

Anza Borrego Desert Integrated Regional Water Management Planning Grant Proposal Program Preferences

Attachment 6 consists of the following items:

✓ Program Preferences

Attachment 6 contains information regarding how this ABD IRWM Planning Grant Proposal will result in development of an IRWM Plan that addresses the IRWM Program Preferences established within Section II.F of the 2010 *Proposition 84 & Proposition 1E Integrated Regional Water Management Guidelines* (2010 Guidelines).

Program Preferences

The Program Preferences described in Section II.F of the 2010 Guidelines are those set forth in PRC §75026.(b) and CWC §10544. These preferences are summarized in **Table 6-1**.

Table 6-1: Program Preferences and Statewide Priorities

Program Preferences	Statewide Priorities
1. Include regional projects or programs	1. Drought Preparedness
2. Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; RWQCB region or subdivision; or other region or sub-region specifically identified by DWR	2. Use and Reuse Water More Efficiently
3. Effectively resolve significant water-related conflicts within or between regions	3. Climate Change Response Actions
4. Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program	4. Expand Environmental Stewardship
5. Address critical water supply or water quality needs of disadvantaged communities within the region	5. Practice Integrated Flood Management
6. Effectively integrate water management with land use planning	6. Protect Surface Water and Groundwater Quality
7. For eligible SWFM funding not receiving State funding pursuant to PRC §5096.824 or §75034, provide multiple benefits, including, but not limited to, water quality improvements, ecosystem benefits, reduction of instream erosion and sedimentation, and groundwater recharge.	7. Improve Tribal Water and Natural Resources
8. Address Statewide priorities (<i>see right</i>)	8. Ensure Equitable Distribution of Benefits

In accordance with requirements set within the *Proposal Solicitation Package for Round 2 Planning Grants* (PSP), this attachment contains information that demonstrates how the work to be completed within this ABD Planning Grant Proposal (Proposal) will result in an IRWM Plan that addresses the IRWM Program Preferences listed within Table 6-1. Please note that this attachment does not contain information regarding how IRWM Plan objectives or projects listed within the existing Draft ABD IRWM Plan will help achieve DWR's Program Preferences, but rather speaks only to the outcomes

anticipated as a result of implementing future work described in *Attachment 3, Work Plan*. Due to the extensive stakeholder process currently underway, and the stakeholder process anticipated for development of the ABD IRWM Plan, it is important to the ABD IRWM Region (Region) that this Proposal focuses on future work and activities, and does not include past work that has not been approved by the Stakeholders Committee or the RWMG governing bodies.

Table 6-2 provides an overview of how the various tasks within this Planning Grant Proposal help contribute to DWR’s Program Preferences.

Table 6-2: Proposed Work Plan Tasks and Program Preferences

Work Plan Tasks	1: Regional Projects	2: Integrate Water Management	3: Resolve Conflict	4: Bay-Delta Objectives	5: Benefits DACs	6: Land Use Planning	7: Stormwater Resource Plan	8: Statewide Priorities
Task 1: Stakeholder Outreach and Program Administration	✓	✓	✓	✓	✓			✓
Task 2: Regional Water Resources Plans	✓	✓	✓	✓	✓			✓
Task 3: Preparing and Adopting the ABD IRWM Plan	✓	✓	✓	✓	✓	✓	✓	✓
Task 4: Grant Administration		✓						
ABD Planning Grant Proposal	✓	✓	✓	✓	✓	✓	✓	✓

Program Preference 1: Include Regional Projects or Programs

As shown in **Table 6-2**, the tasks in this Proposal pertain to the Program Preference of including regional projects or programs pursuant to CWC §10544.

Task 1: Stakeholder Outreach and Program Administration

Task 1 contains many stakeholder outreach activities that will lead to the development of an IRWM Plan that includes regional projects or programs. Due to the wide breadth of outreach proposed, outreach efforts aim to reach all interested regional stakeholders (refer to Task 1-1 and 1-2), as well as inter-regional stakeholders located within other IRWM regions (refer to Task 1-3). This broad and comprehensive outreach effort will lead to increased interaction among potential project proponents throughout the entire Region, as well as engage interregional stakeholders that could also potentially serve as project proponents. As such, Task 1 will bring regional and interregional stakeholders together, therefore providing a vehicle through which a variety of stakeholders throughout the Region could coordinate on developing regional projects or programs for incorporation within the IRWM Plan.

