



Greenhouse Gas Reduction Plan

Initial Study/Negative Declaration

June 2026

Prepared By:



Greenhouse Gas Reduction Plan

Initial Study/Negative Declaration

Prepared for:

Santa Clara Valley Water District
5750 Almaden Expressway
San José, CA 95118

Contact:

Nick Mascarello
Senior Environmental Planner
Dam Safety & Capital Delivery Division
nmascarello@valleywater.org
(408) 630-3147

Prepared by:

GEI Consultants
11010 White Rock Road, Suite 200
Rancho Cordova, CA 95670

Contact:

Ryan Jolley
Senior Environmental Project Director
rjolley@geiconsultants.com
(916) 596-0790

June 2026

Project No. 2004818

Table of Contents

Abbreviations and Acronyms	iii
1. Introduction	1-1
1.1. Organization of the Document	1-1
1.2. Purpose of the Initial Study	1-1
1.3. Decision to Prepare a Negative Declaration for this Project	1-1
1.4. Public Review Process	1-2
1.5. Interagency Collaboration and Regulatory Review	1-2
1.6. Summary of Findings	1-3
1.7. Terminology	1-3
2. Project Description	2-1
2.1. Plan Overview	2-1
2.2. Plan Components	2-2
2.3. Description of Reduction Measure Projects with Potential for Physical Impacts	2-18
2.4. Avoidance and Minimization Measures	2-27
2.5. Project Permits and Other Approvals	2-32
3. Environmental Evaluation	3-1
3.1. Reduction Measures Dismissed from Further Analysis	3-3
3.2. Aesthetics	3-1
3.3. Agriculture and Forestry Resources	3-4
3.4. Air Quality	3-7
3.5. Biological Resources	3-12
3.6. Cultural Resources	3-19
3.7. Energy	3-23
3.8. Geology and Soils	3-25
3.9. Greenhouse Gas Emissions	3-31
3.10. Hazards and Hazardous Materials	3-37
3.11. Hydrology and Water Quality	3-43
3.12. Land Use and Planning	3-48
3.13. Mineral Resources	3-50
3.14. Noise	3-52
3.15. Population and Housing	3-59
3.16. Public Services	3-60
3.17. Recreation	3-62
3.18. Transportation	3-64
3.19. Tribal Cultural Resources	3-67
3.20. Utilities and Service Systems	3-71
3.21. Wildfire	3-74
3.22. Mandatory Findings of Significance	3-76
4. References	4-1
5. Report Preparers	5-1

List of Tables

Table 1-1.	Summary of Agency Approvals	1-2
Table 2-1.	2017-2021 Valley Water GHG Emissions Inventory by Scope and Sector.....	2-4
Table 2-2.	2017-2021 Valley Water GHG Emissions Inventory by Scope and Sector.....	2-6
Table 2-3.	BAU and Legislative-Adjusted Emissions Forecasts and Targets by Sector (MTCO ₂ e/year) ¹	2-8
Table 2-4.	Proposed GHG Reduction Measures.....	2-17
Table 2-5.	Proposed Electrical Vehicle Charging Stations at Existing Valley Water Facilities.....	2-18
Table 2-6.	Applicable BMPs and AMMs	2-27
Table 2-7.	Expected Project Permits, Approvals, and Consultations	2-32
Table 3.4-1	Attainment Status Designations for Santa Clara County.....	3-8
Table 3.12-1.	Land Use Designation and Zoning of Reduction Measure Project Sites	3-48
Table 3.14-1.	Ground-borne Vibration Impact Criteria for General Assessment for Human Response....	3-53
Table 3.14-2.	Construction Vibration Damage Criteria.....	3-54
Table 3.14-3.	Summary of Local Construction Noise and Vibration Standards	3-55
Table 3.14-4.	Summary of Local Noise Level Limits	3-55
Table 3.14-5.	Typical Construction Equipment Noise Levels	3-56
Table 3.21-1.	Distance to the Closest State Responsibility Area and Very High Fire Hazard Severity Zone	3-75

List of Figures

Figure 2-1.	Plan Area Location	2-3
Figure 2-2.	Valley Water Baseline GHG Emissions (2017-2021 Average).....	2-6
Figure 2-3.	Valley Water GHG Emissions (2014 to 2021)	2-7
Figure 2-4.	Business-As-Usual and Legislative-Adjusted Forecast Emissions Forecasts (MTCO ₂ e/year)	2-10
Figure 2.5.	Legislative-Adjusted Emissions Forecasts by Sector with Targets (MTCO ₂ e/year).....	2-11
Figure 2-6.	Carbon Budget Illustration.....	2-13
Figure 2-7.	Valley Water’s Legislative-Adjusted Forecast, Targets, and Carbon Budget, 2025-2045.....	2-15
Figure 2-8.	EV Charging Station Locations within the Plan Area.....	2-19
Figure 2-9.	Existing Staff and Public Level 2 EV Charger	2-21
Figure 2-10.	Existing Fleet Level 2 EV Charger	2-22
Figure 2-11.	Existing Level 3 EV Charger	2-23
Figure 2-12.	Facility Electrification Locations within the Plan Area	2-26

List of Appendices

Appendix A.	Greenhouse Gas Reduction Plan
Appendix B.	Biological Data
Appendix C.	Response to Comments

Abbreviations and Acronyms

AB	Assembly Bill
AC	alternating current
ADA	American with Disabilities Act
Air District	Bay Area Air District
A[PD]	Agriculture-Planned Development
AMM	avoidance and minimization measure
BAAQMD	Bay Area Air Quality Management District
Basin Plan	San Francisco Bay Basin Plan
BAU	Business-As-usual
BCE	before the current era
BIOS 6 Viewer	Biogeographic Information and Observation System
BMP	Best Management Practice
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CARB	California Air Resources Board
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CALGreen Code	The California Green Building Standards Code
CBC	California Building Code
CCAP	Climate Change Action Plan
CCUS	carbon capture, utilization, and storage
CDFW	California Department of Fish and Wildlife
CE	current era
CEQA	California Environmental Quality Act
CFGF	California Fish and Game Code
CGS	California Geologic Survey
CH ₄	methane
CIC	Combined Industrial/Commercial
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CRHR	California Register of Historical Resources
Creeks Connection Project	The Calabazas/San Tomas Aquino Creeks-Marsh Connection Project
CVP	Central Valley Project
CWA	Clean Water Act
dbA	A-weighted decibel
DC	direct current
DOC	Department of Conservation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EFH	Essential Fish Habitat

EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
EV	electric vehicles
°F	Fahrenheit
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GHGRP	Greenhouse Gas Reduction Plan
GWP	global warming potential
Handbook	Best Management Practices Handbook
HVAC	heating, ventilation, and air conditioning
IP	Industrial Park
IPaC	Information for Planning and Conservation
IPPC	Intergovernmental Panel on Climate Change
IS	Initial Study
kW	kilowatt
L_{eq}	Equivalent Noise Level
LH	Lower Hillside
LI	Light Industrial
L_{max}	Maximum Noise Level
LRA	local responsibility areas
LUST	Leaking Underground Storage Tank
NAAQS	national ambient air quality standards
ND	Negative Declaration
NMFS	National Marine Fisheries Service
N ₂ O	nitrous oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOAA	National Oceanic Atmospheric Administration
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation Monitoring and Reporting Program
MRP	Municipal Regional Stormwater Permit
MRZ	Mineral Resource Zones
MTCO _{2e}	metric tons of carbon dioxide equivalent
NPDES	National Pollutant Discharge Elimination System
OSPH	Open Space, Parklands and Habitat
PCOC	Potential Contaminant(s) of Concern
PG&E	Pacific Gas & Electric
PM	particulate matter
PM _{2.5}	respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less
PM ₁₀	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
PPV	Peak Particle Velocity
PQP	Public/Quasi-Public
PRC	Public Resources Code

PWRPA	Power and Water Resources Pooling Authority
RC	Regional Commercial
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCVHA	Santa Clara Valley Habitat Agency
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SFHA	Special Flood Hazard Areas
SJCE	San José Clean Energy
SO ₂	sulfur dioxide
SR	State Route
SRA	state responsibility area
SSC	Species of Special Concern
SVP	Silicon Valley Power
SWP	State Water Project
SWRCB	State Water Resources Control Board
TCR	Tribal Cultural Resource
TAC	Toxic air contaminant
UR	Urban Residential
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
Valley Water	Santa Clara Valley Water District
VdB	Vibration Decibels
VHP	Santa Clara Valley Habitat Plan
VTa	Santa Clara Valley Transportation Authority
VMT	vehicle miles traveled
ZEV	zero emissions vehicle

1. Introduction

1.1. Organization of the Document

This document is organized to assist the reader in understanding the potential impacts that the Greenhouse Gas Reduction Plan (GHGRP; referred to as Plan, Proposed Project, or Project) may have on the environment and to fulfill the California Environmental Quality Act (CEQA) (Public Resources Code (PRC) §§ 21000 et seq.). Chapter 1, “Introduction,” describes the purpose of the Initial Study (IS) under CEQA, sets forth the public participation process, and summarizes local, state, and federal regulatory requirements applicable to the Project. Chapter 2, “Project Description,” describes the location and features of the project. Chapter 3, “Environmental Evaluation,” evaluates the potential impacts of the proposed project through the application of the CEQA IS Checklist questions. Chapter 4, “References,” supplies the references for sources used in the preparation of the Initial Study (IS), and Chapter 5, “Report Preparers,” provides the list of people who prepared this document.

1.2. Purpose of the Initial Study

The Santa Clara Valley Water District (Valley Water), acting as the lead agency under CEQA, prepared this IS and draft Negative Declaration (ND) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of implementing the GHGRP.

This IS was prepared consistent with CEQA, the CEQA Guidelines (Title 14, California Code of Regulations §§ 15000 et seq.), and Valley Water’s procedures for implementation of CEQA (Environmental Management System - Environmental Planning Q520D01). CEQA requires that public agencies, such as Valley Water, identify the significant adverse impacts and beneficial environmental effects of their actions. Beneficial effects should be encouraged and expanded where possible, and adverse impacts should be avoided or minimized or, in cases where avoidance and minimization are not possible, mitigated.

In addition to acting as the CEQA Lead Agency for its projects, Valley Water’s mission includes objectives to conduct its activities in an environmentally sensitive manner as a steward of the Santa Clara Valley watersheds. Valley Water strives to preserve the natural qualities, scenic beauty, and recreational uses of Santa Clara Valley’s waterways by using methods that reflect an ongoing commitment to conserving the environment.

1.3. Decision to Prepare a Negative Declaration for this Project

Based on the information gathered in the IS, Valley Water has determined that there are no significant project-related impacts. Therefore, an ND has been prepared. The proposed ND is consistent with CEQA Guidelines section 15070(a), which indicates that a ND is appropriate when the project IS shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment.

1.4. Public Review Process

This ND will be circulated to local, responsible, and trustee agencies, interested organizations, and individuals who may wish to review and provide comments on the project description, environmental analysis, or other aspects of the report for a 30-day public review period per CEQA Guidelines section 15105(b), beginning on May 8, 2026, and ending on June 8, 2026.

The ND and supporting documents are available for review at:

Santa Clara Valley Water District
Headquarters Building
5750 Almaden Expressway
San José, CA 95118

Copies of the report are also posted on Valley Water's website: <https://www.valleywater.org/public-review-documents> or available via written request for a copy from Valley Water.

Written comments regarding the ND should be submitted to the name and address indicated below. Submittals of written comments via e-mail would greatly facilitate the response process.

Nick Mascarello
Senior Environmental Planner
Santa Clara Valley Water District (Valley Water)
5750 Almaden Expressway
San José, CA 95118-3614
Email: nmascarello@valleywater.org

The Draft ND, along with any comments, will be considered by the Valley Water Board of Directors prior to a decision on the project.

1.5. Interagency Collaboration and Regulatory Review

The CEQA review process is intended to provide trustee and responsible agencies, as well as the public, with an opportunity to provide input on a project. Trustee agencies are state agencies that have authority by law for the protection of natural resources held in trust for the public. Responsible agencies are state and local agencies that have some responsibility or authority for carrying out or approving a project; in many instances, these public agencies must make a discretionary decision to issue a local permit and provide right-of-way, funding, or resources that are critical to the project proceeding. The responsible agencies for the project are the Santa Clara Valley Habitat Agency (SCVHA), California Air Resources Board (CARB), and local jurisdictions, as shown in **Table 1-1**.

Table 1-1. Summary of Anticipated Agency Approvals

Permitting or Approval Authority	Permit/Review
Santa Clara Valley Habitat Agency	Review of Covered Activities
California Air Resources Board	Portable Equipment Registration
Local jurisdictions	Building Permits

1.6. Summary of Findings

Chapter 3 – Environmental Checklist contains the analysis and discussion of potential environmental impacts of the proposed project. Based on the issues evaluated in Chapter 3, the following was determined:

The proposed project would result in no impacts on the following issue areas:

- Aesthetics
- Agriculture and Forestry
- Land Use and Planning
- Population and Housing
- Public Services
- Recreation
- Wildfire

The proposed project would result in less-than-significant impacts on the following issue areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas (GHG) Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service System

1.7. Terminology

Commonly used terminology in this ND includes the following:

- **GHGRP, Plan, or proposed project** refers to the overall GHGRP.
- **reduction measure** refers to a specific action identified by the GHGRP to reduce GHG emissions.
- **reduction measure project** refers to a specific project that would be implemented by Valley Water as part of a reduction measure identified by the GHGRP.
- **reduction measure project site** refers to the specific location where a reduction measure project would be implemented.

The proposed project is the GHGRP or Plan. This is evaluated as the CEQA proposed project. However, beginning in Section 2, it is solely referred to as the GHGRP or Plan (and not proposed project), and activities that would be implemented under the reduction measures identified in the Plan, and are evaluated for potential environmental impacts, are referred to as reduction measure projects.

2. Project Description

Valley Water is preparing a GHGRP to reduce Valley Water's GHG emissions and achieve a carbon neutrality target by 2045. This chapter introduces the Plan and describes the Plan components, identifies GHG emissions reduction measures, describes reduction measures that have potential to cause adverse physical changes to the environment, avoidance and minimization measures, and anticipated permits and approvals.

2.1. Plan Overview

2.1.1. Purpose and Scope

In 2021, Valley Water adopted the Climate Change Action Plan (CCAP) (Valley Water 2021), which established a framework for Valley Water to respond to climate change through adaptation and mitigation. Climate mitigation focuses on reducing GHG emissions and included an inventory of Valley Water's emissions from 2010 through 2017, excluding emissions from construction and other sources. Additionally, CCAP Action 1.6.4 called for preparing a qualified GHGRP that meets the requirements of the CEQA Guidelines §15183.5. According to CEQA Guidelines §15183.5:

- Lead agencies may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review.
- Public agencies may choose to analyze and mitigate significant GHG emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce GHG emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.
- A plan for the reduction of GHG emissions, once adopted following certification of an Environmental Impact Report (EIR) or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a GHG reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable, notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

In response to the CCAP's direction, Valley Water has now prepared a GHGRP (**Appendix A**) according to the requirements of CEQA Guidelines §15183.5. Valley Water intends to use the GHGRP for tiering and streamlining of the GHG analysis for future Valley Water projects through 2045, that have environmental documents, such as EIRs, which have not yet initiated the public review process and/or do not already include actions to achieve net zero GHG emissions. To determine project consistency with the GHGRP, Valley Water has developed a GHGRP Consistency Review Checklist (Consistency Checklist), which can be found in Appendix B of the GHGRP (**Appendix A**). Valley Water will use the Consistency Checklist to determine whether a proposed Valley Water project is consistent with the GHGRP. Valley Water projects that demonstrate consistency with the GHGRP may be able to conclude

that they cause no additional significant environmental effects with respect to GHG emissions and climate change in their CEQA review.

The GHGRP does not discuss the impacts of climate change on the Santa Clara Valley or Valley Water's actions to adapt to climate change. These items are discussed in the 2021 CCAP¹. Specifically, the CCAP provides a comprehensive guide to Valley Water's climate change adaptation efforts, including past climate and projected climate changes in Santa Clara County; an assessment of climate vulnerability and associated risks to Valley Water operations; goals, strategies, and possible actions to guide Valley Water's climate change efforts; and next steps/recommended actions for the CCAP.

2.1.2. Plan Objectives

Valley Water's GHGRP has been prepared to achieve the following objectives:

- Update Valley Water's GHG emissions inventory to include historical years 2017 through 2021 to support emissions forecasts for 2030 and 2045.
- Establish a carbon budget that supports a carbon neutrality target by 2045 consistent with State GHG targets under Assembly Bill (AB) 1279.
- Develop new and refined GHG reduction measures that, if implemented, would help Valley Water achieve the GHG reduction targets.
- Develop an implementation and monitoring plan to ensure the progress of the reduction measures.
- Develop a CEQA Streamlining Checklist for future projects that may tier from the GHGRP.
- Be adopted through a public process following environmental review.

2.1.3. Plan Area

The GHGRP includes reduction measures that would be implemented within Valley Water's service area, which incorporates the entirety of Santa Clara County, as shown in **Figure 2-1**. Santa Clara County extends from the south San Francisco Bay in the north to south of Gilroy in the south, and from the Santa Cruz mountains in the west to agricultural lands, the Diablo Range, and Stanislaus and Merced Counties in the east.

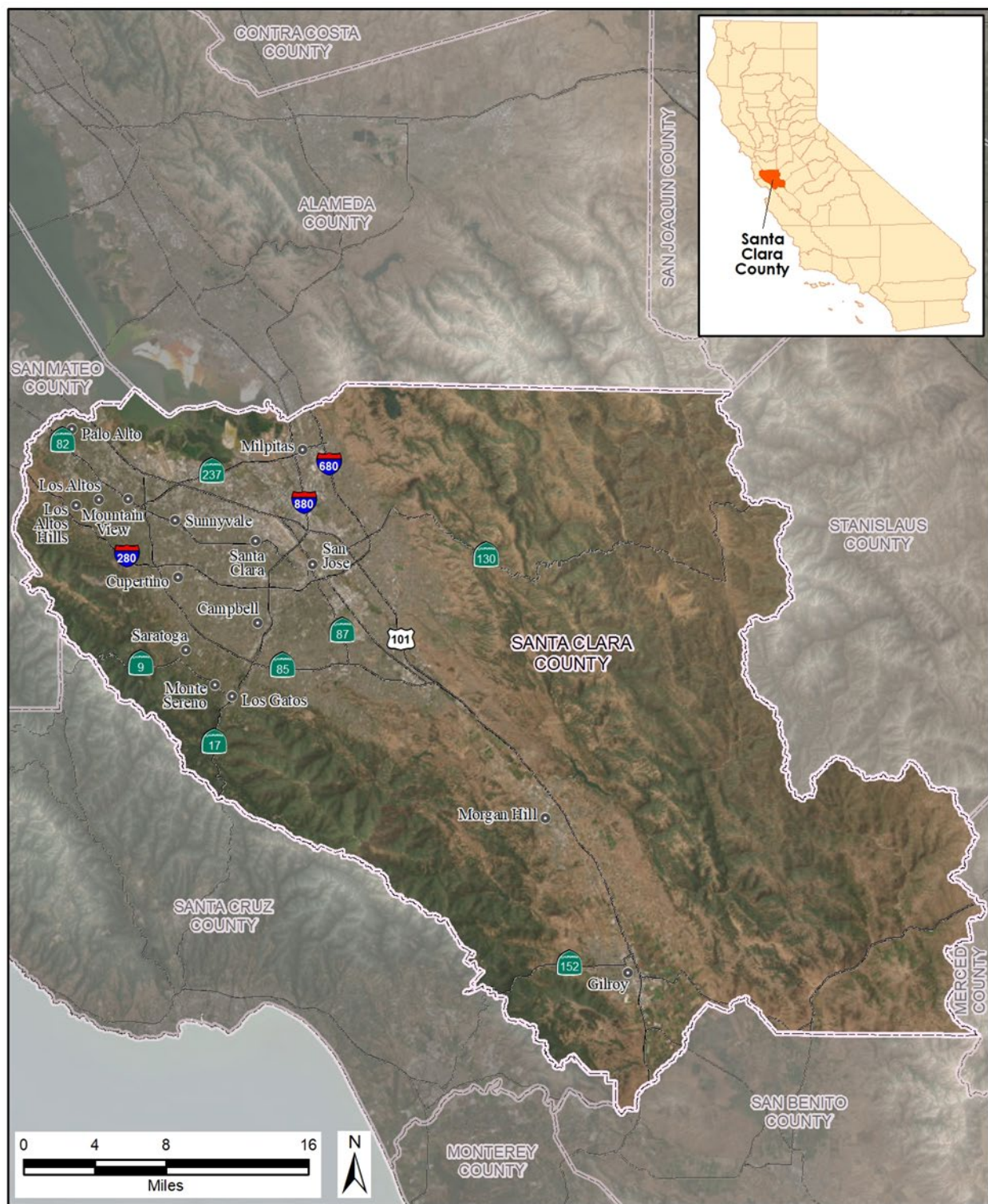
2.2. Plan Components

2.2.1. GHG Emissions Inventory

Valley Water's operations inherently result in GHG emissions. Understanding the processes that generate these emissions is essential to identifying strategies to reduce GHG emissions. The GHGRP organizes emissions in terms of scope. The scope of emissions sources indicates an entity's level of control over the sources. The three emissions scopes are described as:

- **Scope 1:** Emissions under the reporting entity's direct control (e.g., emissions from natural gas combustion in buildings, gasoline and diesel fuel combustion in the vehicle fleet, and refrigerant leakage).

