

Appendix B

Annotated Bibliography

This bibliography is separate from the References chapter of the Storm Water Resource Plan, but includes some of the same citations. The bibliography is organized by the sections of the Storm Water Resource Plan Guidelines (SWRCB 2015) and contains background information to support the information requested in those sections. References that apply to multiple Guidelines sections are often cited in all relevant sections and refer back to the location within this bibliography where the citation is annotated.

1. Introduction

This section briefly describes water issues in the planning area, the opportunities for storm water management to provide benefits for water supply, water quality, flood protection, habitat and communities; and depicts the legal and administrative context for storm water management and SWRP development. It will also summarize the approach taken to create this SWRP.

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp.

This document's objective is to show how the quality of the surface and ground waters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The plan recognizes variations in water quality required for different uses and benefits.

Community Solutions for Stormwater Management: A Guide for Voluntary Long-Term Planning. US EPA. 16 pp.

The purpose of this document is to assist state and local governments in developing new or improving existing long-term storm water plans. The document describes how to develop a comprehensive long-term community storm water plan that integrates storm water management with communities' broader plans for economic development, infrastructure investment and environmental compliance.

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp.

This document assesses the potential environmental impacts of the Pure Water Monterey groundwater replenishment project. The primary objective of the project is to replenish the Seaside Groundwater Basin with 3500 AFY of purified recycled water to replace a portion of CalAm's water supply as required by state orders.

**Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17**

This document offers an integrated approach to water resource management in Monterey County. It was developed and adopted to fulfill the goals of IRWM planning and as a prerequisite

for obtaining IRWM grant funding. The GMC IRWMP is a long-term planning document with a minimum 20-year planning horizon.

Heal the Bay's 2016-2017 Annual Beach Report Card. 2017. <https://healthebay.org/annual-beach-report-card-2017/>. Accessed 7/14/17.

This document is an annual beach report card of the water quality at selected beaches along the US Pacific Coast. Concentrations of fecal indicator bacteria are used to indicate water quality, with beaches scoring between an A and an F. Samples are collected during wet and dry seasons and there is discussion about the connection between storm water runoff and coastal surface water pollution.

Monterey Bay National Marine Sanctuary Final Management Plan. 2008. 479 pp.

This document includes a section on water quality, including beach closures due to coliform bacteria. It also discusses several action plans in the Water Quality Protection Program Implementation Action Plan that address urban runoff, agriculture and rural lands, and protecting water quality in wetlands and riparian corridors as well as strategies for public education and outreach.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp.

More recent watershed-based approaches to storm water management seek to replicate natural hydrology and watershed processes by managing storm water and dry weather runoff onsite or within the watershed where rainfall occurs. These watershed-based approaches yield multiple water quality benefits by reducing the volume of runoff delivered to receiving waters, thus reducing the pollutants discharged. Watershed-based approaches to storm water management also yield non-measurable social and community benefits that traditional projects do not provide. The watershed approach to storm water management is in accordance with recent regulatory compliance approaches implemented by the Regional Water Quality Control Boards, and the State Water Resources Control Board's (State Water Board's) guiding principles that view storm water and dry weather runoff as a resource, potentially contributing to multiple benefits in addition to flood control, including water supply, recharge of groundwater aquifers, and increased community use opportunities, among others.

2. Standard Provisions

2.1 California Environmental Quality Act Compliance

This section describes how implementation of activities and individual projects per the Storm Water Resource Plan will be in compliance with the California Environmental Quality Act. (Public Resources Code § 21000 et seq.)

References:

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. See description in 1 above.

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. See description in 1 above.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

2.2 Submission to Entities Overseeing Integrated Regional Water Management Plans and Other Local Plans

This section describes how the GMC SWRP planning area overlaps the Greater Monterey County IRWM planning area (with the exception of Big Sur), and how the Regional Water Management Group serves as the SWRP project TAC, which will comment on and approve the final SWRP.

References:

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp.
This document is a functionally equivalent plan (FEP) as outlined by the Storm Water Resource Planning Act. The Salinas FEP focuses on the greater Salinas area in north Monterey County and discusses storm water quality issues and the decreased water supply caused by seawater intrusion along the Monterey Bay coast. The plan defines storm water management objectives for the greater Salinas area.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

2.3 Consistency with Applicable Permits

This section describes how the SWRP is implemented in accordance with applicable National Pollutant Discharge Elimination System (NPDES) permits, waste discharge requirements, Areas of Special Biological Significance Compliance Plans (State Water Board Resolution 2012-0012), and/or conditional waivers issued by the State and/or Regional Water Boards. (Wat. Code, § 10562, subs. (b)(5) & (6).)

References:

California Regional Water Quality Control Board Central Coast Region. 2017. Order no. R3-2017-0002. Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands. 37 pp.

Known as the ag waiver, this order waives the Waste Discharge Requirements for individual dischargers and establishes conditions for the control of discharges of wastes from irrigated lands to waters of the State to ensure that such discharges do not cause or contribute to the exceedance of any Regional, State or Federal numeric or narrative water quality standard.

California State Water Resources Control Board. Regulated Facility Report.
<https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility>. Accessed 7/7/17.

This website is a searchable tool to determine what types of regulated facilities are permitted within a region, county, or city.

