Planning Report

STORMWATER RESOURCES PLAN

LAKE COUNTY, CALIFORNIA

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1.0 INTRODUCTION

This document outlines the 2025 Stormwater Resources Plan (SWRP) for Lake County. It details strategies and measures designed to manage stormwater and dry weather runoff effectively. The plan aims to optimize water resources, improve water quality, and provide environmental and community benefits throughout the Clear Lake Basin and other Lake County Watersheds.

1.1 SWRP REQUIREMENTS

Senate Bill 985 (SB 985), the Storm Water Management Planning Act of 2014, implemented through the Water Code Section 10560 requires a Storm Water Resource Plan (SWRP) as a condition of receiving grant funds for stormwater and dry weather runoff capture projects from any bond approved by voters after January 2014. The intent of SB 985 is to encourage the use of stormwater and dry weather runoff as a resource to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed.

The nine key stormwater resource components as outlined in 10562-D are outlined in Attachment A to this Plan.

2.0 PLANNING AREA DESCRIPTION

Lake County is in the Northern California coastal mountain range, approximately 80 miles north of San Fransisco. This Stormwater Resources Plan addresses stormwater throughout the entire Lake County. The vicinity of Lake County is illustrated in Figure 2.1. Lake County contains several major watersheds, the largest of which is the area that drains to Clear Lake (326,000 acres or 40% of Lake County). Other significant watersheds[1] include the Eel River/Lake Pillsbury, the Indian Valley Reservoir Watershed, the Putah Creek Watershed, and the North Fork Cache Creek Watershed. Please refer to Section 1.6 of the Lake County 319 Watershed Plan for a graphic illustrating the extent of each watershed along with HUC 10 and 12 sub-watershed maps. Section 1.6 of the 319 Watershed Plan also includes a map of surface water tributaries in Lake County.

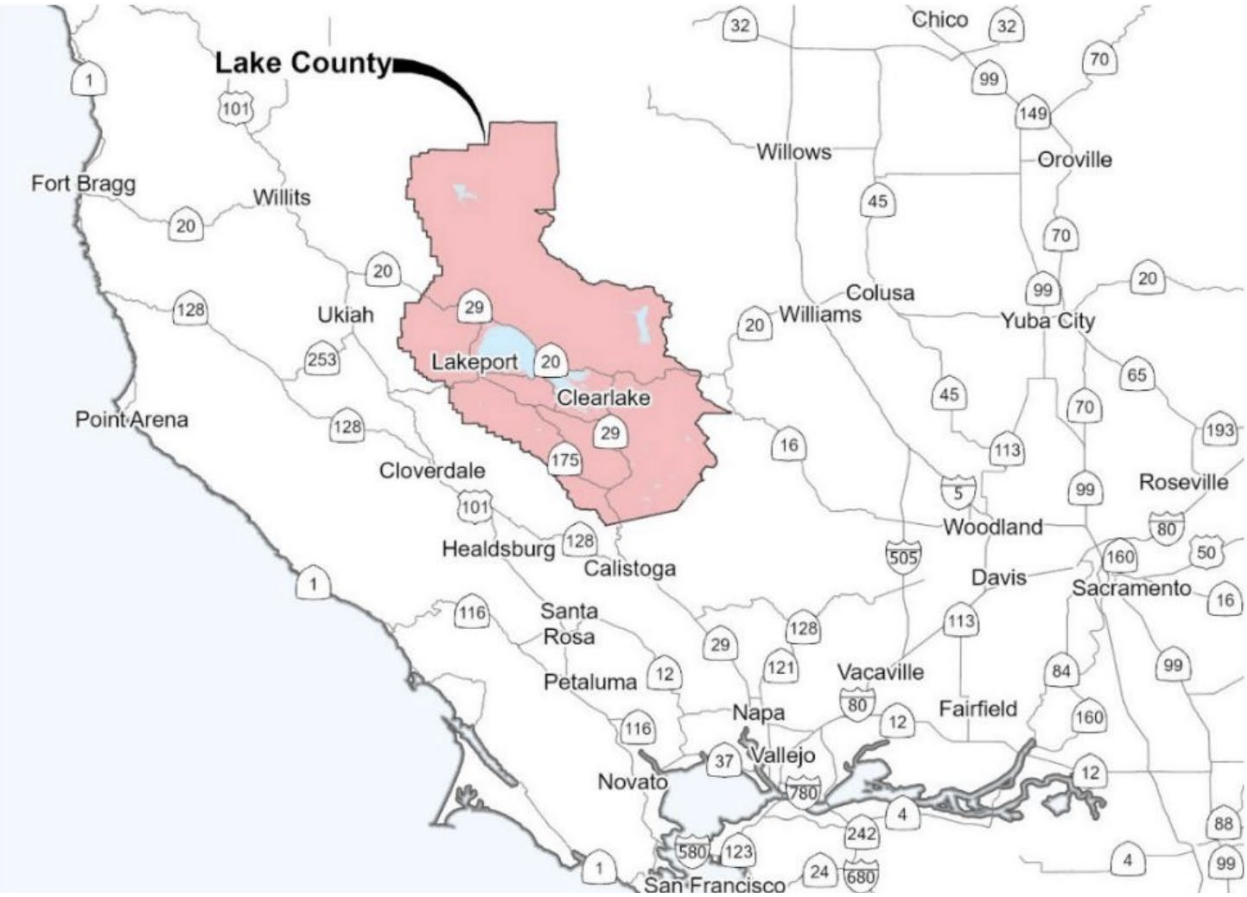


Figure 2.1- Lake County Vicinity Map

[1] These "watershed" names are conceptual. Please refer to HUC 10 and 12 maps for official USGS watershed names and delineations.

2.1 LAKE COUNTY AQUIFERS

The California Department of Water Resources (DWR) has designated 12 primary aquifers within Lake County. Most of these aquifers have not significantly declined over the last century. The seven aquifers that surround Clear Lake have the advantage of being recharged year round by the lake. A cursory review of DWR and Lake County monitoring data indicates that during the summer months the water level of these aquifers declines at a slower rate than other aquifers outside of the Clear Lake basin. These aquifers exhibit stable water levels even through the past 20 years of drought cycles.

The Big Valley Basin was categorized in California DWR Bulletin 118 as a "medium" priority basin. This categorization meant that Lake County was required to produce a Groundwater Sustainability Plan (GSP) for the Big Valley Basin to comply with the State Groundwater Management Act (SGMA). This GSP was published in January 2022. The Big Valley GSP states that the "Big Valley Basin was identified as a medium-priority basin by DWR based on components such as population and groundwater use". This report explains that the total water use in the basin is estimated at approximately 13,000 AFY (approximately 32% of all agricultural demand in Lake County). The estimated sustainable aquifer yield is between 22,000 and 36,000 AFY and is far greater than the typical aquifer use. Twenty years ago, the Lake County Flood Control and Water Conservation District evaluated the viability of conducting groundwater recharge in the Big Valley Basin. The findings of this study can be found in the "Big Valley Ground Water Recharge Investigation Update" at the County's groundwater management website.

No other aquifers in Lake County are listed in Bulletin 118. There are five other primary aquifers designated by DWR in Lake County that are not directly recharged by Clear Lake. These aquifers include Gravelly Valley, Long Valley, Collayomi Valley, Coyote Valley, and High Valley.

Please refer to Attachment B of the 2023 Clear Lake Source Water Assessment for more detailed monitoring data and information related to the Upper Lake Valley, Big Valley, Scott's Valley, Burns, Lower Lake Valley, Clear Lake Cache Formation, Middle Creek, and High Valley Groundwater Basins. Lake County Staff measure water wells in seven major groundwater basins (Upper Lake Valley, Scott's Valley, Big Valley, High Valley, Burns Valley, Coyote Valley, and Collayomi Valley). This monitoring data is published at the Lake County Water Resources Department Groundwater Management Program website.

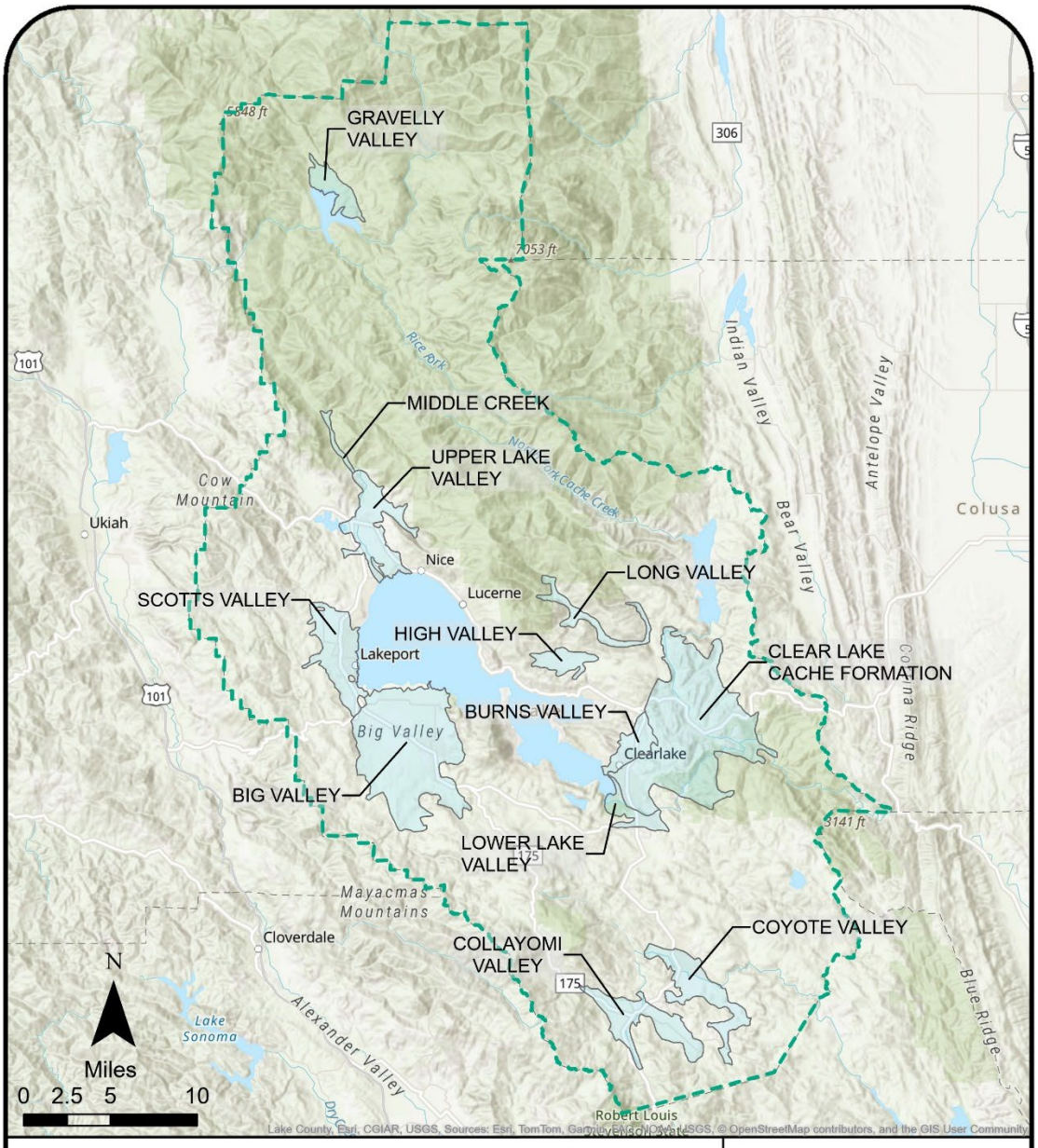


Figure 2.2: Lake County Aquifers

Lake County Stormwater Resources Plan

Aquifers Lake County Border

Aquifer data obtained from CA DWR

California Rural Water Association

Date Exported: 1/15/2025

2.2 LAKE COUNTY SURFACE WATER

Clear Lake is the largest surface water body in Lake County and has a maximum storage capacity of 1.15 million acre-ft. There are many natural lakes and man-made reservoirs within Lake County in addition to Clear Lake.

