

## **Attachment 9**

### **Program Preferences**

This section describes how the proposal assists in meeting the Proposition 84 IRWM Program Preferences as outlined in Section II.F of the 2012 Guidelines. Each Program Preference addressed by this proposal is discussed in turn, along with the certainty with which the proposal will meet that Program Preference and the breadth and magnitude with which that Program Preference will be met.

#### **Program Preference: Include regional projects or programs (CWC §10544)**

The definition of a “regional project or program” are projects or programs identified in an IRWM Plan that accomplish any of the following:

- a. Reduce water demand through agricultural and urban water use efficiency.
- b. Increase water supplies for any beneficial use through the use of any of the following or other means:
  1. Groundwater storage and conjunctive water management
  2. Desalination
  3. Precipitation enhancement
  4. Water recycling
  5. Regional and local surface storage
  6. Water-use efficiency
  7. Stormwater management
- c. Improve operational efficiency and water supply reliability, including conveyance facilities, system reoperation, and water transfers.
- d. Improve water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff.
- e. Improve resource stewardship, including agricultural lands stewardship, ecosystem restoration, flood plain management, recharge area protection, urban land use management, groundwater management, water-dependent recreation, fishery restoration, including fish passage improvement, and watershed management.
- f. Improve flood management through structural and nonstructural means, or by any other means.

The proposal will meet this Program Preference fully and with 100% certainty. All of the projects included in the proposal address this Program Preference, as described below.

**Project 1. County of Monterey: San Lucas Water District Public Water Supply Project:** The project will improve operational efficiency and water supply reliability and will improve water quality, including drinking water treatment and distribution. The San Lucas Water Supply Project will replace the nitrate-contaminated public water supply for the disadvantaged community of San Lucas with a reliable long-term reliable source of potable water.

**Project 2. Pajaro/Sunny Mesa Community Services District: Springfield Water Project:** The Springfield Water Project will provide planning for construction of a new water system for the disadvantaged community of Springfield in the Pajaro/Sunny Mesa Community Services District. This Program Preference is met through improvements in operational efficiency, conveyance of drinking water, quality of delivered water, and greater water supply reliability. This project also has the potential of consolidation with a neighboring system comprised of 100 additional connections. Consolidation would result in even greater operational efficiencies. Increased water supply reliability can be achieved with the addition of a 210,000-gallon storage tank.

**Project 3. City of Salinas and Monterey Regional Water Pollution Control Agency (MRWPCA): Dry Weather Runoff Diversion Program:** This project will increase water supplies for beneficial use through the use of stormwater management, conjunctive water management, and water recycling, and will improve water quality, matching water quality to water use. The project will divert dry weather runoff from the City of Salinas for treatment and reclamation for agricultural use. This project will take tainted water that was once destined for the Salinas River and repurpose the water for a higher and more beneficial use – agriculture irrigation – matching water quality to an appropriate water use. Shoulder season wet weather events could also be subjected to these processes, making an even bigger impact to the health of the Salinas River and further increasing water supplies.

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** This project will increase water supplies for beneficial use, improve water supply reliability, improve water quality, improve resource stewardship, and improve flood management. The Salinas River Watershed Invasive Non-native Plant Control Program aims to eradicate the invasive non-native weed *Arundo donax* from 120 acres of the Salinas River watershed. *Arundo* treatment and either natural recruitment or intentional planting of native vegetation serves the purposes of ecosystem restoration, floodplain management, recharge enhancement, and improved fish passage. *Arundo* is documented to draw approximately three times more water than native vegetation. Its removal will make more water available for conveyance downstream, for groundwater recharge, and for native plants. The Salinas River channel serves to convey water to the river mouth, the coastal water reuse system, and groundwater recharge. *Arundo* control will therefore enhance the river’s capacity to move water both downstream and into groundwater. In addition, *arundo*, while either standing or as rafts of rhizomes and stalks, impedes high water flows, exacerbating potential for flooding of adjacent lands as well as forming debris dams at bridges and other river-crossing structures. *Arundo* treatment will help limit this potential in reaches of river that are particularly choked with the weed. Large banks or midstream bars armored with *arundo* force storm flows into other banks, exacerbating erosion and associated downstream sedimentation. *Arundo* treatment will reduce that potential for erosion and offers the associated benefit of improved water quality in terms of reduced turbidity as well as any legacy pesticides that might be carried along in soils mobilized by streambank erosion.

