

Section 9: Impacts and Benefits

This section provides an overview of the potential impacts and benefits associated with implementation of the Westside Sacramento Region (Region) *Integrated Region Water Management Plan* (IRWM Plan). Because of the nature of the IRWM planning process, the impacts and benefits discussed here are preliminary and not intended to be a complete list; more extensive and project-specific evaluations of impacts and benefits usually occur through project implementation. This overview may be used as a guide for deeper consideration of and response to impacts and benefits during Plan implementation. Later, as plan performance is evaluated, the Westside Regional Water Management Group (RWMG) may utilize this preliminary assessment to better understand the benefits that have been realized and whether unanticipated impacts have occurred.

9.1 Benefits of Plan Implementation

9.1.1 Plan Benefits

The Westside IRWM Plan documents a shared vision for integrated water management and outlines a cooperative approach to achieve that vision. It provides regional water resources benefits largely by fostering improved coordination, collaboration, and communication among entities in the Region. Such collaboration is supported both by the Plan development process and the resulting, newly formed Plan framework.

Development of the Plan has helped strengthen the working relationships of water management professionals and interested stakeholders throughout the Region, along with facilitating partnerships between local, state, and federal entities. For example, several IRWM Plan projects are being jointly sponsored; the Woodland-Davis Clean Water Agency and the Lower Putah Creek Coordinating Committee are multi-agency efforts to implement projects within the Region. During the planning process, management agencies identified areas where cooperative efforts can lead to greater efficiencies and more effective service. Several agencies have described their ongoing research and data collection projects. Shared awareness of these research and data collection efforts will help other agencies avoid

duplication of efforts and help expand understanding of information needs.

For example, agencies from all of the counties in the Region see the importance of sharing information on their individual invasive mussel prevention programs designed to keep quagga and zebra mussels out of lakes and reservoirs. The RWMG Coordinating Committee plans to form a joint work group to leverage resources and reduce the likelihood of infestation by aquatic invasive species. Another example of joint efforts to increase efficiency is the cooperative regional water use efficiency project developed and submitted as part of a grant application for Proposition 84 implementation funding.

This collaborative approach to regional planning helps ensure that multiple aspects of watershed planning are considered together rather than allowing one particular geographic area or project type to dominate. It helps share benefits and impacts instead of allowing one group or geographic area to reap benefits while another withstands impacts. Also, regional planning helps ensure that projects designed to achieve one particular objective (e.g., water supply) will be supportive of (or at least compatible with) other objectives (e.g., flood management, water quality, or habitat preservation).

The 140 projects identified by this Plan meet, at some level, all 24 plan objectives described in Section 6. While periodic updates and addition of projects will be needed, over the 25-year horizon, implementation of the planned projects will produce multiple benefits. Below is an overview.

- **Improve and Protect Water Quality** Westside IRWM Plan projects include actions to reduce contaminants in water sources by addressing such causes as soil erosion and mercury contamination and by upgrading Region wastewater and water treatment plants. The primary benefit from these water quality projects is the reduced potential for human and ecological exposure to potentially harmful substances. These projects also will improve the effectiveness of both water and wastewater treatment processes and help meet established regulatory requirements. Besides improving drinking water quality, these projects will benefit other types of water users, such as

agricultural users and water-dependent wildlife habitat.

- Improve Resource Stewardship** – The Plan projects include invasive species removal programs and overall habitat improvement projects. Proposed projects will attempt to prevent infestation of non-native aquatic species, such as quagga/zebra mussels and New Zealand mud snail. Additional projects will improve overall habitat quality by restoring and rehabilitating native vegetation in riparian and aquatic corridors and improving fish habitat. Benefits of the Plan include broader-scale, regionally coordinated efforts to approach these complex challenges.