¹ Valley Water's CCAP can be accessed online at <https://www.valleywater.org/your-water/climate-change-action-plan>



Z:\Projects\2004818_ValleyWater_GHG\SantaClaraCounty.mxd
18Feb2025 RS

Figure 2-1. Plan Area Location

- **Scope 2:** Emissions generated by purchased energy, where the actual energy generation source is outside the inventory boundary, but the use of that energy is within the inventory boundary (e.g., grid-purchased electricity).
- **Scope 3:** All other emissions sources that are not Scope 1 or Scope 2 sources. Valley Water's Scope 3 emissions include business travel, construction, water imported to Santa Clara County from the State Water Project (SWP), employee commute, wastewater, solid waste, and contracted sediment hauling.

Emissions sectors are composed of the different activities that emit GHGs, such as burning natural gas or operating vehicles. **Table 2-1** identifies Valley Water's emissions sectors for Scope 1 to 3 emissions.

Valley Water's Updated GHG Emissions Inventory

As part of the GHGRP, Valley Water's pre-2017 emissions were updated to include data through 2021 and additional emissions sources. This section presents Valley Water's updated emissions inventory, trends over time, and data to support emissions forecasting through 2045.

Given the significant decrease in emissions starting in 2016 due to Valley Water's procurement of emissions free power from the Power and Water Resources Pooling Authority (PWRPA), this inventory uses emissions from calendar years 2017 through 2021 as a baseline level (**Figure 2-2**). This five-year average baseline was selected to normalize year-to-year variation in emissions from Valley Water's operations. For example, the amount of imported water delivered to Valley Water fluctuates annually depending on hydrological conditions. Using a single year for an emissions inventory could capture a year with an unusually high or low quantity of imported water (and its associated emissions), thus substantially overstating or understating Valley Water's typical emissions.

As shown in **Figure 2-2** and **Table 2-2**, Valley Water's operations generated an average of 15,399 metric tons of carbon dioxide equivalent (MTCO₂e) per year between 2017 and 2021. The updated historical trend of Valley Water's emissions from 2014 to 2021 is presented in **Figure 2-3**. As shown, Valley Water's emissions have declined over time, and especially since Valley Water began purchasing zero-carbon emission electricity in 2016 through a Zero Carbon Water Portfolio purchase agreement with the PWRPA.

Scope 3 emissions account for approximately 82% of Valley Water's baseline emissions, with 45% of Scope 3 generated by construction-related activities and 26% of Scope 3 from imported water. Since the CCAP did not include construction emissions, their addition in this GHGRP increased Valley Water's emissions inventory relative to the CCAP, with construction emissions accounting for between 40 to 60% of Valley Water's baseline emissions. Solid waste, high-global warming potential (GWP) gases, and wastewater, which were also not included in the CCAP, resulted in smaller increases of up to 5% of total emissions depending on the year.

Despite the overall increase relative to the CCAP's inventory, the baseline inventory update shows that Valley Water's annual emissions are on a downward trajectory over the past decade. Imported water (accounting for 56% of emissions in 2016) was the largest single source in 2016, but emissions from this sector have declined. This is primarily due to decreased GHG emission factors for the electricity used to pump and treat water, despite interannual variability in the volume imported². By 2021, the imported

² Although the quantity of imported water fluctuated as well over this time period due to hydrological conditions, there was no meaningful upward or downward trend in that quantity; thus, the drop in imported water emissions is largely due to the decline in electric emissions factors just described.

water emissions factor declined to approximately 35% of its 2016 value as the SWP used increasing proportions of carbon-free electricity in its operations.

Additional discussion of the baseline inventory data, calculation methodology, and results can be found in Appendices A and D of the GHGRP (Appendix A).

Table 2-1. 2017-2021 Valley Water GHG Emissions Inventory by Scope and Sector

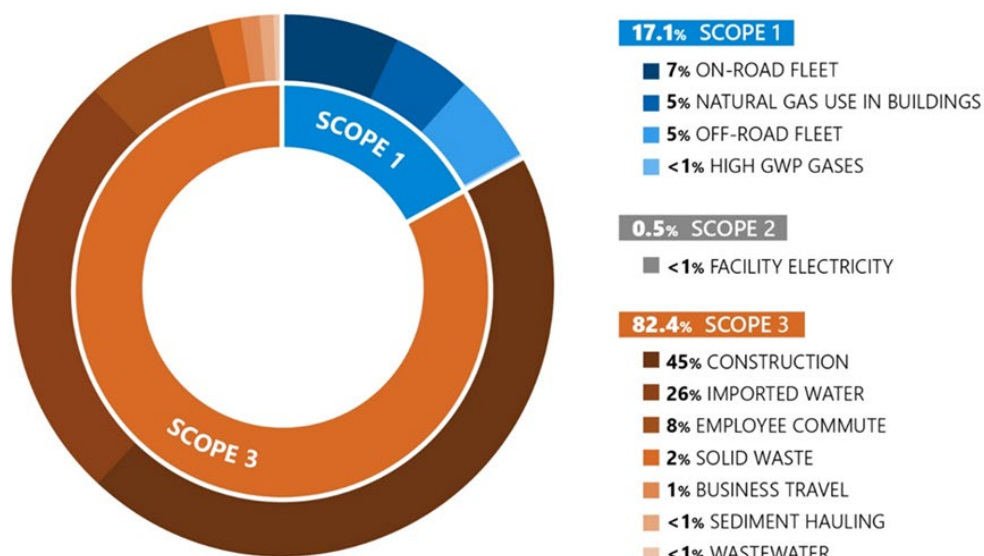
Scope	Emissions Sector	Description
1	Natural Gas Use in Buildings	Valley Water buildings (e.g., offices, pumping plants, and water treatment plants) combust natural gas for space and water heating.
	On-Road Fleet	Valley Water owns and operates on-road vehicles to transport employees and perform maintenance on its assets. Many of these vehicles consume gasoline.
	Off-Road Fleet	Valley Water owns and operates construction equipment and other off-road heavy-duty equipment for infrastructure and stream maintenance that consume diesel.
	High GWP Gases	Refrigerants are the primary high-GWP gases used by Valley Water for building and vehicle cooling. These annual purchases correspond to the annual leakage of these refrigerants into the atmosphere. The high-GWP gases associated with refrigerants can be thousands of times as potent as carbon dioxide in warming the atmosphere.
2	Facility Electricity Use	Valley Water facilities, buildings, and equipment consume electricity procured from PWRPA, PG&E, SJCE, and SVP. Electricity use is primarily from operating facilities and equipment, including water treatment plants, the Silicon Valley Advanced Water Purification Center, pumping plants, and lighting, appliances, air conditioning, plug loads, and on-site EV charging stations at offices and facilities. Facility electricity use emissions include emissions associated with the conveyance and treatment of water within Santa Clara County conducted by Valley Water.
3	Imported Water	Valley Water imports water from the SWP and CVP. Water extraction and conveyance ³ consume electricity, which in turn results in emissions.
	Employee Commute	Valley Water employees commute to work in light-duty vehicles, which generally combust gasoline or use electricity.
	Business Travel	Valley Water employees use a combination of passenger cars (which combust gasoline or use electricity) and aircraft (which combust aviation gasoline) for business travel.
	Construction	Valley Water's capital improvement projects produce emissions through contracted activities such as operation of construction equipment, hauling of materials, and construction worker commute. ¹
	Solid Waste	Valley Water facilities generate landfilled materials that decompose and produce methane.
	Wastewater	Valley Water facilities generate wastewater. Anaerobic decomposition of this wastewater produces methane.
	Sediment Hauling	Valley Water performs sediment management to remove accumulated sediment from waterways and maintain the conveyance capacity of creeks. This work involves contracting with third-party companies that use dump trucks to haul sediment from the job site to nearby landfills as needed. The dump trucks consume diesel.

³ Extraction is defined as taking the water from its point of origin, such as a river or aquifer, and conveyance is defined as moving the water from the river or aquifer to its destination—in this case, to Valley Water's service territory.

Notes: GWP = global warming potential, PG&E = Pacific Gas & Electric, PWRPA = Power and Water Resources Pooling Authority, SJCE = San José Clean Energy, SVP = Silicon Valley Power, EV = electric vehicles, SWP = State Water Project, CVP = Central Valley Project, CH4 = methane, GHG = greenhouse gas.

1 Note that Valley Water construction projects use a combination of Valley Water-owned and operated construction off-road equipment as well as contracted construction equipment. Emissions from construction activities performed by fleet vehicles and equipment owned by Valley Water are included in Scope 1. Emissions from contracted construction activities are included in Scope 3.

Source: Appendix A



Source: Appendix A

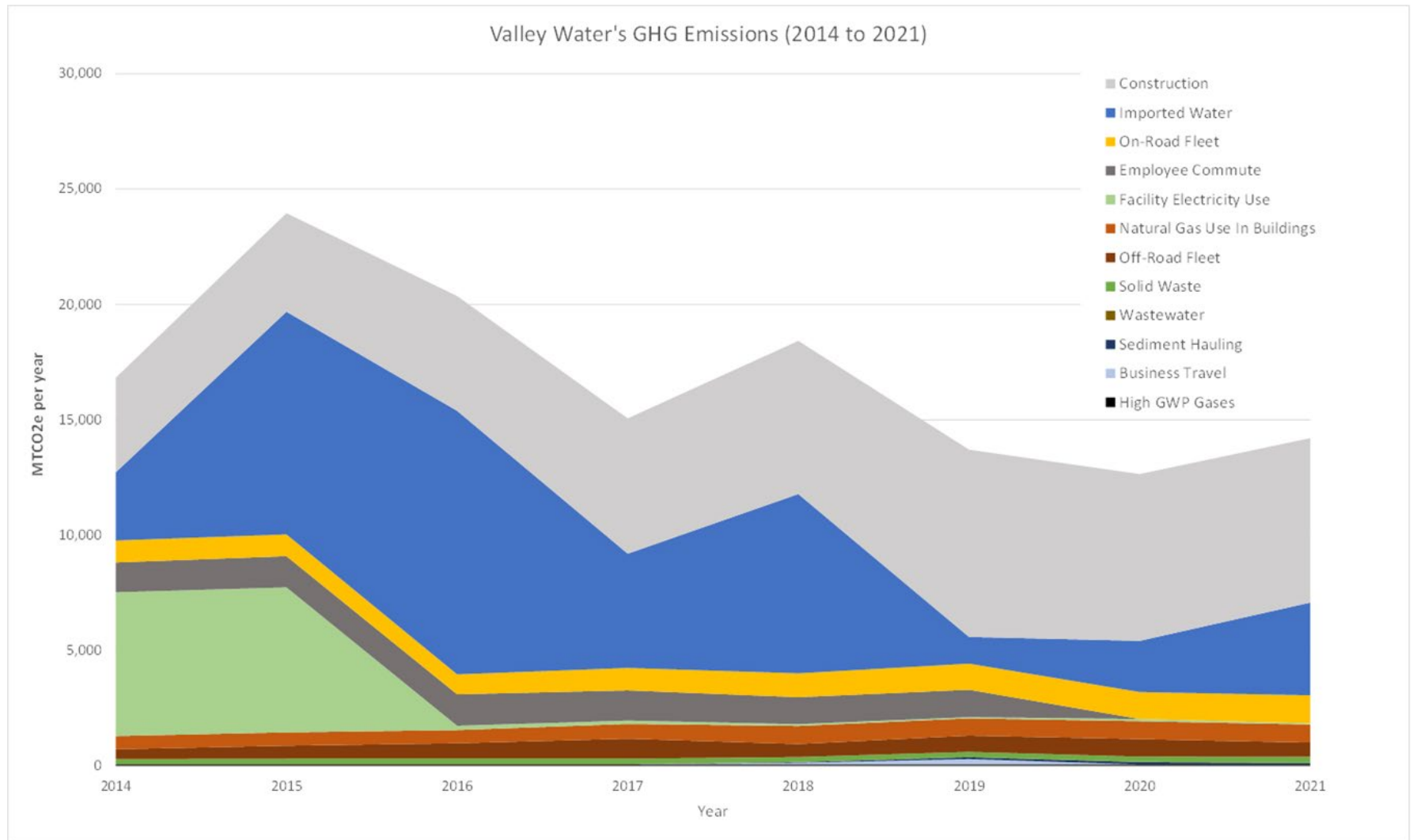
Figure 2-2. Valley Water Baseline GHG Emissions (2017-2021 Average)

Table 2-2. 2017-2021 Valley Water GHG Emissions Inventory by Scope and Sector

Scope	Sector	Average GHG Emissions (MTCO ₂ e)	% of Total
1	On-Road Fleet	1,102	7.2%
	Natural Gas Use in Buildings	745	4.8%
	Off-Road Fleet	703	4.6%
	High GWP Gases	79	0.5%
	Scope 1 Total	2,630	17.1%
2	Facility Electricity	84	0.5%
	Scope 2 Total	84	0.5%
3	Construction	6,990	45.4%
	Imported Water	4,022	26.1%
	Employee Commute	1,219	7.9%
	Solid Waste	236	1.5%
	Business Travel	147	1.0%
	Sediment Hauling	62	0.4%
	Wastewater	9	0.1%
	Scope 3 Total	12,686	82.4%
Scopes 1 to 3 Total		15,399	100.0%

Notes: GWP = global warming potential, MTCO₂e = metric tons of carbon dioxide equivalent,

Source: Appendix A



Notes: GHG = Greenhouse Gas, MT CO₂e = metric tons of carbon dioxide-equivalent.
Source: Appendix A

Figure 2-3. Valley Water GHG Emissions (2014 to 2021)

2.2.2. GHG Emissions Forecast

To determine the level of GHG reductions needed to meet Valley Water’s goals, emissions are forecasted in future years. Two forecasts were developed for the GHGRP, a Business-As-Usual (BAU) and a legislative-adjusted forecast. The BAU forecast extrapolates from historical trends and assumes that no additional action is taken by Valley Water in response to local, State, or federal regulations to reduce GHG emissions. The legislative-adjusted forecast uses the BAU forecast as a starting point and accounts for the effects of the emissions-reducing policies detailed in Chapter 3 of the GHGRP. Both forecasts were developed based on trends identified in 2014-2021 emissions data and consultation with subject matter experts at Valley Water on likely future trends in emissions drivers such as fuel and natural gas consumption and construction activity.

Legislative Reductions

Valley Water’s emissions forecast in the GHGRP considers the effects of the following specific emissions-reducing regulations (see Table 3 in Chapter 3 of the GHGRP for additional details):

- Senate Bill (SB) 100 (Renewables Portfolio Standard)
- SB 1020 (Clean Energy, Jobs, and Affordability Act)
- SB 1206 (Stationary Hydrofluorocarbon Reduction Measures)
- SB 1383 (Short-Lived Climate Pollutant Reduction Strategy)
- Advanced Clean Car Standards
- Advanced Clean Cars II
- Advanced Clean Fleet

These are called “legislative reductions” and are assumed to reduce Valley Water’s future emissions in specific sectors without any new actions from Valley Water.

Forecast Results

Table 2-3 shows the BAU and legislative-adjusted forecasts for Valley Water in 2030 and 2045 by emissions scope and sector. **Figure 2-4** illustrates trends of this data over time. In the legislative-adjusted forecast, Valley Water’s GHG emissions are expected to decline by 18% to 12,656 MTCO₂e by 2030 and by 48% to 8,071 MTCO₂e by 2045 relative to baseline values. These legislative-adjusted values are the starting point for the reduction measures described in the Plan. A detailed description of the methods and assumptions used for the forecast can be found in Appendix D of the GHGRP (see **Appendix A** for the GHGRP).

Forecasted emissions reductions are primarily due to the state’s progression toward a carbon-neutral electricity grid and cleaner vehicles. Reduced emissions from the electricity grid and vehicles result in less emissions from Valley Water’s on-road fleet, facility energy, construction, imported water, employee commute, business travel, and sediment hauling. Based on existing data, activity and emissions from other sectors, such as facility natural gas and high-GWP gas use and solid waste and wastewater production, are anticipated to remain unchanged in the forecast. The emissions forecasts and comparisons to 2017-2021 baseline emissions are shown in **Figure 2-5**.

With the implementation of legislative reductions from SB 1020 and SB 100, emissions from importing SWP water are expected to be reduced. As a result, construction-related emissions are anticipated to dominate Valley Water’s future emissions profile. By 2045, construction emissions are predicted to account for 70% of Valley Water’s total emissions—up from 45% in the baseline. Emissions from future projects with CEQA mitigation measures requiring net-zero construction emissions, including the

Anderson Dam Seismic Retrofit Project, are not included in the GHGRP construction emissions forecast. Although construction emissions make up a larger share of the emissions portfolio, absolute construction emissions are forecasted to decrease over time from the baseline of 6,990 MTCO₂e/year to 5,629 MTCO₂e/year by 2045.