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

2.4 Consistency with California Health and Safety Code – Pest and Mosquito Abatement

This section describes how the SWRP is vetted through local mosquito and vector control districts. Maps and maintenance plans are provided for comment.

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

2.5 Modification of a River or Stream Channel

This section describes how any evaluated project might substantially change or use any material from a river, stream, or lake, and the steps taken to avoid and minimize erosion, sediment transport, and hydromodification, and fully mitigate environmental impacts resulting from the project, as required by Clean Water Act sections 401 and 404 and any other federal and state laws, regulations and permits.

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

2.6 Monitoring

This section describes monitoring to assess the effectiveness of Plan implementation on a watershed basis. Each proposed project will be evaluated on the extent to which it collects statistically meaningful data and follows monitoring requirements associated with applicable MS4 permit(s). For individual projects within a watershed that may impact or have a potential to impact water quality, proposed monitoring will be evaluated for the degree to which it integrates existing local, regional, or statewide monitoring efforts. All monitoring data should be stored in centralized local, regional, or statewide water quality data collection systems.

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

3. Water Quality Compliance

This section describes aspects of the SWRP and/or any projects evaluated in the SWRP that may affect water quality as regulated by the plans, policies, and rights listed below. It also references Section 7.1 of this SWRP, which describes current water quality conditions and the prospects of improving them through the identified storm water projects.

References:

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

3.1 Consistency with Water Quality Control Plans, Applicable Water Quality Control Policies, and Water Rights

This section describes how this SWRP and the projects it evaluates are consistent with, and assist in compliance with, applicable federal and state regulations and policies, and permits implementing federal and state regulations and policies, including, but not limited to:

- Clean Water Act and the Safe Drinking Water Act;
- NPDES permits, TMDL compliance, and waste discharge requirements;
- Water rights permits/licenses;
- State Water Board plans and policies;
- State and Regional Water Board water quality control plans and policies, including total maximum daily loads adopted by the Regional Water Board.
- (Wat. Code, § 10562, subd. (b)(5).); and
- Any other federal and/or state laws, regulations and permits.

References:

California Regional Water Quality Control Board Central Coast Region. 2011. Total Maximum Daily Loads for Chlorpyrifos and Diazinon in Lower Salinas Watershed in Monterey County, California. Final Project Report for the May 4-5, 2011 Water Board Meeting. 145 pp.

This report evaluates loading to waterbodies that are impaired by these two pesticides in the Lower Salinas River Watershed. The TMDL Report evaluates the current concentrations of chlorpyrifos and diazinon in area waterbodies, estimations on where the pesticides are coming from, responsible parties, and how much their contribution should be reduced. Implementation actions and monitoring requirements are also included in this TMDL report.

California Regional Water Quality Control Board Central Coast Region. 2012. Order No. R3-3012-0005, NPDES Permit No. CA0049981. Waste Discharge Requirements for City of Salinas Municipal Storm Water Discharges, Monterey County. 187 pp.

This is the NPDES (National Pollutant Discharge Elimination System) Permit for the municipal storm water discharges from the City of Salinas. There is a Findings summary and provisions for different types of discharges.

California Regional Water Quality Control Board Central Coast Region. 2013. Total Maximum Daily Loads for Nitrogen Compounds and Orthophosphate for the Lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed, Monterey County, California. Final Project Report for the March 14, 2013 Water Board Meeting. 310 pp.

This report evaluates loading to waterbodies that are impaired by these nitrogen and orthophosphate compounds in the Lower Salinas River, Reclamation Canal and Moro Cojo subwatersheds. The TMDL Report evaluates the current concentrations of specified nutrients in area waterbodies, estimations on where the nutrients are coming from, responsible parties, and how much their contribution should be reduced. Implementation actions and monitoring requirements are also included in this TMDL report.

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. See description in 1 above.

California Regional Water Quality Control Board Central Coast Region. 2017. Order no. R3-2017-0002. Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands. 37 pp. See description in 2.3 above.

California Regional Water Quality Control Board Central Coast Region. 2017. Salinas River Watershed Sediment Toxicity and Pyrethroid Pesticides in Sediment TMDL. Board Hearing scheduled for July 14, 2017.

This TMDL is in development and scheduled for a July 2017 hearing. The Technical Project Report develops Total Maximum Daily Loads (TMDLs) for sediment toxicity and pyrethroid pesticides in sediment in the lower Salinas River watershed. This report provides the regulatory and technical basis for addressing the impairments by identifying water quality problems, sources of pollutants, and establishing TMDLs, water quality targets, and implementation actions.

California Regional Water Quality Control Board Central Coast Region. 2017. Salinas River Watershed Salts and Turbidity TMDLs. In development.

See website for updates as they become available.

http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/303d_and_tmdl_projects.shtml

California State Water Resources Control Board. Regulated Facility Report.

<https://ciwqs.waterboards.ca.gov/ciwqs/readOnly>

[/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility](#). Accessed 7/7/17.

See description in 2.3 above.

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Larry Walker Associates. 2014. City of Salinas Wasteload Allocation Attainment Plan for the Lower Salinas River Fecal Coliform TMDL. 105 pp.

This wasteload allocation attainment plan is required by the City of Salinas' storm water permit in order to meet the TMDL for fecal coliform. The document discusses the best management practices, strategies for prioritizing fecal coliform sources, and monitoring program among other issues.

