Section N: Relation to Local Water Planning

The intent of the Relation to Local Water Planning standard in the Integrated Regional Water Management (IRWM) Program Guidelines is to ensure that the IRWM Plan is congruent with local plans and that the IRWM Plan includes current, relevant elements of local water planning and water management issues common to multiple local entities in the region. IRWM planning does not replace or supersede local planning; rather, local planning elements are used as the foundation for the regional planning effort. This section describes how the Greater Monterey County Regional Water Management Group (RWMG) has coordinated its water management planning activities to address or incorporate all or part of the following actions of its members and other local resource planning efforts:

- Sustainable groundwater management
- Water supply assessments
- Urban water management
- Agricultural water management
- Flood management
- Watershed management
- Storm water management
- Wastewater management
- Low impact development (LID)
- Salt and salinity management
- City and County general planning
- Emergency response, hazard mitigation, and drought contingency planning
- Monterey Bay National Marine Sanctuary Management Plan

N.1 HOW THE IRWM PLAN IS CONSISTENT WITH LOCAL WATER RESOURCE MANAGEMENT PLANS

The goals and objectives for this IRWM Plan have been developed in response to the perceived water resource issues in the Greater Monterey County region. The water resource goals for this Plan include the following:

- *Water Supply:* Improve water supply reliability and protect groundwater and surface water supplies.
- *Water Quality:* Protect and improve surface, groundwater, estuarine, and coastal water quality, and ensure the provision of high-quality, potable, affordable drinking water for all communities in the region.
- *Flood Protection and Floodplain Management:* Develop, fund, and implement integrated watershed approaches to flood management through collaborative and community supported processes.
- *Environment:* Protect, enhance, and restore the region's ecological resources while respecting the rights of private property owners.

In order to achieve those goals, the RWMG must first have a clear understanding of the region's water system, including current conditions and future water needs. The water system includes not only water supply sources (groundwater, surface water, recycled water, desalinated water, etc.) but also ecological

systems (watersheds, floodplains, wetlands, and coastal waters), as these systems are integrally connected. The information used to describe the region's water system for the purposes of this IRWM Plan has been derived almost entirely from existing local and regional water resource management plans. This IRWM Plan has incorporated the information and data from those existing plans and is therefore consistent with those plans. The following sections describe the local plans that have been used to inform the regional IRWM planning effort.

N.1.1 Sustainable Groundwater Management

Monterey County Groundwater Management Plan: The Monterey County Groundwater Management Plan (GWMP) was prepared by the Monterey County Water Resources Agency (MCWRA) in 2006 in accordance with California Water Code (CWC) Part 2.7, §10753, Groundwater Management Act. The document provides the framework for the management of groundwater resources in the Salinas Valley Groundwater Basin (exclusive of the Seaside and Paso Robles subareas) and acts as a guidance document for future groundwater projects. While the 2006 GWMP focuses on the Salinas Valley Groundwater Basin, MCWRA is responsible for the management of the water resources for all of Monterey County, and future GWMP editions will incorporate the additional groundwater basins in the County. The overall basin management objectives of the GWMP are:

- Development of integrated water supplies to meet existing and project water requirements
- Determination of sustainable yield and avoidance of overdraft
- Preservation of groundwater quality for beneficial use

To accomplish these objectives, the GWMP incorporates a number of components, which are divided into a set of 14 elements. The elements formally recognize the effectiveness of a number of ongoing water resource management activities and further recognize the need for additional activity, such as expanded conjunctive use of supplemental surface water and recycled water, with groundwater. They also reflect the wider focus on groundwater management, such as continuing cooperation with the municipal water purveyors and other groundwater users in the basin to address the impacts of regional resource opportunities and/or challenges. The plan elements are as follows:

- Plan Element 1: Monitoring of Groundwater Levels, Quality, Production, and Subsidence
- Plan Element 2: Monitoring of Surface Water Storage, Flow, and Quality
- Plan Element 3: Determination of Basin Yield and Avoidance of Overdraft
- Plan Element 4: Development of Regular and Dry Year Water Supply
- Plan Element 5: Continuation of Conjunctive Use Operations
- Plan Element 6: Short-Term and Long-Term Water Quality Management
- Plan Element 7: Continued Integration of Recycled Water
- Plan Element 8: Identification and Mitigation of Groundwater Contamination
- Plan Element 9: Identification and Management of Recharge Areas and Wellhead Protection Areas
- Plan Element 10: Identification of Well Construction, Abandonment, and Destruction Policies
- Plan Element 11: Continuation of Local, State and Federal Agency Relationships
- Plan Element 12: Continuation of Public Education and Water Conservation Programs
- Plan Element 13: Groundwater Management Reports
- Plan Element 14: Provisions to Update the Groundwater Management Plan

The goals and objectives of this IRWM Plan are fully consistent with the basin management objectives of the GWMP. Numerous projects included in this Plan have been developed specifically to carry out the GWMP objectives.

Groundwater Sustainability Plans: The Sustainable Groundwater Management Act (SGMA), enacted in 2014, is perhaps the most significant legislative water initiative in California in half a century. The legislation provides a framework for long-term sustainable groundwater management across California, with a goal of achieving sustainable management by the year 2042. Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins are required to form Groundwater Sustainability Agencies (GSAs) and to prepare and implement local Groundwater Sustainability Plans (GSPs) for their basins. Local stakeholders in critically overdrafted basins have until January 2020 (or until January 2022 in all other medium and high priority basins) to develop, prepare, and begin implementation of GSPs.

Several GSAs have been formed in the Greater Monterey County IRWM region. These include: Salinas Valley Basin GSA, Marina Coast Water District GSA, City of Marina GSA, and Arroyo Seco GSA. Each of these GSAs will be developing a GSP for the groundwater basins or subbasins within their jurisdiction.

The Salinas Valley Basin GSA was formed through a joint powers authority in 2017 for the Salinas Valley Groundwater Basin (including: 180/400 Foot Aquifer, Forebay Aquifer, Monterey Aquifer, East Side Aquifer, Upper Valley Aquifer, Paso Robles Area, and Langley Area). The GSA is governed by an eleven-member board, consisting of: four Agriculture seats, one City of Salinas seat, one South County Cities seat, one CPUC-regulated Water Company seat, one Environment seat, one "Disadvantaged Community or Public Water System, including Mutual Water Companies serving residential customers" seat, one Public Member seat, and one "Other GSA Eligible Entity" seat (currently held by a member of the County Board of Supervisors). A GSP is currently under development by the Salinas Valley Basin GSA, with a plan to achieve basin sustainability by 2040. The GSP, once completed, will supersede the Monterey County Groundwater Management Plan. As of October 2017, the Greater Monterey County RWMG and Salinas Valley Basin GSA have been exploring opportunities for information sharing and the most appropriate forum for regular, ongoing dialogue between the two water resource planning efforts.