After Clear Lake, the Indian Valley Reservoir and Lake Pillsbury are the largest water bodies. Water stored in these reservoirs is largely utilized by entities outside of Lake County. Indian Valley Reservoir is a 300,000 acre-ft reservoir across the North fork of Cache creek. Yolo County owns all rights to the water. Lake Pillsbury is an 80,000 acre-ft hydroelectric reservoir maintained by PG&E. According to a recent news article by the Mendocino Voice, PG&E has published a notice to decommission Scott's dam as the hydroelectric plant is no longer viable. According to a June 2023 presentation by the Russian River Forum, most water rights to the Eel river are held in Humbolt and Mendocino Counties.

Other smaller reservoirs have been constructed in Lake County for the purpose of managing annual winter flooding and providing a reliable source of irrigation water. A detailed list of other notable surface water bodies in Lake County with links to additional information can be found in the Wikipedia Article "List of Lakes of Lake County, California". Please refer to the map on the following page for the locations of various water bodies.

2.3 LAKE COUNTY WATER USAGE

According to the Lake County Water Resources Department website, In an average year, groundwater meets about 60% of Lake County's urban and agricultural demands. Urban water demand in Lake County is estimated at 11,000 AFY and agricultural water demand is estimated at 40,000 AFY. More detailed information related to water usage demands in Lake County is included in the 2006 Lake County Water Demand Forecast.

Figure 2.3: Lake County Surface Water Bodies

Lake County Stormwater Resources Plan

Lakes Lake County Border

Lake data obtained from Lake County GIS data portal

California Rural Water Association

Date Exported: 1/15/2025

3.0 STORMWATER RESOURCES PLAN COMPONENTS

3.1 LOCAL WATER SUPPLY AUGMENTATION (10562-D1)

In Lake County, there are opportunities for local water supply augmentation through groundwater recharge in Big Valley. The area's groundwater management plan focuses on replenishing the aquifer using techniques like infiltration from local creeks and managed aquifer recharge. These efforts aim to enhance water supply resilience, mitigate the effects of drought, and protect natural water resources.

3.2 POLLUTION AND STORMWATER RUNOFF REDUCTION (10562-D2)

The Largest urban areas within Lake County include The City of Lakeport and the City of Clearlake. These cities as well as Lake County are part of the local Municipal Separate Storm Sewer (MS4) program, which aims to manage and reduce stormwater pollution. A map of the Lake County MS4 boundary is presented in Figure 3.1. Areas shown in red are considered urban and other areas are non-urban.

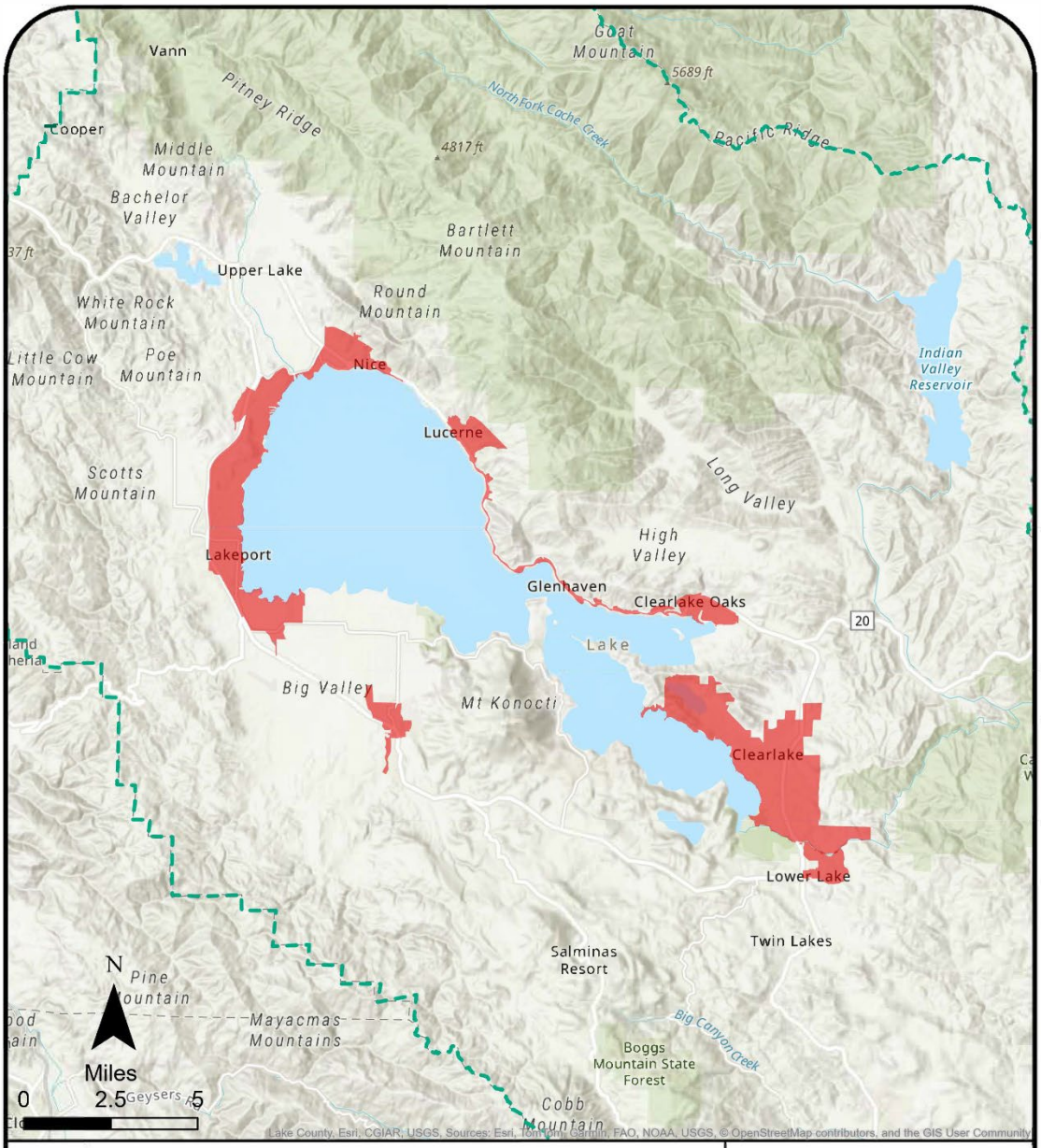


Figure 3.1: Lake County MS4 Boundaries

Lake County Stormwater Resources Plan

MS4 Boundaries

Lake County Border

GIS data obtained from California State Geoportal

California Rural Water Association

Date Exported: 2/4/2025

3.2.1 Reducing Urban Stormwater Runoff

Urban stormwater is rainwater that flows over surfaces in impervious urban areas rather than being absorbed into the ground. This water collects and flows into stormwater channels and further downstream to surface water bodies. In Lake County, much of the urban stormwater runoff ultimately is transported into Clear Lake. The existence of impervious surfaces increases the volume and speed of runoff, which can contribute to localized flooding issues.

Reducing urban stormwater runoff involves a combination of strategies aimed at increasing water infiltration, reducing impervious surfaces, and managing runoff before it enters water bodies. Managing runoff can include any of the following actions:

- Slowing down the flow of runoff through detention or retention
- Development, maintenance, and improvement of stormwater conveyance systems to reduce flooding

Most infiltration, conveyance, detention, and retention systems (stormwater runoff management systems) are implemented when urban infrastructure is initially constructed. Strategic city planning and standards are necessary to guide this urban development. Stormwater runoff management systems can also be improved upon post-development.

3.2.2 Reducing Urban Stormwater Pollution

Urban stormwater pollution occurs when the stormwater runoff flowing over impervious surfaces in urban areas picks up pollutants and carries them into local water bodies such as Clear Lake and other surface waters. Urban stormwater pollution is related to urban stormwater runoff. An increase in stormwater volume or a decrease in transportation time can increase the mass of pollutants that are transported. The EPA "Nonpoint Source: Urban Areas" webpage defines the following categories of urban pollutants that apply to Lake County:

- Sediment
- Oil, grease, and other toxic motor vehicle chemicals
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria, and nutrients from pet waste and failing septic systems
- Heavy metals from roof shingles, motor vehicles, and other sources

Urban stormwater pollutants can be reduced and mitigated by:

- Leveraging Best Management Practices (BMPs) to filter and absorb pollutants
- Public education and outreach for proper disposal and use of various chemicals
- Improving the management of stormwater runoff as described in Section 3.2.2 of this plan

3.2.3 Reducing Non-Urban Runoff Pollution

Practices for reducing non-urban runoff pollution are described in-depth in the 2025 Lake County 319 Watershed Plan. Please refer to this plan for relevant information.

3.3 RE-ESTABLISHMENT OF NATURAL TREATMENT AND INFILTRATION (10562-D3)

The 2025 Lake County 319 Watershed Plan Section 2.0 includes a review of "Wetland and Vegetative Filtration Loss" in Lake County and its detrimental effects on water quality. This section of the report also includes a list of typical mitigation BMPs. Sections 6.6 and 6.7 of the Plan outline recommended capital projects aimed at reducing the effects of wetland and vegetation loss. Section 7.2 of the report includes a roadmap for continuing to identify and prioritize related capital improvement projects in Lake County.

3.4 RESTORATION OF OPEN SPACE AND HABITAT (10562-D4)

"Re-Establishment of Natural Treatment and Infiltration" and "Restoration of Open Space and Habitat" are addressed in the same sections of the 2025 Lake County 319 Watershed Plan. Please refer to Section 3.3 of this Lake County Stormwater Resources Plan for a review of applicable references.

3.5 PUBLIC LANDS IN LAKE COUNTY (10562-D5)

The California Water Code Section 10560 emphasizes the use of public lands for stormwater resource projects. A stormwater resources plan must include, "[o]pportunities to use existing publicly owned lands and easements, including but not limited to, parks, public open space, community gardens, farm and agricultural preserves, schools sites, and government office buildings and complexes to capture, clean, store, and use stormwater and dry weather runoff either onsite or offsite".

Several types of public lands in Lake County may be considered for stormwater resource projects. Lake County public lands include BLM-managed areas, USFS-managed areas, City and County Public Lands, and State Public Lands. A map of public lands is presented in Figure 3.2.