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** The Farm Water Quality Assistance Program will provide a bilingual on-farm erosion, irrigation, and nutrient management evaluation program for Monterey County farmers. The project will reduce water demand through agricultural water use efficiency and thereby increase water supply for beneficial use; improve downstream water quality through the management of agricultural runoff; and will improve environmental resources through agricultural lands stewardship.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** The Monterey Bay Green Gardener Certification Program provides bilingual, hands-on training in ecological landscaping methods for landscaping industry professionals, public agency landscape maintenance staff, and home gardeners. Participants learn how they can reduce water demand by installing climate appropriate landscaping, implementing weather-based irrigation scheduling, and improving irrigation efficiency. Landscape industry employees are educated on how to comply with state and local Model Water Efficient Landscape Ordinances (MWELo), and are encouraged to voluntarily apply the irrigation efficiency guidelines of the MWELo to existing residential and commercial landscape retrofits where permits are not needed. Green Gardener certification-level training also educates landscape managers about the negative water quality impacts of nutrients, pesticides, and sediment in local watersheds. The curriculum provides practical instruction in appropriate turf grass fertilization and integrated pest management. Green Gardener public workshops and demonstration sites that incorporate low impact development (LID) best management practices (BMPs) provide participants tangible examples of how landscapes can be retrofitted or designed to ecologically manage urban runoff. Green Gardeners are trained to manage natural resources efficiently by minimizing and/or eliminating green waste hauling, fertilizer and pesticide applications, and carbon emissions from the landscapes they manage. Green Gardener public workshops will inform participants about non-structural BMPs such as managing stormwater as a resource, preserving and utilizing existing natural features and systems, disconnecting, decentralizing and distributing sources and discharges, and slowing down runoff.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** Elkhorn Slough Foundation's Ridgeline to Tideline project includes: 1) planning, design, and environmental compliance for increasing tidal range and circulation in North Marsh, a part of Elkhorn Slough with consistently poor water quality and greatly reduced estuarine function, and restoring an adjacent upland buffer; 2) acquiring adjacent farmland property that is a chronic source of Slough degradation; and 3) restoring a nearby marsh through the addition of sediment. The project will reduce water demand through agricultural water use efficiency by retiring steep, eroding, marginal fields from production, and will increase water supplies for beneficial use by increasing water recharge to underlying aquifers by restoring vegetation that can increase infiltration. The project will improve water quality, preventing water pollution by decreasing agricultural runoff into tidal wetlands, and will improve resource stewardship through ecosystem restoration, via marsh ecotone/buffer enhancement and salt marsh restoration. Finally, salt marsh restoration will improve flood protection for adjacent uplands and can have a positive effect of reducing nutrient inputs to the estuary.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** This project addresses a critical infrastructure and monitoring need that will enable the region to gauge the success of various programs and technologies that are being implemented to manage surface water quality through reductions in loading from urban and agricultural land uses. Currently management practice implementation and monitoring are conducted independently among the various State and local agencies. The proposed monitoring network will provide real time data on pollutant loading to coastal waters from the region's priority watersheds and will enable researchers to track success of individual programs through diagnostic monitoring of upstream sources and through integration of disparate water quality data for analysis. This network will enable the region to demonstrate effectiveness of various water quality management strategies, help proscribe additional actions where results are limited, and report to State and Federal agencies on the level of water quality compliance due to the cumulative actions of the regions partners and stakeholders.

**Project 9. Save Our Shores: Annual Coastal Cleanup Day in Monterey County:** Save Our Shores' Annual Coastal Cleanup Day project will help protect and enhance State and Federally listed species and their habitats through annual beach, river, and slough cleanups, and will increase environmental stewardship. Ocean health will be improved due to a reduction in the amount of marine debris in the ocean. The project will also improve water-dependent recreation. The Elkhorn Slough is a globally recognized recreational and wildlife viewing destination and California's largest tract of tidal salt marsh outside of San Francisco Bay, providing much-needed habitat for hundreds of species of plants, animals, and birds. The project will enhance the slough by ensuring a reduction in pollution in and around the slough, which will protect wildlife as well as improve the recreational experience.