Improve Flood and Stormwater Management –

A large number of Plan projects focus on reducing flood damage and improving stormwater management. These include projects for levee repair/removal, ecosystem restoration to reduce flood risk, and new or better storm drainage. Implementation will help avoid damage to property from floods, reduce flood-related impacts to agricultural activities, and address some pollutant sources by improving stormwater management. The Plan also documents opportunities for agencies in the Region to coordinate with neighboring regions and state and federal agencies to improve flood management planning and response actions.

- Improve Water Supply and Manage Demand** – Projects related to water supply and demand management include improving reliability of municipal supplies, implementing conjunctive use programs, studying groundwater basins, implementing agricultural water management strategies, and improving implementation of urban water conservation programs. These projects assist in maintaining the long-term sustainability of municipal and agricultural water supplies in the Region. Projects aimed at more efficient water use will result in lower unit demands, less energy use for treatment and delivery of water, and, potentially, a reduced need for expansion of water supply infrastructure.
- Improve Public Awareness and Resource Stewardship** – Projects related to education focus on improving understanding of citizens’ relationship with the watershed. These projects encourage citizens to be good resource stewards and to support the integrated watershed management actions necessary to provide public safety and support a stable economy.

Table 9-1 summarizes the benefits and impacts of Plan implementation.

Table 9-1: Potential Benefits and Impacts from Plan Implementation

	Within IRWM Region		Interregional	
	Potential Benefits	Potential Impacts	Potential Benefits	Potential Impacts
Projects to Improve and Protect Water Quality	<ul style="list-style-type: none"> Reduced human and ecological exposure to pollutants Improved drinking water supply and wastewater treatment regulatory compliance Preservation of aquatic habitat Better agricultural yields Improvement of water-based recreation Benefits extend to broad Region, including disadvantaged communities 	<ul style="list-style-type: none"> Projects to improve water quality that involve construction could result in temporary impacts to aesthetics, air quality, biological resources, cultural resources, noise, soils, and transportation systems. No environmental justice or DAC impacts are anticipated. 	<ul style="list-style-type: none"> Improved water quality in the Westside Region would also benefit the Sacramento-San Joaquin Delta and San Francisco Bay and associated groundwater basins. 	<ul style="list-style-type: none"> No interregional impacts are anticipated.

	Within IRWM Region		Interregional	
	Potential Benefits	Potential Impacts	Potential Benefits	Potential Impacts
Projects to Promote Resource Stewardship	<ul style="list-style-type: none"> ■ Improved habitat quality ■ Reduced risk to native species from invasives ■ Improved water supply ■ Improved water quality ■ Benefits extend to broad Region, including disadvantaged communities 	<ul style="list-style-type: none"> ■ Projects to remove invasive species could have temporary negative impacts to aesthetics, biological resources, cultural resources, and soils. ■ No environmental justice or negative impacts to DACs are anticipated. 	<ul style="list-style-type: none"> ■ Prevention and removal of invasive species in the Region would reduce the transport and deposition of invasive species to the Sacramento-San Joaquin Delta and San Francisco Bay. 	<ul style="list-style-type: none"> ■ No interregional impacts are anticipated.
Flood and Stormwater Management Projects	<ul style="list-style-type: none"> ■ Reduced erosion ■ Reduced flood damages ■ Reduced agricultural loss ■ Reduced pollutants from stormwater ■ Benefits extend to broad Region, including disadvantaged communities 	<ul style="list-style-type: none"> ■ Flood risk reduction projects could result in ground disturbance and have temporary impacts to aesthetics, air quality, biological resources, cultural resources, noise, soils, and transportation systems. ■ Depending on the location of the flood-related project, there could be inequitable distribution of impacts affecting disadvantaged or minority communities. 	<ul style="list-style-type: none"> ■ Flood risk reduction projects in the Region could benefit the Sacramento-San Joaquin Delta and San Francisco Bay through: <ul style="list-style-type: none"> ● Reduced erosion ● Reduced flood damages ● Reduced pollutants from stormwater 	<ul style="list-style-type: none"> ■ Depending on the nature of the flood risk reduction and stormwater management project, impacts could be increased downstream.
Water Supply and Conservation Projects	<ul style="list-style-type: none"> ■ Enhanced supply reliability ■ Improved groundwater management ■ Reduced water demands ■ Less energy usage for treatment and delivery of water ■ Avoided need to expand water supply infrastructure ■ Benefits extend to broad Region, including disadvantaged communities 	<ul style="list-style-type: none"> ■ Development of water supply projects could result in ground disturbance and have temporary impacts to aesthetics, air quality, biological resources, cultural resources, noise, soils, and transportation systems. ■ No environmental justice or negative impacts to DACs are anticipated. 	<ul style="list-style-type: none"> ■ Improved water supply reliability and reduced water demands within the Region could improve regional and statewide water supply reliability. 	<ul style="list-style-type: none"> ■ No interregional impacts are anticipated.