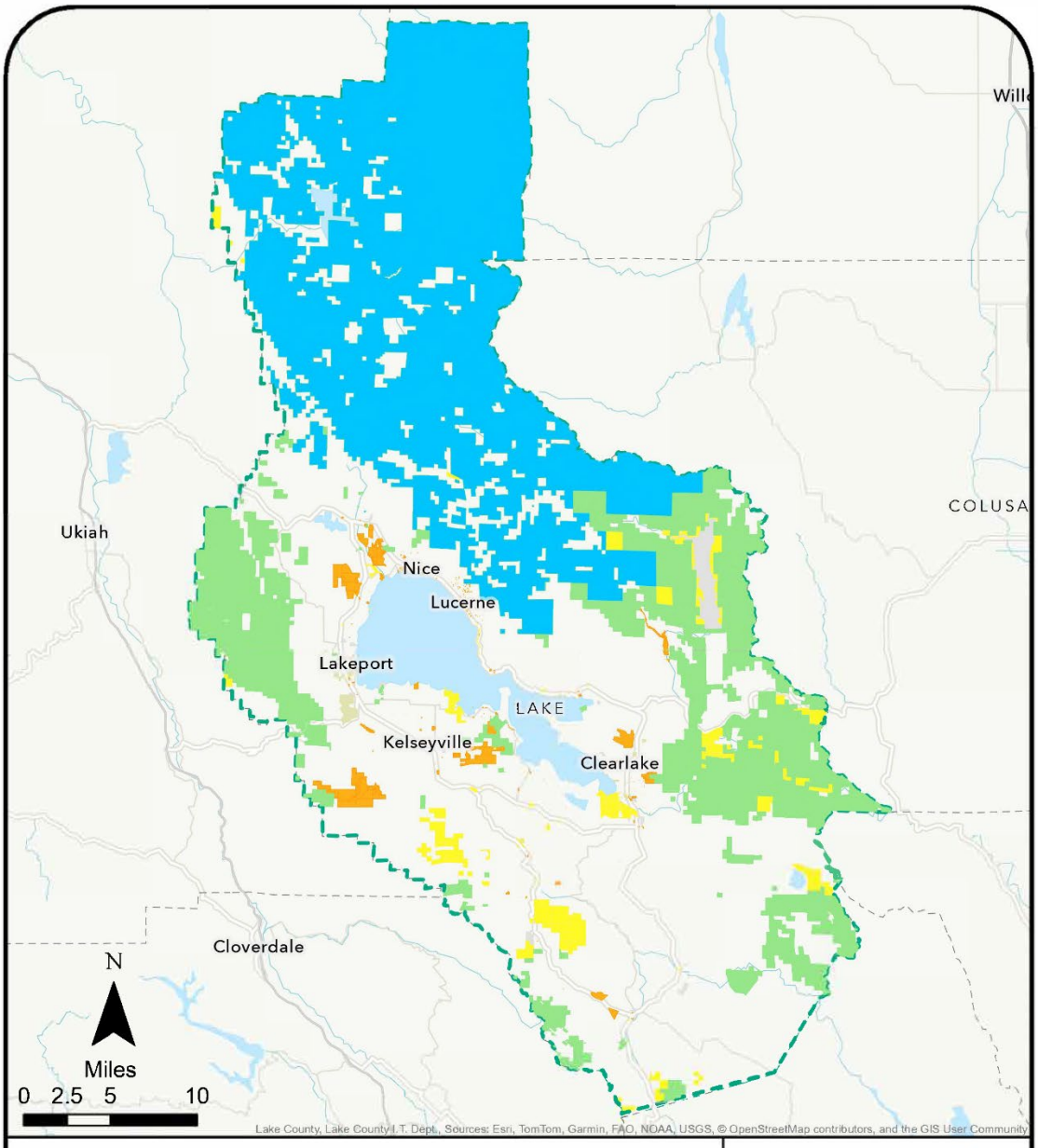


Figure 3.2: Lake County Public Land

Lake County Stormwater Resources Plan

Bureau of Land Management
Forest Service
State
County
City
Other
Lake County Border

Land data obtained from Lake County & ESRI compiled data

California Rural Water Association

Date Exported: 1/15/2025

3.6 BMPS FOR STORMWATER MANAGEMENT (10562-D6)

In Lake County, new development and significant redevelopment projects are required to comply with local and state stormwater guidelines. Where these projects exceed one acre, a "General Permit" issued through the California SWRCB is required. The general permit requires a storm water pollution prevention plan to be prepared for each construction project. Contractors must implement various construction BMPs as described in the California Stormwater Quality Association (CASQA) BMP manual. Runoff calculations are prepared using the criteria and methodology outlined in the "Lake County Hydrology Design Standards" manual. Additional guidance for meeting stormwater quality construction objectives for Lake County Construction projects is outlined in the Bay Area Stormwater Management Agencies Association "Design Guidance Manual for Stormwater Quality Protection" (Design Guidance Manual).

The Design Guidance Manual emphasizes a "start at the source" approach. The design concepts are intended to address pollutants at their source and minimize the volume of stormwater runoff. This manual outlines the following types of BMPs:

- Impermeable Surface Reduction
  Permeable pavements are encouraged by allowing for a reduced overland flow "c-factor" which results in a lower runoff volume calculation and a lower treatment requirement.
- Onsite Stormwater Storage
  The use of detention and retention basins are encouraged in this manual with a reduction in stormwater runoff volume, and a related reduction in stormwater treatment needs.
- Low-Impact Development
  Self-treating areas are a component of Low-Impact Development. Self-treating design techniques outlined in the Design Guidance Manual include "conserved natural spaces, large landscaped areas, grass/vegetative swales, and turf block paving areas".

Stormwater Capture and Reuse

In 2014, the State of California passed the Sustainable Groundwater Management Act (SGMA). This act was intended to provide a framework for local agencies to manage depleting groundwater basins in a sustainable manner. The Big Valley groundwater basin has been identified by the State of California as a "medium" priority groundwater basin in Bulletin 118 (most recently published in November 2021). The Big Valley Groundwater Sustainability Agency (GSA) was formed in response to the Bulletin 118 classification of Big Valley. This agency prepared the "Big Valley Groundwater Sustainability Plan" (Big Valley GSP) to provide a method of attaining the SGMA sustainability goals.

The Big Valley GSP includes both projects and management actions aimed to achieve sustainability in the Big Valley basin. These projects and management actions are ranked in the GSP using a "Tier" 1-3 approach. Those ranked Tier 1 are backed with a commitment by the GSA to implement. Those projects in Tiers 2 and 3 are less developed and are not prioritized in the same way as Tier 1. Tier 2 recommended projects include the following:

- Implement Adobe Creek Conjunctive Use Project
- Rehabilitate Kelsey Creek Detention Structure
- Improve Water Demand Estimates

- Investigate Recharge Locations and Benefits
- Investigate Stormwater Capture for In Lieu Use
- Conduct Video Survey of RMS Wells

The Big Valley GSP also recommends developing an aerial electromagnetic study to better understand the extents of the Big Valley Aquifer. The aerial electromagnetic study and the other relevant proposed groundwater capital projects are included in this Stormwater Resources Plan Section 4.0 as potential stormwater resources capital projects.

3.7 ACTIVITIES THAT POLLUTE OR IMPAIR STORMWATER (10562-D7)

The 2023 Clear Lake Watershed Sanitary Survey identifies several activities that pollute or impair stormwater, including erosion of natural soils, agriculture, timber and forestry, septic systems, urban runoff, and urban wastewater. These activities contribute to water quality degradation by introducing pollutants such as sediments, nutrients, and chemicals into the watershed. The survey emphasizes the need for improved management practices to mitigate these impacts and protect the water quality of Clear Lake.

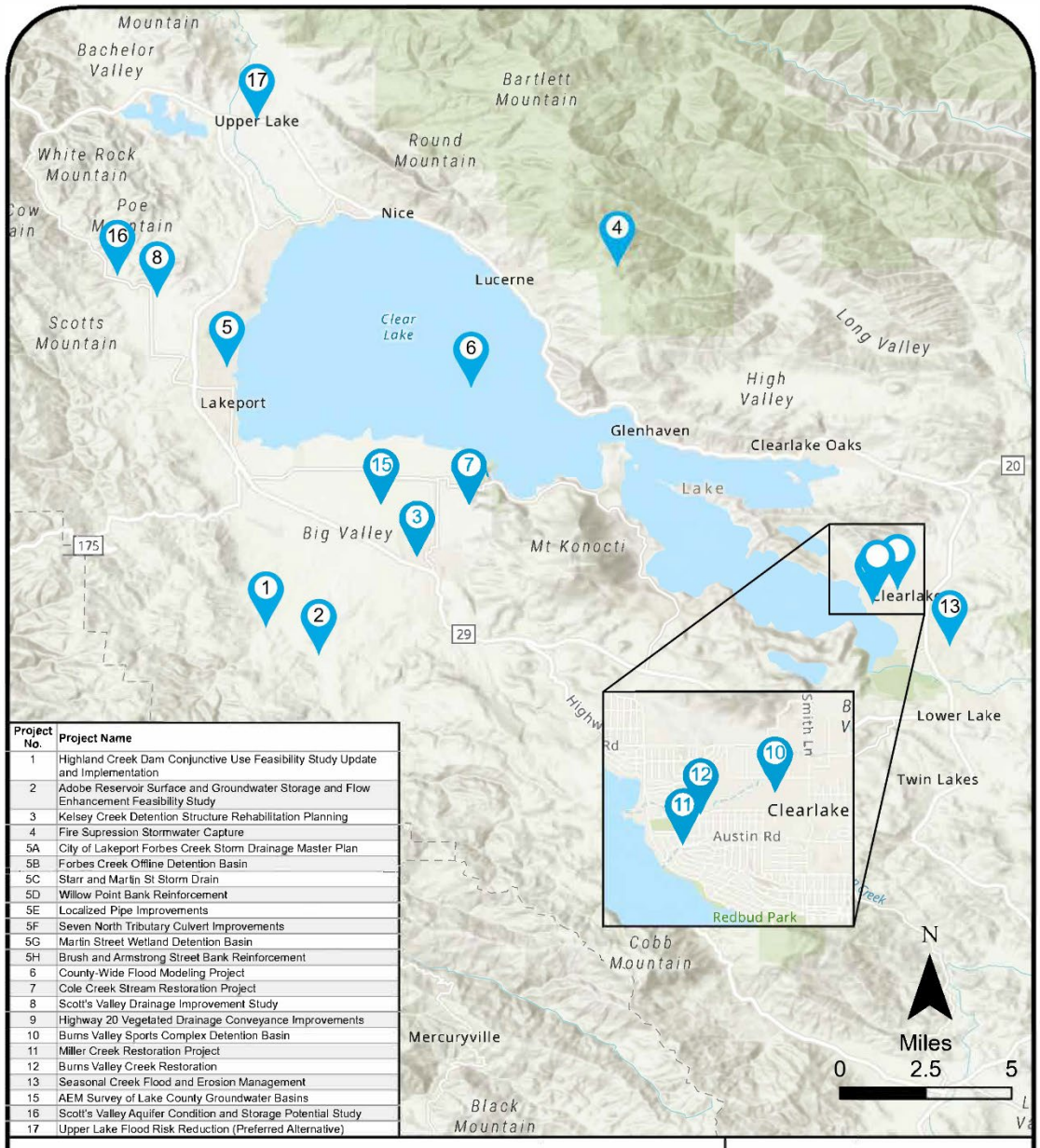
The 2025 Lake County 319 Watershed Plan includes a more in-depth review of the pollution categories that were initially identified in the Sanitary Survey. The pollution categories are further refined as; “Wetland and Vegetative Filtration Loss”, “Hydromodification and Sediment Transport”, “Roadway Runoff”, and “Septage in Runoff”. The report contains background information related to each pollution category as well as typical BMPs. The report also includes recommendations for preparing subsequent planning studies to evaluate each pollution source further and develop actionable projects. One initial capital project has also been developed for each pollution category.