**Program Preference: Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; the RWQCB region or subdivision; or other region or sub-region specifically identified by DWR**

The proposal will meet this Program Preference to a significant extent and with 100% certainty. The integration of water management programs and projects is occurring on one level through implementation of this proposal in general, via the partnerships that have been developed between project proponents and the linkages that exist between specific projects (see discussion of linkages in the Work Plan Introduction). In addition, two of the projects work specifically to integrate water management efforts within the Greater Monterey County region:

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** The RCD works closely and cooperatively with all agricultural water quality management programs on the Central Coast to implement this and its other agricultural assistance programs. The Farm Water Quality Assistance Program brings together several partners to promote agricultural water quality BMPs in the region. Local UC Cooperative Extension Irrigation and Nutrient Farm Advisors will participate in field trials with and along with USDA NRCS conservation and engineering staff and provide equipment, lab resources, time and critical technical guidance to the RCD project team. The Grower-Shippers Association of Central California, the Monterey Bay Sanctuary Foundation, Monterey County Farm Bureau, California Strawberry Commission, the Central Coast Water Quality Coalition, and the Monterey County Agricultural Commissioner will also assist with extending the

project to their grower constituencies to encourage participation or with other project technical guidance. The Ag Land-Based Training Association, Cachuma RCD, and the RCD of Santa Cruz County will provide specific guidance and shared resources for working with Hispanic growers. Such broad-based assistance is needed to help growers comply with new regulations.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** This program will integrate water management programs within the Gabilan/Lower Salinas hydrologic region (defined as a priority watershed by the Regional Water Quality Control Board and scheduled for 19 TMDLS) by: 1) providing the necessary level of water quality data at confluence sites, 2) providing staffing and monitoring equipment to quantify loading within sub-drainages of the watershed, and 3) supporting staff for the Monterey Bay National Marine Sanctuary and students at Moss Landing Marine Labs to evaluate the cumulative results of these and other partner water quality data to describe the current function of the watersheds.

**Program Preference: Effectively resolve significant water-related conflicts within or between regions**

The proposal will meet this Program Preference to a significant extent and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 1. County of Monterey: San Lucas Water District Public Water Supply Project:** The San Lucas Water Supply Project will eliminate the present conflict between the existing municipal and agricultural uses of the limited groundwater resource at the existing well location by replacing the community's nitrate-contaminated public water supply with a reliable long-term reliable source of potable water. In the event the selected project involves relocation of the San Lucas Water District's existing municipal well to a new location removed from current agricultural cultivation, or constructs an inter-tie to another public water system some distance away, this would eliminate the present conflict and competition between the existing municipal and agricultural uses of the limited groundwater resource at the existing well location.

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** The Central Coast Ag Waiver currently poses one of the most significant water-related conflicts in our region; RCD's assistance program helps growers comply with the new regulations.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** Planning for North Marsh enhancement will be designed to address differing/conflicting needs within the Elkhorn Slough watershed. The planning process will result in site evaluation, planning, evaluation of design alternatives, compilation of a restoration plan, 30% design, and CEQA compliance, created to improve water management in North Marsh. The plans will include strategies to prevent mosquito outbreaks, to prevent flooding of Elkhorn Road on high tide events, prevent erosion of Union Pacific Railroad's railroad tracks, reduce sulfur smells affecting neighbors and visitors to Kirby Park, and to improve water quality and estuarine functioning in the wetland.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** Currently stakeholders within the watershed disagree on the relative impacts of various land uses and management strategies on the region's water resources. The data resulting from the proposed project will provide the data needed to quantify success, identify current resource management shortcomings, and help to direct future project and monitoring resources. The Central Coast Wetlands Group will provide data results in useful ways to assist the region in making decisions for project prioritization and management, thereby reducing uncertainty and potential conflicts in future decision-making.

**Program Preference: Address critical water supply or water quality needs of disadvantaged communities within the region**

The proposal will meet this Program Preference fully and with 100% certainty. Two of the projects included in the proposal directly address critical water supply needs of disadvantaged communities in the region. The

community of San Lucas is a small impoverished, predominately Hispanic, farmworker village located in southern Salinas Valley. Since March 2011 all customers of the San Lucas Water District have been on an indefinite “Do Not Drink” order from the Monterey County Division of Environmental Health due to excessive levels of nitrates in water being pumped from the District’s single well. The proposed project will implement preparation of a Feasibility Study to evaluate all available feasible options for long-term solutions to the water supply problem and will result in construction of a new water supply system for this impoverished community.