The Marina Coast Water District formed a single-agency GSA in 2017 for groundwater management of the District's Central Marina and Ord Community service areas within the Monterey Subbasins (excluding the adjudicated Seaside Basin). The District is currently working with the Salinas Valley GSA to create a management area for the portion of the District's jurisdictional boundaries within the 180/400 Foot Aquifer, and the portion of the Ord Community service area within the 180/400 Foot Aquifer. The District is also working with the Local Area Formation Commission (LAFCO) to extend its jurisdictional boundaries into those areas.

In 2018, the City of Marina formed a single-agency GSA for groundwater management of the portion of the southwest 180/400 Foot Aquifer that lies within the City's jurisdictional limits. The City of Marina GSA boundary is a portion within the City's boundary that does not receive water and sewer service from the Marina Coast Water District.

A GSA was formed for groundwater management of the Forebay Aquifer of the Salinas Valley Groundwater Basin. The Arroyo Seco GSA consists of the City of Greenfield and the Clark Colony Water Company, which is a mutual water company. The Arroyo Seco GSA is working with the Salinas Valley GSA to develop a management area that covers the City of Greenfield's jurisdictional boundary and the service area of the Clark Colony Water Company. The City manages its water supply and has land use responsibilities within the city limits.

Ground Water Extraction Summary Reports: MCWRA began collecting groundwater extraction data from well operators for agricultural and urban water uses in 1992. The groundwater extraction data, provided by over 300 well operators, is compiled in the Ground Water Extraction Management System

portion of MCWRA Information Management System, a relational database maintained by the MCWRA, and published in the annual Ground Water Extraction Summary Reports (GWESR). Since 1991, MCWRA has also required the annual submittal of Agricultural Water Conservation Plans, which outline the best management practices (BMPs) that are adopted each year by growers in the Salinas Valley. In 1996, an ordinance was passed that required the filing of Urban Water Conservation Plans. These plans provide an overview of per capita water use and BMPs being implemented by urban water users as conservation measures. The GWESR summarizes the data submitted to the MCWRA for both Agricultural and Urban Water Conservation Plans, as well as agricultural Water and Land Use Forms. Data from the GWESR has been used in this IRWM Plan to establish historic water use trends, to document current water use, and as a basis for estimating future water demand in the Salinas Valley Groundwater Basin.

N.1.2 Urban Water Management

Urban Water Management Plans: All urban water suppliers as defined in CWC §10617, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) annually are required to prepare an Urban Water Management Plan (UWMP). The UWMP serves as a long-range planning document for water supply, source data for development of a regional water plan, and a source document for cities and counties as they prepare their General Plans. UWMPs include a description of the service area (including population served), historical and current water demand and water demand projections, an overview of water system supplies (including purchased water, surface water, groundwater, recycled water, desalinated water, and water transfers), water supply reliability and water shortage contingency plans, and conservation master plans, among other topics.

UWMPs for the following water districts have been used in the development of this IRWM Plan:

- City of Greenfield (2015, Draft)
- King City (2015)
- Marina Coast Water District (2015)
- California Water Service Company-Salinas District (2015)
- City of Soledad (2015)

Information from these UWMPs has been used to describe water systems and to establish future urban water demand in the Salinas Valley Groundwater Basin. Note that the City of Gonzales and the Castroville Community Services District (CCSD) are both under 3,000 connections and therefore are not required to produce an UWMP; however CCSD has developed a modified UWMP to address California Department of Environmental Health (CDEH) requirements for individual hydrologic studies in unincorporated Monterey County, though this document is not available in electronic format.

LAFCO Municipal Services Reviews: The Local Agency Formation Commission of Monterey County (LAFCO) produces Municipal Service and Sphere and Influence Reviews (MSR) for urban areas and other planning districts within the County. State law requires that the Commission conduct periodic reviews and updates of the Sphere of Influence of each city and district in Monterey County (Government Code §56425(e)). The law also requires the Commission to update information about municipal services before adopting Sphere updates (Government Code §56430). The MSRs contain information pertinent to understanding the water management and water management needs in the Greater Monterey County IRWM planning region, including: growth and population projections; present and planned land uses in the area, including agricultural and open space lands; description of present and planned public facilities, including water supply, wastewater, storm water, and flood management infrastructure; and adequacy of

public services, including infrastructure deficiencies and needs.

The following MSRs have been used in the development of this IRWM Plan:

- City of Gonzales (2010)
- City of Greenfield (2010)
- King City LAFCO (2010)
- City of Marina (2011)
- City of Salinas (2010)
- City of Soledad (2010)
- North County (2006)
- South/Central County (2015)
- Castroville Community Services District (2014)

The specific information derived from these MSRs includes population and population growth data, land use, and water resource infrastructure and needs for the cities and planning districts within the Greater Monterey County IRWM planning region.

N.1.3 Wastewater Management

Wastewater management is important for public health and safety, environmental and drinking water quality, and increasingly, for water supply. The IRWM planning effort encourages the use of recycled water for water supply, lauding the success of such projects as the Castroville Seawater Intrusion Project (which blends recycled water with Salinas River water for irrigation use on 12,000 acres of farmland in the Castroville area, replacing groundwater pumping in the northern coastal portion of the groundwater basin and thereby helping to reduce seawater intrusion). More recently, Monterey One Water initiated Pure Water Monterey, which uses recycled water for groundwater replenishment. These and other projects, along with various wastewater management plans and studies (including, for example, the City of Soledad Long-term Wastewater Management Plan (2006), and the 2017 Moss Landing Sewer System Risk Assessment), have been reviewed and considered in the writing of this IRWM Plan.

N.1.4 Flood Protection and Floodplain Management

Monterey County Floodplain Management Plan: The MCWRA developed the *Monterey County Floodplain Management Plan* in 2002 with the goal of creating a plan to minimize the loss of life and property in areas where repetitive losses have occurred, and to ensure that the natural and beneficial functions of the County's floodplains are protected. Updated in 2008, the Plan describes the County's flood control system (infrastructure), identifies flood zones defined by the Federal Emergency Management Agency (FEMA), including maps depicting Repetitive Loss Properties (RLPs) and 100-year floodplains, provides a general hazard assessment, assesses the flood hazards of specific waterways in the County in terms of repetitive losses, and provides an implementation plan for flood mitigation and for mitigation of RLPs.

Information from the Floodplain Management Plan has been used in this IRWM Plan to provide the RWMG and stakeholders with an understanding of flooding, flood protection, and floodplain management in the Greater Monterey County IRWM region. The Flood Protection and Floodplain Management objectives in this IRWM Plan incorporate and are fully consistent with the objectives of the *Monterey County Floodplain Management Plan*. In addition, several projects in the IRWM Plan will help carry out these objectives through flood risk reduction and restoring ecological functioning to floodplains.