4.0 STORMWATER RESOURCE PROJECT DATABASE

The County of Lake Watershed Protection District issued a public call for stormwater resources projects to include in this Stormwater Resources Plan. A total of 17 potential projects were submitted by various public agencies in Lake County. Those projects are illustrated geographically in Figure 4.1. A narrative description of each project follows.

Table 4.1- Stormwater Resource Project Database Overview

Project No	Project Title	Project Phase	Grant Request $ / Est. Project Cost	Submitting Agency
1	Highland Creek Dam Conjunctive Use Feasibility Study Update and Implementation	Planning	$700K	County of Lake Watershed Protection
2	Adobe Reservoir Surface and Groundwater Storage and Flow Enhancement Feasibility	Planning	$335K	County of Lake Watershed Protection
3	Kelsey Creek Detention Structure Rehabilitation Planning	Planning	$220K	County of Lake Watershed Protection
4	Fire Supression Stormwater Capture	Planning	$85K	County of Lake
5A	City of Lakeport Forbes Creek Storm Drainage Master Plan	Planning	$250K	City of Lakeport
5B	Forbes Creek Offline Detention Basin	Implementation	$10.2M	
5C	Starr and Martin St Storm Drain	Implementation	$7.2M	
5D	Willow Point Bank Reinforcement	Implementation	$4.7M	
5E	Localized Pipe Improvements	Implementation	$1.0M	
5F	Seven North Tributary Culvert Improvements	Implementation	$0.8M	
5G	Martin Street Wetland Detention Basin	Implementation	$0.6M	
5H	Reinforcement	Implementation	$0.3M	
6	County-Wide Flood Modeling Project	Planning	$200K	County of Lake
7	Cole Creek Stream Restoration Project	Planning/ Design	$180K	County of Lake Watershed Protection
8	Scott's Valley Drainage Improvement Study	Planning	$220K	County of Lake Special Districts
9	Highway 20 Vegetated Drainage Conveyance Improvements	Design	$45K	Redbud Audubon Society/
10	Burns Valley Sports Complex Detention Basin	Implementation		City of Clearlake
11	Miller Creek Restoration Project	Design/ Implementation	$20K- Design $180K- Const.	City of Clearlake
12	Burns Valley Creek Restoration	Design/ Construction	$25K- Design $250K- Const.	
13	Seasonal Creek Flood and Erosion Management	Design/ Construction	$35K- Design $250K-	City of Clearlake
15	AEM Survey of Lake County Groundwater Basins	Planning	$350K	County of Lake Watershed Protection
16	Scott's Valley Aquifer Condition and Storage Potential Study	Planning	$125K	County of Lake Watershed Protection
17	Upper Lake Flood Risk Reduction (Preferred Alternative)	Implementation		County of Lake Watershed Protection



Project No.	Project Name
1	Highland Creek Dam Conjunctive Use Feasibility Study Update and Implementation
2	Adobe Reservoir Surface and Groundwater Storage and Flow Enhancement Feasibility Study
3	Kelsey Creek Detention Structure Rehabilitation Planning
4	Fire Supression Stormwater Capture
5A	City of Lakeport Forbes Creek Storm Drainage Master Plan
5B	Forbes Creek Offline Detention Basin
5C	Starr and Martin St Storm Drain
5D	Willow Point Bank Reinforcement
5E	Localized Pipe Improvements
5F	Seven North Tributary Culvert Improvements
5G	Martin Street Wetland Detention Basin
5H	Brush and Armstrong Street Bank Reinforcement
6	County-Wide Flood Modeling Project
7	Cole Creek Stream Restoration Project
8	Scott's Valley Drainage Improvement Study
9	Highway 20 Vegetated Drainage Conveyance Improvements
10	Burns Valley Sports Complex Detention Basin
11	Miller Creek Restoration Project
12	Burns Valley Creek Restoration
13	Seasonal Creek Flood and Erosion Management
15	AEM Survey of Lake County Groundwater Basins
16	Scott's Valley Aquifer Condition and Storage Potential Study
17	Upper Lake Flood Risk Reduction (Preferred Alternative)

Figure 4.1- Potential Project Locations

Lake County Stormwater Resources Plan

Survey Submission Locations

California Rural Water Association

Date Exported: 3/17/2025

NO. 1- HIGHLAND CREEK DAM CONJUNCTIVE USE FEASIBILITY STUDY

Project Description

This proposed project would consist of an update to the conjunctive use project plan that would evaluate modifying the Highland Dam in structure and operation to provide additional water storage for flow augmentation downstream when needed for hitch spawning, hatch, and migration.

The project will focus on conjunctive use planning, preliminary design, and permitting that supports the improved operation of Highland Spring Reservoir, which is a "medium priority" action item in the Big Valley Groundwater Basin approved Groundwater Sustainability Plan. The project will review the conjunctive use assessment from 2002 ("The Adobe Creek Conjunctive Use Feasibility Study - 2002") that will include updated planning and designs for the infrastructure at Highland Springs Dam (i.e. gates and spillways) and release operation guidance for the Highland Spring Reservoir on Highland Creek which tributes to Adobe Creek.

Water Quality Analysis

This proposed project would have a limited impact on downstream water quality

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	This proposed plan would support future groundwater recharge and infiltration in the Big Valley Aquifer by leveraging the Highland Creek Reservoir for conjunctive use.
Interflow	Interflow would ultimately be affected when conjunctive use is implemented.

Stormwater Capture and Use Analysis

This proposed project would support optimizing operation of the Highland Creek Dam to leverage stormwater for groundwater recharge and downstream flow augmentation.

Water Supply and Flood Control Analysis

This proposed planning project would support an increase the total water supply in the Big Valley Aquifer. This proposed planning project may also provide flood control benefits by regulating the flow downstream of the dam.

Environmental and Community Benefits Analysis

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The proposed project would enhance the Big Valley Aquifer storage.

NO. 2- ADOBE RESERVOIR SURFACE AND GROUNDWATER STORAGE AND FLOW ENHANCEMENT FEASIBILITY STUDY

Project Description

The purpose of this proposed project is to determine the viability of a modifying the Adobe Creek reservoir (in structure, size, and operation) to determine whether its storage capacity and operation can be augmented to increase and enhance:

- Surface Water Storage of Adobe Reservoir
- Groundwater storage and recharge
- Environmental stream flow downstream to Adobe Creek to maintain flows sufficient for mid to late season Clear Lake Hitch spawning and hatch

Water Quality Analysis

This proposed project would have a limited impact on downstream water quality

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	This proposed plan would support future groundwater recharge and infiltration in the Big Valley Aquifer by leveraging the Adobe Creek Reservoir for conjunctive use.
Interflow	Interflow would ultimately be affected when conjunctive use is implemented.

Stormwater Capture and Use Analysis

This proposed project would support optimizing operation of the Adobe Creek Dam to leverage stormwater for groundwater recharge and downstream flow augmentation.

Water Supply and Flood Control Analysis

This proposed planning project would support an increase the total water supply in the Big Valley Aquifer. This proposed planning project may also provide flood control benefits by regulating the flow downstream of the dam.

Environmental and Community Benefits Analysis

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The proposed project would enhance the Big Valley Aquifer storage.

NO. 3- KELSEY CREEK DETENTION STRUCTURE REHABILITATION PLANNING

Project Description

The Rehabilitation of the Kelsey Creek Detention Structure (KCD Structure) involves repair and replacement as it relates to the middle gate structure. KCD structure has been in operation since 1992. When operating the KCD Structure as designed, improve the natural form and functions of the creek which will benefit the riparian habitat, which plays a crucial role in the spawning habitat of the Clear Lake hitch. Additionally, this project will fund the installation of several stream flow telemetry gages above and downstream to provide valuable water flow and water saturation information to build out the knowledge needed to better understand and monitor the groundwater and surface water interactions on Kelsey Creek.

The purpose of the KCD Structure is to retain water for groundwater recharge which additionally will support downstream flows for migrating hitch and associated habitat. This project will ensure the continued proper operation of the KCD detention structure and the data collection tools needed to monitor that the structure if operation properly and as intended. The KCD Structure is a key piece of surface and groundwater management infrastructure that provides essential water for multi-use in a Severely Disadvantaged Community, a major agriculture center for the County, and a region that has suffered from water scarcity and drought impacts.

This project will support the recruitment of specialized contractor(s) to repair and maintain the detection structure and to install and calibrate the stream gages and verify the data upload and management of the produced data. All data collected during this project will be shared to a publicly accessible state data warehouse.

Outreach with the surrounding community will be included in this project in the form of project updates via in-person or virtual webinars and the production and distribution of digital and hard copy factsheets / infographics. Signage may also be needed and included in the outreach budget.

Water Quality Analysis

This proposed project would have a limited impact on downstream water quality.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	This project would promote groundwater recharge and infiltration by optimizing the use of the Kelsey Creek Detention Structure.

Stormwater Capture and Use Analysis

This proposed project would support optimizing operation of the Adobe Creek Dam to leverage stormwater for groundwater recharge and downstream flow augmentation.

Water Supply and Flood Control Analysis

This proposed capital project would support an increase the total water supply in the Big Valley Aquifer through the use of groundwater recharge. This proposed planning project may also provide flood control benefits by regulating the flow downstream of the detention structure.

NO. 4- FIRE SUPRESSION STORMWATER CAPTURE

Project Description

This proposed project would include the development of a plan to make stormwater available for use in fire suppression efforts in an environment with high fire risk. The project includes first identifying areas where water for fire suppression is minimal or nonexistent, then planning for stormwater capture, filtration and storage. With implementation of meter.me technology, real-time water capacity information can be accessed by fire fighters.

Water Quality Analysis

Water quality is not largely affected by this project.

Parameter	Project Impact Description
Overland Flow	Overland stormwater flow would be collected and made available for fire suppression efforts.

Stormwater Capture and Use Analysis

This project would capture stormwater for use in fire suppression efforts by implementing a filtration and storage system in areas where fire control water availability is limited or non-existent.

Water Supply and Flood Control Analysis

This project would develop a supply of reclaimed stormwater for fire suppression use.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of property damage due to fire.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Habitat protection would be encouraged through the improvement of firefighting resources, reducing fire severity when it does happen and improving habitat resiliency.

NO. 5A- CITY OF LAKEPORT FORBES CREEK STORM DRAINAGE MASTER PLAN IMPLEMENTATION

Project Description

This project, proposed by the City of Lakeport, aims to plan necessary improvements to the Forbes Creek drainage basin near Lakeport, CA. The project includes improvements to existing infrastructure, wetlands restoration, and increasing storm drainage capacity. The project has an estimated cost of $250k.

Water Quality Analysis

Water quality would be improved through the creation of wetlands and drainage management.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing floodwaters.
Interflow	-
Evapotranspiration	Evapotranspiration would be improved through development of wetlands.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	Biological and chemical contamination risk of watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The proposed project includes maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be controlled through necessary infrastructure improvements. Water quality would be improved through reduced runoff.