Springfield is a disadvantaged community of about 165 residents in North County, many of whom are farmworkers. The Springfield Mutual Water system has not met the drinking water standards since at least 1986, due to excess nitrates in the groundwater supply. Current nitrate levels run around 300 mg/l (where the MCL for nitrates in drinking water is 45 mg/l). The proposed project will provide design, planning, engineering and environmental review for construction of a new well, associated distribution system and a 210,000 gallon storage tank capable of providing year round water supply to this community.

Several other projects included in this proposal will provide indirect benefits for disadvantaged communities and/or actively engage members of disadvantaged communities in the implementation projects. The RCD Invasive Non-native Plant Control project will engage South County students, many of whom are members of disadvantaged communities, through participation in revegetation projects. The RCD Farm Water Quality Assistance Program includes outreach targeted towards Hispanic growers, a percentage of whom are members of local disadvantaged communities. Ecology Action’s Green Gardener Program will work with IRWM partners in the region to promote bilingual Green Gardener training opportunities to small and disadvantaged communities so that peer exchanges will be distributed equally and fairly. Elkhorn Slough Foundation’s project includes planning for North Marsh designed to decrease mosquito outbreaks, prevent flooding of a public road, and decrease sulfur smells next to a public park just north of Castroville, a disadvantaged community identified in the Greater Monterey IRWM Plan. For Central Coast Wetlands Group’s Monitoring Network, two of the LOBO arrays are located adjacent to the disadvantaged and underserved community of Castroville; the monitoring array will help local flood control district and watershed stewards manage local drainages. Finally, Save Our Shores will engage underrepresented youth in cities within Monterey County, providing in-class presentations about water pollution prevention prior to Annual Coastal Cleanup Day as well as recruiting and training students to participate in the cleanup efforts as leaders.

### **Program Preference: Effectively integrate water management with land use planning**

The proposal will meet this Program Preference to some degree, with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 1. County of Monterey: San Lucas Water District Public Water Supply Project:** A Monterey County non-profit housing developer has been proposing to construct a 33-unit affordable farmworker housing project in the disadvantaged community of San Lucas since 2005. This development is prohibited from proceeding because of the Monterey County Health Department determination that the community’s public water supply is contaminated with nitrates and TDS, and the San Lucas Water District may not add any new connections until the contamination is remediated. The proposed project will address the problem of nitrates and TDS in the groundwater supply, and will enable construction of the farmworker housing units to proceed.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** The Monterey Bay Green Gardener Certification Program provides bilingual, hands-on training in ecological landscaping methods for landscaping industry professionals, public agency landscape maintenance staff, and home gardeners. Landscape maintenance workers and home gardeners that attend Monterey Bay Green Gardener trainings learn how they can help increase water supplies, improve water quality, and improve resource stewardship through urban land use management practices.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** County planning staff are mandated as part of the recently adopted General Plan Update to address the many water quality and

aquatic habitat issues within the region. The proposed Regional Water Quality Monitoring Network will support the County's efforts to identify water quality enhancement needs (urban stormwater infrastructure, detention basins, treatment wetlands, bioreactors), ensure that such infrastructure is designed to meet water quality objectives described within the Basin Plan, and help IRWM partners to integrate this infrastructure into redevelopment areas described within the General Plan. Further data results compiled from the proposed network will support County staff efforts to integrate BMPs into future development to justify the expenditures and document the resulting water quality enhancements, required for permit compliance.

### **Program Preference: Statewide Priority: Drought Preparedness**

This proposal contains projects that effectively address long-term drought preparedness by contributing to sustainable water supply and reliability during water shortages. The proposal will meet this Program Preference fully and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 1. County of Monterey: San Lucas Water District Public Water Supply Project:** The San Lucas Water Supply Project will directly contribute to more sustainable water supply and reliability during water shortages for the disadvantaged community of San Lucas, which is currently under a "Do Not Drink" order. The project will provide more efficient groundwater basin management, eliminating the present conflict between the existing municipal and agricultural uses of the limited groundwater resource at the existing well location. The project may also involve construction of an inter-tie to another public water system.

**Project 2. Pajaro/Sunny Mesa Community Services District: Springfield Water Project:** The Springfield Water Project will directly contribute to more sustainable water supply and reliability during water shortages for the disadvantaged community of Springfield and the nearby community of Moss Landing Mobile Manor. The water system has exceeded the nitrate MCL since at least 1986 (the current level of nitrates in the Springfield water system is 293 mg/l). The proposed project will provide planning for construction of a new water system, providing critically needed potable water for these low-income communities.