N.1.5 Watershed Management

Information from current and recent watershed assessments and management plans has been used in this IRWM Plan primarily to provide background for the RWMG and stakeholders about local watershed management planning efforts. This information is presented in Section B.6.2.c, Water Quality Goals and Objectives for Watersheds in the Region. The goals and objectives of this IRWM Plan are fully congruent with the various watershed management planning efforts in the Greater Monterey County region. In fact, many of the objectives in this Plan were derived from these and previous watershed assessment and planning efforts.

The following watershed management plans have been considered and incorporated into this IRWM Plan (for details about the watershed management plans, see Section B.6.2.c):

- San Antonio and Nacimiento Rivers Watershed Management Plan (2008): This watershed management plan was developed by the Nacitone Watersheds Steering Committee and Central Coast Salmon Enhancement, Inc. for the MCWRA and the State Water Resources Control Board (State Water Board) in October 2008.
- *Garrapata Creek Watershed Assessment and Restoration Plan (2006):* This plan was developed by the Garrapata Creek Watershed Council for the Garrapata Creek Watershed Community and the California Department of Fish and Wildlife in July 2006.
- Northern Salinas Valley Watershed Restoration Plan (1997): This plan was the Final Report of
 a study entitled, "Nonpoint Pollution in Coastal Harbors and Sloughs of the Monterey Bay
 Region" prepared for the Association of Monterey Bay Area Governments (AMBAG) by Moss
 Landing Marine Laboratories and the Watershed Institute of California State University Monterey
 Bay (CSUMB) in January 1997, and funded under Section 205(j) of the federal Clean Water Act.
 The plan focuses on the northern Salinas Valley, encompassing all of the water courses that flow
 from the Gabilan Mountains east of Salinas into Moss Landing Harbor.
- Reclamation Ditch Watershed Assessment and Management Strategy (2005): This study, completed for MCWRA by the Central Coast Watershed Studies (CCoWS) team of the Watershed Institute at CSUMB, focuses on the same geographic area as the Northern Salinas Valley Watershed Restoration Plan, a 157 square-mile watershed with its headwaters in the Gabilan Range and its terminus at a set of tide gates at the entrance to Moss Landing Harbor (see Casagrande and Watson 2005).
- Moro Cojo Slough Management and Enhancement Plan (1996): The Moro Cojo Slough Management Plan was developed for the Monterey County Planning and Building Inspection Department and the State Coastal Conservancy by The Habitat Restoration Group in October 1996. The plan describes the environmental resources of the Moro Cojo Slough watershed and recommends actions to enhance, restore, and manage the significant resources in the slough system.
- Elkhorn Slough Watershed Conservation Plan (1999): This plan was produced for the Elkhorn Slough Foundation and The Nature Conservancy in 1999. The Conservation Plan was developed to identify critical resources within the Elkhorn Slough watershed, to identify and address threats, and to maintain the long-term viability of Elkhorn Slough and its related upland communities as a significant coastal system. In 2002, a second report was produced based on the Elkhorn Slough Watershed Conservation Plan. Elkhorn Slough at the Crossroads: Natural Resources and Conservation Strategies for the Elkhorn Slough Watershed identifies key natural resources of the slough and suggests strategies for conserving them.

Plans related to steelhead and watershed management in the Big Sur River watershed that have been considered in the development of this IRWM Plan include the following:

- Big Sur River Watershed Management Plan (2014): The Big Sur River Watershed Management Plan was prepared by the Resource Conservation District of Monterey County, Central Coast Salmon Enhancement, Stillwater Sciences, and California State University of Monterey Bay, for the California Department of Fish and Wildlife in 2014. The purpose of the plan was to investigate the habitat factors affecting south-central California steelhead (Oncorhynchus mykiss) population dynamics in the Big Sur River Watershed. The plan assesses existing conditions, documents issues and concerns of stakeholders related to the watershed's ecological conditions, and prioritizes recommendations to support restoration and recovery of steelhead.
- South-Central Steelhead Recovery Outline (2007) and South-Central Steelhead Recovery Plan (National Marine Fisheries Service, Southwest Regional Office, 2013): The federal Endangered Species Act of 1973 requires that the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) develop and implement recovery plans for the conservation and survival of NMFS-listed species. In the interim between listing and recovery plan approval, NMFS Interim Recovery Planning Guidance requires the development of a Recovery Outline for the listed species. The Recovery Outline for South-Central Steelhead (2007) presented a preliminary strategy for recovery of the species, with recommended high priority actions to stabilize and recover the species, and was reviewed as part of the development of this IRWM Plan. The Recovery Plan was completed for the South-Central California Steelhead in 2013.

Recovery planning for South-Central California Coast Steelhead is fully supported in this IRWM Plan. Several objectives in the IRWM Plan promote the protection and enhancement of steelhead and steelhead habitat, including:

- Protect and enhance state and federally listed species and their habitats.
- Implement fish-friendly stream and river corridor restoration projects.
- Reduce adverse impacts of sedimentation into streams, particularly from roads and non-point sources.
- Develop and implement projects to protect, restore, and enhance the natural ecological and hydrological functions of rivers, creeks, streams, and their floodplains.

The RWMG will continue to stay abreast of federal recovery plans for steelhead and to promote fish-friendly projects through this IRWM Plan.

Big Sur River Protected Waterway Management Plan (1983): The Big Sur River Protected Waterway Management Plan was developed in response to the California Protected Waterways Act and also as a management program intended to assist in implementing the Big Sur Coast Local Coastal Program Land Use Plan. The plan was adopted by the Monterey County Planning Commission in 1983; certification was acknowledged by the California Coastal Commission in 1986. The California Protected Waterways Plan, prepared in 1971 pursuant to the Protected Waterways Act of 1968, recognized the Big Sur River as an important steelhead and trout stream. In 1973, the State Legislature, with the support of the Monterey County Board of Supervisors, designated the Big Sur River a protected waterway. The resolution that incorporated the Big Sur River into the Protected Waterways Program requested the Resources Agency and affected local agencies to prepare a detailed waterway management plan for the Big Sur River. This protected waterway plan addresses pertinent issues and concerns in the Lower Big Sur River Basin. The

plan serves as a guide for the RWMG in promoting IRWM Plan projects along the Big Sur River.

- Little Sur River Protected Waterway Management Plan (1983): The Little Sur River Protected Waterway Management Plan was also developed in response to the California Protected Waterways Act and also as a management program intended to assist in implementing the Big Sur Coast Local Coastal Program Land Use Plan. The plan was adopted by the Monterey County Planning Commission in 1983; certification was acknowledged by the California Coastal Commission in 1986. The resolution that incorporated the Little Sur River into the Protected Waterways Program requested the Resources Agency and affected local agencies to prepare a detailed waterway management plan for the Little Sur River. This protected waterway plan addresses pertinent issues and concerns in the Little Sur River Basin. The plan serves as a guide for the RWMG in promoting IRWM Plan projects along the Little Sur River.
- Big Sur Enhancement Plan for Steelhead Habitat (2003): The Big Sur Enhancement Plan for Steelhead Habitat was developed for the California Department of Parks and Recreation (DPR) in 2003. The plan focuses its geographic scope to the two State Park properties within the Big Sur River watershed: Andrew Molera State Park and Pfeiffer-Big Sur State Park. The primary purpose of the Enhancement Plan is to characterize the status of the existing steelhead within the project area and provide recommendations for habitat enhancement and resource management measures that benefit the species. One of the projects in this IRWM Plan, "Big Sur River Steelhead Enhancement Project" proposed by California State Parks, will implement several of the recommendations included in the Enhancement Plan.