In addition, stakeholder outreach efforts will include continued notification regarding IRWM and other grant opportunities. Outreach included within Task 1-1 such as electronic distribution lists, website updates, newsletters, press releases, presentations, and targeted DAC and Tribal outreach, will provide a forum for keeping regional stakeholders informed about the IRWM process, and alert stakeholders about the opportunity for incorporating projects or programs into the IRWM Plan. These outreach efforts will ensure that stakeholders throughout the Region are informed about IRWM-related efforts, and will facilitate incorporation of regional projects and/or programs into the IRWM Plan.

Task 2: Regional Water Resources Plans

All four Regional Water Resources Plans included under Task 2 are regional in scope. Each plan has a physical scope that encompasses the majority or the entire Region, and in addition, each plan aims to address critical issues for the entire Region as identified by stakeholders. Each Regional Water Resources Plan will be incorporated into the IRWM Plan, therefore ensuring that the work completed under Task 2

will result in an IRWM Plan that addresses the Program Preference of including regional projects or programs. The following provides specific explanations regarding the physical regional scope of each Regional Water Resources Plan included under Task 2.

Task 2-1 (*Characterization of Current Regional Water Supply*) will ultimately result in development of a groundwater flow and land subsidence model for the Borrego Valley. This planning study has focused on gathering groundwater and subsidence data that aims to provide an improved understanding of hydrogeology and water availability of the Borrego Valley.

Task 2-2 (*Managing the Region's Groundwater Basins*) will develop alternative management strategies for groundwater basins throughout the Region, with an emphasis on the Borrego Valley Groundwater Basin. As described in *Attachment 3, Work Plan*, the Borrego Valley Groundwater Basin provides water supplies to the majority of the Region's residents, and is located throughout the northeastern portion of the Region (refer to Figure 3-6).

Task 2-3 (*Forecasting Changes in Water Quality as the Groundwater Basins are Dewatered*) will assess groundwater quality conditions for the Region's groundwater basins, with a similar focus on the Borrego Valley Groundwater Basin as described for Task 2-1. The Borrego Valley Groundwater Basin is considered a regional water resource because it supplies water to the majority of the Region's residents.

Task 2-4 (*Anticipating the Impacts of Climate Change on Regional Water Resources*) will include activities to address climate change vulnerabilities (specifically flooding and environmental integrity) throughout the Region. The physical scope of this task will be the entire Region for Subtask 2-3.1, flood hazard zones that occur throughout the Region for Subtask 2-3.2 (refer to Figure 3-8), and the Anza-Borrego Desert State Park for Subtask 3-3.3, which includes over 70% of the Region (refer to Figure 3-1).

Task 3: Preparing and Adopting the ABD IRWM Plan

Specific portions of the ABD IRWM Plan are not yet complete, and as indicated previously, this Planning Grant Proposal includes the effort necessary to complete and adopt an ABD IRWM Plan. The ABD IRWM Plan will address water resources issues and needs throughout the entire Region and will establish regional objectives, priorities, and implementation actions to address those issues. Development of the IRWM Plan will include extensive stakeholder outreach to ensure that input and collaboration necessary to develop the IRWM Plan will be regional in scope; therefore ensuring that the IRWM Plan itself will be regional in scope.

While specific projects and programs that will be included within the IRWM Plan have not yet been determined, due to the extensive stakeholder outreach described under Task 1, it is certain that the IRWM Plan will contain regional projects or programs.

Program Preference 2: Effectively Integrate Water Management Programs and Projects within the ABD IRWM Region

DWR approved the ABD IRWM region as part of the RAP that occurred in 2009. The purpose of the ABD IRWM Plan will be to integrate water resources efforts throughout the DWR-approved ABD IRWM Region in accordance with the 2010 Guidelines, and will therefore include water management programs and projects within the Region. As such, the work contained within this Proposal will result in an IRWM Plan that effectively integrates water management programs and projects within the ABD IRWM Region.

Task 1: Stakeholder Outreach and Program Administration

Task 1 contains stakeholder outreach activities that will help local water managers to effectively integrate water management programs and projects within the Region. By convening on a monthly basis to discuss water resource issues and solutions, the Region's stakeholders will have far greater opportunity to effectively integrate their current projects and programs.