**Project 3. City of Salinas and MRWPCA: Dry Weather Runoff Diversion Program:** This project promotes conjunctive use, reuse, and recycling. The project will essentially put urban runoff to beneficial use, and will help increase regional water supply by offsetting agricultural pumping from groundwater supplies in the seawater water-impacted coastal zone.

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** The project will eradicate 120 acres of the aggressive non-native weed, *Arundo donax*, in the Salinas River watershed. Treating arundo results in more water available for groundwater recharge and instream flow, promoting water conservation within the wild landscape to reduce drought stress in other systems (water to be pumped for human use, native vegetation and in-stream habitat).

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** This project will improve agricultural irrigation efficiencies and promote agricultural water conservation. The project aims to achieve long-term reduction of water use by giving farmers the tools to manage water better well into the future. The project not only contributes to a sustainable water supply but enables farmers to better cope with potential drought conditions.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** The Salinas Valley is especially vulnerable to drought conditions. Landscape managers and home gardeners respond to drought conditions by increasing irrigation frequency and duration to make up for lack of precipitation, thus increasing pumping demand on overdrafted aquifers. Green Gardener hands-on workshops train residents to create resilient landscapes that need less potable water during drought, thus helping the region achieve a long-term reduction in water use and increasing the reliability of potable water supplies for uses that require a higher water quality.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** The project will improve landscape and agricultural irrigation efficiencies and will help achieve long-term reduction of water use. The land acquisition as part of this project, both proposed and completed, reduces the acreage of cultivation on steep eroding slopes and concomitant pumping of groundwater for irrigation. In conjunction with restoration of native vegetation that captures rainfall more effectively, the project will also increase infiltration and groundwater recharge.

### **Program Preference: Statewide Priority: Use and Reuse Water More Efficiently**

The proposal will meet this Program Preference fully and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 3. City of Salinas and MRWPCA: Dry Weather Runoff Diversion Program:** The project involves capturing, treating, and using reclaimed urban stormwater runoff for a higher and more beneficial use, i.e., agricultural irrigation, thus providing a “new” source of water. Future projects of this nature could potentially divert and treat a large percentage of stormwater runoff in the City of Salinas.

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** As noted above, treating arundo results in more water available for groundwater recharge and instream flow, promoting water conservation within the landscape to reduce drought stress in other systems.

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** This project aims to increase agricultural water use efficiency measures through evaluation of current practices, recommendation of alternatives or improvements, and technical support for their implementation.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** Through the Green Gardener program, Salinas Valley residents will have the opportunity to engage in hands-on LID training at water-wise demonstration sites that incorporate native and natural landscaping, rain gardens and bioretention, vegetated swales, impervious surface reduction and downspout disconnection, and rainwater harvesting in barrels and cisterns. Installations of LID features in water-wise demonstration gardens in public spaces will elevate public awareness of LID, which is a critical step in adoption of LID best management practices by public, commercial, and residential land owners.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** The land acquisition component of this project, both proposed and completed, will enable increased agricultural water use efficiency measures on the agricultural lands that will remain in production. Any remaining cultivation will be managed with catch basins that slow runoff and can increase water retention and infiltration.

### **Program Preference: Statewide Priority: Climate Change Response Actions**

The proposal will meet this Program Preference to a significant extent and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 2. Pajaro/Sunny Mesa Community Services District: Springfield Water Project:** The District plans to meet the climate change response actions priority through the use of new equipment. New pumps are more energy efficient and emit fewer GHGs. Also, consolidation of the Springfield water system and the Moss Landing Mobile Manor water system means that less equipment will be necessary, again emitting fewer GHGs. The project proposes a gravity fed system which will be more energy efficient than the current on demand system. The proposal of a new storage tank is also meant to make the community more resilient to the water shortages and/or electrical outages that might result under future climate conditions.

**Project 3. City of Salinas and MRWPCA: Dry Weather Runoff Diversion Program:** The Dry Weather Runoff Diversion Program will use and reuse water more efficiently. In addition, the project will utilize the natural treatment process of soil filtration, which is environmentally friendly and results in fewer GHG emissions.

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** Eradicating the non-native weed arundo results in more water available for groundwater recharge and instream flow, promoting water conservation and thereby helping the region address impacts of climate change.