N.1.6 Storm Water Management

Storm Water Management Plans: Storm water management programs and plans are discussed in this IRWM Plan in Section B.6.3.a, Regulatory Water Quality Programs, under "Federal and State Storm Water/Urban Runoff Programs." The section describes each of the following storm water programs and plans:

- City of Salinas Stormwater Management Plan (2013)
- King City National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Management Plan (2009)
- City of Soledad Stormwater Management Plan (2010)
- Monterey Regional Stormwater Management Program (2006)

The City of Salinas is the only Phase I Municipal Separate Storm Sewer System (MS4) in the Central Coast Region, and is covered by an individual NPDES Phase I permit. There are five Phase II Small MS4 regulated entities within the IRWM planning region: the cities of Marina, Soledad, Gonzales, and King City, and the County of Monterey. Monterey County Resource Management Agency administers the Phase II General Permit for unincorporated urban areas of the county. Information from these programs and plans has been incorporated into the IRWM Plan in order to inform the RWMG and stakeholders about local storm water management as part of the region's water system. The goals and objectives of the IRWM Plan support the storm water management efforts described in these plans (as indicated in the IRWM Plan objective: "capture and manage storm water runoff").

Storm Water Resource Plans: In order for a storm water or dry weather runoff capture project to receive State grant funds, the project must be included in a Storm Water Resource Plan (SWRP) or equivalent document (Water Code §10562(b)(7)). The legislative code requires that upon development of a SWRP, the plan must be submitted to the applicable IRWM group, and the SWRP shall be incorporated into the

IRWM Plan. This requirement does not apply to disadvantaged communities that have populations of 20,000 or less and that are not co-permittees for a municipal separate storm water system NPDES permit issued to a municipality with a population greater than 20,000. However, if a disadvantaged community wishes to apply for storm water implementation grant funds and its project is not included in an approved SWRP, the project must be included in the applicable IRWM Plan for it to be eligible.

Two separate SWRPs have been developed, or are under development, for planning regions within the Greater Monterey County IRWM Region: the Greater Salinas Area SWRP and the Greater Monterey County SWRP.

The Greater Salinas Area SWRP was developed by Kennedy/Jenks Consultants for Monterey One Water (formerly, the Monterey Regional Water Pollution Control Agency) and the City of Salinas in order for those agencies to be eligible for Round 1 of Proposition 1 Storm Water Implementation Grant funds. The plan focuses on a targeted watershed area surrounding the city of Salinas. The Greater Salinas Area SWRP was approved by the RWMG at a regularly scheduled RWMG meeting on February 15, 2017, and is hereby incorporated into this IRWM Plan as Appendix O.

A SWRP for the Greater Monterey County IRWM Region, encompassing the Greater Salinas Area planning area and extending out to the broader Greater Monterey County IRWM Region, is currently under development (as of the time of this writing, August 2018). This plan is using the Greater Salinas Area SWRP as its foundation, and is expanding the geographic planning area and adding modeling and other tools to help identify additional storm water and dry weather runoff capture opportunities. The Greater Monterey County SWRP planning effort is being led by the Central Coast Wetlands Group at Moss Landing Marine Laboratories (CCWG) on behalf of the Greater Monterey County RWMG, with the Monterey County Resource Management Agency acting as lead public agency.

Both SWRPs have been developed in close collaboration with the RWMG. The public outreach effort for the Greater Salinas Area SWRP was conducted via regularly scheduled RWMG meetings; that plan was presented and discussed at a total of eight RWMG meetings, spanning from July 2016 – February 2017. For the Greater Monterey County SWRP, the RWMG is serving as the Technical Advisory Committee and as such is involved in all key decision points and milestones, such as plan boundaries, plan objectives, project list, and project prioritization. The Greater Monterey County SWRP has been presented and discussed at a total of three RWMG meetings thus far, spanning from March 2017 – August 2018. At least three more meetings are anticipated between September 2018 and June 2019.

Once the Greater Monterey County SWRP is completed, it will be reviewed by the RWMG and upon approval, will be incorporated into this IRWM Plan as Appendix P.

A SWRP was also completed for the Monterey Peninsula Region (public draft released in June 2018). The planning teams for the Greater Monterey County SWRP and for the Monterey Peninsula Region SWRP have consulted with one another during the development of the respective plans.

N.1.7 Low Impact Development

One of the Water Quality objectives of this IRWM Plan is to "incorporate or promote principles of low impact development where feasible, appropriate, and cost effective." To help address that objective, a project by the UC Davis Marine Pollution Studies Laboratory was put forward and awarded funds in Round 1 of the Proposition 84 IRWM Implementation Grants to evaluate the efficacy of LID treatment components in reducing the concentrations of contaminants that contribute to storm water toxicity. Objectives of the study included evaluating efficacy of bioswales or other treatment systems in reducing storm water runoff toxicity to aquatic organisms; determining storm water load reduction and storm water

pollutant load reduction through infiltration in LID design components; and providing data to storm water agencies, water quality managers, LID engineers, and others to be incorporated into future planning and management decisions to protect the Salinas River Watershed.

RWMG entities are also working with the Central Coast Regional Water Quality Control Board (RWQCB, or Regional Board) on the Central Coast Joint Effort for LID and Hydromodification Control (described in Section B.6.3.b, Voluntary Water Quality Programs). The Municipal NPDES Stormwater Permit requires municipalities to develop performance measures and, in some cases, numeric criteria to manage storm water. Development of these measures and criteria requires substantial knowledge of urban hydrologic processes; appropriate use of LID techniques; and an understanding of technical, policy and regulatory issues related to implementing municipal storm water control requirements. The Central Coast Regional Board is providing municipalities the option of participating in a Joint Effort, led by a consultant team, to develop hydromodification control criteria to meet the Regional Board's storm water regulations for new and redevelopment. The RWMG is interested in promoting LID practices in the Greater Monterey County IRWM region, and will continue to work with the Central Coast Regional Board on the Central Coast Joint Effort and with local agencies to encourage the implementation of LID practices, where appropriate.