Task 2: Regional Water Resources Plans

All four Regional Water Resources Plans included under Task 2 are regional in scope. The purpose of the ABD IRWM Plan development process is to a) explore the key water resource issues identified by regional stakeholders through Task 2 activities and then b) integrate all of the developed information, analysis, and recommendations into the ABD IRWM Plan through Task 3 activities. Task 2-1 (*Characterization of Current Regional Water Supply*) and DWR's State of the Basin Program provide a baseline by which stakeholders will establish a common understanding of existing conditions and overdraft state the Borrego Valley Groundwater Basin. Task 2-2 (*Managing the Region's Groundwater Basins*) will allow the stakeholders to evaluate various groundwater management alternatives for implementation. Task 2-3 (*Forecasting Changes in Water Quality as the Groundwater Basins are Dewatered*) will enable the group to assess groundwater quality conditions for the Region's groundwater basins. Task 2-4 (*Anticipating the Impacts of Climate Change on Regional Water Resources*) will include activities to address climate change vulnerabilities. Each of these Regional Water Resources Plans builds and integrates the regional data and analysis from the others.

Task 3: Preparing and Adopting the ABD IRWM Plan

As stated above, the purpose of the ABD IRWM Plan development process is to a) explore the key water resource issues identified by regional stakeholders through Task 2 activities and then b) integrate all of the developed information, analysis, and recommendations into the ABD IRWM Plan through Task 3 activities. The ABD IRWM Plan will effectively integrate the previous planning studies and their recommendations into a standards-compliant IRWM Plan.

Task 4: Grant Administration

The receipt and administration of Planning Grant-Round 2 funding from DWR will provide the Region's stakeholders with the opportunity to integrate water management programs through professional planning and facilitation services. Administration of the grant contract is an essential component of this Proposal.

Program Preference 3: Effectively Resolve Significant Water-Related Conflicts

As described in detail in *Attachment 3, Work Plan*, the Region currently faces substantial water-related issues, particularly pertaining to the four key regional issues identified by stakeholders: water supply, water quality, flood control, and environmental integrity. In addition, in the past, conflicts have arisen in the Region as a result of a perceived lack of transparency on behalf of stakeholders. Work proposed within the Proposal will address both of the aforementioned sources of conflict by addressing the Region's four key issues and improving stakeholder involvement.

Task 1: Outreach and Program Administration

The purpose of Task 1 is to provide the stakeholder outreach necessary to maintain and increase stakeholder involvement in order to establish a common understanding of regional issues and support for the implementation actions included within the IRWM Plan. As such, Task 1 will include the outreach necessary to ensure that work being completed under the IRWM Program is working to resolve conflicts by educating stakeholders about IRWM activities and soliciting stakeholder input and involvement.

Task 2: Regional Water Resources Plans Development

The purpose of the Regional Water Resources Plans is to produce the work necessary to fully address the Region's four key issues within the ABD IRWM Plan. Task 2 therefore contains actions that help the Region work toward resolving significant water-related conflicts associated with water supply, water quality, flood control, and environmental integrity.

As described in *Attachment 3, Work Plan*, local residents and other interests within the Borrego Valley have expressed growing concern regarding the lowering of the area's groundwater table and the fact that the Region did not have a plan or regulatory agency with the authority to adequately address regional groundwater overdraft. There is concern groundwater availability and quality may deem the Borrego

Valley's lower groundwater aquifers unusable from an economic standpoint. The primary purpose of Task 2 is to provide the data necessary to establish a common understand of existing conditions, the overdraft state, and groundwater quality in the Region's groundwater basins – the primary source of water supply for local residents and businesses. Simply defining the true current condition will better equip this diverse stakeholder group to discuss future projects and programs to resolve these conflicts.

Task 3: Preparing and Adopting the ABD IRWM Plan

The purpose of Task 3 will be to incorporate work completed under Task 1 and Task 2 and complete additional work necessary to produce a standards-compliant IRWM Plan for the Region. Addressing key regional issues within a robust stakeholder outreach process will effectively resolve significant water-related conflicts. Work completed under Task 3 will ensure that all information, analysis, and recommendations are included within the ABD IRWM Plan, therefore ensuring that the IRWM Plan addresses the IRWM Program Preference of effectively resolving significant water-related conflicts within the Region.

Program Preference 4: Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program

The CALFED Bay-Delta Program has the following four objectives: Water Quality, Water Supply, Ecosystem Restoration, and Levee Integrity (<http://calwater.ca.gov/>).