Monterey Bay National Marine Sanctuary Final Management Plan. 2008. 479 pp. *See description in 1 above.*

State Water Resources Control Board. 2017. 2014 and 2016 California Integrated Report, Clean Water Act Sections 303(d) and 305(b). 33 pp.

This document is a report by the state of California to the U.S. EPA on the overall quality of the waters within California, focusing on a list identifying waterbodies not meeting water quality standards and the water quality parameter not being met. This document includes a priority ranking of substandard waterbodies, taking into account the severity of the pollution and the uses to be made of such waters, including waters targeted for the development of total maximum daily loads (TMDLs). California is required to submit a 303(d) list and 305(b) report every two years.

3.2 Activities Associated with Pollution of Storm Water and/or Dry Weather Runoff

This section provides an overview of regional water pollution issues affected by storm water, and the types of management efforts implemented to date to reduce pollution and pollution impacts.

References:

Monterey Regional Storm Water Management Program.

<http://www.montereysea.org/about.php>. Accessed 7/24/17.

This program was formed by the Cities of Monterey, Carmel-by-the-Sea, Del Rey Oaks, Sand City, Seaside, Pacific Grove, and the County of Monterey to develop a regional storm water program for the Monterey Peninsula and surrounding areas. The program focuses on urban runoff issues.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

4. Watershed and Sub-Watershed Identification and Description

This section will contain the text and maps submitted to the Grant Manager on March 28, 2017 in the file: "SWRPboundaryjustification.2017.3.24."

References:

City of Salinas Stormwater Management Plan Update. July 2013.

<https://www.cityofsalinas.org/our-city-services/public-works/water-waste-energy/stormwaterwater-recycling/stormwater-documents-3>. Accessed 7/13/17.

This document contains a watershed description for the City of Salinas and the surrounding area as well as tables of best management practices (BMPs) for improving watershed conditions and water quality in the city.

Elkhorn Slough at the Crossroads: natural resources and conservation strategies for the Elkhorn Slough Watershed. 2002. Elkhorn Slough Foundation. 50 pp.

This document was a follow-up to the Elkhorn Slough Watershed Conservation Plan of 1999. This report identifies key natural resources of the slough and suggests strategies for conserving them, including recommendations for 100-meter buffer areas and agricultural runoff and storm water control measures to protect aquatic habitat. The proposed vision for the slough includes an intact and interconnected network of natural communities including over 4,000 acres of coastal marsh within Elkhorn Slough and Moro Cojo Slough, enhanced freshwater wetlands of McClusky Slough, a restored stream-side forest along the lower Carneros Creek Floodplain and a series of upland ridges with unfragmented maritime chaparral in the Elkhorn Highlands.

Elkhorn Slough Watershed Conservation Plan. 1999. Elkhorn Slough Foundation. 58 pp.

This plan was developed for the Elkhorn Slough Foundation and The Nature Conservancy by Scharffenberger Land Planning & Design 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.

Greater Monterey County Integrated Regional Water Management Plan. 2013.

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

The Habitat Restoration Group. 1996. Moro Cojo Slough Management and Enhancement Plan. 280 pp.

This document describes the environmental resources of the Moro Cojo Slough watershed and recommends actions to enhance, restore, and manage the significant resources on both public and privately-owned lands within the slough system. It also contains a programmatic CEQA for accomplishment of the actions recommended within the plan.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

Monterey County Multi-Jurisdictional Hazard Mitigation Plan. 2014. 101 pp.

Monterey County completed a 2014 update to their FEMA Hazard Mitigation Plan that integrates risks from changes in rain fall and flooding associated with climate change. The plan encourages natural systems protection and identifies key agencies responsible for reducing identified threats and responding to impacts from future natural disasters.

Northern Salinas Valley Watershed Restoration Plan. 1997. Final Report of AMBAG's Water Quality Planning Project Entitled "Nonpoint Source Pollution in Coastal Harbors and Sloughs of the Monterey Bay Region: Problem Assessment & Best Management Practices. 296 pp.

The Northern Salinas Valley Watershed Restoration Plan was the Final Report of a study entitled, "Nonpoint Pollution in Coastal Harbors and Sloughs of the Monterey Bay Region" prepared by Moss Landing Marine Laboratories and the Watershed Institute for the Association of Monterey Bay Area Governments (AMBAG) 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. The plan promotes the restoration of former wetland and riparian areas ("wet corridors") throughout the watershed as the primary means for water quality restoration, with wetlands and riparian areas acting as natural sediment and pollution filters.

San Antonio and Nacimiento Rivers Watershed Management Plan. 2008. Monterey County Water Resources Agency and the State Water Resources Control Board. 177 pp.

The purpose of this document is to identify the existing conditions of and stresses in these watersheds as they relate to water quality, and recommend methods for reducing or eliminating those stressors such as alternative land use practices.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

4.1 Watershed Boundaries

The boundaries of the SWRP will coincide with those of the Greater Monterey County Integrated Regional Water Management (IRWM) Region.

4.2 Justification of boundaries

Given the broad geographic scope of the IRWM region, the active participation of water resource agencies, nonprofit organizations, disadvantaged communities (DACs), and other organizations on the Regional Water Management Group (RWMG), and a well-established process for stakeholder outreach, the Greater Monterey County IRWM region was deemed an appropriate planning area for development of a SWRP.