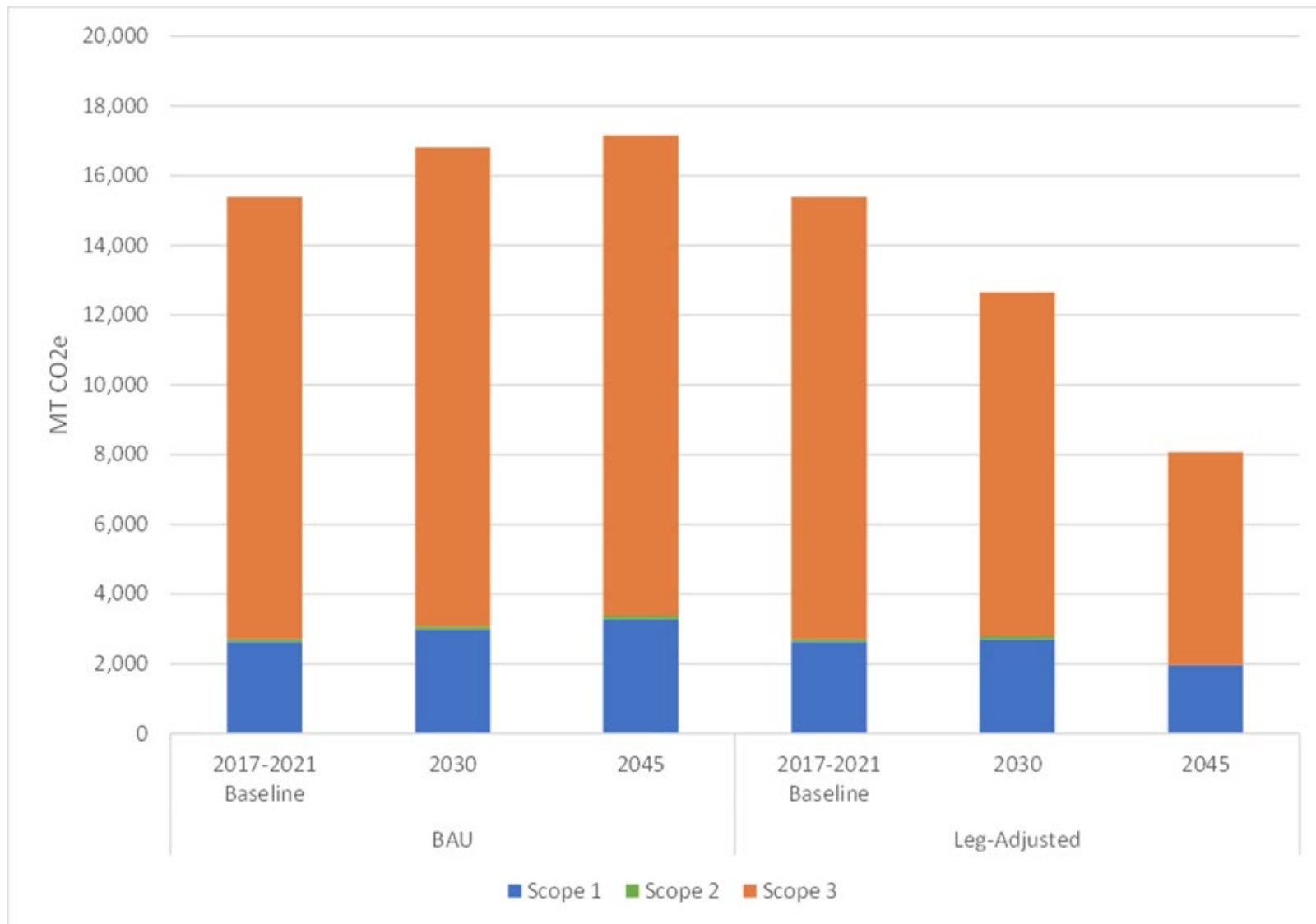
Table 2-3. BAU and Legislative-Adjusted Emissions Forecasts and Targets by Sector (MTCO₂e/year)¹

Scope	Sector	Baseline Emissions	BAU GHG Emissions		Legislative-Adjusted GHG Emissions	
		2017-2021	2030	2045	2030	2045
1	On-Road Fleet	1,102	1,212	1,378	933	58
	Natural Gas Use in Buildings	745	745	745	745	745
	Off-Road Fleet	703	952	1,082	952	1,082
	High GWP Gases	79	79	79	79	79
	Scope 1 Subtotal	2,630 (17%)	2,989 (18%)	3,284 (19%)	2,710 (21%)	1,965 (24%)
2	Facility Energy	84	95	95	93	0
	Scope 2 Subtotal	84 (<1%)	95 (1%)	95 (1%)	93 (1%)	0 (0%)
3	Construction	6,990	8,115	8,115	7,408	5,629
	Imported Water	4,022	4,174	4,222	1,372	0
	Employee Commute	1,219	981	981	651	129
	Solid Waste	236	236	236	236	236
	Business Travel	147	147	147	131	104
	Sediment Hauling	62	62	62	48	0
	Wastewater	9	9	9	9	9
	Scope 3 Subtotal	12,686 (82%)	13,724 (82%)	13,772 (80%)	9,854 (78%)	6,107 (76%)
	Total	15,399	16,808	17,151	12,656	8,071
	% Change from Baseline Levels	NA	9%	11%	-18%	-48%

Notes: BAU = Business-As-Usual; MTCO₂e = metric tons of carbon dioxide equivalent, GWP = global warming potential, GHG = greenhouse gas, NA = not applicable

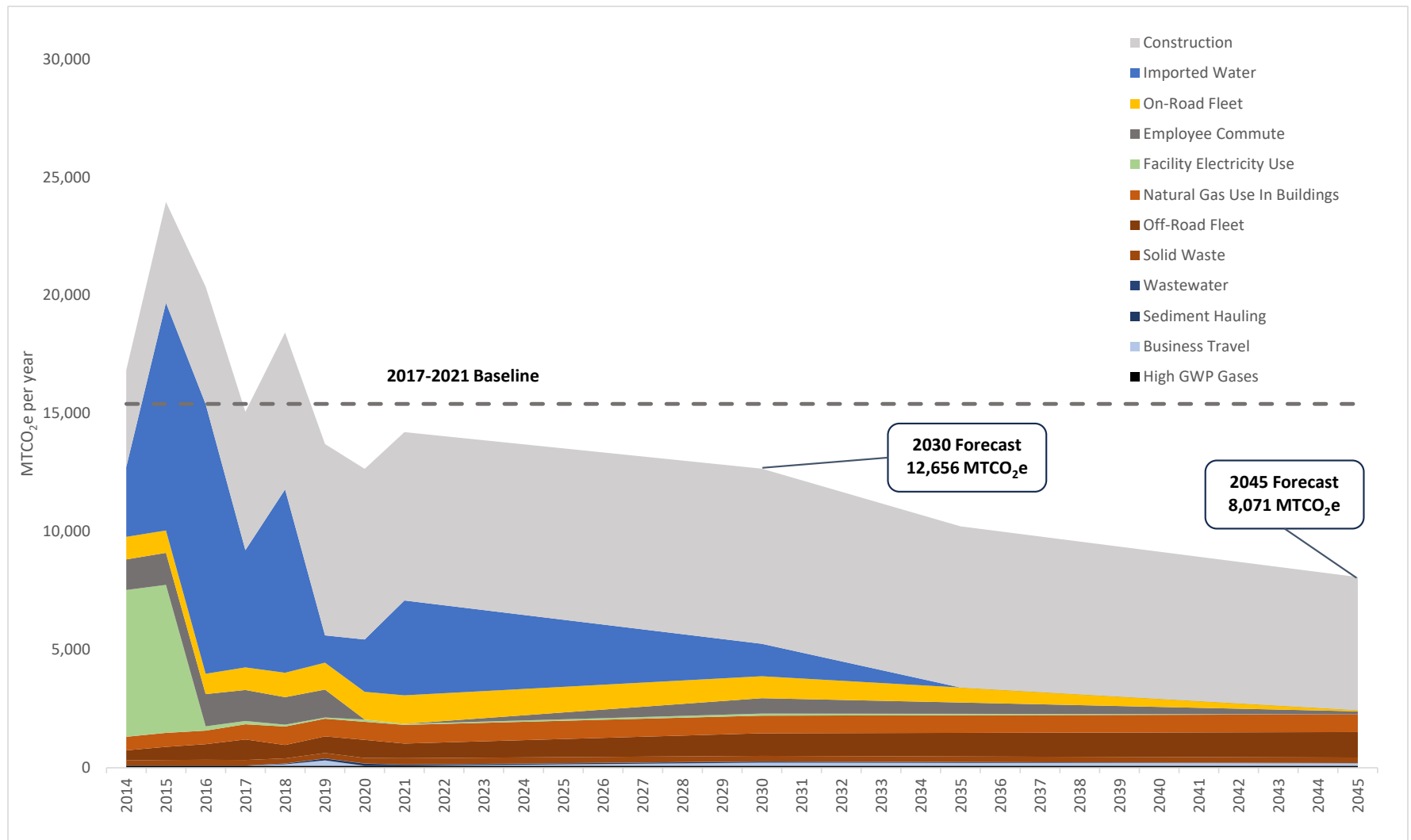
¹ Global warming potentials from the Intergovernmental Panel on Climate Change's (IPCCs) Sixth Assessment Report were utilized in emissions inventorying.

Source: Appendix A



Note: Valley Water's Scope 2 emissions are included in this graph but are less than 100 MTCO₂e/year.
Source: Appendix A

Figure 2-4. Business-As-Usual and Legislative-Adjusted Forecast Emissions Forecasts (MTCO₂e/year)



Source: Appendix A

Figure 2.5. Legislative-Adjusted Emissions Forecasts by Sector with Targets (MTCO₂e/year)

2.2.3. GHG Emissions Reduction Target

Establishing a goal to reduce GHG emissions a certain amount by a future year, commonly referred to as a “GHG reduction target,” is a key step in the local GHG reduction planning process. Valley Water's updated GHG emissions inventory and forecast provide a basis for target setting by understanding the additional actions needed to meet emissions targets. They also provide a benchmark against which future GHG reductions can be tracked. Local GHG reduction targets are developed in a manner consistent with statewide GHG emissions targets established under state law.

State GHG Reduction Targets

The state’s current GHG reduction targets were established by SB 32 and AB 1279 and incorporated into the state’s most recent Climate Change Scoping Plan (Scoping Plan). They include the following (CARB 2022):

- Reduce statewide anthropogenic GHG emissions to 40% below 1990 levels by 2030 (SB 32);
- Reduce statewide anthropogenic GHG emissions to 85% below 1990 levels by 2045 (AB 1279); and
- Achieve statewide net zero GHG emissions (i.e., “carbon neutrality”) no later than 2045 and achieve and maintain net negative GHG emissions after that (AB 1279).

AB 1279 defines net zero GHG emissions as balancing remaining GHG emissions by 2045 with removals of GHG emissions over the same time.

Valley Water GHG Reduction Targets

The 2022 Scoping Plan sets individual targets by emissions sector, based on a variety of factors that together meet statewide targets. To scale this to Valley Water, Valley Water has direct or indirect control over emissions from six of the seven anthropogenic emissions sectors included in the Scoping Plan’s statewide inventory, as follows: residential and commercial, electric power, high-GWP gases, industrial, recycling and waste, and transportation.

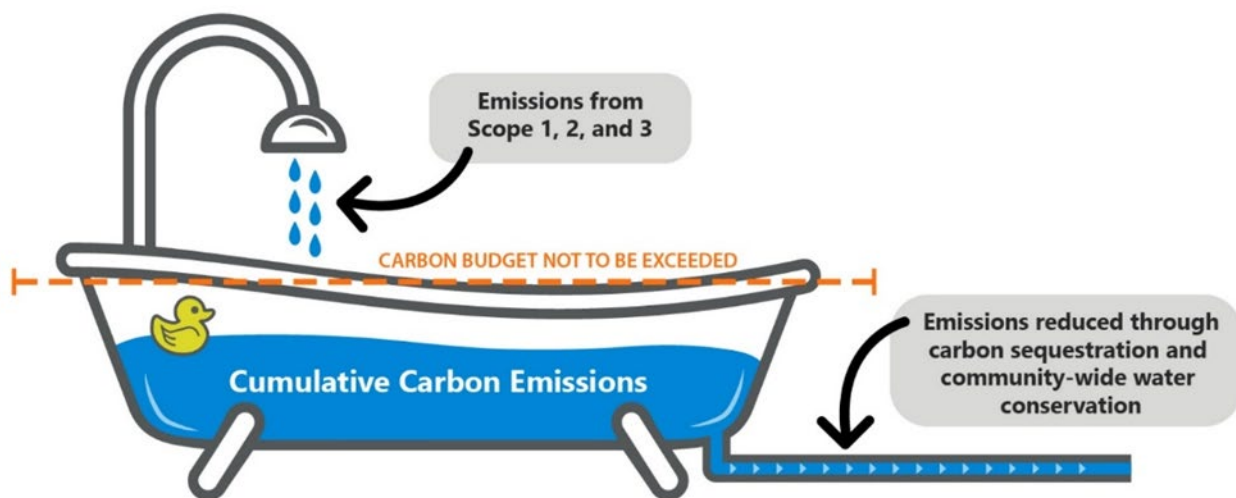
Based on the state’s average emissions between 2017 and 2021, consistent with the GHGRP baseline years, and the targets for the relevant sectors, Valley Water’s emissions would need to be reduced 43% by 2030 relative to the GHGRP baseline to be consistent with the reduction target established by AB 1279. For 2045, this target increases to 86% below baseline levels. While these targets are focused on reducing anthropogenic emissions, AB 1279 also sets a carbon neutrality goal for 2045 that includes reductions from the removal of carbon dioxide (CO₂) from the air, including carbon sequestration and mechanical carbon capture, utilization, and storage (CCUS). Though Valley Water does not have CCUS activities, it does manage thousands of acres of natural lands, such as streams, riparian areas, and marshes, where there are carbon sequestration opportunities. Therefore, to demonstrate consistency with state targets and considering relevant emissions sectors, Valley Water proposes to:

- Reduce Valley Water’s anthropogenic GHG emissions by 43% below 2017-2021 baseline levels by 2030,
- Reduce Valley Water’s anthropogenic GHG emissions by 86% below 2017-2021 baseline levels by 2045, and
- Achieve carbon neutrality no later than 2045 through enhanced carbon sequestration.

Although these targets are tied to specific future milestone years just as the statewide targets are, achieving the exact targets by the given years may not be feasible due to the interannual variability of Valley Water’s operations, the intensity of which are dependent on hydrologic conditions, project construction, and other factors. Instead, these targets set a foundation for the future trend in emissions that Valley Water is committed to achieving, that over the same course of time (2025 through 2045), would achieve cumulatively equivalent emissions reductions.

Carbon Budget Concept

Valley Water’s GHG emissions vary year-to-year, due primarily to the demand for imported water and the need to perform construction projects. With this variable emissions trend, a traditional approach to targeting a percent reduction in annual emissions from a past baseline year could result in the unintended consequence of exceeding a particular year’s GHG reduction target. To address this issue, the GHGRP uses a carbon budget approach. **Figure 2-6** illustrates a bathtub as an analogy to explain the carbon budget approach.



Source: Appendix A

Figure 2-6. Carbon Budget Illustration

A bathtub has an inflow, a holding capacity, and an outflow. The water collected in the bathtub represents emissions. The inflow represents Scopes 1-3 emissions generated by Valley Water, and the outflow represents emissions reductions from carbon sequestration and community-wide water conservation that Valley Water is responsible for. The capacity of the bathtub represents the total carbon budget. When the inflow increases and the outflow decreases, water begins to accumulate in the bathtub (i.e., cumulative emissions). To stay within budget (i.e., keep the tub from overflowing), the inflow can either decrease through the reduction of operational and construction emissions implemented through the GHGRP measures, or the outflow can increase through the implementation of increased community-wide water conservation and local carbon sequestration. Any imbalance of these flows, over time, can result in the tub becoming overfilled, representing an exceedance of the carbon budget. Managing the rate of inflows and the accumulation in the bathtub is essential to remain within the budget and achieve Valley Water’s carbon neutrality goals by 2045.

As discussed above, Valley Water is targeting a 43% reduction in annual emissions from its 2017-2021 baseline by 2030 and net zero emissions by 2045. These targets were then translated into the carbon budget for 2030 to 2045. The carbon budget limits cumulative GHGs emitted over a set time frame. This

limit is equivalent to the sum of annual GHG emissions that, across a set number of years, follow a linear trajectory toward achieving the emissions reduction targets, as shown in **Figure 2-7**. Based on the 2045 net-zero emissions target, Valley Water’s total carbon budget is 123,138 MTCO₂e for the GHGs emitted between 2025 and 2045. To be consistent with this target, Valley Water’s total emissions from 2025 to 2045 must be less than or equal to this amount to remain within the budget. The draft GHGRP was substantially complete in 2025 and if adopted by the Board, implementation of the GHGRP is projected to begin in 2026. As such, 2025 was chosen as the year in which emissions accounting under the carbon budget would begin.

Figure 2-7 shows this concept graphically for Valley Water’s context. The gray-shaded area represents the carbon budget, and the blue gap between the legislative-adjusted forecast and the targets line represents additional reductions that must be achieved by the measures described in Chapter 8 of the GHGRP. The orange line shows the annual emissions that form the carbon budget follow a linear trajectory from the baseline level to zero by 2045. The baseline shown in **Figure 2-2** is the average annual emissions between 2017-2021, assigned to the year 2019, which is the median year between 2017 and 2021.

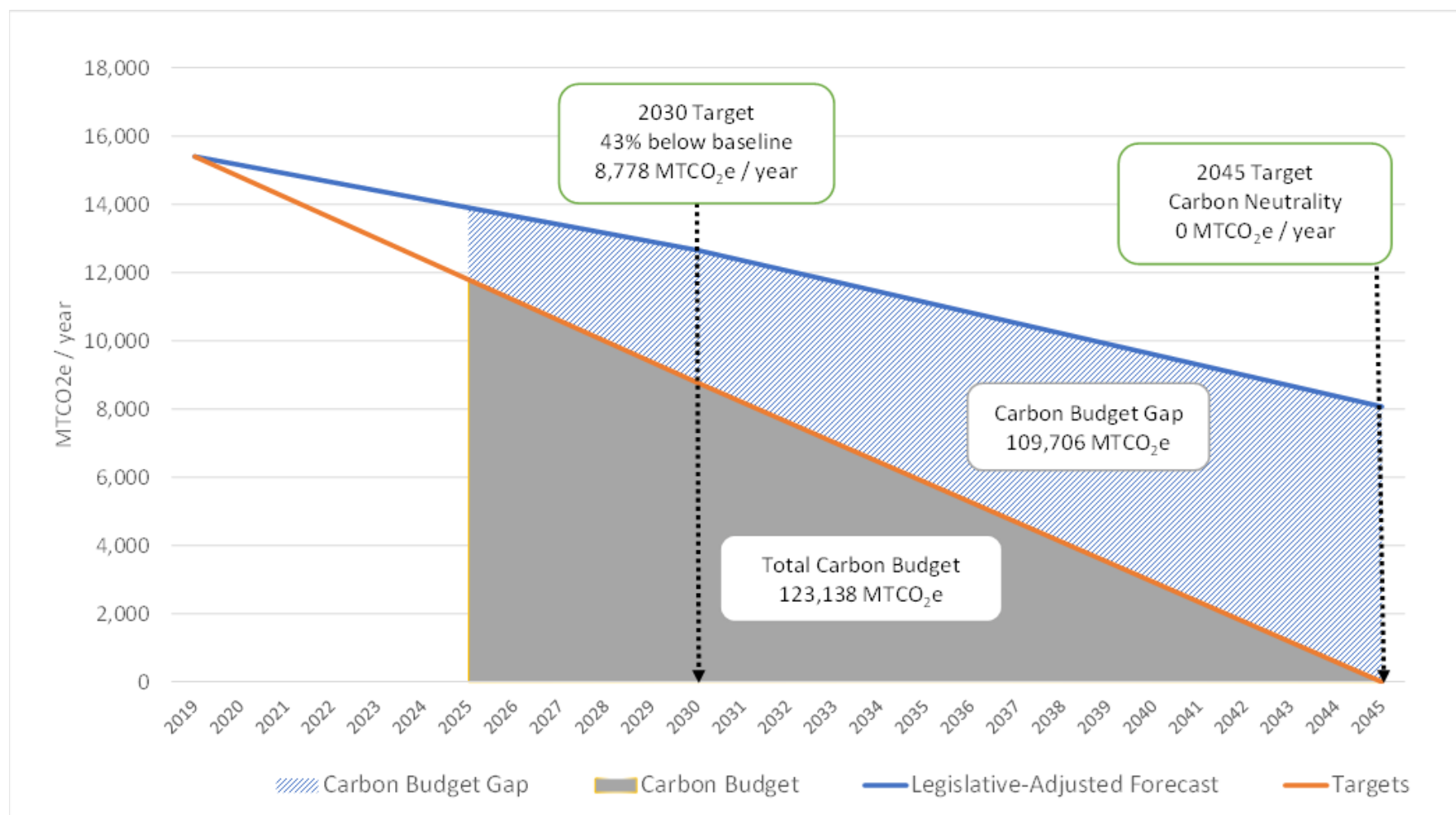
Emissions Reduction Target Alignment with CEQA

Valley Water’s GHG emissions targets provide the basis for the GHGRP’s use as a qualified plan adopted to reduce emissions of GHGs pursuant to CEQA Guidelines Section 15183.5. Concerning GHG emissions, CEQA Guidelines Section 15064.4(a) states that lead agencies “shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project’s GHG emissions or rely on a “qualitative analysis or performance-based standards” (Section 15064.4[a]). A lead agency may use a “model or methodology” to estimate GHG emissions and has the discretion to select the model or methodology it considers “most appropriate to enable decision makers to intelligently take into account the project’s incremental contribution to climate change” (Section 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining cumulatively considerable impacts from GHG emissions on the environment (Section 15064.4[b]):

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local Plan for the reduction or mitigation of GHG emissions.