Environmental and Community Benefits Analysis

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the development of wetlands and reduction of erosion due to floodwater.
Increased Urban Green Space	Urban green space would be increased through infrastructure improvements and wetland development.
Public Use Area Enhancement	Improvements to roads would increase public use.
Reduced Energy Use	-

NO. 5B- CITY OF LAKEPORT FORBES CREEK OFFLINE DETENTION BASIN

Project Description

This project, proposed by the City of Lakeport, aims to create an offline detention basin to reduce flood risks associated with high water levels in Forbes Creek. The project has an estimated cost of $10.2M.

Water Quality Analysis

Water quality would be improved through the creation of wetlands and drainage management.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing of floodwaters.
Interflow	-
Evapotranspiration	Evapotranspiration would be improved through development of wetlands.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The proposed project includes maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be controlled through necessary infrastructure improvements. Water quality would be improved through reduced runoff.

Environmental and Community Benefits Analysis

The environment and community would benefit from increased urban green space from wetland restoration and reduced flood risk.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the development of wetlands and reduction of erosion due to floodwater.
Increased Urban Green Space	Urban green space would be increased through infrastructure improvements and wetland development.
Public Use Area Enhancement	-
Reduced Energy Use	-

NO. 5C- CITY OF LAKEPORT STARR AND MARTIN ST. STORM DRAIN IMPROVEMENTS

Project Description

This project, proposed by the City of Lakeport, aims to plan necessary improvements to the Forbes Creek drainage basin near Lakeport, CA. The project aims to increase storm drainage capacity to address flooding. The project has an estimated cost of $7.2M.

Water Quality Analysis

Water quality is improved through the creation of wetlands and drainage management.

Parameter	Project Impact Description
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing floodwaters.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of the watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The project includes maximizing stormwater drainage efficiency.

Water Supply and Flood Control Analysis

The floodwaters would be controlled through necessary infrastructure improvements. Water quality would be improved through reduced runoff.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the reduction of erosion due to floodwater.

NO. 5D- CITY OF LAKEPORT WILLOW POINT BANK REINFORCEMENT

Project Description

This project, proposed by the City of Lakeport, aims to plan necessary improvements to the Forbes Creek drainage basin near Lakeport, CA. The project includes reinforcing failing bank structures near Willow Point Bridge and addressing critical structural deficiencies. The project has an estimated cost of $4.7M.

Water Quality Analysis

Water quality would be improved through the reduction of erosion.

Parameter	Project Impact Description
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The risk of biological and chemical contamination of the watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The proposed project includes maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be controlled through necessary infrastructure improvements. Water quality would be improved through reduced runoff.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the reduction of erosion due to floodwater.
Increased Urban Green Space	-
Public Use Area Enhancement	-
Reduced Energy Use	-

NO. 5E- CITY OF LAKEPORT LOCALIZED PIPE IMPROVEMENTS

Project Description

This project, proposed by the City of Lakeport, targets small-scale pipe deficiencies to mitigate localized flooding issues throughout the Forbes Creek and surrounding neighborhoods. The project has an estimated cost of $1M.

Water Quality Analysis

Water quality would be improved through drainage management.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing of floodwaters.
Interflow	-
Evapotranspiration	-
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of the watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The project would include maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be managed through necessary infrastructure improvements.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the reduction of erosion due to floodwater.
Public Use Area Enhancement	Improvements to roads would increase public use.

NO. 5F- CITY OF LAKEPORT SEVEN NORTH TRIBUTARY CULVERT IMPROVEMENTS

Project Description

This project, proposed by the City of Lakeport, aims to plan necessary improvements to the Forbes Creek drainage basin near Lakeport, CA. The project includes the enhancement of capacity of culverts along the North Tributary to address frequent flooding issues. The project has an estimated cost of $0.8M.

Water Quality Analysis

Water quality would be improved through drainage management.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing of floodwaters.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of the watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The proposed project includes maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be controlled through necessary infrastructure improvements.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the reduction of erosion due to floodwater and culvert restoration.
Increased Urban Green Space	Urban green space would be increased through infrastructure improvements and wetland development.

NO. 5G- CITY OF LAKEPORT MARTIN STREET WETLAND DETENTION BASIN

This project, proposed by the City of Lakeport, aims to plan necessary improvements to the Forbes Creek drainage basin near Lakeport, CA. The project includes construction of a wetland detention basin to manage stormwater runoff and enhance flood control. The project has an estimated cost of $0.6M.

Water Quality Analysis

Water quality is improved through the creation of wetlands and drainage management.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing of floodwaters.
Interflow	-
Evapotranspiration	Evapotranspiration would be improved through development of wetlands.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The project includes maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be controlled through necessary infrastructure improvements.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the development of wetlands and reduction of erosion due to floodwater.
Increased Urban Green Space	Urban green space would be increased through infrastructure improvements and wetland development.

NO. 5H- CITY OF LAKEPORT BRUSH AND ARMSTRONG ST. BANK REINFORCEMENTS

This project, proposed by the City of Lakeport, aims to plan necessary improvements to the Forbes Creek drainage basin near Lakeport, CA. The project focuses on repairing failing retaining walls along Forbes Creek in critical locations to improve structural integrity. The project has an estimated cost of $0.3M.

Water Quality Analysis

Water quality would be improved through the creation of wetlands and drainage management.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing of floodwaters.
Interflow	-
Evapotranspiration	Evapotranspiration would be improved through development of wetlands.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of the watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

The proposed project would include maximizing stormwater drainage.

Water Supply and Flood Control Analysis

Floodwaters would be controlled through necessary infrastructure improvements.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the reduction of erosion due to floodwater.
Increased Urban Green Space	Urban green space would be increased through infrastructure improvements and wetland development.

NO. 6- COUNTY-WIDE FLOOD MODELING PROJECT

Project Description

The County of Lake is seeking funding for scenario modeling for ARkStorm 2.0. Because atmospheric river storms are the norm, and extensive flooding has happened before, the County needs a model for this scenario for planning purposes. The project has an estimated cost of $200k.

Water Quality Analysis

Water quality would be improved through informed management of stormwater.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved through capturing of floodwaters.
Evapotranspiration	Evapotranspiration would be improved through development of wetlands.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced with flood control.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced with flood control.
Chemical and Biological Transformation	The biological and chemical contamination risk of the watershed would be reduced through flood control.

Stormwater Capture and Use Analysis

Stormwater capture would be improved through informed management decisions.

Water Supply and Flood Control Analysis

Flood control would be improved through informed management decisions.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

NO. 7- COLE CREEK STREAM RESTORATION PROJECT

Project Description

Project funds are needed to initiate planning, engineering and hydrological designs for a stream restoration project for 1.55 miles in Cole Creek, in Lake County, CA Cole Creek is a preferred spawning tributary of Clear Lake for the endemic state-listed Clear Lake Hitch minnow. channel bed loss and subsequent localized flooding. Therefore, funding is needed for the LCWPD to lead the development of a restoration plan for Cole Creek to improve spawning habitat for the Clear Lake Hitch. Restoration plans would include resources and support for local partners to coordinate with experienced engineers to conduct a hydrological study of the impacted Cole Creek system to best inform the creation of a 60-90% design for sediment removal, creek bed recreation, stream bank stabilization, and storm water flow connectivity improvements, to prevent future flood and storm conditions to degrade the restored tributary. Additional funds would be needed to conduct local community outreach and water right or permitting augmentation. The project goal is to develop an appropriate and permitted project plan and design, with community and partner buy-in, which is ready to be funded for implementation and construction.

Figure 4.2- Flooding Near Cole Creek

Water Quality Analysis

Water quality would be improved through the restoration of the Cole Creek system and improved drainage infrastructure prevents contamination and erosion.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge would be improved through flood control and restoration of creek beds.
Interflow	-
Evapotranspiration	Evapotranspiration would be improved through restoration of creek bed.
Delivery of Sediment to Receiving Waters	Sediment delivery to receiving waters would be reduced through improved drainage infrastructure.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced through improved drainage infrastructure.
Chemical and Biological Transformation	The biological and chemical contamination risk of the watershed would be reduced through flood control and restoration of creek bed.

Stormwater Capture and Use Analysis

This proposed project reduces flood severity and manages stormwater impact.

Water Supply and Flood Control Analysis

Flood control would be improved through informed management decisions, and water supply contamination is reduced through restoration of creek bed and infrastructure improvements.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding. The proposed environmental restoration improves urban green space.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Reduction of localized flooding would improve water quality. The environment would be enhanced through restoration of the creek bed protecting the spawning grounds of native fish.

Increased Urban Green Space	Urban green space would be increased through the restoration of creek bed and access improvements.
Public Use Area Enhancement	The creek is made more accessible for public use.

NO. 8- SCOTTS VALLEY DRAINAGE IMPROVEMENT STUDY

Project Description

The Clean Water Program and Special Districts have proposed this project to improve the drainage of the Scotts Valley to prevent flooding. The project includes levee repair, floodplain restoration, and creek clearing. The project has an estimated cost of $220k.

Water Quality Analysis

Water quality would be enhanced through a reduction in contamination and runoff entering the water supply during flood events.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge would be encouraged by improving flood control.
Evapotranspiration	The restoration of the floodplain would improve evapotranspiration.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced by restoration and implementing flood control.
Delivery of Organic Matter to Receiving Waters	Delivery of organic matter would be reduced by implementing erosion control.
Chemical and Biological Transformation	Biological transformation would be encouraged by improving wetland and riparian habitat and reducing erosion.

Stormwater Capture and Use Analysis

Stormwater drainage would be improved through flood control.

Water Supply and Flood Control Analysis

Flood control would be improved with infrastructure improvements.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding and increased urban green space.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	The environment would be enhanced through the development of wetlands and the reduction of erosion due to floodwater.
Increased Urban Green Space	Urban green space would be increased through infrastructure improvements and floodplain restoration.

NO. 9- HIGHWAY 20 VEGETATED DRAINAGE CONVEYANCE IMPROVEMENTS

Project Description

This proposed project includes the design of improvements to the vineyard drainage along Highway 20. Runoff from the vineyards flows into the culvert running parallel with Highway 20, then flows under the road in front of the Shannon Wetland 86 acres. Water then flows directly into the east channel between the parcels and homes in the Clearlake Oaks Keys addition and directly into the lake. There is a high rate of flow with a large mass of debris and high turbidity. Major improvements are needed to improve water quality. This proposed project could potentially include a partnership with USDA NRCS agricultural runoff mitigation grant funds.

Water Quality Analysis

Water quality would be improved through the reduction of chemical and biological runoff entering Clear Lake from vineyards and urban byproducts.

Parameter	Project Impact Description
Overland Flow	Contamination of overland flow would be reduced.
Groundwater Recharge and Infiltration	Contamination of groundwater would be reduced.
Delivery of Sediment to Receiving Waters	Delivery of sediment would be reduced.
Delivery of Organic Matter to Receiving Waters	Delivery of organic matter to Clear Lake would be reduced.
Chemical and Biological Transformation	Chemical and biological contaminants would be reduced.

Stormwater Capture and Use Analysis

This project does not include a stormwater capture component.