N.1.8 Salt and Salinity Management

The State Water Quality Control Board adopted a Recycled Water Policy in February 2009, which requires local stakeholders, such as local water and wastewater entities, and members of the public to develop salt and nutrient management plans for groundwater basins. The Central Coast Regional Board included the following in the City of Salinas Stormwater Permit (RWQCB 2012d, pp. 86-87):

b) Salt and Nutrient Management

i) Within 2 years of adoption of this Order, the Permittee shall coordinate with local water and wastewater entities, together with local salt/nutrient contributing stakeholders, to fund locally driven and controlled, collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for groundwater basins underlying the Permit coverage area, per State Water Board Recycled Water Policy (State Water Board Resolution No. 2009-0011).

ii) Within 4 years of adoption of this Order, the Permittee shall evaluate opportunities to include a significant storm water use and recharge component within the salt/nutrient management plan(s). At a minimum, the Permittee shall coordinate with other stakeholders to include storm water recharge/use goals and objectives in salt and nutrient management plan(s).

No entity has as of yet initiated the salt and nutrient management planning process within the Greater Monterey County IRWM planning region. However, in November 2015, the *Salinas River Watershed Area Salt Modeling* report was developed by Tetra Tech for the Central Coast Regional Board and US Environmental Protection Agency to assess salt impairments and to develop of a salt mass balance in the Lower Salinas River and Reclamation Canal watersheds. The purpose of the report was to inform development of salt-related TMDLs by the Central Coast Regional Board and the eventual development of a salt and nutrient management plan for the Salinas Valley aquifers.

N.1.9 City and County General Planning

Every county and city in California is required by State law to have a General Plan, and the plan is required to be up to date. The General Plan identifies the county or city's goals, policies, and

implementation actions regarding future development within that region. State law provides that a General Plan must address, at minimum, seven elements: Land Use, Circulation, Housing, Natural Resource Conservation, Open Space, Noise, and Safety.

The Monterey County 2010 General Plan and General Plans of the cities in the region have been carefully reviewed during the development of this IRWM Plan to identify common goals, to highlight areas of inconsistency or potential barriers to implementing objectives of the IRWM Plan, and to seek opportunities for increasing coordination between water use and land use planning. The following General Plans have been reviewed:

- City of Gonzales Draft General Plan 2010 (Public Review Draft)
- City of Greenfield General Plan 2005-2025
- City of Marina General Plan 2000, with updates through 2010
- City of Salinas General Plan 2002
- City of Soledad General Plan 2005
- King City General Plan 1998
- Monterey County General Plan 2010, including Specific Plans for:
 - Big Sur Coast Land Use Plan (Local Coastal Program) 2008
 - Ford Ord Master Plan
 - Central Salinas Valley Area Plan
 - Greater Salinas Area Plan
 - North County Area Plan
 - South County Area Plan
 - Toro Area Plan

In addition, the *Implementation Plan for the Boronda and Castroville/Pajaro Redevelopment Areas 2010*, produced by Monterey County Redevelopment Agency, has also reviewed in the development of this IRWM Plan.

The policies of the General Plans are generally consistent with the goals and objectives of the IRWM Plan. As an example—and as a good representation of other General Plans in the region—the following list provides goals and policies from the Monterey County 2010 General Plan that support the IRWM Plan objectives (this list is not exhaustive):

Land Use Element

• *Goal LU-8:* Encourage the provision of open space lands as part of all types of development including residential, commercial, industrial and public.

Conservation and Open Space Element

- *Goal OS-1:* Retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations.
- *Goal OS-3:* Prevent soil erosion to conserve soils and enhance water quality.
 - *Policy OS-3.1:* Best Management Practices (BMPs) to prevent and repair erosion damage shall be established and enforced.
 - *Policy OS-3.2:* Existing special district, state, and federal soil conservation and restoration programs shall be supported. Voluntary restoration projects initiated by landholders, or stakeholder groups including all affected landowners, shall be encouraged.
 - Policy OS-3.3: Criteria for studies to evaluate and address, through appropriate designs and

BMPs, geologic and hydrologic constraints and hazards conditions, such as slope and soil instability, moderate and high erosion hazards, and drainage, water quality, and stream stability problems created by increased storm water runoff, shall be established for new development and changes in land use designations.

- *Policy OS-3.7:* Voluntary preparation and implementation of a coordinated resource management plan shall be encouraged in watersheds of State designated impaired waterways.
- Policy OS-3.8: The County shall cooperate with appropriate regional, state and federal agencies to provide public education/outreach and technical assistance programs on erosion and sediment control, efficient water use, water conservation and re-use, and groundwater management. This cooperative effort shall be centered through the Monterey County Water Resources Agency.
- *Policy OS-3.9:* The County will develop a Program that will address the potential cumulative hydrologic impacts of the conversion of hillside rangeland areas to cultivated croplands.
- *Goal OS-4:* Protect and conserve the quality of coastal, marine, and river environments, as applied in areas not in the Coastal Zone.
 - *Policy OS-4.1:* Federal and State listed native marine and fresh water species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant shall be protected. Species designated in Area Plans shall also be protected.
 - *Policy OS-4.2:* Direct and indirect discharges of harmful substances into marine waters, rivers or streams shall not exceed state or federal standards.
 - *Policy OS-4.3:* Estuaries, salt and fresh water marshes, tide pools, wetlands, sloughs, river and stream mouth areas, plus all waterways that drain and have impact on State designated Areas of Special Biological Significance (ASBS) shall be protected, maintained, and preserved in accordance with state and federal water quality regulations.
- *Goal OS-5:* Conserve listed species, critical habitats, habitat and species protected in Area Plans; avoid, minimize and mitigate significant impacts to biological resources.
 - *Policy OS-5.3:* Development shall be carefully planned to provide for the conservation and maintenance of critical habitat.
 - *Policy OS-5.4:* Development shall avoid, minimize, and mitigate impacts to listed species and critical habitat to the extent feasible.
 - *Policy OS-5.6:* Native and native compatible species, especially drought resistant species, shall be utilized in fulfilling landscaping requirements.
 - *Policy OS-5.14:* Policies and procedures that encourage exclusion and control or eradication of invasive exotic plants and pests shall be established. Sale of such items within Monterey County shall be discouraged.
 - *Policy OS-5.15:* A fee waiver program for environmental restoration projects shall be established.
 - Policy OS-5.21: At five year intervals, the County shall examine the degree to which thresholds for increased population, residential construction, and commercial growth predicted in the General Plan Environmental Impact Report (EIR) for the timeframe 2006-2030 have been attained. If the examination indicates that actual growth is within 10 percent of the growth projected in the General Plan EIR (10,015 new housing units; 500 acres new commercial development; 3,111 acres new industrial development and 10,253 acres of land converted to agriculture), the County shall assess the vulnerability of currently non-listed species becoming rare, threatened, or endangered due to projected development. The County shall complete the preparation of a conservation strategy for those areas containing

substantial suitable habitat for plant and wildlife species with the potential to become listed species due to development. ...