The GHGRP and its targets satisfy these criteria by providing a framework for future projects’ contribution of GHG emissions above baseline conditions and serves as a threshold that is inherently tied to the state’s long-term GHG reduction targets using Valley Water’s local, independent inventory.

After adopting the GHGRP, future Valley Water projects may tier or streamline the GHG analysis for future Valley Water projects from the GHGRP under CEQA, and this GHGRP establishes a pathway to ensure Valley Water’s operations do not result in a cumulatively considerable level of emissions by committing to net zero emissions by 2045 (refer to Section 2.1.1, “Purpose and Scope,” for more details). This level of commitment is consistent with AB 1279, the guidance outlined in the CARB’s 2022 Scoping Plan, and the Bay Area Air District (Air District), (formerly the Bay Area Air Quality Management



Notes: MTCO₂e = metric tons of carbon dioxide equivalent.
Source: Appendix A

Figure 2-7. Valley Water's Legislative-Adjusted Forecast, Targets, and Carbon Budget, 2025-2045

District [BAAQMD]) 2022 CEQA Guidelines. Under the latest Scoping Plan, the state also aims to achieve carbon neutrality by 2045 but does so with carbon dioxide removal technologies and sequestration to achieve carbon neutrality (CARB 2022a). Valley Water has a significant role in local conservation, restoration, and enhancement of riparian lands, wetlands, and other aquatic habitat types, which could help offset Valley Water’s anthropogenic GHG emissions.

2.2.4. GHG Emissions Reduction Measures

In developing the GHGRP, Valley Water has identified reduction measures within its authority and jurisdiction to implement. Valley Water’s jurisdiction is limited, especially for Scope 3 emissions. Valley Water cannot unilaterally mandate that its contractors or employees perform specific actions to reduce GHG emissions. Furthermore, Valley Water has an obligation to its ratepayers to provide safe, clean water at an affordable rate, and thus must balance the implications of additional costs and the resulting rate effects.

The GHGRP proposes 11 reduction measures for Scope 1 and 3 emissions, which are identified and described in **Table 2-4**. No Scope 2 reduction measures are proposed because electricity, the only emissions source under that scope, does not currently, and would not in the future, generate GHG emissions under Valley Water’s subscription to the PWRPA Zero Carbon Water portfolio. Scope 1 reduction measures would directly reduce emissions from facilities and activities under Valley Water’s authority/jurisdiction. Scope 3 reduction measures would reduce emissions associated with Valley Water’s operations but outside of its direct control, provide a means of reducing emissions by enhancing carbon sequestration and water conservation, and require purchase of carbon offsets from verified offset registries, if necessary after implementation of all other reduction measures. Thus, the GHGRP establishes a pathway to carbon neutrality consistent with AB 1279 and CEQA Guidelines Section §15183.5(b)(1)(D).

Each reduction measure was evaluated to determine if its implementation would result in potential adverse physical changes to the environment. Based on this review, implementation of the following three reduction measures would potentially result in adverse physical changes to the environment: VF-1: Zero Emission On-Road Fleet, FE-1: Facility Electrification, and CS-1: Sequester Carbon. This ND evaluates the potential environmental impacts from implementing these measures, to the extent CEQA documentation has not previously been prepared covering these actions and information on implementation of reduction measures is known at the time this ND is prepared. The remaining reduction measures do not have potential to result in adverse physical changes on the environment. Section 3.1, “Reduction Measures Dismissed from Further Analysis,” provides discussion of why these reduction measures do not result in adverse physical changes to the environment.

At this time, one restoration project is identified for implementation of reduction measure CS-1: Sequester Carbon—the South San Francisco Bay Shoreline Phase I Project⁴, which proposes restoring 2,900 acres of tidal marsh habitat and ecotone. This project has existing CEQA documentation and is currently being implemented as of 2025. Therefore, it is not discussed further in this ND.

The Calabazas/San Tomas Aquino Creeks-Marsh Connection Project (Creeks Connection Project) may be included in reduction measure CS-1 at a future time upon its implementation. The Creeks Connection Project aims to restore creek-marsh connections and tidal flows to establish approximately 1,800 acres of tidal marsh in former salt ponds located in the South San Francisco Bay, specifically Ponds A4, A6, A7,

⁴ South San Francisco Bay Shoreline Project Phase I Project Final EIS/EIR: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/E7_Final%20Integrated%20Document.pdf

A8, and A8S. The Creeks Connection Project’s objectives are to: (1) Ecologically restore and enhance the tidal and freshwater marsh and river habitat at the project area; (2) Provide resilient flood protection that will adapt to projected sea level rise; (3) Reduce maintenance needs for lower Calabazas and San Tomas Aquino creeks; and (4) Provide enhanced public access and trail improvements. Carbon sequestration is not currently a primary project objective but once the project is sufficiently developed, carbon sequestration could be evaluated as an incidental benefit or project objective. Valley Water is currently planning the Creeks Connection Project, with anticipated implementation in 2029, but the project is not currently sufficiently developed to allow meaningful environmental review. Once the Creeks Connection Project is further developed and a meaningful analysis is feasible, it will undergo a project-level CEQA review.

Table 2-4. Proposed GHG Reduction Measures

Reduction Measure	Description
Scope 1 Measures	
VF-1: Zero Emission On-Road Fleet	Convert 35% of Valley Water’s on-road fleet fuel use to zero-emission fuels (e.g., electricity, renewable diesel) by 2030, and 100% by 2045. <i>This measure is described further in Section 2.3.</i>
OF-1: Zero Emission Off-Road Fleet	Require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 95% of Valley Water’s off-road fleet by 2030, and 100% by 2045.
HG-1: Phase Out High-GWP Refrigerants	Replace high-GWP refrigerants with low-GWP alternatives above and beyond the requirements of SB 1206.
FE-1: Facility Electrification	Electrify 30% of existing facility natural gas use by 2030, and 76% by 2045. <i>This measure is described further in Section 2.3.</i>
Scope 3 Measures	
EC-1: Reduce Employee Commute Emissions	Implement incentives to encourage employees to reduce their VMT or reduce emissions from their commute vehicle.
SW-1: Increase Solid Waste Diversion	Divert 80% of waste from Valley Water offices from landfills by 2030, and 90% by 2045. Improve solid waste tracking by conducting regular assessments of waste characterization.
CN-1: Zero Emission Off-Road Construction Equipment	For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 17% of off-road construction equipment fuel use in equipment greater than 25 hp by 2030, and 70% by 2045 regardless of the engine Tier.
CN-2: Zero Emission On-Road Construction Vehicles	For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 35% of on-road construction vehicle fuel use by 2030, and 100% by 2045.
WA-1: Increase Water Conservation	Increase communitywide water conservation to 98,800 acre-feet per year by 2030 and 118,000 acre-feet per year by 2045.
CS-1: Sequester Carbon	Sequester carbon in habitat enhancement and restoration projects. Collaborate with regional conservation agencies to identify projects that are beyond project mitigation (Non-anthropogenic source).
CS-2: Purchase Carbon Offsets	Purchase carbon offsets from verified offset registries, prioritizing local or regional projects and, if necessary, projects outside of the state, but within the U.S. Prohibit carbon offset purchases that are unverified or located outside of the U.S. (Non-anthropogenic source)

Notes: GHG = greenhouse gas, GHGRP = Greenhouse Gas Reduction Plan, GWP = global warming potential, SB = Senate Bill, VMT = vehicle miles traveled.

The remainder of this section provides a description of the location, components, construction, and operations and maintenance activities of the following reduction measures: VF-1: Zero Emission On-Road Fleet and FE-1: Facility Electrification.

2.3. Description of Reduction Measure Projects with Potential for Physical Impacts

2.3.1. VF-1: Zero Emission On-Road Fleet (Electric Vehicle Charging Stations)

Valley Water is in the process of planning and designing 20 electric vehicle (EV) charging stations for their on-road fleet and employee charging in support of GHG Reduction Measure VF-1, which would convert 35% of Valley Water's on-road fleet fuel use to zero-emission fuels (e.g., electricity, renewable diesel) by 2030, and 100% by 2045.

Location

The EV charging stations would be located at Valley Water's existing facilities, as shown in **Table 2-5** and **Figure 2-8**. This includes eight facilities in the City of San José, one in Los Gatos, and one in Morgan Hill.

Table 2-5. Proposed Electrical Vehicle Charging Stations at Existing Valley Water Facilities

Location	Address	Type	Customer Type	Planned Stations	Planned Ports
Blossom Hill Annex	1020 Blossom Hill Road, San José, CA 95123	CT4000 Level 2	Staff and Public	2	4
Water Quality Lab	1026 Blossom Hill Road, San José, CA 95123	CT4000 Level 2	Staff and Public	2	4
Winfield Warehouse	5905 Winfield Blvd., San José, CA 95123	CT4000 Level 2	Fleet	1	2
Winfield Vegetation	5905 Winfield Blvd., San José, CA 95123	CT4000 Level 2	Fleet	2	4
Maintenance Shops	5770 Almaden Expressway, San José, CA 95118	Powerflex	Fleet	5	10
Coyote Pump Plant	18300 Peet Road, Morgan Hill, CA 95037	CT4000 Level 2	Fleet, Staff	2	4
Penitencia Water Treatment Plant (Operations Building)	3959 Whitman Way, San José, CA 95123	CT4000 Level 2	Fleet, Staff	2	4
Penitencia Water Treatment Plant (Maintenance Building)	3959 Whitman Way, San José, CA 95123	CT4000 Level 2	Fleet, Staff	2	4
Vasona Pumping Station	14545 Oka Road, Los Gatos, CA 95032	CT4000 Level 2	Fleet, Staff	1	2
Silicon Valley Advance Water Purification Center	4190 Zanker Road, San José, CA 95134	CT4000 Level 2	Fleet, Staff	1	2

Note: Each Electrical Vehicle Charging Station has two ports (i.e. cables that plug into vehicles).

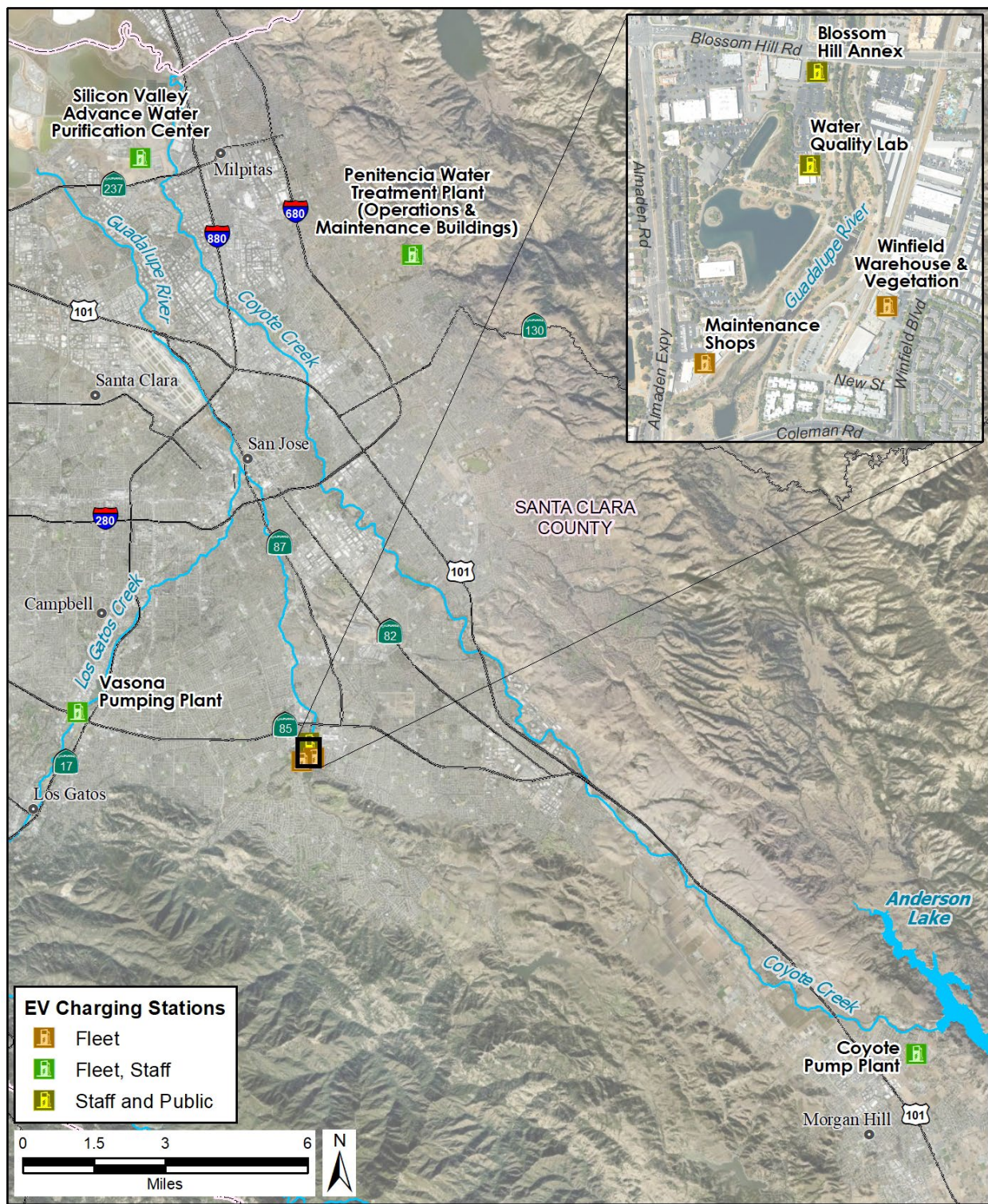


Figure 2-8. EV Charging Station Locations within the Plan Area

Components

EV chargers are devices that provide electrical energy to recharge the batteries of EVs. Examples of Valley Water's existing EV chargers are shown in **Figures 2-9, 2-10, and 2-11**. They come in three different types or levels. Level 1 EV chargers are the slowest, providing up to 120 volts of alternating current (AC) power and up to 2.4 kilowatts (kW). Level 2 EV chargers are faster, providing up to 240 volts of AC power and 19 kW. Level 3 EV chargers, also known as DC fast chargers, are the fastest, providing up to 480 volts of direct current (DC) power and up to 350 kW of power. DC fast chargers are typically used for commercial applications and can give a full charge to an EV in as little as 30 minutes (Besen Group 2025).

EV charging stations include the following elements:

- **Power Supply:** The power supply converts the grid's AC or DC electrical power into the appropriate voltage and current to charge the EV's battery. The power supply component typically consists of a transformer, rectifier, and control circuitry. The power supply is a critical component of EV chargers, as it determines the charging speed and efficiency. Valley Water would evaluate the electrical infrastructure for limitations and run properly sized wire from a main or sub-panels with dedicated breakers to transformers and charging pedestals. All panels and charging pedestals would be labeled for proper identification.
- **Connector:** EV charging connectors (accessories) consist of the plug, which goes into the electric vehicle's inlet, and the socket. The plug and socket have pins that match and connect to form an electrical circuit. The pins can handle a range of high currents and voltages without overheating or causing electrical arcing.
- **Charging Cable:** The charging cable is the connection between the charging station and the EV. It carries the electric current from the charging station to the EV's battery. The quality and type of charging cable used can affect the speed and efficiency of the charging process.
- **Control Board:** The control board is the brain of the charging station. It manages the charging process and ensures the EV battery is safe and efficient. It typically consists of a microcontroller, voltage and current sensors, relays, and other components.
- **User Interface:** The user interface is part of the charging station that the user interacts with. It typically includes a screen, buttons, or other input devices that allow the user to input information and control the charging process. The charging station can integrate or connect the user interface to a separate device, including a mobile app.



Figure 2-9. Existing Staff and Public Level 2 EV Charger



Figure 2-10. Existing Fleet Level 2 EV Charger



Figure 2-11. Existing Level 3 EV Charger

Construction

Constructing an EV charging station involves securing necessary permits and approvals, including those related to zoning, building, electrical, and fire safety. EV chargers must also demonstrate compliance with American with Disabilities Act (ADA) regulations and accommodate parking configurations. The installation of EV charging stations would involve minimal ground disturbance and would be confined to developed or previously disturbed areas (existing parking area) at Valley Water facilities. The following outlines the standard construction practices associated with EV charging infrastructure:

- **Site Preparation and Surveying:** Prior to construction, a site survey is conducted to assess existing utilities, access points, and ADA compliance. Minor site preparation may include clearing surface debris and marking underground utilities.

- **Trenching and Conduit Installation:** Electrical conduit is installed to connect the EV charging equipment to the electrical supply. This would involve shallow trenching (typically 18 to 36 inches deep) through existing pavement or adjacent landscaped areas. Where feasible, horizontal directional drilling or saw-cutting may be used to limit surface disruption. Spoils from trenching would be reused or disposed of in accordance with applicable regulations.
- **Electrical Upgrades and Panel Installation:** If necessary, electrical upgrades (e.g., transformer upgrades, new panels, or meter installations) would be coordinated with the local utility provider. These installations typically occur within existing electrical rooms, utility vaults, or designated service areas.
- **Equipment Mounting and Foundation Work:** Charging units would be mounted on newly constructed concrete pads and bollards or wheel stops would be installed to protect the equipment. Construction of pads or protective features may require minor excavation and concrete work, generally within previously paved areas.
- **Surface Restoration and Striping:** Once equipment installation is complete, disturbed areas are restored to pre-construction conditions. This would include re-paving, re-striping of parking stalls, and replacement of landscaping as needed to comply with local aesthetic or stormwater management requirements.
- **Testing and Commissioning:** Final activities include testing the electrical systems, network integration, and ensuring ADA and safety compliance. These activities do not require additional ground disturbance.

Staging of equipment and materials would be in existing disturbed locations such as paved or graveled parking facilities or other disturbed parcels, and no new ground disturbance would occur for staging.

Operations and Maintenance Activities

Operation and maintenance of EV charging stations involves a range of activities to ensure reliability and safety, including regular inspections, cleaning, and software updates, as well as addressing issues like cable damage and connector wear.

2.3.2. FE-1: Facility Electrification

Existing Valley Water facilities, including operational buildings, offices, control buildings, water treatment plants and other equipment required to support the treatment and delivery of water, use natural gas for heating and power to some extent. Valley Water would replace natural gas and propane consuming equipment at its facilities with electrically powered equipment at the end of their useful life or in an order that replaces the oldest and most antiquated pieces of equipment first. Under FE-1, Valley Water would gradually transition Valley Water's facilities to all-electric, targeting electrification of 30% of existing natural gas use by 2030 and 76% by 2045.

Location

The following existing Valley Water facilities with gas heating would be converted to all-electric power:

- Administration Building – 5750 Almaden Expressway, San José, CA 95118
- Headquarters Building – 5700 Almaden Expressway, San José, CA 95118
- Maintenance Building – 5760 Almaden Expressway, San José, CA 95118
- Penitencia Water Treatment Plant – 3959 Whitman Way, San José, CA 95123
- Santa Teresa Treatment Plant – 7011 Graystone Lane, San José, CA 95120
- Vasona Pumping Station – 14545 Oka Road, Los Gatos, CA 95032

- Winfield Warehouse – 5905 Winfield Boulevard, San José, CA 95123
- Rinconada Treatment Plant – 400 More Avenue, Los Gatos, CA 95032
- Water Quality Laboratory – 1026 Blossom Hill Road, San José, CA 95123

These Valley Water facilities are located throughout Santa Clara County, as shown in **Figure 2-12**.