Water Supply and Flood Control Analysis

Water supply contamination would be reduced, and flood severity would be reduced.

Environmental and Community Benefits Analysis

The habitat in the project vicinity is improved and contamination is reduced for the waterways adjacent to the Clear Lake keys neighborhood, and drainage of agricultural land is improved.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Water quality would be enhanced through the restoration of wetland habitat and the reduction of contaminants in water supply.
Increased Urban Green Space	Urban green space would be improved through the reduction of contaminants and restoration of wetlands.

NO. 10- BURNS VALLEY SPORTS COMPLEX DETENTION BASIN

Project Description

A 126,500 cubic foot detention basin is proposed to detain storm water originating from the proposed Burns Valley Sports Complex Site. The proposed Burns Valley Sports Complex is a 20-acre development that will provide the community with one full size baseball field, two smaller little league baseball fields, one small Tee-Ball Field, a full-size soccer field, development of an approximately 15,000 square foot recreation center building for use for public events and activities (including sports features, such as basketball and volleyball courts).

Water Quality Analysis

The proposed Burns Valley Sports Complex Detention Basin would improve water quality.

Parameter	Project Impact Description
Overland Flow	Overland flow originating from the proposed impervious surfaces will be detained and treated in the proposed detention basin.
Groundwater Recharge and Infiltration	The detention basin will promote some component of groundwater recharge.
Delivery of Sediment to Receiving Waters	Sediment transport to receiving waters will be reduced by allowing turbid stormwater runoff to slow and deposit sediment in the basin. Organic matter will also be detained in the basin.
Delivery of Organic Matter to Receiving Waters	
Chemical and Biological Transformation	A percentage of nutrients that would be otherwise transported to downstream waters will be biologically transformed by vegetation that is present in the detention basin.

Stormwater Capture and Use Analysis

This proposed project as currently defined does not include a stormwater use component. Based on the nature of funding sources that are available to support the project, the project could be potentially be modified to include a stormwater "retention" basin that would store water year-round and serve a recreational and fire-fighting purpose. The retention basin could also provide a source of reclaimed irrigation water for the proposed park.

Water Supply and Flood Control Analysis

This proposed project limits downstream flooding to some extent by slowing down the release of water downstream in a storm event.

Environmental and Community Benefits Analysis

This proposed project has a significant potential community benefit by supporting the development of a sports and recreational complex serving a low-income disadvantaged community.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	This proposed project would protect downstream water bodies from any constituents contained in stormwater runoff.
Increased Urban Green Space	This proposed project would provide a net increase in urban green space within a disadvantaged community.
Public Use Area Enhancement	This proposed project would open-up additional opportunities for public use of lands.

NO. 11- MILLER CREEK RESTORATION PROJECT

Project Description

This project was proposed by the City of Clearlake. The project includes the improvement a 0.5 mile section of Miller Creek, which flows through a series of culverts and ultimately drains into Clear Lake. This proposed project includes addressing historic drainage challenges and failing creek slopes. The project also includes weed management, debris removal, and has a restoration component. The estimated project cost is $20K for design and $180K for implementation.

Figure 4.3- Miller Creek Stormwater Inlet and Invasive Thistle Vegetation

Water Quality Analysis

This proposed project would enhance Clear Lake water quality by reducing suburban constituent transport and sediment uptake in the lower reach of Miller Creek.

Parameter	Project Impact Description
Evapotranspiration	Restoration of native vegetation would result in improved evapotranspiration.
Delivery of Sediment to Receiving Waters	Delivery of sediment would be reduced by strengthening creek slopes that are eroding.
Chemical and Biological Transformation	Biological transformation would be enhanced by encouraging the population of native vegetative species.

Stormwater Capture and Use Analysis

This proposed project does not include a stormwater capture component.

Water Supply and Flood Control Analysis

This proposed project would minimize local suburban flooding by providing adequately sized culverts and conducting drainage enhancements.

Environmental and Community Benefits Analysis

This project would enhance the environment by removing debris and restoring native vegetation. This project includes improving urban green space and creek access.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Environmental enhancement is a component of this project.
Increased Urban Green Space	Urban green space would be improved.
Public Use Area Enhancement	Public access to Miller Creek would be improved.
Reduced Energy Use	-

NO. 12- BURNS VALLEY CREEK RESTORATION

Project Description

This project, proposed by the City of Clearlake, would include the repair of a deteriorating slope along Burns Valley Creek where a damaged rock retaining wall is compromising habitat and water quality. The estimated project cost is $25k for planning and $250k for construction and implementation.

Figure 4.4- Failed Retaining Wall Near Burns Valley Creek.

Water Quality Analysis

The proposed project would improve water quality by removing debris and reducing erosion and runoff.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge and infiltration would be improved by removing impermeable debris and improving creek bed resiliency.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced by improving creek bank resiliency and clearing debris.
Delivery of Organic Matter to Receiving Waters	Delivery of organic matter would be minimized by stabilizing slopes, reducing erosion and sediment runoff into Clearlake.
Chemical and Biological Transformation	Biological transformation would be encouraged by stabilizing slope and removing debris, improving riparian habitat quality.

Stormwater Capture and Use Analysis

This project does not include a stormwater capture component.

Water Supply and Flood Control Analysis

This project improves flood resiliency by stabilizing slopes along creek bed.

Environmental and Community Benefits Analysis

The community benefits from infrastructure improvements and minimized hydromodification.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	This project would improve habitat quality by removing debris and stabilizing slopes.
Increased Urban Green Space	This project would improve urban green space by removing debris from failing wall, minimizing hydromodification
Public Use Area Enhancement	Public use would be encouraged by the removal of hydromodification, and the habitat in the vicinity would be improved from stabilizing slopes.

NO. 13-SEASONAL CREEK FLOOD AND EROSION CONTROL

Project Description

This project, proposed by the City of Clearlake, will implement flood control and restoration strategies. The project will reduce erosion risk for two creeks in Clearlake that seasonally flood, inundating roads and private properties. The project has an estimated cost of $35k for design and $250k for implementation.

Water Quality Analysis

This proposed project would improve water quality by implementing flood control, reducing runoff and sediment flow, and improving riparian habitat.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	Groundwater recharge would be encouraged by improving flood control and restoring wetlands.
Evapotranspiration	Restoration of the creek would improve evapotranspiration.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced by restoring the creek and implementing flood control.
Delivery of Organic Matter to Receiving Waters	Delivery of organic matter would be reduced by implementing erosion control.
Chemical and Biological Transformation	Biological transformation would be encouraged by improving wetland and riparian habitat and reducing erosion.

Stormwater Capture and Use Analysis

This project does not include a stormwater capture component.

Water Supply and Flood Control Analysis

This proposed project reduces flood risk of roadways and private property.

Environmental and Community Benefits Analysis

Habitat restoration improves environmental quality. The project benefits the community by reducing flood risk and enhancing riparian habitat.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Environment is enhanced by restoration riparian habitat. Water quality would be improved by implementing flood control and reducing runoff and sediment flow.
Increased Urban Green Space	Urban green space would be improved from restoration of riparian habitat.

NO. 15- AEM SURVEY OF LAKE COUNTY'S GROUNDWATER BASINS

Project Description

This proposed project will follow existing successes in using Airborne Electromagnetic surveying technology (AEM) to research Clear Lake's groundwater availability. This information is crucial for ensuring sustainable growth and preparing for an uncertain climatic future. The project is proposed by the Lake County Watershed Protection District, and has an estimated cost of $300k.

Water Quality Analysis

This project will provide valuable data to assist in future planning and restoration efforts.

Parameter	Project Impact Description
Overland Flow	Overland flow would be better understood through the collection of groundwater data.
Groundwater Recharge and Infiltration	Recharge and infiltration would be better understood through the collection of groundwater data.
Interflow	Interflow would be better understood through the collection of groundwater data.

Stormwater Capture and Use Analysis

This project does not include a stormwater capture component but will allow for a better understanding of stormwater percolation.

Water Supply and Flood Control Analysis

This project allows for the collection of valuable data on the location and size of the Clear Lake watershed's groundwater supplies.

Environmental and Community Benefits Analysis

The community would benefit from informed management decisions.

Figure 4.5- Planned Extent for AEM survey of the Clear Lake Basin

NO. 16- EVALUATION OF AQUIFER CONDITION AND STORAGE POTENTIAL IN SCOTTS VALLEY

Project Description

This project, proposed by the County of Lake Watershed Protection District, will evaluate the local aquifer conditions and storage potential in Scotts Valley. Future development of groundwater supplies may be required to provide water security for the residents and farmers of Scotts Valley. Securing groundwater resources will allow surface water to stay in Clear Lake, providing additional ecosystems services and improving the overall health of the system. The potential impacts of developing local groundwater resources will be assessed in regard to the aquifer system, streams, creeks, groundwater dependent ecosystems, current groundwater pumpers and inflows into Clear Lake. The project has an estimated cost of $125K.

Water Quality Analysis

This project will allow for a greater understanding of aquifer condition and storage potential, informing future management decisions that could impact water quality.

Parameter	Project Impact Description
Overland Flow	Overland flow would be better understood through the collection of groundwater data.
Groundwater Recharge and Infiltration	Recharge and infiltration would be better understood through the collection of groundwater data.
Interflow	Interflow would be better understood through the collection of groundwater data.

Stormwater Capture and Use Analysis

This project does not include a stormwater capture component, however, if implemented it will allow for a better understanding of stormwater percolation.

Water Supply and Flood Control Analysis

The project will result in a better understanding of Scott's Valley water supply and aquifer conditions, informing management decisions.

Environmental and Community Benefits Analysis

The community would benefit from improved stormwater management.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Environment and water quality would be enhanced through a deeper understanding of aquifer conditions. Future management decisions would also be informed.

NO. 17- UPPER CLEAR LAKE FLOOD RISK REDUCTION

Project Description

This project, proposed by the County of Lake Watershed Protection District, includes the implementation of planned flood management infrastructure. The Flood Risk Reduction Feasibility Study prepared by PBI on behalf of The County of Lake identifies a need to reduce flood risk to the community of Upper Lake. A total of 11 capital project alternatives are considered for flood risk management. The preferred project alternative has an estimated cost of $11M.

Water Quality Analysis

Water quality would be enhanced through a reduction in contamination and runoff entering the water supply during flood events.

Parameter	Project Impact Description
Overland Flow	-
Groundwater Recharge and Infiltration	The project would improve groundwater recharge and infiltration through flood management.
Delivery of Sediment to Receiving Waters	Sediment delivery would be reduced by reducing flood severity.
Delivery of Organic Matter to Receiving Waters	Organic matter delivery would be reduced by reducing flood severity.
Chemical and Biological Transformation	Biological and chemical pollutants would be reduced by improved flood management.

Water Supply and Flood Control Analysis

This proposed project would reduce flood risk in Upper Lake.

Environmental and Community Benefits Analysis

The community would benefit from a reduced risk of flooding.

Parameter	Project Impact Description
Water Quality, Environmental Enhancement, or Habitat Protection	Water quality and the environment would be enhanced through reduced pollution.
Public Use Area Enhancement	Private and public property damage from flooding would be reduced. This reduction in property damage would be a significant community benefit.