- *Policy OS-5.22:* In order to preserve riparian habitat, conserve the value of streams and rivers as wildlife corridors and reduce sediment and other water quality impacts of new development, the county shall develop and adopt a Stream Setback Ordinance. ... The ordinance shall identify specific setbacks relative to the following rivers and creeks so they can be implemented in the Area Plans: Salinas, Carmel River, Arroyo Seco, Pajaro River, Nacimiento, San Antonio, Gabilan Creek, and Toro Creek.
- Goal OS-9: Promote efficient energy use.
- *Goal OS-10:* Provide for the protection and enhancement of Monterey County's air quality without constraining routine and ongoing agricultural activities.
 - *Policy OS-10.7:* Use of the best available technology for reducing air pollution emissions shall be encouraged.
 - *Policy OS-10.11:* Within 24 months of the adoption of the General Plan, Monterey County shall develop and adopt a Greenhouse Gas (GHG) Reduction Plan with a target to reduce emissions by 2020 to the 1990 level to a level that is 15 percent less than 2005 emission levels. At a minimum, the Plan shall:
 - a. Establish an inventory of current (2006) GHG emissions in the County of Monterey including but not limited to residential, commercial, industrial, and agricultural emissions; and
 - b. Include an inventory of emissions as of 1990 Forecast GHG emissions for 2020 for County operations;
 - c. Forecast GHG emissions for areas within the jurisdictional control of the County for "business as usual" conditions;
 - d. Identify methods to reduce GHG emissions;
 - e. Quantify the reductions in GHG emissions from the identified methods;
 - f. Establish requirements for monitoring and reporting of GHG emissions;
 - g. Establish a schedule of actions for implementation;
 - h. Identify funding sources for implementation; and
 - i. Identify a reduction goal for the 2030 Planning Horizon.

During preparation of the Greenhouse Gas Reduction Plan, the County shall also evaluate potential options for changes in County policies regarding land use and circulation, as necessary, to further achieve the 2020 and 2030 reduction goals and measures to promote urban forestry and public awareness concerning climate change.

Public Services Element

- *Goal PS-2:* Assure an adequate and safe water supply to meet the County's current and long-term needs.
 - *Policy PS-2.1:* Coordination among, and consolidation with, those public water service providers drawing from a common water table to prevent overdrawing the water table is encouraged.
 - Policy PS-2.6: A Hydrologic Resources Constraints and Hazards Database shall be developed and maintained in the County Geographic Information System (GIS). The GIS shall be used to identify areas containing hazards and constraints (see Policy S- 1.2) that could potentially impact the type or level of development allowed in these areas (Policy OS-3.5). Maps

maintained as part of the GIS will include:

- a. Impaired water bodies on the State Water Resources Control Board 303d (Clean Water Act) list.
- b. Important Groundwater Recharge Areas
- c. 100-year Flood Hazards
- d. Hard rock areas with constrained groundwater
- e. Areas of septic tank leachfield unsuitability
- f. Contaminated groundwater plumes and impacted soil and groundwater sites.
- *Policy PS-2.7:* As part of an overall conservation strategy and to improve water quality, Area Plans may include incentive programs that encourage owners to voluntarily take cultivated lands on slopes with highly erosive soils out of production.
- Policy PS-2.8: The County shall require that all projects be designed to maintain or increase the site's pre-development absorption of rainfall (minimize runoff), and to recharge groundwater where appropriate. Implementation would include standards that could regulate impervious surfaces, vary by project type, land use, soils and area characteristics, and provide for water impoundments (retention/detention structures), protecting and planting vegetation, use of permeable paving materials, bioswales, water gardens, and cisterns, and other measures to increase runoff retention, protect water quality, and enhance groundwater recharge.
- Policy PS-2.9: Protect and manage groundwater as a valuable and limited shared resource. The County shall use discretionary permits to manage construction of impervious surfaces in important groundwater recharge areas. Potential recharge area protection measures at sites in important groundwater recharge areas include, but are not limited to, the following:
 - a. Restrict coverage by impervious materials.
 - b. Limit building or parking footprints.
 - c. Require construction of detention/retention facilities on large-scale development project sites overlying important groundwater recharge areas as identified by Monterey County Water Resources Agency.
 - d. Recognize that detention/retention facilities on small sites may not be practical, or feasible, and may be difficult to maintain and manage.
- *Goal PS-3*: Ensure that new development is assured a long-term sustainable water supply.
 - *Policy PS-3.4:* Specific criteria shall be developed for use in the evaluation and approval of adequacy of all new wells. Criteria shall assess both water quality and quantity including, but not limited to:
 - a. Water quality. ...
 - g. Effects on in-stream flows necessary to support riparian vegetation, wetlands, fish, and other aquatic life including migration potential for steelhead, for the purpose of minimizing impacts to those resources and species.
 - Policy PS-3.6: The Monterey County Health Department shall not allow construction of any new wells in known areas of saltwater intrusion as identified by Monterey County Water Resources Agency or other applicable water management agencies until such time as a program has been approved and funded that will minimize or avoid expansion of salt water intrusion into useable groundwater supplies in that area. This policy shall not apply to deepening or replacement of existing wells.
 - Policy PS-3.8: The County shall coordinate and collaborate with all agencies responsible for

the management of existing and new water resources.

- Policy PS-3.9: A program to eliminate overdraft of water basins shall be developed as part of the Capital Implementation and Financing Plan (CIFP) for this Plan using a variety of strategies, which may include but are not limited to:
 - a. Water banking;
 - b. Groundwater and aquifer recharge and recovery;
 - c. Desalination;
 - d. Pipelines to new supplies; and/or
 - e. A variety of conjunctive use techniques.

The CIFP shall be reviewed every five (5) years in order to evaluate the effectiveness of meeting the strategies noted in this policy. Areas identified to be at or near overdraft shall be a high priority for funding.

- *Policy PS-3.10:* Developments that use gray water and cisterns for multi-family residential and commercial landscaping shall be encouraged, subject to a discretionary permit.
- *Policy PS-3.12:* Maximize agricultural water conservation measures to improve water use efficiency and reduce overall water demand. The County shall establish an ordinance identifying conservation measures that reduce agricultural water demand.
- *Policy PS-3.13:* Maximize urban water conservation measures to improve water use efficiency and reduce overall water demand. The County shall establish an ordinance identifying conservation measures that reduce potable water demand.
- *Policy PS-3.14:* Maximize the use of recycled water as a potable water offset to manage water demands and meet regulatory requirements for wastewater discharge, by employing strategies including, but not limited to, the following:
 - a. Increase the use of treated water where the quality of recycled water is maintained, meets all applicable regulatory standards, is appropriate for the intended use, and re-use will not significantly impact beneficial uses of other water resources.
 - b. Work with the agricultural community to develop new uses for tertiary recycled water and increase the use of tertiary recycled water for irrigation of lands currently being irrigated by groundwater pumping.
 - c. Work with urban water providers to emphasize use of tertiary recycled water for irrigation of parks, playfields, schools, golf courses, and other landscape areas to reduce potable water demand.
 - d. Work with urban water providers to convert existing potable water customers to tertiary recycled water as infrastructure and water supply become available.
- Policy PS-3.17: The County will pursue expansion of the Salinas Valley Water Project (SVWP) by investigating expansion of the capacity for the Salinas River water storage and distribution system. This shall also include, but not be limited to, investigations of expanded conjunctive use, use of recycled water for groundwater recharge and seawater intrusion barrier, and changes in operations of the reservoirs. ...
- Policy PS-3.18: As required by PS-3.17, County will convene and coordinate a working group made up of the Salinas Valley cities, the MCWRA, and other affected entities. The purpose will be to identify new water supply projects, water management programs, and multiple agency agreements that will provide additional domestic water supplies for the Salinas Valley. These may include, but not be limited to, expanded conjunctive use programs, further improvements to the upriver reservoirs, additional pipelines to provide more efficient

distribution, and expanded use of recycled water to reinforce the hydraulic barrier against seawater intrusion. ...