- *Water Quality*: the objective of this program is to invest in projects that improve the state's water quality from source to tap.
- *Water Supply*: this objective is comprised of five critical elements: conveyance, storage, environmental water account, water use efficiency and water transfer. Together and in partnership with local and regional agencies, this program allows for the increase of water supplies and more efficient and flexible use of water resources.
- *Ecosystem Restoration*: this objective aims at restoring and protecting habitats, ecosystem functions, and native species.
- *Levee Integrity*: the objective of this program is to protect water supplies needed for ecosystems, cities, industry, and farms by reducing the threat of levee failures that would lead to seawater intrusion.

All tasks included within this Proposal meet the CALFED Bay-Delta Program objective relating to *Water Supply*. Due to the Proposal's emphasis on this key issue, the Region will ensure the efficient use of a Statewide water resource (the Region's groundwater aquifers) and work to add flexibility to California's water system by increasing water supply reliability of the groundwater aquifers. Because the Region does not currently receive water from the Sacramento-San Joaquin Bay Delta (Bay Delta), IRWM activities for the Region will not have a direct impact on the *Water Quality*, *Ecosystem Restoration*, or *Levee Integrity* of the Bay Delta.

As indicated within *Attachment 3, Work Plan*, the Region's primary water supply resource, the Borrego Valley Groundwater Basin, is in a state of overdraft. Despite the importance of this regional water resource, the Region has not yet reached consensus regarding the status of the Borrego Valley Groundwater Basin or other regional basins. Work proposed within Task 1 and Task 2 of this Proposal will include outreach efforts and technical work necessary to develop implementable strategies for adequately managing the Region's groundwater resources. Therefore, this Proposal will seek to increase water supply reliability for the Region. Increasing the Region's water supply reliability directly meets the CALFED Bay-Delta Program's *Water Supply* objective by adding flexibility to California's water system. Without an effective strategy for managing the Region's groundwater resources, the Region will not be able to implement activities such as groundwater banking, importing replenishment water, and other potential groundwater supply alternatives. As such, the activities included within the Proposal relating to

water supply will help the Region avoid economic and public health and welfare issues that could arise if the Region's groundwater basins were to become unusable from a technical or economic perspective.

Work completed under Task 3 will ensure that information from Task 1 and Task 2 is incorporated into the ABD IRWM Plan, therefore ensuring that the IRWM Plan addresses the IRWM Program Preference of contributing to the attainment of an objective (Water Supply) of the CALFED Bay-Delta Program.

Program Preference 5: Address Critical Water Supply or Water Quality Needs of DACs

As indicated within *Attachment 3, Work Plan*, almost the entire Region qualifies as a disadvantaged community (DAC) according to requirements within the 2010 Guidelines (refer to Figure 3-4). As indicated throughout the Work Plan, because almost the entire Region qualifies as a DAC, all work included within the Proposal would benefit DACs. Despite this fact, the Region is committed to conducting further outreach efforts to non-governmental organizations (NGOs) and other groups representing the interests of DACs in order to facilitate and support sustained DAC participation in the IRWM planning process. Such activities (included within Task 1) will ensure that DACs are engaged throughout development of the IRWM Plan, therefore ensuring that the IRWM Plan addresses critical water supply and water quality needs of DACs.

Furthermore, all four Regional Water Resources Plans included under Task 2 include activities that address critical water supply and water quality needs for the Region (including DACs). Tasks 2-1 and 2-2 will include work to specifically address a critical water supply (groundwater overdraft) issue that affects all Regional stakeholders, including DACs. Task 2-3 will include work to address a potentially significant yet undefined water quality issue that has the potential to severely impact regional water resources for all residents, including DACs. All three planning studies include activities that will work to ensure that the Region's groundwater resources are usable from a quantity, quality, and economic standpoint. As indicated within *Attachment 3, Work Plan*, it is possible that Borrego Valley groundwater resources will become unavailable from an economic standpoint (due to treatment and pumping costs) due to overdraft of the Upper Aquifer. If the Borrego Valley's groundwater resources were to become economically unviable, impacts would disproportionately impact DACs by requiring expensive alternatives that may not be economically feasible for DACs. As such, while the work included within these planning studies has a regional scope for all residents, anticipated outcomes from these activities are expected to positively benefit DACs by ensuring that these communities continue to have a reliable, high-quality, and economically viable water supply. In addition, Task 2-3 will address climate change vulnerabilities that may occur across the Region, including flooding and environmental integrity issues. Due to the substantial economic impacts generated from flooding (refer to *Attachment 3, Work Plan* for more information), benefits anticipated for Task 2-3 will positively benefit DACs by reducing the likelihood of damaging flood events that disproportionately impact DACs.