5.0 STORMWATER RESOURCE PROJECT RANKING

An integrated metrics-based analysis has been prepared in accordance with the 2015 SWRCB SWRP Guidelines. This report section uses quantifiable factors to rank the proposed projects that are included in the plan database. Table 5.1 illustrates the primary benefits that have been identified for each proposed project along with "multi-project benefits" as defined by the California SWRCB. For each project, a score has been calculated to reflect the percentage of multi-project benefits that are a part of the project. This score is illustrated in the white column on the far right of the table.

Table 5.2 illustrates the prioritizing criteria as identified on pages 29 and 30 of the 2015 SWRCB SWRP Guidelines as related to each project. The criteria listed in the table are used to calculate a "weighted average" score for each proposed project. The various projects are assigned a score between 0 and 100 for each category. If a component is not part of the project, the project is assigned a score of "0" for that component. If a component is a part of the project, the project is assigned a score of "100" for that component. Then the weighted average is calculated for each project using the criteria importance weight listed at the top of the table. The resulting weighted project score can be used to prioritize projects for future grant funding.

Table 5.1- Primary Project Benefits and Multi-Project Benefits

COLOR LEGEND
Water Quality
Water Supply
Flood Management
Environmental
Community

Project No.	Project Name	Primary Project Benefits					Multi-Project Benefits													
		Improves Water Quality	Enhances Water Supply	Improves Flood Management	Enhances Local Environment	Provides Community Benefits	Creates or Restores Wetlands	Riverside (Riparian) Habitats	Instream Flows	Increase in Park and Rec. Lands	Urban Green Space	Recreation Opportunities	Increases Tree Canopy	Reduces Heat Island Effect	Improves Air Quality	Maximizes Water Quality	Maximizes Flood Management	Maximizes Environmental Benefits	Other Community Benefits	**Multi-Project Benefit Score**
1	Highland Creek Dam Conjunctive Use Feasibility Study Update and Implementation	✓	✓	✓	✓	✓			✓						✓		✓			**23**
2	Adobe Reservoir Surface and Groundwater Storage and Flow Enhancement Feasibility Study	✓	✓	✓	✓	✓			✓						✓		✓			**23**
3	Kelsey Creek Detention Structure Rehabilitation	✓	✓	✓	✓	✓			✓						✓		✓			**23**
4	Fire Supression Stormwater Capture		✓	✓		✓			✓						✓	✓	✓			**23**
5A	City of Lakeport Forbes Creek Storm Drainage Master Plan	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓		✓	✓	✓	✓	**69**
5B	Forbes Creek Offline Detention Basin	✓		✓	✓	✓	✓	✓	✓		✓			✓		✓	✓	✓	✓	**69**
5C	Starr and Martin St Storm Drain	✓		✓	✓	✓										✓	✓	✓	✓	**31**
5D	Willow Point Bank Reinforcement	✓		✓	✓											✓	✓	✓	✓	**31**
5E	Localized Pipe Improvements	✓		✓		✓										✓	✓	✓	✓	**31**
5F	Seven North Tributary Culvert Improvements	✓		✓	✓	✓										✓	✓	✓	✓	**31**
5G	Martin Street Wetland Detention Basin	✓		✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	**85**
5H	Brush and Armstrong Street Bank Reinforcement	✓		✓	✓	✓										✓	✓	✓	✓	**31**
6	County-Wide Flood Modeling Project	✓		✓	✓	✓	✓	✓			✓					✓	✓	✓	✓	**54**
7	Cole Creek Stream Restoration Project	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	**85**
8	Scott's Valley Drainage Improvement Study	✓		✓	✓	✓	✓	✓	✓		✓					✓	✓	✓	✓	**62**
9	Highway 20 Vegetated Drainage Conveyance Improvements	✓		✓	✓	✓	✓	✓	✓		✓					✓	✓	✓	✓	**62**
10	Burns Valley Sports Complex Detention Basin	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	**85**
11	Miller Creek Restoration Project	✓		✓	✓	✓	✓	✓			✓			✓		✓	✓	✓	✓	**62**
12	Burns Valley Creek Restoration	✓		✓	✓	✓	✓	✓	✓		✓					✓	✓	✓	✓	**62**
13	Seasonal Creek Flood and Erosion Management	✓		✓	✓	✓	✓	✓	✓		X					✓	✓	✓	✓	**54**
15	AEM Survey of Lake County Groundwater Basins		✓	✓	✓											✓	✓	✓	✓	**31**
16	Scott's Valley Aquifer Condition and Storage Potential Study		✓	✓	✓											✓	✓	✓	✓	**31**
17	Upper Lake Flood Risk Reduction (Preferred Alternative)	✓	✓	✓	✓	✓	✓	✓	✓							✓	✓	✓	✓	**54**

Table 5.2- Weighted Project Score Derivation

COLOR LEGEND
Water Quality
Water Supply
Flood Management
Environmental
Community

Project No.	Project Name	Local Funding	Multi-Benefit Score	Public Ownership of Lands	Local Water Supplies	Watershed Enhancement	DAC Benefit	Restoration of Green Space	Flood Management	Weighted Project Score
	Criteria Importance (1-5)	2	2	1	5	2	1	1	2	-
1	Highland Creek Dam Conjunctive Use Feasibility Study Update and Implementation	0	23	100	100	100	100	0	100	**72**
2	Storage and Flow Enhancement Feasibility Study	0	23	100	100	100	100	0	100	**72**
3	Kelsey Creek Detention Structure Rehabilitation	0	23	100	100	100	100	0	100	**72**
4	Fire Supression Stormwater Capture	0	23	100	100	100	100	0	100	**72**
5A	City of Lakeport Forbes Creek Storm Drainage Master Plan	0	69	100	100	100	100	100	100	**84**
5B	Forbes Creek Offline Detention Basin	0	69	100	0	0	100	100	100	**40**
5C	Starr and Martin St Storm Drain	0	31	100	0	100	100	0	100	**41**
5D	Willow Point Bank Reinforcement	0	31	100	0	100	100	0	100	**41**
5E	Localized Pipe Improvements	0	31	100	0	0	100	0	100	**29**
5F	Seven North Tributary Culvert Improvements	0	31	100	0	100	100	0	100	**41**
5G	Martin Street Wetland Detention Basin	0	85	100	0	100	100	100	100	**54**
5H	Brush and Armstrong Street Bank Reinforcement	0	31	100	0	100	100	0	100	**41**
6	County-Wide Flood Modeling Project	0	54	100	0	100	100	100	100	**50**
7	Cole Creek Stream Restoration Project	100	85	100	0	100	100	100	100	**67**
8	Scott's Valley Drainage Improvement Study	0	62	100	0	100	100	100	100	**51**
9	Highway 20 Vegetated Drainage Conveyance Improvements	100	62	100	0	100	100	100	100	**64**
10	Burns Valley Sports Complex Detention Basin	100	85	100	100	0	100	100	100	**86**
11	Miller Creek Restoration Project	0	62	100	0	100	100	100	100	**51**
12	Burns Valley Creek Restoration	0	62	100	0	100	100	100	100	**51**
13	Seasonal Creek Flood and Erosion Management	0	54	100	0	100	100	100	100	**50**
15	AEM Survey of Lake County Groundwater Basins	100	31	100	100	100	100	0	100	**85**
16	Scott's Valley Aquifer Condition and Storage Potential Study	0	31	100	100	100	100	0	100	**73**
17	Upper Lake Flood Risk Reduction (Preferred Alternative)	0	54	100	100	0	100	0	100	**63**

ATTACHMENT A- CA WATER CODE SECTION 10560

This text has been reproduced from California Code, WAT 10561 as accessed January 15th, 2025.

CA Water Code Section 10560

This part shall be known and may be cited as "The Stormwater Resource Planning Act."

CA Water Code Section 10561

The Legislature hereby finds and declares all of the following:

(a) In many parts of the state stormwater and dry weather runoff are underutilized sources of surface water and groundwater supplies. Instead of being viewed as a resource, they are often seen as a problem that must be moved to the ocean as quickly as possible or as a source of contamination, contributing to a loss of usable water supplies and the pollution and impairment of rivers, lakes, streams, and coastal waters.

(b) Improved management of stormwater and dry weather runoff, including capture, treatment, and reuse by using the natural functions of soils and plants, can improve water quality, reduce localized flooding, and increase water supplies for beneficial uses and the environment.

(c) Most of California's current stormwater drainage systems are designed to capture and convey water away from people and property rather than capturing that water for beneficial uses.

(d) Historical patterns of precipitation are predicted to change and an increasing amount of California's water is predicted to fall not as snow in the mountains, but as rain in other areas of the state. This will likely have a profound and transforming effect on California's hydrologic cycle and much of that water will no longer be captured by California's reservoirs, many of which are located to capture snow melt.

(e) When properly designed and managed, the capture and use of stormwater and dry weather runoff can contribute significantly to local water supplies through onsite storage and use, or letting it infiltrate into the ground to recharge groundwater, either onsite or at regional facilities, thereby increasing available supplies of drinking water.

(f) New developments and redevelopments should be designed to be consistent with low-impact development principles to improve the retention, use, and infiltration of stormwater and dry weather runoff onsite or at regional facilities.

(g) Stormwater and dry weather runoff can be managed to achieve environmental and societal benefits such as wetland creation and restoration, riverside habitats, instream flows, and an increase in park and recreation lands, and urban green space.

(h) Stormwater and dry weather runoff management through multiobjective projects can achieve additional benefits, including augmenting recreation opportunities for

communities, increased tree canopy, reduced urban heat island effect, and improved air quality.

(i) Proper planning and implementation is vital to ensure that the water supply and other benefits potentially available through better management of stormwater and dry weather runoff do not come at the expense of diminished water quality.

(j) The capture and use of stormwater and dry weather runoff is not only one of the most cost-effective sources of new water supplies, it is a supply that can often be provided using significantly less energy than other sources of new water supplies.

CA Water Code 10562

(a) One or more public agencies may develop a stormwater resource plan pursuant to this part.

(b) A stormwater resource plan shall:

(1) Be developed on a watershed basis.

(2) Identify and prioritize stormwater and dry weather runoff capture projects for implementation in a quantitative manner, using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed.

(3) Provide for multiple benefit project design to maximize water supply, water quality, and environmental and other community benefits.

(4) Provide for community participation in plan development and implementation.

(5) Be consistent with, and assist in, compliance with total maximum daily load (TMDL) implementation plans and applicable national pollutant discharge elimination system (NPDES) permits.

(6) Be consistent with all applicable waste discharge permits.

(7) Upon development, be submitted to any applicable integrated regional water management group. Upon receipt, the integrated regional water management group shall incorporate the stormwater resource plan into its integrated regional water management plan.

(8) Prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects.

(c) The proposed or adopted plan shall meet the standards outlined in this section. The plan need not be referred to as a "stormwater resource plan." Existing planning documents may be utilized as a functionally equivalent plan, including, but not limited to, watershed management plans, integrated resource plans, urban water management plans, or similar plans. If a planning document does not meet the standards of this section, a collection of local and regional plans may constitute a functional equivalent, if the plans collectively meet all of the requirements of this part.

(d) An entity developing a stormwater resource plan shall identify in the plan all of the following:

(1) Opportunities to augment local water supply through groundwater recharge or storage for beneficial use of stormwater and dry weather runoff.

(2) Opportunities for source control for both pollution and stormwater and dry weather runoff volume, onsite and local infiltration, and use of stormwater and dry weather runoff.