- *Goal PS-4*: Ensure adequate treatment and disposal of wastewater.
 - *Policy PS-4.4:* Groundwater recharge through the use of reclaimed wastewater, not including primary treated wastewater, in accordance with federal, state, and local laws, regulations and ordinances, shall be encouraged.
- *Goal PS-11:* Maintain and enhance the County's parks and trails system in order to provide recreational opportunities, preserve natural scenic resources and significant wildlife habitats, and provide good stewardship of open space resources.

Agriculture Element

- *Goal AG-1:* Promote the long-term protection, conservation, and enhancement of productive and potentially productive agricultural land.
- *Goal AG–5:* Ensure compatibility between the County's agricultural uses and environmental resources.
 - *Policy AG-5.1:* Programs that reduce soil erosion and increase soil productivity shall be supported.
 - *Policy AG–5.2:* Policies and programs to protect and enhance surface water and groundwater resources shall be promoted, but shall not be inconsistent with State and federal regulations.

Greater Salinas Area Plan: Public Services Element

- *Goal GS-5.1:* Portions of Gabilan Creek shall be evaluated for a linear park as defined by the County's Parkland Classification System at such time when the County can support another regional park. Until such time, Gabilan Creek shall be:
 - a. Maintained in a natural riparian state;
 - b. Kept in a free-flow state devoid of dams;
 - c. Allowed its natural flood capacity through required setbacks conforming to the 100 year flood plain; and
 - d. Kept free from urban encroachment by residential development through required dedication of land in the floodplain corridor.

N.1.10 Emergency Response, Hazard Mitigation, and Drought Contingency Plans

Monterey County Multi-Jurisdictional Hazard Mitigation Plan (2014): The Disaster Mitigation Act of 2000 (DMA 2000) (Public Law 106-390) was passed by Congress to emphasize the need for mitigation planning to reduce vulnerability to natural and human-caused hazards. For multi-jurisdictional plans, DMA stipulates that the plan be adopted by the participating local governing bodies. The Hazard Mitigation Plan for Monterey County was developed for the Monterey County Office of Emergency Services in 2007 and updated in 2014, and was adopted by County of Monterey and the cities of Carmelby-the-Sea, Del Rey Oaks, Gonzales, Greenfield, King City, Marina, Monterey, Pacific Grove, Salinas, Sand City, Seaside, and Soledad. The plan includes a hazard analysis (including coastal erosion, dam failure, earthquake, flood, hazardous materials event, landslide, tsunami, wildland fire, and windstorm), a vulnerability analysis, and a mitigation strategy. Hazard mitigation activities include structural and non-structural measures. Structural related measures include activities such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazard, or in some cases, such as flood control, physically altering the natural course of the potential hazard itself to attempt to minimize the potential impact. Non-structural related measures include activities such as the adoption of sound land

use or floodplain management policies and the implementation of public awareness programs.

Emergency response and disaster planning naturally involves water resource planners both in the preparation and mitigation phases. Preparation includes, for example:

- Locating and constructing water supply, wastewater, and other infrastructure in such a way to reduce the effects of earthquakes, floods, tsunamis, and other disasters (Goal 1: Prevent disaster-resistant development)
- Helping coastal residents minimize erosion and stabilize slopes (Goal 3: Reduce the possibility of damage and losses due to coastal erosion)
- Participating in California Division of Safety of Dams (DSOD) mapping updates and reviewing and updating County inundation maps regularly (Goal 4: Reduce the possibility of damage and losses due to dam failure)
- Identifying and implementing minor flood and storm water management projects to reduce damage to infrastructure and damage due to local flooding/inadequate drainage, including the modification of existing culverts and bridges, upgrading capacity of storm drains, stabilization of streambanks, and creation of debris or flood/storm water retention basins in small watersheds (Goal 6: Reduce the possibility of damage and losses due to floods)

Mitigation includes, for example, mitigating property damage following flood events, plans for ensuring the delivery of water following disaster events, and plans for managing the response effort.

Although emergency response and disaster planning is not discussed as a separate topic in this IRWM Plan, several RWMG entities do participate in the multi-jurisdictional hazard mitigation planning effort, and the IRWM Plan incorporates many of the objectives of that effort. Note that several IRWM Plan projects directly address the goals of hazard preparation and mitigation through such means as infrastructure improvements, erosion control, coastal restoration, and flood risk reduction projects. Also, the MCWRA outlines a plan for flood mitigation in the *Monterey County Floodplain Management Plan*, which has been incorporated into this Plan in Section C, Flood Management.

North Monterey County Drought Contingency Plan: The *North Monterey County Drought Contingency Plan* (DCP) is a 24-month look at how to predict the different stages or levels of severity of drought; to address near-term vulnerabilities; to identify mitigation actions and activities that will build long-term resiliency to drought and reduce the need for response actions; identify drought response actions and activities that can be implemented quickly during a drought and, develop an operational and administrative framework to identify who is responsible for undertaking the actions necessary to implement each element of the Plan. The Monterey Peninsula Water Management District (MPWMD) is the lead agency and fiscal agent for the DCP.

Salinas and Carmel Rivers Basin Study: The *Salinas and Carmel Rivers Basin Study* (Draft 2017) is a study process, led by the Bureau of Reclamation, that will develop new modeling and information to be used for the formulation and evaluation of currently identified and potential new mitigation measures. The MPWMD has convened a Plan Task Force to coordinate development of the Basin Study with support from the DCP. Current demands, supplies, and socio-economic factors in the urban areas of north Monterey County identified in the DCP will help inform some of the baseline for the Basin study. The adaptation strategies proposed in the DCP will also likely be a subset of the strategies identified for the urban areas in the Basin Study. The Plan Task Force includes MPWMD, Monterey One Water, Monterey County Water Resources Agency (MCWRA), and Monterey County Office of Emergency Services, among others.