Components

Some upgrades to existing electrical systems may be required to ensure proper function. Transitioning Valley Water’s existing buildings and facilities to all-electric requires replacing natural gas or propane appliances with electric alternatives, such as electric heat pump space heating and water heating, cooktops, ovens, ranges, and dryers. All facilities already have electrical power; however, in some cases electrical panel upgrades, sub-panels, or other retrofits may be necessary.

Existing equipment would require removal and disposal at a landfill or other facility as required in compliance with existing regulations.

Construction

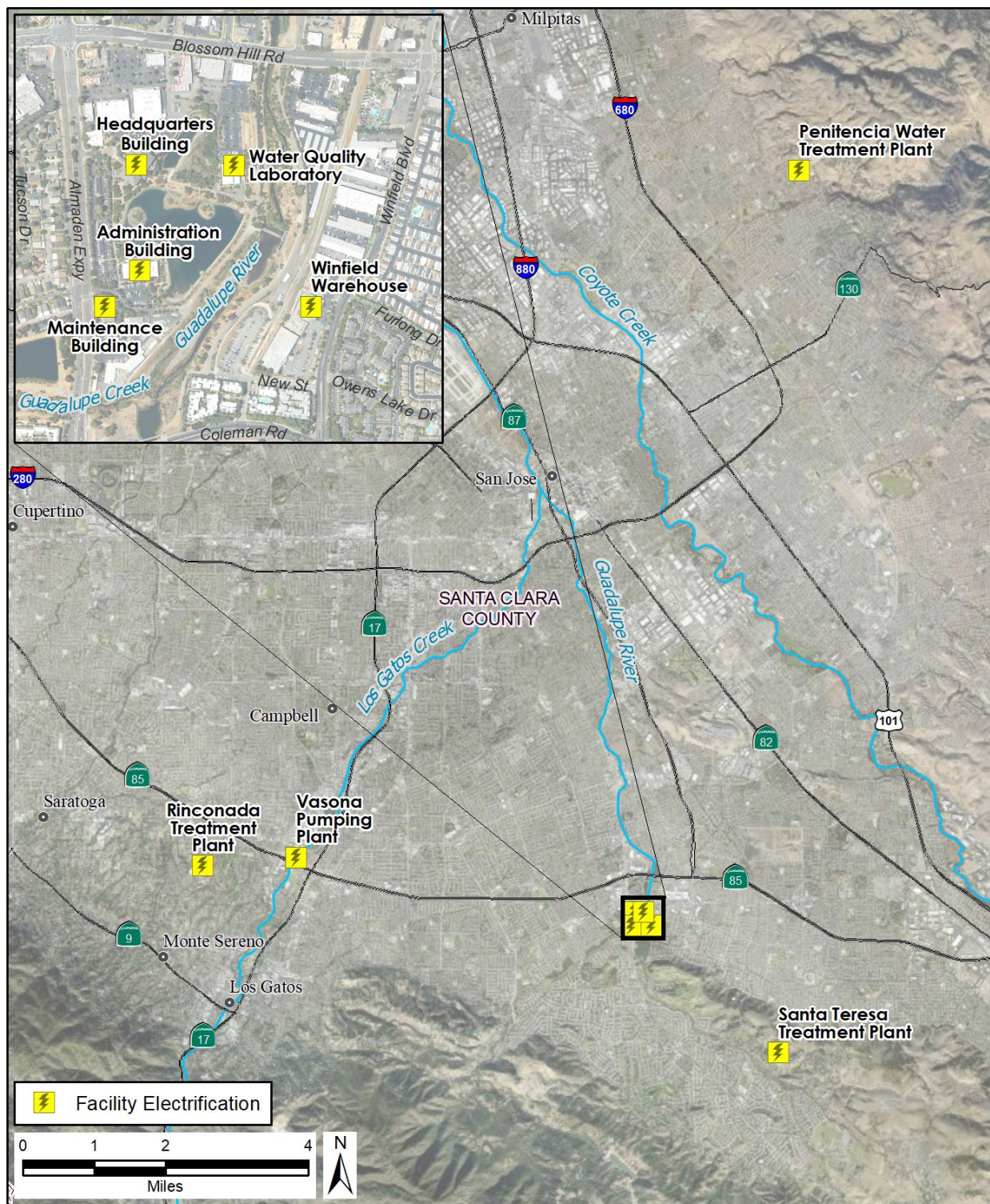
The following construction activities are required for facility electrification:

- **Removal of Existing Natural Gas Equipment:** Existing gas-fired boilers, water heaters, and heating, ventilation, and air conditioning (HVAC) units would be decommissioned and removed. All natural gas lines connected to decommissioned equipment are capped or removed in accordance with California Building Code (CBC) and local utility standards. Equipment removal is performed indoors and on building roofs/exterior, entirely within the footprints of existing structures.
- **Installation of Electric Equipment:** New electric water heaters, heat pump space heaters, and/or air handling systems would be installed in the same or adjacent locations to the former gas appliances. In most cases, this includes the placement of heat pump condenser units on rooftops, exterior walls, or adjacent concrete pads. Installation may require minor penetrations through walls or ceilings but does not involve major excavation or foundation work.
- **Electrical Upgrades:** Where existing electrical capacity is insufficient, panel upgrades, conduit installation, or minor trenching would be required to accommodate the increased load. Such activities would be limited to on-site, previously disturbed areas such as utility corridors, mechanical rooms, or parking areas. All electrical work is performed in compliance with applicable codes and permits.
- **Testing and Commissioning:** Once installation is complete, systems are tested for functionality, safety, and energy performance. Commissioning may include controls integration, air balancing, and user training.
- **Decommissioning of Redundant Infrastructure:** In some cases, associated natural gas infrastructure, such as regulators or meters, may be permanently removed or left in place for future flexibility. Any soil disturbance related to utility disconnection or equipment pad removal would be minor, localized, and subject to restoration.

Staging of equipment and materials would be in existing disturbed locations such as paved or graveled parking facilities or other disturbed parcels, and no new ground disturbance would occur for staging.

Operations and Maintenance Activities

Operations and maintenance activities would be similar to existing activities at facilities converted to all-electric uses; however, would be safer without having ignitable gas or propane.



Z:\Projects\2004818_ValleyWater_GHG\G002_2004818_TO3_FacilityElectrification.mxd
18Aug2025 RS

Figure 2-12. Facility Electrification Locations within the Plan Area

2.4. Avoidance and Minimization Measures

Valley Water developed the Best Management Practices Handbook (Handbook) to provide general technical guidance and standardized procedures for all Valley Water projects and activities (Valley Water 2025). The Handbook contains a comprehensive list of standard Best Management Practices (BMPs) that Valley Water incorporates into projects to avoid or minimize potential environmental impacts. In addition, Valley Water has identified additional noise avoidance and minimization measures (AMMs) for the project. BMPs from the Handbook and AMMs that are relevant to project construction activities and incorporated into the proposed project are identified below in **Table 2-6**.

Table 2-6. Applicable BMPs and AMMs

BMP or AMM No.	BMP Name and Description
Biological Resources	
BI-5	Avoid Impacts to Nesting Migratory Birds Nesting birds are protected by state and federal laws. Valley Water will protect nesting birds and their nests from abandonment, loss, damage, or destruction. Nesting bird surveys will be performed by a qualified biologist prior to any activity that could result in the abandonment, loss, damage, or destruction of birds, bird nests, or nesting migratory birds. Inactive bird nests may be removed with the exception of raptor nests. Birds, nests with eggs, or nests with hatchlings will be left undisturbed.
BI-6	Avoid Impacts to Nesting Migratory Birds from Pending Construction Nesting exclusion devices may be installed to prevent potential establishment or occurrence of nests in areas where construction activities would occur. All nesting exclusion devices will be maintained throughout the nesting season or until completion of work in an area makes the devices unnecessary. All exclusion devices will be removed and disposed of when work in the area is complete.
BI-7	Minimize Impacts to Vegetation from Survey Work Survey cross-sections will be moved, within acceptable tolerances, to avoid cutting dense riparian vegetation and minimize cutting of woody vegetation, taking advantage of natural breaks in foliage. If the cross-section cannot be moved within the established acceptable tolerances to avoid impacts to dense riparian or woody vegetation, the survey section will be abandoned.
BI-10	Avoid Animal Entry and Entrapment All pipes, hoses, or similar structures less than 12 inches diameter will be closed or covered to prevent animal entry. All construction pipes, culverts, or similar structures, greater than 2-inches diameter, stored at a construction site overnight, will be inspected thoroughly for wildlife by a qualified biologist or properly trained construction personnel before the pipe is buried, capped, used, or moved. If inspection indicates presence of sensitive or state- or federally-listed species inside stored materials or equipment, work on those materials will cease until a qualified biologist determines the appropriate course of action. To prevent entrapment of animals, all excavations, steep-walled holes or trenches more than 6-inches deep will be secured against animal entry at the close of each day. Any of the following measures may be employed, depending on the size of the hole and method feasibility: 1. Hole to be securely covered (no gaps) with plywood, or similar materials, at the close of each working day, or any time the opening will be left unattended for more than one hour; or 2. In the absence of covers, the excavation will be provided with escape ramps constructed of earth or untreated wood, sloped no steeper than 2:1, and located no farther than 15 feet apart; or 3. In situations where escape ramps are infeasible, the hole or trench will be surrounded by filter fabric fencing or a similar barrier with the bottom edge buried to prevent entry.

BMP or AMM No.	BMP Name and Description
BI-11	Minimize Predator-Attraction Remove trash daily from the worksite to avoid attracting potential predators to the site.
Cultural Resources	
CU-1	Accidental Discovery of Archaeological Artifacts or Burial Finds If historical or unique archaeological artifacts or tribal cultural resources are accidentally discovered during construction, work in affected areas will be restricted or stopped until proper protocols are met. Work at the location of the find will halt immediately within 100 feet of the find. A “no work” zone shall be established utilizing appropriate flagging to delineate the boundary of this zone. A Consulting Archaeologist will visit the discovery site as soon as practicable for identification and evaluation pursuant to PRC section 21083.2 and CCR section 15126.4. If the archaeologist determines that the artifact is not significant, construction may resume. If the archaeologist determines that the artifact is significant, the archaeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archaeologist will develop within 48 hours an Action Plan which will include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines. If a tribal cultural resource cannot be avoided, the Action Plan will include notification of the appropriate Native American tribe and consultation with the tribe regarding acceptable recovery options. If burial finds are accidentally discovered during construction, work in affected areas will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be immediately notified and the field crew supervisor shall take immediate steps to secure and protect such remains from vandalism during periods when work crews are absent. No further excavation or disturbance within 100 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.
Hazards and Hazardous Materials	
HM-7	Restrict Vehicle and Equipment Cleaning to Appropriate Locations Vehicles and equipment may be washed only at approved areas. No washing of vehicles or equipment will occur at job sites.
HM-8	Ensure Proper Vehicle and Equipment Fueling and Maintenance No fueling or servicing will be done in a waterway or immediate flood plain, unless equipment stationed in these locations is not readily relocated (i.e., pumps, generators). For stationary equipment that must be fueled or serviced on-site, containment will be provided in such a manner that any accidental spill will not be able to come in direct contact with soil, surface water, or the storm drainage system. All fueling or servicing done at the job site will provide containment to the degree that any spill will be unable to enter any waterway or damage riparian vegetation. All vehicles and equipment will be kept clean. Excessive build-up of oil and grease will be prevented. All equipment used in the creek channel will be inspected for leaks each day prior to initiation of work. Maintenance, repairs, or other necessary actions will be taken to prevent or repair leaks, prior to use. If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location will be done in a channel or flood plain.
HM-9	Ensure Proper Hazardous Materials Management Measures will be implemented to ensure that hazardous materials are properly handled, and the quality of water resources is protected by all reasonable means.

BMP or AMM No.	BMP Name and Description
	Prior to entering the work site, all field personnel will know how to respond when toxic materials are discovered. Contact of chemicals with precipitation will be minimized by storing chemicals in watertight containers with appropriate secondary containment to prevent any spillage or leakage. Petroleum products, chemicals, cement, fuels, lubricants, and non-storm drainage water or water contaminated with the aforementioned materials will not contact soil and not be allowed to enter surface waters or the storm drainage system. All toxic materials, including waste disposal containers, will be covered when they are not in use, and located as far away as possible from a direct connection to the storm drainage system or surface water. Quantities of toxic materials, such as equipment fuels and lubricants, will be stored with secondary containment that is capable of containing 110% of the primary container(s). The discharge of any hazardous or non-hazardous waste as defined in Division 2, Subdivision 1, Chapter 2 of the California Code of Regulations will be conducted in accordance with applicable State and federal regulations. In the event of any hazardous material emergencies or spills, personnel will call the Chemical Emergencies/Spills Hotline at 1-800-510-5151.
HM-10	Utilize Spill Prevention Measures Prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water following these measures: Field personnel will be appropriately trained in spill prevention, hazardous material control, and clean-up of accidental spills; Equipment and materials for cleanup of spills will be available on site, and spills and leaks will be cleaned up immediately and disposed of according to applicable regulatory requirements; Field personnel will ensure that hazardous materials are properly handled and natural resources are protected by all reasonable means; Spill prevention kits will always be in close proximity when using hazardous materials (e.g., at crew trucks and other logical locations), and all field personnel will be advised of these locations; and, The work site will be routinely inspected to verify that spill prevention and response measures are properly implemented and maintained.
HM-11	Ensure Worker Safety in Areas with High Mercury Levels To ensure worker safety is protected in areas with elevated mercury concentrations in exposed surfaces, personal protective equipment will be required during project construction to maintain exposure below levels established by the California Division of Occupational Safety and Health (Cal/OSHA).
Hydrology and Water Quality	
WQ-3	Limit Impact of Pump and Generator Operation and Maintenance Pumps and generators will be maintained and operated in a manner that minimizes impacts to water quality and aquatic species. Pumps and generators will be maintained according to manufacturers' specifications to regulate flows to prevent dry-back or washout conditions. Pumps will be operated and monitored to prevent low water conditions, which could pump muddy bottom water, or high water conditions, which creates ponding. Pump intakes will be screened to prevent uptake of fish and other vertebrates. Pumps in steelhead creeks will be screened according to NMFS criteria. Sufficient back-up pumps and generators will be onsite to replace defective or damaged pumps and generators.

BMP or AMM No.	BMP Name and Description
WQ-4	Limit Impacts From Staging and Stockpiling Materials To protect on-site vegetation and water quality, staging areas should occur on access roads, surface streets, or other disturbed areas that are already compacted and only support ruderal vegetation. Similarly, all equipment and materials (e.g., road rock and project spoil) will be contained within the existing service roads, paved roads, or other pre-determined staging areas. Building materials and other project-related materials, including chemicals and sediment, will not be stockpiled or stored where they could spill into water bodies or storm drains. No runoff from the staging areas may be allowed to enter waterways, including the creek channel or storm drains, without being subjected to adequate filtration (e.g., vegetated buffer, swale, hay wattles or bales, silt screens). The discharge of decant water to water ways from any on-site temporary sediment stockpile or storage areas is prohibited. During the wet season, no stockpiled soils will remain exposed, unless surrounded by properly installed and maintained silt fencing or other means of erosion control. During the dry season; exposed, dry stockpiles will be watered, enclosed, covered, or sprayed with non-toxic soil stabilizers.
WQ-5	Stabilize Construction Entrances and Exits Measures will be implemented to minimize soil from being tracked onto streets near work sites: Methods used to prevent mud from being tracked out of work sites onto roadways include installing a layer of geotextile mat, followed by a 4-inch-thick layer of 1- to 3-inch diameter gravel on unsurfaced access roads. Access will be provided as close to the work area as possible, using existing ramps where available and planning work site access so as to minimize disturbance to the water body bed and banks, and the surrounding land uses.
WQ-11	Maintain Clean Conditions at Work Sites The work site, areas adjacent to the work site, and access roads will be maintained in an orderly condition, free and clear from debris and discarded materials on a daily basis. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust into storm drains or waterways. For activities that last more than one day, materials or equipment left on the site overnight will be stored as inconspicuously as possible and will be neatly arranged. Any materials and equipment left on the site overnight will be stored to avoid erosion, leaks, or other potential impacts to water quality. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the work site.
WQ-15	Prevent Water Pollution Oily, greasy, or sediment laden substances or other material that originate from the project operations and may degrade the quality of surface water or adversely affect aquatic life, fish, or wildlife will not be allowed to enter, or be placed where they may later enter, any waterway. The project will not increase the turbidity of any watercourse flowing past the construction site by taking all necessary precautions to limit the increase in turbidity as follows: where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases will not exceed 5 percent; where natural turbidity is greater than 50 NTU, increases will not exceed 10 percent; 3. where the receiving water body is a dry creek bed or storm drain, waters in excess of 50 NTU will not be discharged from the project. Water turbidity changes will be monitored. The discharge water measurements will be made at the point where the discharge water exits the water control system for tidal sites and 100 feet downstream of the discharge point for non-tidal sites. Natural watercourse turbidity measurements will be made in the receiving water 100 feet upstream of the discharge site. Natural

BMP or AMM No.	BMP Name and Description
	watercourse turbidity measurements will be made prior to initiation of project discharges, preferably at least 2 days prior to commencement of operations.
WQ-16	Prevent Stormwater Pollution To prevent stormwater pollution, the applicable measures from the following list will be implemented: Soils exposed due to project activities will be seeded and stabilized using hydroseeding, straw placement, mulching, and/or erosion control fabric. These measures will be implemented such that the site is stabilized and water quality protected prior to significant rainfall. In creeks, the channel bed and areas below the Ordinary High Water Mark are exempt from this BMP. The preference for erosion control fabrics will be to consist of natural fibers; however, steeper slopes and areas that are highly erodible may require more structured erosion control methods. No non-porous fabric will be used as part of a permanent erosion control approach. Plastic sheeting may be used to temporarily protect a slope from runoff, but only if there are no indications that special-status species would be impacted by the application. Erosion control measures will be installed according to manufacturer's specifications. To prevent stormwater pollution, the appropriate measures from, but not limited to, the following list will be implemented: ▪ Silt Fences ▪ Straw Bale Barriers ▪ Brush or Rock Filters Storm Drain Inlet Protection ▪ Sediment Traps or Sediment Basins ▪ Erosion Control Blankets and/or Mats ▪ Soil Stabilization (i.e. tackified straw with seed, jute or geotextile blankets, etc.) ▪ Straw mulch All temporary construction-related erosion control methods shall be removed at the completion of the project (e.g. silt fences). Surface barrier applications installed as a method of animal conflict management, such as chain link fencing, woven geotextiles, and other similar materials, will be installed no longer than 300 feet, with at least an equal amount of open area prior to another linear installation.
WQ-17	Manage Sanitary and Septic Waste Temporary sanitary facilities will be located on jobs that last multiple days, in compliance with Cal/OSHA regulation 8 California Code of Regulations 1526. All temporary sanitary facilities will be located where overflow or spillage will not enter a watercourse directly (overbank) or indirectly (through a storm drain).
Transportation and Traffic	
TR-1	Use Suitable Public Safety Measures Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the public agency having jurisdiction, to give adequate warning to the public of the construction and of any dangerous condition to be encountered as a result thereof.
Noise	
AMM NO-1	Minimize Noise Generation Noise produced by construction activities will not exceed the applicable local noise ordinance standards. To comply with local ordinances, construction contractors shall only conduct activities during allowed daytime hours specified in the local code. If numerical noise standards are applicable to construction activities and sensitive receptors (residences, schools) are located within close proximity (i.e., 1,000 feet) of the use of heavy-duty equipment/generators, available best practices to reduce noise, including

BMP or AMM No.	BMP Name and Description
	locating equipment as far away as possible from receptors, enclosing stationary equipment with temporary sound barriers, limiting idle times to 3 minutes, and separating the work site from receptors with temporary sound barriers affixed to chain link fences, would be implemented by construction contractors. In all cases, heavy-duty equipment shall be inspected prior to use to ensure they are in good working order, adequately muffled, and equipped with manufacturers' standard noise control devices.