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** The RCD will work directly with farmers to help them use water more efficiently. Reducing water use will have correspondingly reduced energy consumption from reduced pumping volumes.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** Low-tech greywater irrigation system design taught in Green Gardener classes are a cost-effective way to reduce water demand and wastewater loads. By permanently replacing potable water used for irrigation with laundry-to-landscape or gravity based greywater systems, energy is conserved upstream through the avoided cost of pumping groundwater and treating that water destined for landscape irrigation to drinking water quality. Energy is conserved downstream because wastewater flows from the home's greywater fixture(s) are treated by soil microorganisms in mulch basins rather than being pumped and treated at the wastewater treatment plant. Depending on the efficiency of the clothes washer, the average laundry to landscape greywater system installed in a household of four will reduce both water demand and wastewater loads by 3,000-8,000 gallons/year. The ability of a household to safely reuse greywater to irrigate a home garden or orchard (excluding edible parts of plants that have contact with soil) will give Salinas Valley residents a climate change adaptation tool that improves both water and food security.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** This project will help reduce water demand on the acquired properties, thereby contributing to water conservation. In addition, the project increases the resilience of tidal marsh to climate change by making it better able to keep pace with sea level rise. It also restores tidal marsh, which will capture and sequester carbon.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** This project will assess climate change vulnerabilities and will help the region adapt to climate change. The project includes two coastal confluence monitoring stations that will continuously measure critical data necessary to track early warning signs of climate change. These monitoring stations will quantify water elevation, flow rates and direction, salinity and temperature, all data needed to respond to the future coastal inundation of the Salinas Valley that is described within the IRWM Plan. Future actions to minimize inland flooding will require these data to appropriately design tide gates and other control structure to ensure proper function while protecting other wetland and aquatic resources. Similarly, the LOBO system that will be maintained within the Elkhorn Slough will provide similar hydrologic data that will enhance management and restoration of the Elkhorn Slough salt marsh estuaries. In addition, the three Coastal Confluence LOBO monitoring arrays will provide the hydrologic data needed to improve management of the hydrologic structures currently limiting upstream migration of anadromous fish and reestablishment of river floodplain continuity.

### **Program Preference: Statewide Priority: Expand Environmental Stewardship**

The proposal will meet this Program Preference to a significant extent and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 3. City of Salinas and MRWPCA: Dry Weather Runoff Diversion Program:** This project expands environmental stewardship by preventing pollutants from entering a large regional waterbody, using natural treatment for the biological degradation of these pollutants, and then sending the water for advanced treatment to be reused for food crop irrigation. This project will help provide a cleaner and healthier environment for aquatic species in the Salinas River and in downstream waterbodies.

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** This project specifically focuses on “improving watershed, floodplain, and instream functions and sustaining water and

flood management ecosystems.” This work is being conducted on a watershed scale (the only effective way to treat arundo). Arundo treatment and native vegetation recruitment and restoration is a direct improvement to the river and tributary stream corridors and floodplains in terms of habitat improvement and allowing natural stream/floodplain dynamics, while improving channel flood conveyance capacity and reducing excessive system water losses from arundo water use.

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** This project expands environmental stewardship by teaching farmers the value of installing environmentally friendly agricultural BMPs, and raising their awareness about the impacts of pesticides, nutrients, and sediments on waterbodies and aquatic systems.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** Green Gardener training improves resource stewardship in the region by creating a diverse community of citizens that are informed about critical issues affecting their watersheds. Green Gardeners are trained to manage natural resources efficiently by minimizing and/or eliminating green waste hauling, fertilizer and pesticide applications, and carbon emissions from the landscapes they manage. The benefits of training multiply when Green Gardeners educate their clients and peers about the sustainable resource management practices they learn.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** This project improves rare marsh-to-upland ecotone habitat at North Marsh in the Elkhorn Slough through the removal of invasive species and revegetation with native plants. This project also restores declining and rare tidal marsh habitat in lower Elkhorn Slough. Planning for North Marsh wetland improvements will promote long-term environmental stewardship of that ~200 acre wetland, allowing ESF to improve water and flood management there in the future.