References:

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

4.3 Local land uses within the watershed

The primary land use in Monterey County (and the planning area) is agriculture, representing about 56% of the total land area and occupying more than 1.4 million acres of land. The second largest land use consists of public and quasi-public uses (such as parks, recreational, community, and military facilities), comprising about 23% of the total land area. About 16% of the land area in the county is devoted to resource conservation and other uses. The remaining 5% of the county has been developed with residential, industrial, and commercial uses.

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. *See description in 1 above.*

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

4.4 Public agency and water utility boundaries

Water supply in the region is managed by several agencies, both public and private.

References:

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

Urban Water Management Plans.

These serve as long-range planning documents for water supply, source data for development of a regional water plan, and source documents for cities and counties as they prepare their General Plans. The plans include a description of the service area, historical and current water demand and water demand projections, and overview of water system supplies, water supply reliability and water shortage contingency plans, and conservation master plans. Plans for the following water districts will be referenced:

- *City of Greenfield (2008)*
- *King City (2015)*
- *Marina Coast Water District (2015)*
- *California Water Service Company-Salinas District (2015)*
- *City of Soledad (2015)*

4.5 Major water suppliers in the region

Major water suppliers in the region include the Marina Coast Water District, the Castroville Community Services District, California Water Service Company, Alco Water Service Company, and the municipalities of Gonzales, Greenfield, Soledad, and King City.

References:

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

4.6 Groundwater resources

Groundwater is the main source of water supply in the SWRP planning region, with the exception of residents near Greenfield, who have a diversion from the Arroyo Seco River. The Greater Monterey County region receives no imported water.

References:

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Hydrogeology and Water Supply of Salinas Valley. 1995. White Paper prepared by Salinas Valley Ground Water Basin Hydrology Conference for Monterey County Water Resources Agency. 20 pp.

The document summarizes water resources issues with the main issue being water resource distribution rather than water supply. No explicit mention of storm water in this report.

Monterey County. 2017. A Report on the Current, Future and Potential Applications of the County of Monterey's Salinas Valley Integrated Hydrologic Model (SVIHM). Board Report, Legistar File Number: 17-0712.

This is a USGS modeling effort which includes groundwater and surface water throughout most of the Salinas Valley, with the exception of the Seaside Basin.

Monterey County Groundwater Management Plan. 2006. Monterey County Water Resources Agency. 76 pp.

This document provides the framework for the management of groundwater resources in the Salinas Valley Groundwater Basin (exclusive of Seaside and Paso Robles subareas) and acts as a guidance document for future groundwater projects.

Salinas Basin Investigation Summary Report. 1946. State of California Department of Public Works. Bulletin No. 52-B. 42 pp.

This document summarizes the first attempts to manage water in the Salinas Basin, primarily as a result of saltwater intrusion causing well abandonment as early as 1938. The history of water use is covered, starting with the first diversion of the Salinas River for irrigation, pumping water from the Salinas River, and then pumping water from wells dug for irrigation.

4.7 Surface water resources

The significant surface water resources of the Greater Monterey County IRWM region include the Salinas River in the Salinas Valley and its tributaries; the San Antonio and Nacimiento Reservoirs, which control water flows to the Salinas River and, consequently, impact recharge of the Salinas Valley Groundwater Basin.

References:

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. *See description in 1 above.*

Hydrogeology and Water Supply of Salinas Valley. 1995. White Paper prepared by Salinas Valley Ground Water Basin Hydrology Conference for Monterey County Water Resources Agency. 20 pp. *See description in 4.6 above.*

Monterey County. 2017. A Report on the Current, Future and Potential Applications of the County of Monterey's Salinas Valley Integrated Hydrologic Model (SVIHM). Board Report, Legistar File Number: 17-0712. See description in 4.6 above.

Salinas Basin Investigation Summary Report. 1946. State of California Department of Public Works. Bulletin No. 52-B. 42 pp. See description in 4.6 above.

San Antonio and Nacimiento Rivers Watershed Management Plan. 2008. Monterey County Water Resources Agency and the State Water Resources Control Board. 177 pp. See description in 4 above.

4.8 Water quality priorities

Two major issues affecting the Salinas Valley Groundwater Basin are: 1) seawater intrusion due to over-pumping, and 2) nitrate contamination due to fertilizer use. The Lower Salinas River, impaired for 19 pollutants, is identified on the State's 303(d) list as the most impaired waterbody on the Central Coast. The Salinas Reclamation Ditch and Tembladero Slough are each impaired for 14 pollutants; the Old Salinas River Channel and Quail Creek are each impaired for 11 pollutants.

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

State Water Resources Control Board. 2017. 2014 and 2016 California Integrated Report, Clean Water Act Sections 303(d) and 305(b). 33 pp. See description in 3.1 above.

4.9 Maps and Figures

References:

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

5. Organization, Coordination, and Collaboration

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. See description in 1 above.

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

6. SWRP Objectives

References:

Casagrande J & F Watson. 2005. Final Report: Monterey County Water Resources Agency – Reclamation Ditch Watershed Assessment and Management Strategy: Parts A (Watershed Assessment) and B (Watershed Management Strategy). 355 and 62 pp., respectively.
Part A is an assessment of the watershed, including historical conditions assessment, hydrology and channel conditions assessment, water quality assessment, biological assessment and a botanical assessment. Part B is the management strategy, comprised of five main elements: existing plans, public process, watershed management goals, management actions, and management strategies.