N.1.11 Monterey Bay National Marine Sanctuary Management Plan

The *Monterey Bay National Marine Sanctuary (MBNMS) Management Plan* was developed in 2008, and includes 23 Action Plans to guide the Sanctuary in protecting resources over a five-year planning period. Most of the Action Plans are grouped into four main themes: coastal development, ecosystem protection, water quality, and wildlife disturbance. This IRWM Plan discusses and/or incorporates the strategies of several of the Sanctuary's Action Plans, including: Desalination; Big Sur Coastal Ecosystem Plan; Introduced Species; and implementation of the Water Quality Protection Program Action Plans, in particular: *Implementing Solutions to Urban Runoff; Regional Monitoring, Data Access, and Interagency Coordination*; and *Agriculture and Rural Lands*. Section B.6.3.b of this IRWM Plan describes two voluntary water quality programs that have been specifically developed out of MBNMS's Water Quality Protection Program Action Plans. Several members of the RWMG, most notably the MBNMS itself, along with other stakeholders in the Greater Monterey County region are working to implement strategies in the MBNMS Action Plans through the IRWM planning process. In 2015, MBNMS began an update process for the Management Plan, with the final updated Management Plan anticipated to be completed in 2019.

N.2 DYNAMICS BETWEEN LOCAL PLANNING AND IRWM PLANNING

N.2.1 How and When Updates are Considered in the IRWM Plan

Most of the planning documents described above are updated on a regular basis, some on an annual basis, others on a decennial basis. All of the data and information contained in this IRWM Plan will be reviewed and updated approximately every five years, depending on available funds, as part of the formal Plan update. Accordingly, the IRWM Plan updates will reflect the latest planning efforts and most recent editions of the local planning documents.

N.2.2 How Regional Planning Efforts Feed Back to Local Planning Efforts

The information exchange between IRWM planning and local water planning is not a one-way exchange. The IRWM regional planning efforts feed back into local planning efforts in numerous ways. Most RWMG members are themselves local water planners, and the regional planning that occurs through the IRWM process is brought back to these local planning entities. Likewise, the results of the IRWM planning process impacts the decision-making of other water resource planners and stakeholders involved in the Greater Monterey County IRWM planning process. One example is the following:

The City of Salinas's NPDES Phase I Stormwater Permit was renewed in May 2012. Changes in the new order included provisions for the City to pursue IRWM objectives. Specifically:

- 3) Aligning Stormwater Management with Related Planning Goals and Requirements
- a) Integrated Regional Water Management -

i) Within 12 months of adoption of this Order, the Permittee shall coordinate with other stakeholders to pursue the Environmental Enhancement Objectives of the May 2006 Integrated Regional Water Management Functionally Equivalent Plan Update, or comparable water supply, water quality, and flood protection and flood management goals and objectives of the Integrated Regional Water Management Plan in use, through the Permittee's storm water management program.

ii) Within 2 years of adoption of the Order, the Permittee shall identify opportunities to protect, enhance, and/or restore natural resources including streams, groundwater, watersheds, and other resources consistent with the Integrated Regional Water Management

Plan. At a minimum, the Permittee shall examine opportunities for storm water capture and reuse, and storm water infiltration for aquifer recharge. (RWQCB 2012d, p. 86)

Ideally the relationship between regional IRWM planning and local water resource management planning will remain dynamic, with the information exchange continuing to occur in both directions.

N.2.3 How Inconsistencies are Resolved

Since the IRWM Plan is essentially built upon local plans and planning efforts, few inconsistencies between the IRWM Plan and local plans exist. If inconsistencies are found they will be resolved through direct communication and coordination with the planning entities where the inconsistencies occur. As noted above, the RWMG intends to conduct an in-depth investigation of potential barriers to IRWM Plan implementation in city and county General Plan policies, ordinances, and other state, regional, and local rules and regulations, for future updates of this IRWM Plan. The RWMG will seek to eliminate any barriers to IRWM Plan implementation by working closely with the regulating agencies to resolve those issues on a case-by-case basis.

N.2.4 Climate Change Adaptation and Mitigation Strategies in Local Plans

Some local water suppliers are taking initial steps to consider the potential impacts of climate change in water supply planning. For example, Cal Water recently (as part of its 2015 urban water management plan updates) completed an initial study of climate change impacts for a sample of its districts. The sample districts accounted for 85% of Cal Water's total 2014 production and reflect the diversity of all Cal Water districts, including geographic, hydrologic, and climatic conditions and primary and secondary supply sources. Table N-1 shows the ranges of projected overall climate change impacts on available supply for the sample districts, relative to the historic average.

Table 6-10 Projected Changes in Average Available				
Supply Due to Climate Change				
District	Percentage Change in Supply			
		2020	2050	2100
ВК	Minimum	-10%	-10%	-12%
	Maximum	-12%	-16%	-20%
VIS	Minimum	-7%	-8%	-8%
	Maximum	-9%	-10%	-14%
KRV	Minimum	-13%	-16%	-19%
	Maximum	-16%	-21%	-31%
MPS/SSF/BG	Minimum	0%	-2%	-6%
	Maximum	0%	-7%	-15%
LAS	Minimum	-3%	-3%	-10%
	Maximum	-4%	-18%	-28%
СН	Minimum	2%	2%	0%
	Maximum	3%	1%	-3%
ORO	Minimum	0%	8%	5%
	Maximum	0%	-8%	-7%
DOM/HR/PV	Minimum	0%	0%	-1%
	Maximum	0%	-2%	-3%
STK	Minimum	0%	0%	-8%
	Maximum	0%	-14%	-17%
SLN	Minimum	-6%	-6%	-6%
	Maximum	-7%	-7%	-7%

Table N-1: Cal Water's Projected Changes in Average Available Water Supply Due to Climate Change

Source: 2015 Urban Water Management Plan for the King City District, Cal Water.

This initial study represents a first step toward gaining a better understanding of the potential impacts of climate change on the availability of Cal Water's diverse water supplies. Three critical messages emerged from the study:

- Cal Water supplies in the 21st century are likely to be adversely affected by climate change.
- These impacts will vary considerably across districts, depending on geography and source mix. For some districts, the impacts can be significant; for others, little or no impacts are projected.
- The impacts will generally increase over time. Anticipated late-century impacts are forecast to be significantly higher in some districts than impacts at mid-century. Moreover, during the period that climate change is forecast to increasingly constrain supplies, demands are also generally forecast to increase, further exacerbating the adverse impacts on water supply reliability.

For its Salinas District 2015 Urban Water Management Plan, Cal Water used models to predict the effect of climate change on water demand. The model showed that predicted temperature increases by the year 2040 associated with climate change implied a 2 to 3 percent increase in demand relative to weathernormalized demand. This expected effect is solely due to predicted changes in temperature and is based on current patterns of outdoor water use. It does not account for changes households and businesses may make in the way they use water in the future given a warming climate. Cal Water anticipates integrating climate change into the company's ongoing water supply planning. As climate change adaptation and mitigation strategies become more developed in local water planning efforts, those strategies will become incorporated into the Greater Monterey County IRWM Plan with future Plan updates.