2.5. Project Permits and Other Approvals

Federal, state, and local agencies may rely on information in this ND to inform their decision-making regarding issuance of specific permits related to construction or operation of individual projects to be implemented under the proposed Plan. To the degree feasible, this ND identifies federal, state, and local permits and authorizations that may be required prior to construction for future projects envisioned as part of the proposed Plan, as well as the agencies that Valley Water would likely need to coordinate with regarding these future Plan activities. These may include, but are not limited to, the permits and/or approvals summarized in **Table 2-7**.

Table 2-7. Expected Project Permits, Approvals, and Consultations

Permit or Approval	Permitting or Approval Authority	Applicable Reduction Measure Project Activities
State		
Santa Clara Valley Habitat Plan	Santa Clara Valley Habitat Agency	VF-1 Electric Vehicle Charging Station
Portable Equipment Registration	California Air Resources Board	VF-1 Electric Vehicle Charging Station; FE-1 Facility Electrification
Regional and Local		
Building Permits	Local jurisdictions	VF-1 Electric Vehicle Charging Station; FE-1 Facility Electrification

3. Environmental Evaluation

In accordance with CEQA, this section provides an evaluation of the project's potential environmental effects to determine whether an EIR is needed. The evaluation follows the environmental checklist in Appendix G of the State CEQA Guidelines. Answers to the checklist questions provide factual evidence and Valley Water's rationale for determinations of the potential significance of impacts resulting from the project.

The checklist shows that the project would not have potentially significant effects as all impacts are less than significant or no impact. Valley Water's BMPs and project-specific AMMs have been incorporated into the project where applicable to avoid and minimize impacts. Therefore, the proposed ND is consistent with CEQA Guidelines section 15070.

Project Information

1. Project Title	Greenhouse Gas Reduction Plan
2. Lead Agency Name	Santa Clara Valley Water District (Valley Water) 5750 Almaden Expressway San José, CA 95118
3. Contact Person and Phone Number	Nick Mascarello, Associate Environmental Planner
4. Project Location	Santa Clara County
5. Project Sponsor's Name and Address	Santa Clara Valley Water District (Valley Water) 5750 Almaden Expressway San José, CA 95118
6. General Plan Designation	Public, Public Facilities, Industrial Park (IP), Combined Industrial/Commercial (CIC), Open Space, Parklands and Habitat (OSPH), Public/Quasi-Public (PQP), Residential
7. Zoning	Agriculture-Planned Development (A[PD]), Single Family Residential/Pre-zoned, R-1-8 Residence District, Public Facilities, Light Industrial (LI), PQP District
8. Description of the Project	The Plan is to reduce Valley Water's greenhouse gas (GHG) emissions and achieve a carbon neutrality target by 2045. GHG reduction measure projects analyzed include installing electric vehicle charging stations and facility electrification.
9. Surrounding Land Uses and Setting	CIC, Regional Commercial (RC), PQP, IP, Transit Residential, Mixed Use Neighborhood, Mobile Home Park, Neighborhood/Community Commercial, Urban Residential (UR), Residential, Low Density Residential/Open Space, High Density Residential, Open Hillside, Lower Hillside, OSPH
10. Other public agencies whose approval is required	Santa Clara Habitat Agency for covered activities within Valley Habitat Plan, CARB for portable equipment registration, Local Jurisdictions for building permits
11. Have California Native Americans affiliated with the project area requested consultation pursuant to PRC Section 21080.3.1?	Yes, refer to Chapter 3.18 for further information.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy Use
☐ Geology and Soils	☐ GHG Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Utilities and Service Systems
☐ Tribal Cultural Resources	☐ Wildfire	☐ Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Melanie Richardson, P.E.
Interim Chief Executive Officer
Valley Water

Date

3.1. Reduction Measures Dismissed from Further Analysis

This section provides an analysis of reduction measures with no potential to result in adverse physical changes to the environment.

3.1.1. Scope 1 Measures

VF-1: Zero Emission On-Road Fleet

The development and use of EV charging stations under VF-1 is evaluated in the environmental analysis in this chapter. The remainder of this analysis focuses on the use of zero-emission fuels under VF-1. VF-1 targets the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 35% of on-road fleet vehicle fuel use by 2030, and 100% by 2045. Implementation of VF-1 would require use of zero-emission fuels instead of conventional diesel in off-road fleet vehicles. Compared to use of conventional diesel, the change to zero-emissions fuels would eliminate GHGs and other criteria air pollutant emissions with use of electricity/EVs and reduce GHGs and other criteria air pollutant emissions including particulate matter (PM) and nitrogen oxides [NO_x] with use of renewable diesel (SMAQMD 2015). Therefore, use of zero-emission fuels under VF-1 would not cause adverse physical changes to the environment and is dismissed from further analysis.

OF-1: Zero Emission Off-Road Fleet

OF-1 targets the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 95% of off-road fleet vehicle fuel use by 2030, and 100% by 2045. Implementation of OF-1 would not require new facilities, other development, or construction activities. The development and use of EV charging stations analyzed under VF-1 would also provide additional charging capacity at Valley Water facilities, if electrified equipment is incorporated into the off-road fleet as part of OF-1 implementation. The only change from implementation of OF-1 is using zero-emission fuels instead of conventional diesel in off-road fleet vehicles. Compared to use of conventional diesel, the change to zero-emissions fuels would eliminate GHGs and other criteria air pollutant emissions with use of electricity/EVs and reduce GHGs and other criteria air pollutant emission including PM and NO_x with use of renewable diesel (SMAQMD 2015). Therefore, OF-1 would not cause adverse physical changes to the environment and is dismissed from further analysis.

HG-1: Phase Out High-GWP Refrigerants

Implementation of HG-1 would not require new facilities, additional development, or construction activities. HG-1 would replace high-GWP refrigerants with low-GWP alternatives above and beyond the requirements of SB 1206. The measure would be implemented through procurement and maintenance policies that accelerate replacement of high-GWP refrigerants with low-GWP alternatives in existing facilities. Because of this, Valley Water would not be disposing of additional waste. Phasing out old, high-GWP refrigerants could result in earlier replacement of some refrigerant-containing equipment and associated handling of refrigerants. However, refrigerants and related components would be recovered, recycled, or disposed of in accordance with applicable federal, state, and local requirements and consistent with existing practices at the end of its useful life. This measure would not increase facility use, change operations, or introduce new waste streams beyond what occurs under existing routine maintenance and end-of-life equipment replacement. Therefore, HG-1 would not cause adverse physical impacts on the environment, and this measure is dismissed from further analysis.

3.1.2. Scope 3 Measures

EC-1: Reduce Employee Commute Emissions

Implementation of EC-1 would consist of administrative and programmatic actions, such as providing incentives or support for reduced VMT, hybrid home/office work schedules, carpooling, or promoting alternative transit options for employees. These actions do not require construction, modification of transportation infrastructure, or changes to land use. Employee participation in incentive programs would occur voluntarily and would involve individual behavioral changes rather than physical alterations to the environment. Valley Water already provides preferential parking for carpools, EV charging, and bicycle amenities such as secured bike parking. Additional actions that could be evaluated or expanded include subsidized or free transit passes, bicycle tool libraries, bike-to-work events, and subsidies for bicycle-related expenses. Any shift in commute patterns would likely result in reduced vehicle trips or reduced per-trip emissions, leading to reductions in air pollutant and GHG emissions. While increased use of existing public transportation systems could occur, no expansion or modification of those systems would be required as part of this measure. Additionally, fewer vehicles on the road during high traffic commuting hours could have a beneficial impact on transportation networks. Therefore, EC-1 would not cause adverse physical changes to the environment, and this measure is dismissed from further analysis.

SW-1: Increase Solid Waste Diversion

Implementation of SW-1 would rely on operational and administrative changes at Valley Water offices to improve waste sorting, expanded use of existing recycling and organics collection services, and enhanced tracking of waste streams. The measure targets diversion of 80% of office waste from landfills by 2030 and 90% by 2045 and includes regular waste tracking to identify share of organics, recyclables, and non-recyclables. Under SW-1, Valley Water would increase the use of separate organics and recycling bins and utilize existing organics waste collection services. Implementation would rely on existing permitted recycling and organics processing facilities and existing municipal solid waste infrastructure; it would not require construction of new waste management facilities or expansion of existing facilities. SW-1 would not increase the total volume of waste generated; it would change waste streams by diverting waste from landfill disposal to recycling and organics processing. All federal, state, and local laws would be followed in the disposal of solid waste. The net environmental effect would be beneficial due to reduced landfill methane and reduced upstream emissions associated with recovered materials (Zaw Oo, et al. 2024). Therefore, SW-1 would not cause adverse physical changes to the environment and is dismissed from further analysis.

CN-1: Zero Emission Off-Road Construction Equipment

CN-1 targets the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 17% of off-road contracted construction equipment fuel use in equipment greater than 25 hp by 2030, and 70% by 2045 regardless of the engine tier. CN-1 would be implemented through contract specifications and reporting requirements for Valley Water construction projects performed by an external contractor, not through changes to the scope, footprint, duration, or intensity of construction activity. These actions are administrative and contractual and would not necessitate construction of new fueling or charging facilities. Implementation would not change construction scope, haul routes, trip numbers, or construction duration. The only change from implementation of CN-1 is using zero-emission fuels instead of conventional diesel in contracted off-road construction equipment. Compared to use of conventional diesel, the change to zero-emissions fuels would eliminate GHGs and other criteria air pollutant emissions with use of electricity/EVs and reduce GHGs and other criteria air pollutant emission including PM and NO_x with use of renewable diesel (SMAQMD 2015). Therefore, CN-1 would not cause adverse physical changes to the environment and is dismissed from further analysis.

CN-2: Zero Emission On-Road Construction Vehicles

CN-2 targets the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 35% of on-road contracted construction vehicle fuel use by 2030, and 100% by 2045. CN-2 would be implemented through contract specifications and reporting requirements for Valley Water construction projects performed by an external contractor affecting on-road construction vehicles used to transport materials and equipment. These actions are administrative and contractual and would not necessitate construction of new fueling or charging facilities. Implementation would not change construction scope, haul routes, trip numbers, or construction duration. The only change from implementation of CN-2 is using zero-emission fuels instead of conventional diesel in contracted on-road construction equipment. Compared to use of conventional diesel, the change to zero-emissions fuels would eliminate GHGs and other criteria air pollutant emissions with use of electricity/EVs and reduce GHGs and other criteria air pollutant emission including PM and NO_x with use of renewable diesel (SMAQMD 2015). Therefore, CN-2 would not cause adverse physical changes to the environment and is dismissed from further analysis.

WA-1: Increase Water Conservation

WA-1 is a programmatic measure implemented through water conservation programs and incentives consistent with Valley Water policy and long-term planning. The measure targets water conservation of 98,800 acre-feet per year by 2030 and 118,000 acre-feet per year by 2045. Water conservation programs could include turf replacement rebates, irrigation equipment upgrades, graywater rebates, and advanced metering infrastructure. This measure would not require construction activities and changes would be implemented voluntarily by residential or commercial users on already developed private properties and would typically involve minor equipment changes or landscape modifications. Valley Water's role is to provide incentives and program administration; it does not control the design or execution of individual private actions. These activities, carried out by landowners on their private property, are generally expected to reduce water demand. Therefore, WA-1 would not cause adverse physical changes to the environment and is dismissed from further analysis.

CS-2: Purchase Carbon Offsets

CS-2 would be implemented through purchase of verified carbon offsets from established offset registries, prioritizing local or regional projects and, if necessary, other projects within the U.S, while prohibiting offsets that are unverified or located outside of the U.S. Valley Water's role would be limited to purchasing carbon offsets through a verified registry. Any offsets procured under Measure CS-2 must meet requirements at least as strict as California's under CEQA, meaning that they must be voluntary and not otherwise required by law or regulation (CEQA Guidelines §15126.4(c)(3)), must avoid double counting, and must not be used to satisfy any other compliance obligation (refer to description of Measure CS-2 for all requirements associated with carbon offset purchases). The purchase of carbon offsets would not involve construction activities or other physical changes to the environment by Valley Water. Therefore, CS-2 would not cause adverse physical changes to the environment and is dismissed from further analysis.

3.2. Aesthetics

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
I. AESTHETICS – Except as provided in PRC Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.2.1. Environmental Setting

Visual Character and Quality

The natural setting and landscape of the area containing the reduction measure projects includes the Santa Clara Valley, the Diablo Range to the east, Santa Cruz Mountains to the west, and the Baylands in the northwest. The Santa Clara Valley is surrounded by rolling hills and runs the entire length of the County from north to south. The Diablo Range covers the entire eastern half of the County. It consists mainly of grasslands, brush and oak savannah, due mostly to sparse rainfall. The Santa Cruz Mountains contain rolling grasslands and oak-studded foothills adjacent to the valley, while mixed hardwoods and dense evergreen forests predominate in the higher elevations west. The Baylands lie in the northwestern part of the County, adjacent to the waters of the southern San Francisco Bay. They consist mostly of vast salt evaporation ponds and remnant areas of salt marsh and wetlands. The northern Santa Clara Valley is extensively urbanized, housing approximately 90% of the County's residents. Thirteen of the County's 15 cities are located in the North Valley, while the remaining two cities, Gilroy and Morgan Hill, are located in the southern portion of the Santa Clara Valley. In general, the visual character of the EV charging station project sites are urban with the sites surrounded by fencing or ornamental landscaping. Viewer groups consist of Valley Water staff and the public.

Scenic Views

Scenic views of the Diablo Range and Santa Clara County Valley are provided by local roads and highways, including US Route 101, Interstate 680, State Route (SR) 238, and Mount Hamilton Road and the Santa Teresa County Park, Coyote Ridge Trail, and Montgomery Hill Park. The hillsides and ridgelines of the Diablo Range are natural features of the environment, forming an important topographic setting

rising above Santa Clara Valley (Santa Clara County 1995). No County- or City-designated scenic vistas are located within the EV charging station project sites or vicinity (Santa Clara County 1995, City of San José 2011, Town of Los Gatos 2024, City of Morgan Hill 2016).

Scenic Highways

Two routes in Santa Clara County have been officially designated as State Scenic Highways. SR 35, also known as the Skyline Scenic Recreation Route, begins at the northern end of Skyline Boulevard and follows the crest of the Santa Cruz Mountains from SR 17 in Santa Clara County to the City and County of San Francisco. SR 9 runs from Los Gatos to Saratoga, which then turns into the Santa Cruz Mountains under the name of Congress Springs Road and travels up to Skyline Boulevard (Santa Clara County 1995, Town of Los Gatos 2024).

Five additional routes in Santa Clara County are now in the State's Scenic Route Master Plan, but have not been officially designated as State Scenic Routes: SR 17 from Los Gatos to the Santa Cruz County Line, SR 152 (the Pacheco Pass Highway), SR 156 from Pacheco Pass Highway south into San Benito County and Hollister, Interstate 280 (Junipero Serra Freeway) from San Francisco to its intersection with SR 17, and SR 35 (Skyline Scenic Recreation Route) between SR 17 and the Santa Cruz-San Mateo County boundary (Santa Clara County 1995).

In the City of San José, Interstate 280 is an eligible State Scenic Highway (California Department of Transportation 2025). As defined in the City of San José General Plan, the designation of a scenic route in the City of San José applies to routes that afford especially aesthetic views (City of San José 2011).

There are no state-designated scenic highways within the viewshed of the EV charging stations project sites.

Light and Glare

Nighttime lighting is necessary to provide and maintain safe environments. Light that falls beyond the intended area of illumination is referred to as "light trespass." The most common cause of light trespass is spillover light, which occurs when a lighting source illuminates surfaces beyond the intended area, such as when building security lighting or parking lot lights shine onto neighboring properties. Spillover light can adversely affect light-sensitive uses, such as residences, at night. Both light intensity and fixtures can affect the amount of light spillover. Modern, energy-efficient fixtures that face downward, such as shielded light fixtures, are typically less obtrusive than older, upward-facing light fixtures.

Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight.

Existing sources of light in the project locations consist of security and parking lot lighting at Valley Water facilities, which are directed downward. Throughout the project area vicinity, the primary sources of nighttime lighting are associated with streetlights, commercial and industrial businesses, and residences.

3.2.2. Discussion

a) Have a substantial adverse effect on a scenic vista?

The reduction measure projects do not include new structures that could affect scenic vistas. No County- or City-designated scenic vistas are located within the EV charging stations project sites or vicinity. Facility electrification would occur in existing buildings. Therefore, the proposed project would have **no impact** on scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The reduction measure projects do not include new structures that could damage scenic resources within a state-designated scenic highway. The EV charging station project sites are not located within or adjacent to, nor are they visible from, any state-designated scenic highways. Facility electrification would occur in existing buildings. Therefore, the reduction measure projects would not substantially damage scenic resources, including trees, rock outcroppings, or historic buildings within a state-designated scenic highway. There would be **no impact** on scenic highways.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The reduction measure projects do not include new structures that could affect existing visual character or quality. The reduction measure projects would involve minimal ground disturbance and would be confined to developed or previously disturbed areas (existing parking areas) at Valley Water facilities. **Figures 2-9, 2-10, and 2-11** in Chapter 2 “Project Description” show examples of typical Valley Water EV charging stations. These types of EV charging stations are relatively common features in urban settings and would be consistent with viewer expectations in an urban environment. There are no regulations applicable to reduction measure projects. Zoning of the reduction measure project sites is discussed further in Section 3.12 “Land Use and Planning.” Therefore, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality. **No impact** would occur.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The reduction measure projects do not include new structures that could create a new source of substantial light or glare. Construction activities would occur during daylight hours for the implementation of EV charging station projects. The EV charging stations would be confined to parking facilities with existing sources of light. No new permanent lighting would be required for the EV charging stations. In addition, the EV charging stations would be composed of non-reflective materials. Facility electrification would occur in existing buildings. There would be **no impact**.

3.3. Agriculture and Forestry Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may <i>refer to</i> the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may <i>refer to</i> information compiled by the California Department of Forestry and Fire Protection [CAL FIRE] regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by CARB. – Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.3.1. Environmental Setting

Important Farmland

The California Department of Conservation (DOC) FMMP identifies lands that have agricultural value and maintains a statewide map of agricultural lands in its Important Farmland Inventory System (DOC 2004). The Important Farmland Inventory System classifies land based upon its productive capabilities, which is based on many characteristics, including fertility, slope, texture, drainage, depth, salt content, and availability of water for irrigation. The California Department of Conservation maintains the FMMP and monitors the conversion of farmland to and from agricultural use through its Important Farmland Inventory. Farmlands are divided into the following categories: Prime Farmland; Farmland of Statewide Importance; Unique Farmland; Farmland of Local Importance; Grazing Land; Urban and Built-up Land; and Other Land.

All reduction measure project sites are located on land designated as Urban and Built-Up, which is defined as “land occupied by structures, such as residential, industrial, and commercial buildings, at a density of at least one unit per 1.5 acres or approximately six structures per 10-acre parcel” (DOC 2022). None of the project sites have a land use designation of agriculture (City of San José 2011, Town of Los Gatos 2022, City of Morgan Hill 2022). Several of the sites (Penitencia Water Treatment Plant, Rinconada Treatment Plant, Headquarters Building, Administration Building, Maintenance Building, Maintenance Shops, Winfield Warehouse, Santa Teresa) have a land use designation of hillside, open space, or are adjacent to these parcels with these land uses. Some of the sites (Headquarters Building, Administration Building, Maintenance Building, Maintenance Shops, Winfield Warehouse, Blossom Hill Annex, Water Quality Laboratory) are zoned as Agriculture/Planned development by the City of San José, meaning these parcels have a “base” zone of Agriculture but development is an allowable use (City of San José 2025).

Williamson Act Contracts

The California Land Conservation Act of 1965, also known as the Williamson Act, is designed to preserve agricultural and open space lands by discouraging their premature and unnecessary conversion to urban uses. Williamson Act contracts, also known as agricultural preserves, create an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. Because all the sites are designated as Urban and Built-Up by the FMMP, none of the reduction measure project sites are enrolled in a Williamson Act contract.