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

6.1 Storm Water as a Component of the Hydrologic System: Issues and Opportunities

This section describes regional hydrology, pollution, flooding, habitat, and social issues to provide context for the SWRP goals and objectives.

References:

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

6.2 Plan Development

This section describes activities conducted to assemble data and information, and solicit and evaluate projects.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

6.3 Storm Water Management Objectives

This section will describe storm water management goals and objectives using the text submitted to the Grant Manager on June 14, 2017 in the file named: "D1612608 GMC SWRP Objectives_6-14-2017." It has the following sections:

6.3.1 Water Quality Goal and Objectives

References:

California Regional Water Quality Control Board Central Coast Region. 2016. Water Quality Control Plan for the Central Coast Basin. 575 pp. *See description in 1 above.*

California State Water Resources Control Board. A Compilation of Water Quality Goals Searchable Database.

https://www.waterboards.ca.gov/water_issues/programs/water_quality_goals/index.shtml. Accessed 7/7/17.

This website contains a searchable database of numeric water quality thresholds from the literature for over 860 chemical constituents and water quality parameters which can be used to assess whether beneficial uses of surface or ground water are likely to be impaired or threatened.

Greater Monterey County Integrated Regional Water Management Plan. 2013.

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

Monterey Bay National Marine Sanctuary Final Management Plan. 2008. 479 pp.

This document is a management plan for the MBNMS but included in that is a Water Quality Protection Program Implementation Action Plan which addresses implementing solutions to urban runoff and protecting water quality in wetlands and riparian corridors. There is also a section on beach closures.

6.3.2 Water Supply Goal and Objectives

References:**Greater Monterey County Integrated Regional Water Management Plan. 2013.**

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

Ground Water Extraction Summary Report. 2015. 20 pp.

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.

LAFCO Municipal Services Reviews. 2006-2011.

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. 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 will be used in the development of this SWRP:

- 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 (2006)

Plan of Study: Salinas and Carmel Rivers Basin Study. 2017. Bureau of Reclamation. 85 pp.

The purpose of the Salinas and Carmel Rivers Basin Study (Basin Study) is to inform and guide future courses of action in response to existing and potential future imbalances between water supplies and demands in the Salinas and Carson River Basins (CRB). It will identify existing water supplies and demands, model future water supplies and demands, accounting for uncertainties in future climate conditions, population growth, and other socioeconomic trends. In response to

identified imbalances between supplies and demands, the Basin Study will examine a variety of strategies that may be employed to reduce or mitigate these imbalances. Ultimately, this Basin Study will identify a portfolio of strategies to achieve long-term balance between supplies and demands in the Salinas and CRBs.

6.3.3 Flood Management Goal and Objectives

References:

Gray Andrew B, Gregory B Pasternack, Elizabeth B Watson, Jonathan A Warrick, Miguel A Goni. 2015. Effects of antecedent hydrologic conditions, time dependence, and climate cycles on the suspended sediment load of the Salinas River, California. *Journal of Hydrology* 525:632-649.

This study estimated sediment flux from the Salinas River using data from 1967-2011. Average annual load estimates of 2.0-2.9 Mt/yr with 95% CI of +or - 25 to 202%. Majority of suspended sediment was transported by flows of approx 25-90 times mean discharge depending on transport constituent (fines or sand) and estimation method. El Nino years produced on average 10 times more sediment than non- El Nino years.

Greater Monterey County Integrated Regional Water Management Plan. 2013.

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

Monterey County Floodplain Management Plan. 2008 Update. 166 pp.

This plan was developed to identify the flooding sources affecting Monterey County Repetitive Loss Properties, establish an implementation plan to reduce flooding and flood related hazards, and ensure the natural and beneficial functions of floodplains are protected.

Monterey County Multi-Jurisdictional Hazard Mitigation Plan. 2014. 101 pp. See description in 4 above.

6.3.4 Environmental Goal and Objectives

References:

Association of Monterey Bay Area Governments. 1997. Northern Salinas Valley Watershed Restoration Plan: Final Report of AMBAG's Water Quality Planning Project Entitled "Nonpoint Source Pollution in Coastal Harbors & Sloughs of the Monterey Bay Region: Problem Assessment & Best Management Practices. 296 pp.

Plan centers around idea of restoring former wetland and riparian areas (termed "wet corridors") throughout the Gabilan and Moro Cojo watersheds through the establishment of Water Management Areas, or ecologically engineered impoundment sites that allow for the re-establishment of native wetland/riparian vegetation to improve water quality, groundwater recharge, decrease flood water levels downstream, increase critical habitat area for many threatened or endangered species, and decrease wildfire danger by providing moist firebreaks. Report addresses all relevant aspects of wet corridor restoration, including the benefits of restoration, technical approaches to restoration, long term restoration monitoring, ongoing local restoration demonstration projects, the issues surrounding obtaining landowner permission to

conduct restoration activities, public education and the uncertainties and barriers to successful wet corridor restoration that still need to be addressed.

Denise Duffy & Associates, Inc. 2016. Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. 1290 pp. See description in 1 above.