(3) Projects to reestablish natural water drainage treatment and infiltration systems, or mimic natural system functions to the maximum extent feasible.

(4) Opportunities to develop, restore, or enhance habitat and open space through stormwater and dry weather runoff management, including wetlands, riverside habitats, parkways, and parks.

(5) Opportunities to use existing publicly owned lands and easements, including, but not limited to, parks, public open space, community gardens, farm and agricultural preserves, schoolsites, and government office buildings and complexes, to capture, clean, store, and use stormwater and dry weather runoff either onsite or offsite.

(6) Design criteria and best management practices to prevent stormwater and dry weather runoff pollution and increase effective stormwater and dry weather runoff management for new and upgraded infrastructure and residential, commercial, industrial, and public development. These design criteria and best management practices shall accomplish all of the following:

(A) Reduce effective impermeability within a watershed by creating permeable surfaces and directing stormwater and dry weather runoff to permeable surfaces, retention basins, cisterns, and other storage for beneficial use.

(B) Increase water storage for beneficial use through a variety of onsite storage techniques.

(C) Increase groundwater supplies through infiltration, where appropriate and feasible.

(D) Support low-impact development for new and upgraded infrastructure and development using low-impact techniques.

(7) Activities that generate or contribute to the pollution of stormwater or dry weather runoff, or that impair the effective beneficial use of stormwater or dry weather runoff.

(8) Projects and programs to ensure the effective implementation of the stormwater resource plan pursuant to this part and achieve multiple benefits. These projects and programs shall include the development of appropriate decision support tools and the data necessary to use the decision support tools.

(9) Ordinances or other mechanisms necessary to ensure the effective implementation of the stormwater resource plan pursuant to this part.

(e) A stormwater resource plan shall use measurable factors to identify, quantify, and prioritize potential stormwater and dry weather runoff capture projects.

CA Water Code 10563

(a) This part does not interfere with or prevent the exercise of authority by a public agency to carry out its programs, projects, or responsibilities.

(b) This part does not affect requirements imposed under any other law.

(c)

(1) The development of a stormwater resource plan and compliance with this part in accordance with Section 10565 shall be required to receive grants for stormwater and dry weather runoff capture projects from a bond act approved by the voters after January 1, 2014.

(2) This subdivision does not apply to either of the following:

(A) Funds provided for the purpose of developing a stormwater resource plan.

(B) A grant for a disadvantaged community, as defined in Section 79505.5, with a population of 20,000 or less, and that is not a copermittee for a municipal separate stormwater system national pollutant discharge elimination system (NPDES) permit issued to a municipality with a population greater than 20,000.

CA Water Code 10564

For purposes of this part, "low-impact development" means new development or redevelopment projects that employ natural and constructed features that reduce the rate of stormwater runoff, filter out pollutants, facilitate stormwater storage onsite, infiltrate stormwater into the ground to replenish groundwater supplies, or improve the quality of receiving groundwater and surface water.

CA Water Code 10565

By July 1, 2016, the board shall establish guidance for this part that shall include, but is not limited to, the following:

(a) Identifying types of local agencies and nongovernmental organizations that need to be consulted in developing a stormwater resource plan.

(b) Defining appropriate quantitative methods for identifying and prioritizing opportunities for stormwater and dry weather runoff capture projects.

(c) Defining the appropriate geographic scale of watersheds for stormwater resource planning.

(d) Other guidance the board deems appropriate to achieve the objectives of this part.

ATTACHMENT B- REQUIRED STORMWATER RESOURCES ELEMENTS

This document contains language from the California Water Code Section 10560 and corresponding sections of the December 2015 SWRCB Storm Water Resources Plan guidelines self-certification checklist (Appendix A).

CA Water Code 10560 Section	CA Water Code Section 10560 Requirement	Appendix A Self Certification Checklist Section	Appendix A Self Certification Checklist Element	SWRP Section Reference
10562-b1	Develop the plan on a watershed basis	Watershed Identification	Identify watersheds and sub watersheds	Planning area description refers reader to applicable sections of the Lake County 319 Watershed Plan
10562-b2	Identify and prioritize stormwater and dry weather runoff capture projects for implementation in a quantitative manner, using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed.	Identification and Prioritization of Projects	Plan uses appropriate quantitative methods for prioritization of projects. (This should be accomplished by using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed.)	Stormwater resource project database includes project ranking
10562-b3	Provide for multiple benefit project design to maximize water supply, water quality, and environmental and other community benefits.			-
10562-b4	Provide for community participation in plan development and implementation.	Organization, Coordination, Collaboration and Education, Outreach, Public Participation	Community participation was provided for in Plan development.	Call for projects to include in the plan
10562-b5	Be consistent with, and assist in, compliance with total maximum daily load (TMDL) implementation plans and applicable national pollutant discharge elimination system (NPDES) permits.	Water Quality Compliance	Plan describes how it is consistent with and assists in, compliance with total maximum daily load implementation plans and applicable national pollutant discharge elimination system permits.	TMDL and NPDES permits are described in 319 plan. This plan is consistent with permit goals
10562-b6	Be consistent with all applicable waste discharge permits.	Water Quality Compliance	Plan identifies applicable permits and describes how it meets all applicable waste discharge permit requirements.	TMDL and NPDES permits are described in 319 plan. This plan is consistent with permit goals
10562-b7	Upon development, be submitted to any applicable integrated regional water management group. Upon receipt, the integrated regional water management group shall incorporate the stormwater resource plan into its	Implementation Strategy and Schedule	Applicable IRWM plan: The Plan will be submitted, upon development, to the applicable integrated regional water management (IRWM) group for incorporation into the IRWM plan.	-

CA Water Code 10560 Section	CA Water Code Section 10560 Requirement	Appendix A Self Certification Checklist Section	Appendix A Self Certification Checklist Element	SWRP Section Reference
	integrated regional water management plan.			
10562-b8	Prioritize the use of lands or easements in public ownership for stormwater and dry weather runoff projects.	Identification and Prioritization of Projects	Plan identifies opportunities to use existing publicly owned lands and easements, including, but not limited to, parks, public open space, community gardens, farm and agricultural preserves, school sites, and government office buildings and complexes, to capture, clean, store, and use storm water and dry weather runoff either onsite or offsite.	A description of public land opportunities in Lake County is included in the report.
10562-c	The proposed or adopted plan shall meet the standards outlined in this section. The plan need not be referred to as a "stormwater resource plan." Existing planning documents may be utilized as a functionally equivalent plan, including, but not limited to, watershed management plans, integrated resource plans, urban water management plans, or similar plans. If a planning document does not meet the standards of this section, a collection of local and regional plans may constitute a functional equivalent, if the plans collectively meet all of the requirements of this part.			-
10562-d1	Opportunities to augment local water supply through groundwater recharge or storage for beneficial use of stormwater and dry weather runoff.	Identification and Prioritization of Projects	Plan identifies opportunities to augment local water supply through groundwater recharge or storage for beneficial use of storm water and dry weather runoff.	A section has been prepared under "stormwater resources components"
10562-d2	Opportunities for source control for both pollution and stormwater and dry weather runoff volume, onsite and local infiltration, and use of stormwater and dry weather runoff.	Identification and Prioritization of Projects	Plan identifies opportunities for source control for both pollution and dry weather runoff volume, onsite and local infiltration, and use of storm water and dry weather runoff.	A section has been prepared under "stormwater resources components"
10562-d3	Projects to reestablish natural water drainage treatment and infiltration systems, or mimic natural system functions to the maximum extent feasible.	Identification and Prioritization of Projects	Plan identifies projects that reestablish natural water drainage treatment and infiltration systems, or mimic natural system functions to the maximum extent feasible.	A section has been prepared under "stormwater resources components"
10562-d4	Opportunities to develop, restore, or enhance habitat and open space through stormwater and dry weather runoff management, including wetlands, riverside habitats, parkways, and parks.	Identification and Prioritization of Projects	Plan identifies opportunities to develop, restore, or enhance habitat and open space through storm water and dry weather runoff management, including wetlands, riverside habitats, parkways, and parks.	A section has been prepared under "stormwater resources components"

CA Water Code 10560 Section	CA Water Code Section 10560 Requirement	Appendix A Self Certification Checklist Section	Appendix A Self Certification Checklist Element	SWRP Section Reference
10562-d5	Opportunities to use existing publicly owned lands and easements, including, but not limited to, parks, public open space, community gardens, farm and agricultural preserves, schoolsites, and government office buildings and complexes, to capture, clean, store, and use stormwater and dry weather runoff either onsite or offsite.	Identification and Prioritization of Projects	see b8	A section has been prepared under "stormwater resources components"
10562-d6	Design criteria and best management practices to prevent stormwater and dry weather runoff pollution and increase effective stormwater and dry weather runoff management for new and upgraded infrastructure and residential, commercial, industrial, and public development. These design criteria and best management practices shall accomplish all of the following:	Identification and Prioritization of Projects	For new development and redevelopments (if applicable): Plan identifies design criteria and best management practices to prevent storm water and dry weather runoff pollution and increase effective storm water and dry weather runoff management for new and upgraded infrastructure and residential, commercial, industrial, and public development.	A section has been prepared under "stormwater resources components"
10562-d6A	Reduce effective impermeability within a watershed by creating permeable surfaces and directing stormwater and dry weather runoff to permeable surfaces, retention basins, cisterns, and other storage for beneficial use.			A section has been prepared under "stormwater resources components"
10562-d6B	Increase water storage for beneficial use through a variety of onsite storage techniques.			A section has been prepared under "stormwater resources components"
10562-d6C	Increase groundwater supplies through infiltration, where appropriate and feasible.			A section has been prepared under "stormwater resources components"
10562-d6D	Support low-impact development for new and upgraded infrastructure and development using low-impact techniques.			A section has been prepared under "stormwater resources components"
10562-d7	Activities that generate or contribute to the pollution of stormwater or dry weather runoff, or that impair the effective beneficial use of stormwater or dry weather runoff.	Water Quality Compliance	Plan identifies activities that generate or contribute to the pollution of storm water or dry weather runoff, or that impair the effective beneficial use of storm water or dry weather runoff.	A section has been prepared under "stormwater resources components"

CA Water Code 10560 Section	CA Water Code Section 10560 Requirement	Appendix A Self Certification Checklist Section	Appendix A Self Certification Checklist Element	SWRP Section Reference
10562-d8	Projects and programs to ensure the effective implementation of the stormwater resource plan pursuant to this part and achieve multiple benefits. These projects and programs shall include the development of appropriate decision support tools and the data necessary to use the decision support tools.	Implementation Strategy and Schedule	Plan projects and programs are identified to ensure the effective implementation of the storm water resource plan pursuant to this part and achieve multiple benefits. The Plan identifies the development of appropriate decision support tools and the data necessary to use the decision support tools.	A section has been prepared under "stormwater resources components"
10562-d9	Ordinances or other mechanisms necessary to ensure the effective implementation of the stormwater resource plan pursuant to this part.			A section has been prepared under "stormwater resources components"
10562-e	A stormwater resource plan shall use measurable factors to identify, quantify, and prioritize potential stormwater and dry weather runoff capture projects.			Project ranking and a project database is included.
10565-a		Organization, Coordination, Collaboration	Local agencies and nongovernmental organizations were consulted in Plan development.	This was included in public outreach.