	Within IRWM Region		Interregional	
	Potential Benefits	Potential Impacts	Potential Benefits	Potential Impacts
Educational Projects	<ul style="list-style-type: none"> ■ Increased public involvement and awareness of resource stewardship and watershed protection ■ Increased public support of Plan projects ■ Benefits extend to broad Region, including disadvantaged communities 	<ul style="list-style-type: none"> ■ None 	<ul style="list-style-type: none"> ■ Improved public awareness about watershed protection and public support of IRWM projects could benefit public support of neighboring IRWM planning efforts. 	<ul style="list-style-type: none"> ■ No interregional impacts are anticipated.
Actions to Adapt to Climate Change	Actions to respond to climate change will occur in conjunction with the projects described above, as appropriate.			
Actions to Reduce Greenhouse Gas Emissions	Actions to help reduce greenhouse gas emissions will occur in conjunction with the projects described above, as appropriate.			

9.1.2 Plan Beneficiaries

Accomplishment of the IRWM objectives and projects will benefit the Region as a whole, not just areas in the vicinity of individual projects. The potential beneficiaries of the IRWM Plan are residents of the Region, water agencies, local, state, and federal agencies, businesses, wildlife and associated habitats, neighboring regions, Native American Tribes, and others within the jurisdictions served by Plan projects. These beneficiaries are represented by members of the RWMG and the larger IRWM stakeholder group.

Fifty-one projects were identified by project proponents as benefiting a disadvantaged community (DAC)¹. These projects range from water supply and wastewater infrastructure projects to rehabilitation projects. DACs are expected to play a role in projects by sponsoring or cosponsoring some of them throughout Plan implementation.

Native American tribes have participated actively in Plan development, including development of goals and objectives, and have submitted projects (primarily for restoration of native fish and

vegetation) for implementation. Tribes are encouraged to continue their participation and to submit additional projects for inclusion in the Plan that can further benefit the Tribes.

9.1.3 Interregional Benefits

The Westside Region is located at the most downstream end of the extensive Sacramento River watershed and is hydrologically connected to the Sacramento-San Joaquin Delta and the San Francisco Bay. Therefore, projects implemented in the Region are likely to directly impact IRWM Plan efforts in the neighboring Bay Area and American River Regions, and particularly in the Delta. Projects to enhance and protect the watershed, and reduce consumptive water usage, will likely have downstream benefits.

Because the Region is bounded by the coastal mountains to the west, projects involving invasive plant management are one of the only types of project expected to directly benefit IRWM Plan efforts in the neighboring Napa Valley region (Napa County is also part of the Bay Area IRWM Planning Region). Although the Westside Region is part of the larger Sacramento River watershed, most of the Sacramento River watershed is upstream (to the north) of the Westside Region, thereby limiting the potential impact of Westside projects on the Northern Sacramento Valley Region. The Westside IRWM RWMG will continue

¹ As described in Section 2, a DAC is defined as having an annual median household income that is less than 80 percent of the statewide annual median household income.

to periodically contact neighboring IRWM Plan areas to coordinate and collaborate on where interregional benefits could accrue.