Greater Monterey County Integrated Regional Water Management Plan. 2013.
<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

6.3.5 Community Goal and Objectives

References:

California State Parks Office of Grants and Local Services Statewide Park Program Round Two.
<http://www.mapsportal.org/factfinder2011/grantee>. Accessed 7/7/2017.

This website enables the user to analyze demographics and park acres within one-half mile of a point defined by the user.

Greater Monterey County Regional Water Management Group. 2017. Integrated Drinking Water and Wastewater Plan for Disadvantaged Communities in the Salinas Valley and Greater Monterey County IRWM Region.

The Greater Monterey County Regional Water Management Group received State funds in 2015 to conduct a two-year planning effort. The primary intent of the plan is to determine solutions for DACs impacted by nitrate contamination in their drinking water. The planning effort identifies disadvantaged communities (including “hidden DACs”) in the Greater Monterey County IRWM region, identifies their drinking water and wastewater problems, and identifies potential solutions. The outcome of the planning project will be a list of “preferred solutions” for each community, and proposals developed for each of the “high priority” communities in preparation for funding opportunities.

Greater Monterey County Regional Water Management Group. 2012. Disadvantaged Community Outreach Plan. 22 pp.

The purpose of the Disadvantaged Community (DAC) Outreach Plan for the Greater Monterey County IRWM Planning Region is to ensure that the statewide priorities for the IRWM Program are met and to lay out a strategy to effectively engage DACs in regional water decision making processes that directly impact their lives. The Outreach Plan and its related tasks create the framework whereby the Greater Monterey County IRWM planning region can successfully satisfy the following IRWM Program preferences as specified in PRC §75026(b):

- *Address critical water supply or water quality needs of DACs within the region.*
- *Address statewide priorities, including “ensure equitable distribution of benefits,” which includes specifically:*
 - *Increase the participation of small and disadvantaged communities in the IRWM process.*

- *Develop multi benefit projects with consideration of affected DACs and vulnerable populations.*
- *Identify and include projects that address safe drinking water and wastewater treatment needs of DACs.*

Greater Monterey County Integrated Regional Water Management Plan. 2013.

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

Monterey County Health Department Strategic Plan 2011-2015. 33 pp.

A plan to improve health and quality of life in Monterey County through County supported policies, programs, and services; promoting access to equitable opportunities for healthy choices and healthy environments in collaboration with communities.

Monterey Peninsula Regional Park District: Preserving and Protecting Parks and Open Space. Strategic Plan 2016-2020. 22 pp.

This plan spells out the Park District's five year goals of stewardship of parks and open space, engaging people with nature, enhancing the Park District's relevance to the community, forming collaborative partnerships, investing in human capital, maintaining financial sustainability, and items that could not realistically be completed during the duration of the strategic plan with strategies, objectives and due dates for each of the seven goals.

6.4 SWRP Plan Objectives

This section will describe storm water plan goals and objectives using the text submitted to the Grant Manager on June 14, 2017 in the file named: "D1612608 GMC SWRP Objectives_6-14-2017."

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

6.4.1 Evaluate implementation project benefits

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

6.4.2 Prioritize implementation projects

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

6.4.3 Recommend information and data systems for adaptive management

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

7. Quantitative Methods

7.1 Watershed Goals (for Salinas and Alisal-Elkhorn Sloughs Watersheds)

This section describes narrative and quantitative goals for all of the five multiple benefits in each of the four main sub-watersheds in the planning area, and the methods used to derive them.

References:

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

7.1.1 Conceptual and Quantitative Water Quality Goals

Describes applicable water quality objectives, current status of key pollutants, and means to improve status through storm water management.

References:

California Regional Water Quality Control Board Central Coast Region. 2011. Total Maximum Daily Loads for Chlorpyrifos and Diazinon in Lower Salinas Watershed in Monterey County, California. Final Project Report for the May 4-5, 2011 Water Board Meeting. 145 pp. See description in 3.1 above.

California Regional Water Quality Control Board Central Coast Region. 2013. Total Maximum Daily Loads for Nitrogen Compounds and Orthophosphate for the Lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed, Monterey County, California. Final Project Report for the March 14, 2013 Water Board Meeting. 310 pp. See description in 3.1 above.

California Regional Water Quality Control Board Central Coast Region. 2017. Salinas River Watershed Sediment Toxicity and Pyrethroid Pesticides in Sediment TMDL. Board Hearing scheduled for July 14, 2017. See description in 3.1 above.

California Regional Water Quality Control Board Central Coast Region. 2017. Salinas River Watershed Salts and Turbidity TMDLs. In development. See description in 3.1 above.

CCAMP Data Navigator. http://www.ccamp.us/ca/view_data.php?org_id=rb3. Accessed 7/21/17.

This website allows the user to download and view current water quality data for the Central Coast region. Useful for assessing current status of various water quality parameters.

Larry Walker Associates. 2014. City of Salinas Wasteload Allocation Attainment Plan for the Lower Salinas River Fecal Coliform TMDL. 105 pp. *See description in 3.1 above.*

State Water Resources Control Board. 2017. 2014 and 2016 California Integrated Report, Clean Water Act Sections 303(d) and 305(b). 33 pp. *See description in 3.1 above.*

Tetra Tech. 2015. Salinas River Watershed Area Salt Modeling. 211 pp.