Forestry Resources

PRC Section 12220(g) defines “forest land” as land that can support 10% native tree cover and forest vegetation of any species, including hardwoods, under natural conditions and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Because all the sites are designated as Urban and Built-Up by the FMMP, none of the reduction measure project sites include forest land.

3.3.2. Discussion

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use?**

None of the reduction measure project sites contain farmland, as they are all designated as urban and built-up areas by the FMMP. Physical changes to the environment that occur because of reduction measures projects would be limited to existing developed Valley Water facilities. Therefore, the proposed project would not convert Farmland to non-agricultural use. There would be **no impact**.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

Reduction measure project sites are not zoned for agriculture (County of Santa Clara 2016, City of San José 2025). See section 3.12 “Land Use” for additional details. The implementation of reduction measure projects would not overlap with or conflict with existing agricultural use or existing Williamson Act contracts. Construction and operation of reduction measure projects would be limited to existing developed Valley Water Facilities. There would be **no impact**.

- c), d) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? Result in the loss of forest land or conversion of forest land to non-forest use?**

The reduction measure project sites contain no forest land and the implementation of the reduction measure projects would not remove any forest land or conflict with existing uses in the area as they would either use take place in existing facilities or non-forested areas. Therefore, the proposed project would not conflict with existing zoning or cause rezoning of forestland and would not remove forest land or convert forest land to non-forest use. **No impact** would occur.

- e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

Refer to the discussion of potential conversion of farmland in Question (a) above in this section. Additionally, implementation of the reduction measure projects would not impact surrounding forest land in the project area. Therefore, **no impact** would occur.

3.4. Air Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.4.1. Environmental Setting

The reduction measure project sites are within the boundaries of the San Francisco Bay Area Air Basin, which is governed by the Bay Area Air District ([Air District], formerly the Bay Area Air Quality Management District). Air quality in the area is regulated by the U.S. Environmental Protection Agency (EPA), the CARB, and the Air District. Air quality is influenced by the rate, amount, and location of pollutant emissions, as well as the associated meteorological conditions that affect pollutant movement and dispersal. Each agency develops rules, regulations, and policies to comply with applicable legislation. EPA and CARB have set ambient air quality standards for certain air pollutants to protect public health and welfare. Atmospheric conditions, including wind speed, wind direction, and air temperature, in combination with local surface topography (i.e., geographic features, such as mountains and valleys), determine the effect of air pollutant emissions on local and regional air quality.

Climate, Meteorology, and Topography

The Bay Area region has a Mediterranean climate characterized by wet winters and dry summers. The topography is complex, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. Eleven climatological subregions are located within the San Francisco Bay Area Air Basin, including the Santa Clara Valley. The Santa Clara Valley is bound by San Francisco Bay to the north and by mountains to the east, south, and west. Temperatures are warm on summer days and cool on summer nights, and winter temperatures are mild. At the northern end of the valley, mean maximum temperatures are in the low-80s during the summer and high 50s in the winter; mean minimum temperatures range from the high 50s in the summer to the low 40s in the winter (degrees Fahrenheit [°F]). Further inland, where the moderating effect of the San Francisco Bay is not as strong, temperature extremes are greater. Winds in the valley are greatly influenced by the terrain, resulting in

a prevailing flow that roughly parallels the valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley during the afternoon and early evening, and a light south-southeasterly drainage flow occurs during the late evening and early morning. In the summer, the southern end of the valley sometimes becomes a "convergence zone," when air flowing from Monterey Bay gets channeled northward into the southern end of the valley and meets with the prevailing north-northwesterly winds. Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with the occasional winter storm.

Criteria Air Pollutants

Concentrations of emissions from criteria air pollutants are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. However, for the purposes of this analysis, criteria air pollutants of primary concern due to their nonattainment status include ozone (and ozone precursors) and particulate matter (PM). Santa Clara County attainment statuses under the California ambient air quality standards (CAAQS) and national ambient air quality standards (NAAQS) are shown in **Table 3.4-1**.

Table 3.4-1 Attainment Status Designations for Santa Clara County

Pollutant	NAAQS	CAAQS
Ozone	Nonattainment	Nonattainment
PM ₁₀	Unclassifiable	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Unclassifiable/Attainment	Attainment
NO ₂	Unclassifiable/Attainment	Attainment
SO ₂	Unclassifiable/Attainment	Attainment
Lead	Unclassifiable/Attainment	Attainment
Visibility-Reducing Particles	No National Standard	Unclassified
Sulfates	No National Standard	Attainment
Hydrogen Sulfide	No National Standard	Unclassified
Vinyl Chloride	No National Standard	No Information Available

Toxic Air Contaminants

Toxic air contaminants (TACs) are a defined set of airborne pollutants that may pose a current or potential hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity may pose a threat to public health even at low concentrations. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust, particularly diesel-powered vehicles. Compared to other air toxics that CARB has identified and controlled, diesel particulate matter (diesel PM) emissions are estimated to be responsible for about 70% of the total ambient air toxics risk statewide (CARB n.d.).

For evaluation purposes, TACs are separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to TACs. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established. According to CARB, levels of toxic air pollutants have decreased significantly with the

adoption of airborne toxic control measures, stringent vehicle standards, requirements for low-emission vehicles, and cleaner fuels. In addition to tracking regional criteria pollution levels as measured at central monitoring sites and TAC pollution levels from individual permitted facilities, the Air District also tracks the cumulative impacts of exposure to multiple pollutants in the neighborhoods where people live.

Applicable Plans and Regulations

Air quality in the plan area is regulated through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policymaking, education, and various programs.

Bay Air District

The Air District attains and maintains air quality conditions in the San Francisco Bay Area Air Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the Air District includes the preparation of plans and programs for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. To achieve CAAQS, the Air District prepares and updates air quality plans on a regular basis. The air quality plans published by the Air District and other local air districts in the state are incorporated into California's State Implementation Plan Strategy and meet Clean Air Act requirements. The Air District also sets thresholds of significance for the purpose of evaluating air quality impacts under CEQA. The most recently adopted thresholds of significance are contained in the 2022 CEQA Thresholds and Guidelines Update (CEQA Guide) and are used in this analysis.

2017 Clean Air Plan: Spare the Air, Cool the Climate

The most recently adopted air quality plan for the San Francisco Bay Area Air Basin is the 2017 Clean Air Plan, Spare the Air, Cool the Climate (2017 Clean Air Plan). To fulfill state ozone planning requirements, the 2017 Clean Air Plan control strategy includes all feasible measures to reduce emissions of ozone precursors and reduce the transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Clean Air Plan builds upon, and enhances, Air District efforts to reduce emissions of fine particulate matter (i.e., PM_{2.5}) and TACs. The 2017 Clean Air Plan focuses on two paramount goals (BAAQMD 2017):

- Protect air quality and health at the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs.
- Protect the climate by reducing Bay Area GHG emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050.

Santa Clara County General Plan

The Santa Clara County General Plan (County General Plan) includes several strategies and accompanying policies relating to air quality. The policies applicable to the reduction measure projects include the following (Santa Clara County 2015):

- **Policy HE-G.3 Fleet Upgrades:** Promote Air District mobile source measures to reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment, and by expanding the use of zero emission and plug-in vehicles.

- **Policy HE-G.4 Off-Road Sources:** Encourage mobile source emission reduction from off-road equipment such as construction, farming, lawn and garden, and recreational vehicles by retrofitting, retiring, and replacing equipment and by using alternate fuel vehicles.

3.4.2. Discussion

- a, b) Conflict with or obstruct implementation of the applicable air quality plan? Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?**

The 2017 Clean Air Plan establishes a control strategy that is based on four key priorities: to reduce emissions of criteria air pollutants and toxic air contaminants, reduce emissions of super GHGs, (i.e., GHGs with very high global warming potential), decrease demand for fossil fuels, and decarbonize the energy system (BAAQMD 2017). The reduction measures align with and would help further these four key priorities of the 2017 Clean Air Plan. For example, FE-1: Facility Electrification, would electrify existing facility natural gas and propane use, and thus would reduce emissions of criteria air pollutants, decrease demand for fossil fuels, and contribute to decarbonization of the energy system, consistent with the key priorities identified in the 2017 Clean Air Plan. In addition, the reduction measure projects do not propose land use development that would increase employment or population in the region and would not induce growth-related VMT. For these reasons, implementation of the reduction measure projects would not conflict with or obstruct implementation of the applicable air quality plan.

Implementation of the reduction measure projects would involve short-term construction activities. Typical construction activities would include site preparation, minor trenching, and potentially hauling trips. Such activity would result in emissions of criteria air pollutants (e.g., PM_{2.5} and PM₁₀) and precursors (e.g., ROG and NO_x) from site preparation and exhaust (e.g. diesel PM) from off-road equipment and worker commute vehicles. These pollutants are specifically relevant because the region is in nonattainment for state and federal ozone and PM_{2.5} standards and state PM₁₀ standards.

Emission types and associated levels fluctuate greatly depending on the type, number, and duration of usage of equipment used during construction. For example, the site preparation phase typically generates the most substantial emission levels because of the on-site equipment and ground-disturbing activities associated with excavation, compaction, and paving. Although construction of reduction measure projects would result in the generation of pollutants such as PM_{2.5} or PM₁₀, it would generally not result in a substantial net increase in emissions as construction activity is temporary, localized in nature, and limited to the time during which an individual project is being constructed. In addition, with respect to construction equipment, EPA and CARB have adopted rules and regulations establishing criteria pollutant and emissions limits for diesel powered on-road vehicles and off-road equipment. Compliance with these rules and regulations would reduce emissions at construction sites. The reduction measure projects would not increase operational emissions because they do not include new sources of air pollutant emissions and do not include land use development that would result in employment or population growth. For these reasons, implementation of the reduction measure projects would not conflict with the Air District's 2017 Clean Air Plan and would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. This impact would be **less-than-significant**.

Furthermore, implementation of the GHGRP would reduce criteria air pollutant emissions including PM and NO_x because it includes reduction measures requiring construction contractors to implement the phased use of zero-emission fuels (i.e., electricity and renewable diesel) in off- and on-road construction equipment fuel use.

c) Expose sensitive receptors to substantial pollutant concentrations?

Construction activities associated with reduction measure projects would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment. This type of equipment would be used for site preparation, minor trenching, and other construction activities. On-road diesel-powered haul trucks traveling to and from the construction areas to deliver materials and equipment would also contribute to diesel PM that could expose sensitive receptors (e.g., residential uses) along construction haul routes. However, haul trucks would not operate at any one location for extended periods of time, such that they would expose a single sensitive receptor to excessive diesel PM emissions, regardless of the proximity of sensitive receptors to haul trucks.

The reduction measure projects do not involve land use development, and therefore, would not result in new sensitive receptors being exposed to substantial pollutant concentrations. The reduction measure projects would also not increase vehicle trips beyond baseline conditions, and therefore, would not result in the potential to generate a CO hotspot. Moreover, the reduction measure projects would result in the electrification of the Valley Water vehicle fleet, which would result in the generation of less CO as compared to baseline conditions.

Reduction measure projects would involve the replacement of natural gas and propane equipment with electric alternatives, thus reducing the potential for exposure of sensitive receptors to substantial pollutant concentrations. Reduction measure projects would not introduce new stationary sources, and existing stationary sources that would continue to operate would be subject to applicable air district rules and regulations. For these reasons, impacts related to exposing sensitive receptors to pollutant concentrations would be **less than significant**.

Furthermore, implementation of the GHGRP would reduce diesel PM emissions because it includes reduction measures requiring construction contractors to implement the phased use of zero-emission fuels (i.e., electricity and renewable diesel) in off- and on-road construction equipment fuel use.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The occurrence and severity of odor impacts depend on several factors including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of nearby receptors. Implementation of the reduction measure projects would result in construction activities that could generate temporary odors, such as odorous diesel exhaust emissions from construction equipment. Construction-generated odorous emissions would be temporary and not generated at any one location for an extended period. Construction-generated odorous emissions (e.g., diesel exhaust fumes) would also dissipate rapidly from the source with increasing distance. Because construction activities associated with reduction measure projects would occur intermittently and at various locations, such activity would not generate objectionable odors affecting a substantial number of people. Implementation of the reduction measure projects would not introduce new operational sources of odors to the area and would not involve locating new sensitive receptors to odor-emitting uses. In addition, implementation of the GHGRP would decrease use of conventional fuel and increased use of zero-emission fleet equipment and zero-emission fuels. Decreased use of diesel fuel during operation activities associated with the reduction measure projects would result in fewer odors that adversely affect a substantial number of people. For these reasons, their implementation would not generate substantial odors and would not expose sensitive receptors to new odors. This impact would be **less than significant**.

3.5. Biological Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

3.5.1. Environmental Setting

The reduction measure projects are located at existing Valley Water facilities, and all project activities would occur within these developed facilities. These existing facilities, as discussed in Chapter 2 “Project Description,” VF-1: Zero Emission On-Road Fleet (EV charging stations) and FE-1: Facility Electrification, are primarily located in urban/developed and disturbed areas, with minimal vegetation or natural habitat in the surrounding areas. However, the Vasona Pumping Station, Rinconada Water Treatment Plant, Santa Teresa Water Treatment Plant, Penitencia Water Treatment Plant, and Silicon Valley

Advanced Water Purification Center are in more rural settings or have some vegetation or natural habitat adjacent or nearby. The Penitencia Water Treatment Plant is surrounded by both suburban neighborhoods and barren open space on the edge of the Sierra Vista Open Space Preserve. The Vasona Pumping Station is located at a highway intersection and is surrounded by urban development but is located approximately 0.22-mile east of Los Gatos Creek. Rinconada Water Treatment Plant and Santa Teresa Water Treatment Plant are also located within developed areas but have moderate tree cover surrounding the facilities. The Silicon Valley Advanced Water Purification Center is immediately adjacent to undeveloped grasslands and surrounded by a suburban neighborhood beyond those fields. All reduction measure project sites are easily accessible by existing highways and local roads.

The following sources were reviewed to evaluate existing biological conditions and potential for sensitive biological resources to occur at and surrounding the reduction measure project sites:

- CDFW Biogeographic Information and Observation System (BIOS 6 Viewer) (CDFW 2025b)
- CDFW California Natural Diversity Database (CNDDDB) (CDFW 2025a)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2025)
- Milpitas, Calaveras Reservoir, SJ East and West, Los Gatos, Santa Teresa Hills, and Morgan Hill U.S. Geological Survey (USGS) topographical maps
- National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) Protected Resources App (National Oceanic Atmospheric Administration [NOAA] Fisheries 2025a), and Essential Fish Habitat (EFH) Mapper (NOAA Fisheries 2025b)
- National Wetlands Inventory map (USFWS 2025c)
- SCVHA Geobrowser (SCVHA 2023) and Santa Clara VHP (ICF 2012)
- USFWS Critical Habitat Mapper (USFWS 2025b)
- USFWS IPaC Resource List (USFWS 2025a)

Sensitive Biological Resources

Sensitive biological resources addressed in this section include those that are afforded consideration or protection under CEQA, California Fish and Game Code (CFGF), California Endangered Species Act, federal Endangered Species Act (ESA), the Clean Water Act (CWA), and Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Special-status Species

For purposes of this analysis, special-status species include plants and animals in one or more of the following categories:

- officially listed, candidates for listing, or proposed for listing by the U.S. or the State of California as endangered, threatened, or rare;
- identified by CDFW as species of special concern;
- considered by CDFW to be "rare, threatened, or endangered in California;"
- designated as Fully Protected in the CFGF;
- afforded protection under local or regional planning documents, such as the Santa Clara Valley Habitat Plan (VHP); or

- meet the definition of rare or endangered under CEQA (14 CCR Section 15380), including California Rare Plant Rank 1B, 2B, 3 and 4.

The reduction measure project sites are restricted to existing developed facilities and there is very limited potential for special-status species to occur on or adjacent to the sites. However, to ensure a conservative approach, the CNDDDB (CDFW 2025a) and online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2025) were reviewed for information on special-status plants and animals that have been documented in the project vicinity. These reviews included the following U.S. Geologic Survey 7.5-minute quadrangle which contained the reduction measure project sites as well as the surrounding quadrangles, where relevant: Milpitas, Calaveras Reservoir, San Jose East, San Jose West, Los Gatos, Santa Teresa Hills, and Morgan Hill. A list of resources under USFWS jurisdiction that could occur in the project vicinity was obtained from the Information for Planning and Conservation (IPaC) website (USFWS 2025a), and the National Oceanic and Atmospheric Administration Fisheries West Coast Region Protected Resources App (NOAA Fisheries 2025a) was reviewed. Database search results and the IPaC resources list are provided in **Appendix B** to this ND, “Biological Database Information”. There are no listings in the CNDDDB at any of the proposed reduction measure project sites.

Plants

Special-status plants considered for potential to occur at or near the reduction measure project sites are based on CNDDDB and CNPS species and occurrence information (CDFW 2025a, CNPS 2025), and the IPaC resource list (USFWS 2025a).

Fish

There are no water bodies that would provide habitat for fish within or adjacent to the reduction measure project sites.

Wildlife

Special-status wildlife considered for potential to occur at or near the reduction measure project sites are based on CNDDDB species and occurrence information (CDFW 2025a) and the IPaC resource list (USFWS 2025a). All reduction measure project sites are located within designated urban or suburban land use areas, according to the VHP Geobrowser (SCVHA 2023), and none of the sites are located within VHP fee areas. The potential for special-status wildlife to occur at the reduction measure project sites is extremely low given the developed nature of the sites and existing disturbance. In addition, because the sites are located within urban and suburban areas, potential for special-status wildlife to occur adjacent to the sites is limited to mobile species such as birds, bats, and flying invertebrates that could periodically use adjacent habitat, where available.

While the potential of special-status wildlife occurring within the project vicinity is extremely low, some sites are located adjacent to areas where trees and grassland are present. In these cases, the most likely taxa to occur based on available information are monarch butterfly (*Danaus Plexippus*; proposed for federal listing as threatened), Crotch’s bumble bee (*Bombus crotchii*; California candidate for listing); special-status birds, such as burrowing owl (*Athene cunicularia*; California candidate for listing, California Species of Special Concern [SSC]) and white-tailed kite (*Elanus leucurus*; California fully protected); and special-status bats, such as pallid bat (*Antrozous pallidus*; SSC) and Townsend’s big-eared bat (*Corynorhinus townsendii*; SSC).

Potential for monarch butterfly and Crotch’s bumble bee to occur at the sites is limited to the unlikely occurrence of foraging individuals if suitable flowering plants are present. Both species are mobile and can fly away if foraging individuals are disturbed by project activities. Although special-status bats roost

in human-made structures, they are sensitive to disturbance and very unlikely to use any facilities on the project sites for roosting. Therefore, potential for special-status bats to occur near the sites is limited to foraging individuals that may occur occasionally. Potential for special-status birds to occur is limited to sites that are adjacent to undeveloped lands and support suitable grassland foraging habitat and/or nest trees.

The Silicon Valley Advanced Water Purification Center site is within a burrowing owl wildlife survey area, as identified in the VHP Geobrowser (SCVHA 2023). This area is mapped in the VHP as potential burrowing owl nesting/overwintering habitat depending on site specific conditions. Although the site itself is developed, it is adjacent to suitable burrowing owl habitat and may be subject to burrowing owl surveys according to Condition 15 of the VHP (ICF 2012).

Birds have potential to nest on or adjacent to the reduction measure project sites where suitable nesting vegetation or structures are present. Although only a few bird species meet the definition of a special-status species, almost all species are protected under the federal Migratory Bird Treaty Act (MBTA) and CFGC Code 3500. These regulations protect native birds and their nests during nesting season (typically from February 1 – September 15) and require surveys and potential monitoring during this period to ensure project activities do not result in loss of active nests.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration under federal or state regulations. Sensitive habitats may be of special concern for a variety of reasons, including their locally or regionally declining status or because they provide important habitat for special-status species. The reduction measure project sites are developed and do not provide sensitive habitat.