The purpose of Task 3 will be to incorporate work completed under Task 1 and Task 2 and complete additional work necessary to produce and adopt a standard-compliant IRWM Plan for the Region. As such, Task 3 will ensure that planning activities that directly address critical water supply and water quality needs of DACs are incorporated into the IRWM Plan. Therefore, Task 3 will ensure that the IRWM Plan addresses the IRWM Program Preference of addressing critical water supply and water quality needs of DACs within the Region.

Program Preference 6: Effectively Integrate Water Management with Land Use Planning

As described within *Attachment 3, Work Plan*, the Regional Water Management Group (RWMG) formed to conduct IRWM planning activities in the Region is comprised of the Borrego Water District (BWD), the County of San Diego (County), and the Resource Conservation District of Greater San Diego County (RCD). Of these three agencies, the County has land use and water management authority within portions of the Region and BWD has water management authority over a portion of the Region (refer to Figure 3-

1). Therefore, IRWM planning efforts included within the Proposal, such as implementing outreach efforts, completing Regional Water Resources Plans, and developing an IRWM Plan, constitute integration of water management and land use planning by convening water management and land use planning agencies to work on important Regional issues.

Regional issues such as groundwater supply, flooding (and related development restrictions), environmental integrity, and other issues have a clear nexus between land use planning and water management. The Proposal acknowledges this relationship and specifically includes Task 3-5 (*Describe IRWM Process Relating to Local Land Use and Water Planning*) which ensures that there is an exchange of knowledge and expertise between land use and water managers, and identifies how to improve planning efforts between these entities. Task 3-5 also acknowledges the importance of land use and water managers not included within the RWMG, including the Anza-Borrego Desert State Park, the Bureau of Land Management, other Resource Conservation Districts, and other agencies with water authority. Due to the importance of all Regional land use and water planning agencies, Task 3-5 also includes coordination with such agencies to ensure that their input is incorporated into the IRWM Plan. Therefore, work completed within the Proposal will ensure that the IRWM Plan addresses the IRWM Program Preference of effectively integrating water management with land use planning.

Program Preference 7: Integrate Stormwater Resource Plan Requirements

The Proposal will indirectly integrate the Stormwater Resource Plan requirements specified in CWC Section 10562 into the ABD IRWM Plan. Although a complete Stormwater Resource Plan per the Water Code will not be developed, certain required components will be addressed during the IRWM planning process.

Work included within Task 3 will include an assessment of Resource Management Strategies (RMS) as required by DWR within the 2010 Guidelines. Therefore, Task 3 will include a consideration of RMS relating to stormwater management and pollution prevention. Consideration of how this RMS is implemented within the ABD Region will likely include: a) opportunities to augment local water supply through groundwater recharge or storage for beneficial reuse; b) opportunities for source control for both pollution and stormwater runoff volume, onsite and local infiltration, and reuse, and c) projects to reestablish natural water drainage treatment and infiltration systems or mimic natural system functions to the maximum extent feasible (CWC Section 10562(d)). These considerations would not only address stormwater management concerns, but could also contribute to the development of groundwater management solutions (e.g. stormwater capture and recharge) in Task 2. While specific projects that will be included within the IRWM Plan are not known at this time, due to the consideration of the aforementioned RMS, it is possible that the IRWM Plan will include projects that improve management of stormwater resources within the Region.

Program Preference 8: Address Statewide Priorities

The Proposal will either directly or indirectly address every Statewide Priority established by DWR. **Table 6-3** demonstrates which Statewide Priorities are addressed by each of the Work Plan tasks and by the Proposal as a whole.