This document provides an assessment of salt impairments in the Salinas Valley Watershed area and addresses the development of a salt mass balance in the Lower Salinas River and Reclamation Ditch watersheds. This can be used to inform development of salt-related TMDLs and a Salt and Nutrient Management Plan for the Salinas Valley aquifers.

7.1.2 Conceptual and Quantitative Water Supply Goals

Describes objectives for water supply to each of the main beneficial uses (drinking water, irrigation, flood protection, habitat, in-stream environmental, and social development. It states the current level of water availability for each of these uses, and describes means to improve supply through storm water management.

7.1.3 Conceptual and Quantitative Flood Protection Goals

This section describes maximum peak flows in various watershed locations that should not be exceeded in order to provide flood protection. It describes hydrologic changes necessary to prevent flows from exceeding these peaks at selected recurrence intervals.

References:

Gray AB, G Pasternack, E Watson, J Warrick, M Goñi. 2015. Effects of antecedent hydrologic conditions, time dependence, and climate cycles on the suspended sediment load of the Salinas River, California. Journal of Hydrology 525:632-649.

This journal article uses data from 1967-2011 to estimate sediment flux from the Salinas River. The majority of suspended sediment was transported by flows of 25-90 times mean discharge. El Niño years dominated the sediment budget, producing on average 10 times more sediment than non-El Niño years.

Farnsworth K & D Milliman. 2003. Effects of climatic and anthropogenic change on small mountainous rivers: the Salinas River example. Global and Planetary Change 39:53-64.

This journal article focuses on the phenomenon of long term discharge and sediment delivery from smaller rivers being determined by infrequent events and points out that the lack of adequate monitoring means these event-driven deliveries are poorly documented and insufficiently understood. The Salinas River is used as an example, with half of the sediment load over the last 70 years being delivered in less than 5 weeks.

Monterey County Floodplain Management Plan. 2008 Update. Monterey County Water Resources Agency. 166 pp. *See description in 6.3.3 above.*

Yarnell SM, GE Petts, JC Schmidt, AA Whipple, EE Beller, CN Dahm, P Goodwin, JH Viers. 2015. Functional flows in modified riverscapes: hydrographs, habitats and opportunities. BioScience 65:963-972.

This journal article describes a functional-flows approach to managing heavily modified rivers by retaining specific process-based components of the hydrograph rather than attempting to mimic the full natural flow regime. Key functional components include wet season initiation flows, peak magnitude flows, recession flows, dry season low flows and interannual variability.

7.1.4 Conceptual and Quantitative Environmental Goals

Describes optimal wetland, riparian and in-stream conditions using the California Rapid Assessment Method and CDF&W flow targets, describes current environmental status, and estimates hydrologic changes necessary to obtain optimal conditions.

References:

Lowe S, M Salomon, S Pearce, J Collins. 2016. Upper Pajaro River Watershed Condition Assessment 2015. San Francisco Estuary Institute and Aquatic Science Center. 72 pp.

This document will be used to cite California Rapid Assessment Methods which will be used to conduct watershed assessments for the watersheds included in this storm water plan.

7.1.5 Conceptual and Quantitative Community Goals

Describes available recreational area per capita (especially recreational areas enhanced by water features), real estate valuation, and employment opportunities, and evaluates how storm water management can improve recreational, employment, and asset opportunities.

References:

California State Parks Office of Grants and Local Services Statewide Park Program Round Two. <http://www.mapsportal.org/factfinder2011/grantee>. Accessed 7/7/2017. See description in 6.3.5 above.

7.2 Hydrologic Modeling and GIS to Identify Storm Water Management Opportunities

Describes the GIS base map and GIS analyses to identify opportunities for storm water capture, treatment, transport, recharge and reuse. Describes the available hydraulic/hydrologic modeling in the planning area, their outputs and assumptions, and the integration of model outputs and other data into a regional water balance model to evaluate regional implications of proposed storm water projects.

Relevant Modeling Tools:

Low Impact Development Bioretention Opportunity Analysis: This analysis, conducted by Fall Creek Engineering, Inc. (2014), produced a GIS modeling tool for project partners to use for

identification of infiltration/recharge areas within the Monterey and Santa Cruz County regions. Accompanying the tool are GIS shapefiles used to create the maps. Shapefiles that are potentially unique to each new area or project partner, and that can be loaded into the tool, are storm water infrastructure locations, urban area boundaries, and groundwater basin boundaries. The LID opportunity maps are intended as both a planning and implementation tool. In 2014, the nonprofit organization Ecology Action used these maps and the identified parcels to assess potential sites to design and implement a bioretention feature. The annual and design storm runoff modeling provide an estimate of what the corresponding infiltration potential could be within identified areas if LID practices, such as bioretention, were implemented on a large scale.

Tool to Estimate Load Reductions (TELRL): TELRL outputs estimates of average annual pollutant loads and load reductions associated with storm water improvement actions using a spatial, catchment-scale analysis. The TELRL methodology was built upon similar work developed in the Lake Tahoe Region to create a user-friendly, transparent and scientifically-credible tool to estimate pollutant loads. The pollutant load estimations, catchment delineations and other analytical components of TELRL are not complex. Mapping products and associated pollutant load information from TELRL can be used iteratively to guide priorities and quantify the load reduction achieved by the program over time.

