criteria that are included in the prioritization methodology. The criteria were derived from local and regional, regulatory related, and state goals. Therefore, the Central Orange County WMA, through project prioritization, is integrating its efforts with the State of California, and the region to further the state water resource goals.