Table 6-3: Proposed Projects and Programs with Statewide Priorities

Work Plan Tasks	Drought Preparedness	Reuse Water More Efficiently	Climate Change Response Actions	Expand Environmental Stewardship	Practice Integrated Flood Management	Protect Surface/ Groundwater Quality	Improve Tribal Water/Natural Resources	Ensure Equitable Distribution of Benefits
Task 1: Stakeholder Outreach and Program Administration	○		○	○	○	○	●	●
Task 2: Regional Water Resources Plans	●		●	●	●	●		●
Task 3: Preparing and Adopting the ABD IRWM Plan	○	○	●	○	○	●	●	●
Task 4: Grant Administration								
ABD Planning Grant Proposal	●	○	●	●	●	●	●	●

○ indirectly related; ● directly related

Task 1: Stakeholder Outreach and Program Administration

As indicated within Table 6-3, Task 1 will largely address Statewide Priorities in an indirect manner. This is because all IRWM planning activities and actions completed under Task 2 and Task 3 will be directly supported by work occurring in Task 1. For example, the climate change and flood planning proposed under Task 2 (Task 2-4) will be advertised and discussed through outreach activities described under Task 1 such as website updates, Stakeholders Committee meetings, etc. As such, Task 1 will provide a venue through which to educate stakeholders regarding IRWM planning activities, and ensure that activities have support and participation from regional stakeholders. For these reasons, Task 1 will indirectly support the following Statewide Priorities: Drought Preparedness, Climate Change Response Actions, Expand Environmental Stewardship, Practice Integrated Flood Management, and Protect Surface Water and Groundwater Quality. All of the aforementioned Statewide Priorities will be directly addressed either under Task 2 or Task 3, which will be directly supported by work conducted under Task 1.

Two Statewide Priorities will be directly addressed by Task 1:

- *Ensure Equitable Distribution of Benefits:* One of the purposes of Task 1 (Subtask 1.1-2) is to conduct further outreach efforts to DACs and Tribal entities within the Region so that these communities are more engaged in the IRWM process. Furthermore, another purpose of Subtask 1.1-2 is to engage DAC and Tribal entities to receive input and feedback on a draft and final IRWM Plan section articulating DAC and Tribal water-related issues and their respective water management (critical water supply or water quality) needs. All of the outreach described under Task 1 will be directed at DACs, because almost the entire Region qualifies as a DAC (refer to Figure 3-4). As such, through outreach conducted under Task 1, DACs will be engaged in project development for the IRWM Plan, and will therefore have the opportunity to assist in developing projects that address DAC issues such as safe drinking water and wastewater treatment needs.
- *Improve Tribal Water and Natural Resources:* As stated above, one of the purposes of Task 1 (Subtask 1.1-2) is to conduct further outreach efforts to DACs and Tribal entities within the Region so that these communities are more engaged in the IRWM process. Furthermore, another purpose of Subtask 1.1-2 is to engage DAC and Tribal entities to receive input and feedback on a draft and final IRWM Plan section articulating DAC and Tribal water-related issues and their respective water management (critical water supply or water quality) needs. Due to Tribal consultation and collaboration that will be included within Task 1, Tribal issues will be included

within the IRWM Plan, making Tribal groups potentially eligible for future funding for water programs and projects through IRWM grant programs.

Task 2: Regional Water Resources Plans

As indicated within Table 6-3, Task 2 will directly address six of the eight established Statewide Priorities:

- *Drought Preparedness:* Tasks 2-1 and 2-2 will include work to address and adequately manage groundwater within the Region, therefore greatly increasing water supply reliability for the Region. Through efficient groundwater management of the Region's basins (as proposed under Task 2-1), the Region will be better prepared for drought, climate change, or other conditions that may impact water supply reliability.
- *Climate Change Response Actions:* Task 2-4 will include work to address DWR's Climate Change Requirement included within the 2010 Guidelines. Specifically, Task 2-3 will include climate change analyses that will allow the Region to assess its climate change vulnerabilities, and produce potential climate change adaptation strategies that can be used to address (and potentially adapt to) the identified vulnerabilities.
- *Expand Environmental Stewardship:* Three plans included within Task 2 (Task 2-2, Task 2-3, and Task 2-4) includes elements that promote, improve, and expand environmental stewardship by aiming to assess, protect and enhance (as feasible) the Region's environmental integrity. Task 2 includes work that will assess how water management issues such as groundwater supply and quality, climate change, and flooding will impact the Region's environmental integrity, and analyze what can be done to reduce water management-related environmental integrity impacts.
- *Practice Integrated Flood Management:* Task 2-4 will include work to address the Region's flooding issues, including developing flood control strategies that will increase flood protection and more sustainably manage the Region's flood issues to reduce flood-related damages. This task will integrate flood management with climate change planning in order to assess existing flood management as well as future flood impacts that may occur when considering climate change.
- *Protect Surface Water and Groundwater Quality:* Task 2-3 specifically addresses the Region's groundwater quality by developing forecasts that analyze potential water quality impacts that may arise as the Region's groundwater tables are lowered. It is currently unknown what will occur to groundwater quality as the Region's groundwater is dewatered, but it is possible that dewatering will impact water quality and require costly treatment efforts. As such, Task 2-3 will help the region assess potential groundwater quality impacts to allow the region to pursue future efforts that will protect and possibly restore groundwater quality to safeguard public health and environmental health.
- *Ensure Equitable Distribution of Benefits:* All of the planning studies included within Task 2 are regional projects that will provide multiple benefits to the entire Region. Due to the fact that almost the entire Region qualifies as a DAC, Task 2 will include multi-benefit projects (Regional Water Resources Plans) that consider affected DACs and vulnerable populations.