Moro Cojo Nutrient Fate/Transport model: The Soil and Water Assessment Tool (SWAT) nutrient fate transport model developed by Dr. Null at Moss Landing Marine Labs models nutrient and sediment loading from urban and agriculture land uses within a defined basin. The model will be used to support the allocation of future management efforts to reduce pollutant loading through capture, filtration, treatment, and source control.

Hydraulic Modeling: Each of the models below has been developed to model surface and/or groundwater interactions and/or peak water velocity and flood elevations during storm events, integrating the spatial and temporal relationship of storm water discharges from multiple municipalities and land uses. These models will be used to better estimate discharge from various storm drainage systems and the resulting changes in hydrograph from future projects that reduce peak runoff flows. The project team will combine the geo-rectified “unstable” hydraulic model for the Gabilan and lower Salinas River watersheds and the MODFLOW surface/groundwater hydrologic model for the Salinas River to define base conditions for these watersheds from which storm water projects will be evaluated.

- **Salinas Valley Ground and Surface Water Model:** Developed by Monterey County as part of their Stream Maintenance EIR, these 1D HEC-RAS and MODFLOW models will serve as the backbone for creating an integrated 2D HEC-RAS/MODFLOW model.
- **Gabilan/Reclamation Ditch Fluvial Model:** Developed by Environmental Science Associates (ESA) for the Central Coast Wetlands Group (CCWG) as part of a sea-level rise study, the Reclamation Ditch Fluvial model is a 2D HEC-RAS model run in unsteady conditions.

7.3 Quantitative Metrics of Project Benefits

Describes the metrics available and metrics used to identify opportunities to benefit from storm water management, and introduces their use and analysis in project evaluation and prioritization in the following section.

References:

Lowe S, M Salomon, S Pearce, J Collins. 2016. Upper Pajaro River Watershed Condition Assessment 2015. San Francisco Estuary Institute and Aquatic Science Center. 72 pp. See description in 7.1.4 above.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8. Identification and Prioritization of Projects

This section describes the information and data gathered; the GIS, modeling and other quantitative analyses employed to identify opportunities; and the use of this information to evaluate and prioritize storm water management projects.

References:

Greater Monterey County Integrated Regional Water Management Plan. 2013. <http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.1 Multiple Benefits

Lists the benefits and their metrics.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.2 Identification of Projects Using Quantitative Measures

Characterizes each project in terms of the quantity of benefits anticipated (acre feet captured, Kg/d load reduction, etc.).

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.3 Integrated Metrics-Based Analysis

Describes quantitative, tabular and geographic integration of the scores and products from analyses of each class of benefit anticipated.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.4 Water Quality Projects Analysis

Describes anticipated load reductions, in-stream concentrations and other metrics of anticipated benefits.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.5 Storm Water Capture and Use Projects Analysis

Describes acre feet captured, flow rates diverted, volume infiltrated, volume reused and other metrics of water supply benefit.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.6 Water Supply and Flood Control Projects

Describes anticipated reductions in peak flow volumes anticipated from each project evaluated.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

8.7 Environmental and Community Benefits Analysis

Describes wetland, stream, and riparian improvements anticipated from each project evaluated. Describes anticipated increases in aquatic parklands, trails, aesthetics, employment, real estate values and other community metrics anticipated from each project evaluated.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

8.8 Integration of Multiple Benefit Assessments

Describes quantitative, tabular and geographic integration of the scores and products from analyses of each class of benefit anticipated.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

8.9 Project Prioritization

Describes ranking of projects based on integrated metrics-based analyses, in conjunction with evaluation of administrative factors such as feasibility, availability of matching funds, and availability of operations and maintenance funding.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. *See description in 1 above.*

9.0 Information and Data Management

Describes the types of data to be gathered, data formats for transfer to regional and statewide systems (such as CCAMP, CEDEN and EPA's WQX), data storage and retrieval, back-up systems, and security.

References:

California Environmental Data Exchange Network (CEDEN).

http://ceden.org/ceden_submitdata.shtml. Accessed 7/26/17.

CEDEN aggregates California water quality data from water bodies including streams, lakes and rivers and makes it accessible to environmental managers and the public.

Greater Monterey County Integrated Regional Water Management Plan. 2013.

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. *See description in 1 above.*

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. *See description in 2.2 above.*

Marine Pollution Studies Laboratory at Moss Landing Marine Laboratories.

<https://mpsl.mlml.calstate.edu/how-submit-data>. Accessed 4/26/17.

This data center acts as a receiver of environmental data that will ultimately be submitted to CEDEN for inclusion in the statewide database. The website contains steps and guidelines for submitting data to the MPSL-MLML Data Center and ultimately to CEDEN.

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

10. Implementation Strategy and Schedule

This section describes an overall coordinated strategy to facilitate the successful implementation of projects evaluated in this plan. This section of the outline cannot be written until more is known about the proposed projects.

References:

State Water Resources Control Board. 2015. Storm Water Resource Plan Guidelines. California Environmental Protection Agency. 47 pp. See description in 1 above.

11. Education, Outreach and Public Participation

References:

Greater Monterey County Integrated Regional Water Management Plan. 2013.

<http://www.greatermontereyirwmp.org/documents/plan/>. Accessed 7/10/17. See description in 1 above.

Kennedy/Jenks Consultants. 2017. Storm Water Resource Plan for the Greater Salinas Area, Final. Prepared for Monterey Regional Water Pollution Agency. 121 pp. See description in 2.2 above.