9.2 Impacts of Plan Implementation

Negative impacts that may be associated with the Plan projects include (1) short-term, site-specific impacts related to site grading and construction, and (2) long-term impacts associated with project operation. For the purposes of this Plan, impacts are discussed at a screening level below.

During project planning, project-specific and/or programmatic environmental compliance processes (consistent with California Environmental Quality Act [CEQA] and, if applicable, the National Environmental Policy Act [NEPA]) will be used to evaluate the significance of project impacts. Under CEQA, impacts determined to be significant must be mitigated to a level of non-significance (unless the lead agency makes findings of overriding consideration). The IRWM Plan itself does not lead directly to the implementation of any specific project; as a result, the IRWM Plan is exempt from CEQA. The following provisions of the State CEQA Guidelines apply:

- Statutory Exemption (15262 for Feasibility and Planning Studies)
- Categorical Exemption (15306-Information Collection)

CEQA review associated with specific projects by relevant agencies will evaluate impacts in much greater detail than is given in the discussion below.

- **Aesthetics** – Projects that include construction activities and new infrastructure could affect aesthetics. However, projects will likely be constructed in areas that are already disturbed or include mitigation measures to return disturbed areas to their pre-construction conditions.
- **Air Quality** – Short-term air quality impacts could result from construction of Plan projects. However, through the CEQA process, potential air emissions would be minimized through application of best management practices (BMPs) identified by the air quality management district or mitigation measures.

- **Biological Resources** – Short-term biological impacts could result from construction activities as well as non-native plant removal. Most of these negative effects would be avoided or minimized through mitigation efforts related to CEQA. Additionally, several of the IRWM Plan objectives focus on preservation and improvement of ecosystem health and would thus result in a net increase of benefits to biological resources.

- **Cultural Resources** – Impacts to cultural resources (historical, archeological, and paleontological resources) could result from construction of Plan projects. As part of the CEQA process, it will be necessary to develop mitigation measures to avoid or minimize any such impacts. In addition, participation of Tribes in the IRWM process could include informal consultation on projects that could impact cultural resources.

- **Geology and Soils** – Plan projects with the potential to impact geologic resources would be required to undergo geological feasibility studies, which would specify the appropriate engineering standards the contractor would have to comply with during construction to mitigate project site geological and soil impacts.

- **Hydrology and Water Quality** – Impacts to hydrology and water quality are anticipated to be generally beneficial because Plan projects are intended to improve water supply reliability and water quality in the long term. For short-term erosion or sedimentation, project-specific BMPs would be identified as part of the National Pollutant Discharge Elimination System (NPDES) or local permitting process.

A number of proposed Plan projects involve flood and stormwater management that could impact flows in the Sacramento River and Delta. These issues merit particular analysis in project-specific CEQA documentation.

- **Land Use and Planning** – The Plan projects were screened for their compatibility with other planning documents for the Region, including local and regional general plans. No significant land use changes or inconsistencies with policies are anticipated. In fact, collaboration between land use and water management agencies could reduce incompatibilities in the future.

- **Noise** – Noise impacts could result from construction activities from some of the proposed projects. However, through the CEQA process, most of these impacts would be minimized by mitigation efforts. No long-term noise impacts are expected.
- **Population and Housing** – No adverse impacts to population and housing are anticipated. Plan implementation would help to meet the water demands of the existing and anticipated future population.
- **Public Services and Utilities** – Many of the Plan projects are intended to enhance water supply and water quality and improve storm water and flood management. Such projects would benefit the utilities and service systems in the Region.
- **Recreation** – One of the Plan objectives is to preserve and enhance water-dependent recreation; recreation impacts are likely to be beneficial.
- **Transportation and Circulation** – Transportation and circulation could be temporarily impacted during construction of some of the Plan projects. Construction can

temporarily increase traffic congestion because of transportation of equipment and trips by workers. Construction near roadways can result in temporary lane closures and detours. However, through the CEQA process, most of these activities would be avoided or minimized. No long-term transportation and circulation impacts are expected.



Putah Creek Clean Up, Lake Berryessa