Task 3: Preparing and Adopting the ABD IRWM Plan

As indicated within Table 6-3, Task 3 will directly or indirectly address every Statewide Priority for the IRWM Grant Program per the 2010 Guidelines:

- *Drought Preparedness:* Work included within Task 3 will ensure that the drought-preparedness aspects of Task 2 (see the preceding section for more information) are incorporated into the ABD IRWM Plan. Work completed under Task 3 will ensure that the IRWM Plan includes an

evaluation of how the Region's water managers will manage available groundwater supplies during both normal and dry periods.

- *Use and Reuse Water More Efficiently:* Work included within Task 3 will include an assessment of Resource Management Strategies (RMS) as required by DWR within the 2010 Guidelines. Therefore, Task 3 will include a consideration of RMS relating to water use efficiency such as agricultural water use efficiency, urban water use efficiency, and water recycling. While specific projects that will be included within the IRWM Plan are not known at this time, due to the consideration of the aforementioned RMS, it is possible that the IRWM Plan will include projects that implement water use efficiency measures.
- *Climate Change Response Actions:* Work included within Task 3 will ensure that the climate change analysis included within Task 2-4 (see the preceding section for more information) is incorporated into the IRWM Plan. Work completed under Task 3 will ensure that the IRWM Plan meets the Climate Change Standard Requirements listed within the 2010 Guidelines, including an assessment of water management actions that will address key climate change issues.
- *Expand Environmental Stewardship:* Work included within Task 3 will ensure that the environmental integrity analyses included within Task 2 (see the preceding section for more information) are incorporated into the IRWM Plan. Work completed under Task 3 will ensure that the IRWM Plan includes a discussion of important ecological processes and environmental resources within the Region and the associated water demands to support environmental needs. While specific projects that will be included within the IRWM Plan are not known at this time, due to the importance of environmental integrity to the Region, it is likely that the Plan will include projects that practice, promote, improve, and expand environmental stewardship to protect and enhance the environment.
- *Practice Integrated Flood Management:* Work included within Task 3 will ensure that the integrated flood analyses included within Task 2-4 (see the preceding section for more information) are incorporated into the IRWM Plan. While specific projects that will be included within the IRWM Plan are not known at this time, due to the importance of flood control to the Region, it is likely that the Plan will include projects that promote and practice integrated flood management to provide multiple benefits.
- *Protect Surface Water and Groundwater Quality:* Work included within Task 3 will ensure that the groundwater quality analyses included within Task 2-3 (see the preceding section for more information) are incorporated into the IRWM Plan. Work completed under Task 3 will ensure that the IRWM Plan includes a discussion of the importance of protecting and restoring groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses.
- *Improve Tribal Water and Natural Resources:* Work included within Task 3 will ensure that the IRWM Plan section articulating DAC and Tribal water-related issues and their respective water management needs included within Task 1-1 are incorporated into the IRWM Plan. In addition, work completed under Task 3 will potentially position Tribal entities for access to funding for water programs and projects to better sustain Tribal water and natural resources.
- *Ensure Equitable Distribution of Benefits:* Work included within Task 3 will ensure that the IRWM Plan section articulating DAC and Tribal water-related issues and their respective water management needs included within Task 1-1 are incorporated into the IRWM Plan. In addition, work completed under Task 3 will address critical water supply or water quality needs of DACs within the Region. Because almost the entire Region qualifies as a DAC, the IRWM Plan will contain projects that address safe drinking water and wastewater treatment needs of DACs.