### **Program Preference: Statewide Priority: Practice Integrated Flood Management**

The proposal will meet this Program Preference to some extent and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** As described previously, the arundo eradication effort will provide flood management integrated with floodplain ecosystem improvements.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** Implementation of LID structural and non-structural BMPs by Green Gardeners throughout the region will contribute to improved flood management in the region. Green Gardener public workshops will inform participants about non-structural BMPs such as managing stormwater as a resource, preserving and utilizing existing natural features and systems, disconnecting, decentralizing and distributing sources and discharges, and slowing down runoff. Water-wise demonstration sites installed by Green Gardeners will include structural BMPs that reduce stormwater volume and peak flows.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** Land acquisition proposed by this project followed by the removal of agriculture from steep slopes will reduce stormwater runoff and protect a public road from flooding. Marsh restoration through sediment addition will allow for the beneficial reuse of sediments dredged at the Pajaro River for flood protection. In addition, restored tidal marsh will provide floodplain ecosystem functions.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** Management of coastal floodplain ecosystem services requires the region to better manage these drainages for both flood management and resource enhancement. The IRWM Plan fully documents these needs and recognizes the limited information currently available to help the County redesign coastal drainage systems and confluence control structures. The proposed monitoring array will provide the real time data necessary to document flow and water

elevation at time increments (5 minutes) needed to understand the interactions of watershed flooding models, coastal tides, and the potential restoration of floodplains.

### **Program Preference: Statewide Priority: Protect Surface Water and Groundwater Quality**

The proposal will meet this Program Preference fully and with 100% certainty. The following projects included in the proposal address this Program Preference:

**Project 3. City of Salinas and MRWPCA: Dry Weather Runoff Diversion Program:** This project will help protect the Salinas River and underlying aquifers from pollutants in urban dry weather runoff. The project will improve the health of surface waters and groundwater, and will benefit aquatic species.

**Project 4. RCD of Monterey County: Salinas River Watershed Invasive Non-native Plant Control:** Large banks or midstream bars armored with arundo force storm flows into other banks, exacerbating erosion and associated downstream sedimentation. Arundo treatment will reduce that potential for erosion and offers the associated benefit of improved water quality in terms of reduced turbidity as well as any legacy pesticides that might be carried along in soils mobilized by streambank erosion.

**Project 5. RCD of Monterey County: Monterey County Farm Water Quality Assistance Program:** This project is specifically designed to protect surface water and groundwater quality to safeguard public and environmental health and to secure water supplies for beneficial uses.

**Project 6. Ecology Action: Monterey Bay Green Gardener Training and Certification Program:** Green Gardener certification-level training educates landscape managers about the water quality impacts of nutrients, pesticides, and sediment. The curriculum provides practical instruction in appropriate turf grass fertilization and integrated pest management, and Green Gardener public workshops and demonstration sites that incorporate LID BMPs show participants how landscapes can be retrofitted or designed to ecologically manage urban run-off.

**Project 7. Elkhorn Slough Foundation: Ridgeline to Tideline:** This project will restore surface water quality through land acquisition and subsequent land management changes that will reduce stormwater runoff into estuarine waters. Reduction of water use on those properties will reduce groundwater pumping in an area impacted by saltwater intrusion. Planning for North Marsh improvements will promote a project designed to increase tidal flushing in estuarine habitat, which now has poor water quality. Past work (Gee et al. 2010) has documented the positive benefits on water quality of building buffers on farms, restoring habitat, and reducing the footprint of cultivation on steep eroding slopes.

**Project 8. Central Coast Wetlands Group: Regional Water Quality Monitoring Network:** The three Coastal Confluence LOBO monitoring arrays will provide salinity and nutrient data necessary to quantify current management of these surface waters and help redesign the drainage system to limit water quality impacts.

### **Program Preference: Statewide Priority: Improve Tribal Water and Natural Resources**

N/A: There are no designated tribal lands in the Greater Monterey County IRWM region.

### **Program Preference: Statewide Priority: Ensure Equitable Distribution of Benefits**

The proposal will meet this Program Preference fully and with 100% certainty. Two projects included in this proposal – the San Lucas Water District Public Water Supply Project and the Pajaro/Sunny Mesa Community Services District Springfield Water Project – will directly address critical water supply needs of disadvantaged communities in the region, as described previously in detail. Several other projects included in this proposal have indirect benefits for disadvantaged communities and/or actively engage members of disadvantaged communities in the implementation projects. Please see the Program Preference “Address critical water supply or water quality needs of disadvantaged communities within the region” above for a full discussion.