Critical Habitat and EFH

Section 3(5)A of the federal ESA defines “critical habitat” as the specific areas within the geographical area occupied by federally listed species on which are found physical or biological features essential to the conservation of the species and that may require special management considerations or protection. No units of proposed or designated critical habitat for federally listed species overlap or are adjacent to the reduction measure project sites. Designated critical habitat for Bay checkerspot butterfly is approximately 0.65 mile northwest of the Coyote Pump Plant and 0.66 mile west of the Santa Teresa Water Treatment Plant; designated critical habitat for California red-legged frog is approximately 0.58 mile west of the Penitencia Water Treatment Plant (USFWS 2025b). As there is no aquatic habitat within or adjacent to the project sites, there is no EFH present on or adjacent to these sites (NOAA Fisheries 2025b).

Waters and Wetlands

Under Section 404 of the CWA, U.S. Army Corps of Engineers has jurisdiction over features that qualify as waters of the U.S., including some wetlands that support appropriate vegetation, soils, and hydrology. Under Section 401 of the CWA, the San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates discharge of dredged or fill material into waters of the U.S. that drain to the San Francisco Bay, to ensure such activities do not violate state or federal water quality standards; the San Francisco Bay RWQCB also regulates waters of the State, in compliance with the Porter-Cologne Act. In addition, diversions, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to the regulatory approval of

CDFW pursuant to Section 1602 of the CFGC. There are no water features, waters of the U.S. or wetland or riparian habitats on or adjacent to any of the reduction measure project sites (USFWS 2025c).

Natural Communities of Special Concern

CDFW maintains a list of sensitive natural communities (CDFW 2025b). There are no sensitive natural communities on or adjacent to the reduction measure project sites.

Applicable BMPs and AMMs

Valley Water would incorporate the following BMPs to avoid or minimize adverse effects on biological resources that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of these measures.

- BI-5 Avoid Impacts to Nesting Migratory Birds
- BI-6 Avoid Impacts to Nesting Migratory Birds from Pending Construction
- BI-7 Minimize Impacts to Vegetation from Survey Work
- BI-10 Avoid Animal Entry and Entrapment
- BI-11 Minimize Predator-Attraction

3.5.2. Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the USFWS?**

Special-status Plants and Fish

There is no potential for special-status plants to occur within the reduction measure project sites due to existing development and lack of suitable habitat. There is no possibility of fish species occurring within the reduction measure project sites, given their upland location. Reduction measure project implementation also would not eliminate or significantly diminish or disrupt EFH, and no habitat for special-status fish is located in close enough proximity to any of the reduction measure project sites to potentially be indirectly affected by construction activities. Therefore, there would be **no impact** on special-status plants or fish.

Special-status Wildlife

There is very low potential for special-status wildlife to occur within the reduction measure project sites. On or adjacent to some of the sites, flowering plants, trees, and grassland areas may be potential habitat for special-status species including monarch butterfly, burrowing owl, white-tailed kite, pallid bat, and Townsend’s big-eared bat. However, potential habitat within and adjacent to the project sites and is limited and subject to existing disturbance from the established facilities. Construction activities would not substantially disrupt foraging behaviors of any special-status wildlife and would not affect monarch breeding or bat roosting habitat. Additionally, Valley Water would adhere to all relevant BMPs and guidelines during construction to avoid and minimize impacts to the environment including BI-5 (Avoid Impacts to Migratory Nesting Birds) that requires preconstruction nesting bird surveys; BI-6 (Avoid Impacts to Nesting Migratory Birds from Pending Construction) that allows nesting exclusion devices to be installed to prevent potential nesting, BI-7 (Minimize Impacts to Vegetation from Survey Work) that avoids and minimizes cutting dense riparian vegetation, BI-10 (Avoid Animal Entry and Entrapment) that requires pipes, hoses, culverts stored at construction sites overnight be capped or inspected thoroughly by a qualified biologist before moving, and all excavations and trenches more than

6 inches deep be secured at end of work day or escape ramps provided; and BI-11 (Minimize Predator-Attraction) that requires trash be removed daily from the worksite to avoid attracting potential predators to the site. Valley Water would also adhere to all applicable VHP requirements, including burrowing owl surveys, buffers, and monitoring required at the Silicon Valley Advanced Water Purification Center site. Implementation of these BMPs would minimize impacts to special-status wildlife species and potential impacts would be **less than significant**.

Nesting Birds

Nesting birds have potential to occur on or adjacent to the reduction measure project sites. Although common bird species do not meet the definition of a special-status species, they are protected under the MBTA and CFGC Code 3500 and considered under this impact evaluation. Some common bird species, such as house finch, northern mockingbird, blackbirds, and swallows nest on structures and in ornamental vegetation in urban areas, including at the reduction measure project sites, and additional species could nest in habitat adjacent to some of the sites. Therefore, there is potential for nesting birds to occur on and adjacent to the reduction measure project sites. Construction activities could result in this disturbance and destruction of active nests, either directly through removal, or by abandonment of the parents due to noise and construction activities. This would violate the MBTA and CFGC.

Valley Water's BMPs that protect nesting birds include BI-5 (Avoid Impacts to Nesting Migratory Birds) that requires preconstruction nesting bird surveys prior to any activity that could result in the abandonment, loss, damage or destruction of birds, bird nests, or nesting migratory birds and avoids disturbing active nests; and BI-6 (Avoid Impacts to Nesting Migratory Birds from Pending Construction) that allows for nesting exclusion devices to be installed to prevent potential establishment or occurrence of nests in area where construction activities would occur. Implementation of these BMPs would minimize impacts to nesting birds and potential impacts would be **less than significant**.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?

The reduction measure project sites and adjacent areas do not support riparian habitat, designated critical habitat, or other sensitive natural community identified in local or regional plans, policies, or regulations. Therefore, there would be **no impact**.

c) Have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

None of the reduction measure project sites or adjacent areas contain state or federally protected wetlands. While the construction activities may result in minor ground disturbance and trenching, these ground disturbing activities would take place exclusively at previously disturbed and developed locations to install EV charging stations and access, remove, and upgrade electrical facilities. Therefore, there would be **no impact**.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The reduction measure project sites are located within urban development and previously disturbed land. There are no water bodies within the project sites, and no possibility of resident or migratory fish

being present. Some of the sites are adjacent to undeveloped land through which wildlife could move, but construction activities would not substantially interfere with movement because activities would be temporary and limited to existing facilities that are already subject to regular use including vehicle traffic. In addition, construction activities would occur during daytime hours, while most wildlife movement is at night. The reduction measure project sites and immediate environment do not support nursery sites. Given the urban location of the reduction measure project sites, existing on-site disturbance levels, minimal footprint size of construction activities, and short-term duration of project-related disturbance, there would be **no impacts** related to interference with movement of wildlife, migratory wildlife corridors, or native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

While it is not anticipated that trees would need to be removed during construction activities, it is standard Valley Water practice, when feasible, to comply with local tree ordinance regulations. Therefore, before removal of any trees that are subject to protection, Valley Water would first obtain a permit or otherwise obtain approval from the city or county, and Valley Water would comply with tree replacement requirements, pay in-lieu fees, or implement alternative mutually acceptable compensatory measures. Valley Water would also implement all stated BMPs related to biological resources, including BI-7 (Minimize Impacts to Vegetation from Survey Work) that requires avoiding and minimizing cutting dense riparian vegetation. Therefore, potential impacts related to potential conflict of the project with local policies or ordinances protecting biological resources would be **less than significant**.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

The reduction measure projects are covered activities under the VHP and Valley Water is a permittee legally obligated to implement all applicable VHP requirements for the covered activities. However, the reduction measure project sites are not located within a fee area. The Silicon Valley Advanced Water Purification Center is located within a VHP burrowing owl wildlife survey area and subject to burrowing owl survey, buffer, and monitoring requirements prior to and during construction, per VHP Condition 15 (SCVHP 2023, ICF 2012). Implementation of any applicable VHP requirements would ensure the project does not conflict with the VHP. No other adopted natural community conservation plan, habitat conservation plan, or other approved local, regional, or state habitat conservation plan applies to the reduction measure projects. Therefore, this impact would be **less than significant**.

3.6. Cultural Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
I. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.6.1. Environmental Setting

Cultural Resources

In this section, cultural resources are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance. The State CEQA Guidelines Section 15064.5(a)(1) defines a “historical resource” as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).

Pre-Contact Setting

Three different taxonomic systems are used to describe the cultural chronology of the San Francisco Bay Area (Bay Area). The following is the most recent, general cultural sequence for the Bay Area adapted from Milliken et al. (2007) and Lindley et al. (2021), which follows the hybrid system. Information from additional sources is included as appropriate. Date ranges are given in years before the current era (BCE) or current era (CE).

- **Terminal Pleistocene to Early Holocene: 13,000-8,000 BCE** – No evidence for occupation during this period has yet been discovered, presumably because it has been washed away through stream action, buried under more recent alluvium, or submerged on the continental shelf (Rosenthal and Meyer 2007) or within the San Francisco Bay as it formed approximately 10,000 years ago.
- **Middle Holocene (Lower Archaic): 8,000-3,500 BCE** – Ancestral Native American groups during this period employed a generalized mobile forager pattern. Characteristic artifacts include well-made milling slabs and handstones as well as wide-stemmed and leaf-shaped projectile points (Jones et al. 2007). Archaeobotanical remains suggest an economy focused on acorns and wild cucumbers. Burials during this period tend to be flexed, sometimes found underneath cairns of milling slabs. Populations are thought to be sparse and highly mobile (Moratto 2004).
- **Early Middle Period (Middle Archaic): 3,500-500 BCE** – Ancestral Native American groups changed during the Early Middle Period from being highly mobile to sedentary or semi-sedentary. The presence of milling slabs and handstones beginning during the Early Holocene evidenced the use of small, hard seeds. Great Basin beads made of shell from the central and southern California coasts indicate long distance trade (Bennyhoff and Hughes 1987; Jackson and Ericson 1994).

- **Lower Middle Period (Initial Upper Archaic): 500 BCE-430 CE** – Changes in ornamental items mark the beginning of this period. Artifact types that date to this period include barbless fish spears, elk femur spatulae, and bone-tube whistles. Net sinkers, once prevalent, are now found only in very limited areas. Some areas that had not been heavily used in the past, such as the Napa Valley, now see more intensive use, with large accumulations of dark midden found at sites.
- **Upper Middle Period (Late Upper Archaic): 430-1050 CE** – The Upper Middle Period is characterized by dramatic changes in mortuary practices and ornaments. The beginning of this period also saw the abandonment of more than half the sites that had been occupied previously. Artifacts that appear during this period are well-fashioned “show blades,” fishtail charmstones, single-barbed bone fish spears, ear spools, and large mortars. Seed recovery from midden also increases on at least some sites.
- **Initial Late Period (Lower Emergent): 1050-1550 CE** – Artifacts associated with this period include fully shaped show mortars, new types of Olivella beads, as well as new types of multi-perforated and bar scored Haliotis ornaments. Other artifacts that appear are the flanged pipe, banjo shaped effigy ornaments, and bow-and-arrow technology. The banjo effigy ornaments may be the precursor to the ethnographically documented Kuksu cult, a widespread ceremonial system practiced by various language groups around the Bay Area. The first arrow-sized projectile points in the region were the Stockton serrated series, which were unique to central California.
- **Terminal Late Period: 1550 CE-Contact** – Beads are once again a marker for change during this period. The Olivella sequin and cup beads that distinguished the previous period disappear and are replaced by greater numbers of clamshell disk beads, while Olivella lipped and spire-lopped beads are found in some parts of the Bay Area. Site distribution does not change, although midden accumulations for this period are generally thinner.

Historic Setting

The Spanish explored and settled the Santa Clara Valley as early as 1769 with the goal of establishing missions in the area to strengthen their claim and power in the region. (Archives & Architecture 1992: 2). The U.S. government acquired the California territory in 1848 with the Treaty of Guadalupe Hidalgo, which increased the population as settlers arrived, established farms, and raised livestock. They also cultivated fruit orchards and vineyards, and planted crops such as wheat, barley, and oats. In 1850, California gained statehood, and the County saw a steady growth in its population (Archives & Architecture 1992: 2). Throughout the remainder of the 19th century, the region remained largely agricultural with a focus on fruit orchards (Archives & Architecture 1992: 2). In the early 20th century, the fruit packing and canning industries flourished in response to growing agricultural production. The region remained agriculturally based until the post-World War II period, when the economy gradually shifted to technology. Technology continues to be the principal driver of the local economy. Presently, there are 1.928 million people living in Santa Clara County (USCB 2025).

Santa Clara Valley Water District

In response to declining groundwater levels local farmers and business leaders created the Santa Clara Valley Water Conservation District (now known as Valley Water) in 1929. Valley Water’s goal was to address water management in the region and to supply a reliable source of water . In the 1930s and 1950s, Valley Water built a water reservoir system to catch storm water as well as percolation ponds to allow for the absorption of water back into the aquifers. To enhance water supply, Valley Water entered into agreements with the state of California to import water from outside of the County in the 1960s and with the Federal government in the 1980s (Valley Water 2016). From 1970 to present day, Valley Water continues to import water while also operating a sustainable system that prevents subsidence in

the County. Valley Water also provides flood protection since consolidation of this function with the County in 1968 (Valley Water 2016).

Applicable BMPs and AMMs

Valley Water would incorporate the following BMPs to avoid or minimize adverse effects on biological resources that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of this measure.

- CU-1 Accidental Discovery of Archaeological Artifacts or Burial Remains

3.6.2. Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in CCR Section 15064.5?

Under CEQA, public agencies must consider the effects of their actions on “historical resources.” CEQA defines a “historical resource” as any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California Historical Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (California PRC Section 5024.1, 14 CCR Section 4850). The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on importance of the resources to California history and heritage. A cultural resource may be eligible for listing on the CRHR if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (OHP 1999).

Built environment resources have not been recorded or evaluated for the CRHR as part of this plan, and thus, no built environment historical resources have been identified at the reduction measures project sites. Reduction measure project activities focus on replacing natural gas and propane equipment and services inside buildings with electric equipment and services and installing new EV charging stations at exiting parking facilities. Therefore, the reduction measure projects are not anticipated to result in the modification or destruction of built environment resources. Furthermore, in the unlikely chance that built environmental resources are present at reduction measure project sites and are deemed significant, because the reduction measure projects would result in minor modifications to infrastructure and existing structures would not be substantially modified, they would continue to

convey any historical significance upon completion of the reduction measure project activities. Therefore, potential impacts on built environment resources would be **less than significant**.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?

The reduction measure projects include shallow trenching between 18 and 36 inches in depth for the installation of EV charging stations and associated electrical power lines at existing parking facilities. When possible, horizontal directional drilling would be used to minimize surface disturbance. All ground disturbance would be conducted in shallow previously disturbed or imported soils at existing facilities. Therefore, it is extremely unlikely that archaeological cultural resources would be encountered, and in the unlikely circumstance that they are encountered, they would not retain integrity given the context of previous ground disturbance or imported nature of the shallow soils at existing facilities. Implementation of Valley Water's BMPs CU-1 (Accidental Discovery of Archaeological Artifacts or Burial Remains) would address the extremely low likelihood of encountering archaeological cultural resources because compliance with state regulations for discovery of cultural resources would be followed. Therefore, potential impacts on archaeological resources would be **less than significant**.

c) Disturb any human remains, including remains interred outside of dedicated cemeteries?

Refer to the discussion of potential impacts to archaeological resources in Question (b) above in this section. Since ground disturbance would be conducted in shallow previously disturbed or imported soils at existing facilities, it is very unlikely that any human remains would be impacted by reduction measure project activities. In the extremely unlikely event that human remains are encountered, Valley Water's BMP CU-1 (Accidental Discovery of Archaeological Artifacts or Burial Remains) would require that state regulations regarding human remains are followed. Therefore, potential impacts on human remains would be **less than significant**.

3.7. Energy

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
II. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.7.1. Environmental Setting

Valley Water buildings consume electricity procured from PWRPA, Pacific Gas & Electric (PG&E), San José Clean Energy (SJCE), and Silicon Valley Power (SVP). PWRPA provides over 94% of Valley Water facilities' electricity usage. Since 2016, Valley Water has procured zero-emission power for its facilities from PWRPA via the Zero Carbon Water portfolio (Appendix A). Valley Water buildings (e.g., offices, water treatment plants) also combust natural gas and propane for space and water heating. In addition, Valley Water owns and operates on-road vehicles that consume gasoline, as well as construction equipment and other off-road, heavy-duty equipment that consume diesel.

Santa Clara Valley Water District Climate Action Plan

Valley Water's CCAP builds on Valley Water's climate change response efforts and presents goals and strategies to continue and expand these efforts. The CCAP is both a plan to reduce GHG emissions and a framework to ensure a safe and resilient water supply in the future. It also provides a comprehensive guide to Valley Water's current and future climate change mitigation and adaptation efforts. The following CCAP strategy is related to energy (Valley Water 2021).

- **4.1.2.2 Strategy: Continue to improve energy efficiency at agency facilities.** Valley Water can continue to optimize energy use and reduce overall demand for purchased electricity. Energy efficiency can be improved throughout Valley Water, from workplaces to water treatment facilities. This can be achieved by improving the efficiency of office equipment and expanding energy and water saving measures through the Green Business Program's certification. Additionally, Valley Water can further develop a policy that improves building sustainability, maintain regular energy assessments, and implement energy-saving technologies as they become available. Valley Water can also promote energy efficient behaviors through staff education. Valley Water can continue monitoring energy optimization practices and expand the most impactful efforts.

3.7.2. Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

The reduction measure projects include installing EV charging stations and replacing natural gas and propane equipment and services with electric equipment. These reduction measures would require

minor construction activities which would require energy use in the form of fuels for construction equipment and worker vehicles. Demand for fuels during construction would vary throughout the construction period but would be temporary. This temporary, short-term energy consumption would not be considered unnecessary because construction contractors generally strive to complete construction projects in an efficient manner to meet project schedules and minimize cost; and therefore, it is assumed that only the necessary amount of fuel would be consumed to complete construction activities.

Operation and maintenance of EV charging stations includes regular inspections, cleanings, and equipment repair (e.g., fixing cable damage). Energy would be consumed in the form of fuels used for a very small number of new employee and haul trips to and from the EV sites to conduct these activities. This energy use would occur intermittently and as efficiently as possible by using energy-efficient technology, equipment, infrastructure, and fuels. Operations and maintenance activities associated with facility electrification would be similar to existing activities conducted at Valley Water facilities but would be more energy efficient because the facilities would use electricity, which is generally more efficient than use of gas or propane.

Implementation of reduction measure projects would require short-term construction and a small number of trips for long-term operation and maintenance activities that would consume energy resources. However, the associated consumption of energy would not be wasteful, inefficient, or unnecessary. Therefore, impacts would be **less than significant** with respect to energy use during construction and operation of reduction measure projects.

Furthermore, implementation of the GHGRP would reduce wasteful energy consumption because it includes reduction measures requiring construction contractors to implement the phased use of zero-emission fuels (i.e., electricity and renewable diesel) in off- and on-road construction equipment fuel use.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

As discussed above, the reduction measure projects would contribute to decreased use of fossil fuels by installing EV charging stations, which would increase the use of electric vehicles, and replace natural gas and propane equipment and services with electric equipment and services. These reduction measures would align with, or go beyond, the goals of state regulations and plans. As GHG emissions are an inherent result of the generation and consumption of fossil fuel-related energy, plans that reduce this type of energy consumption, require all-electric development, and improve energy efficiency are considered energy-related plans in addition to a GHG-related plan, such as the 2022 Scoping Plan. The reduction measure projects discussed above would improve energy efficiency, reduce energy demand, and decrease transportation-related fossil fuel consumption, aligning with the overarching goals of improved energy efficiency and reliance on renewable energy systems. Therefore, the minor construction and operation and maintenance activities associated with the reduction measure projects would not conflict with applicable plans. For these reasons, the reduction measure projects would contribute to, rather than conflict with, any state or local plan for renewable energy or energy efficiency. **No impact** would occur.

3.8. Geology and Soils

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
III. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (<i>Refer to California Geological Survey Special Publication 42.</i>)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.8.1. Environmental Setting

The GHGRP area and reduction measure project sites are within the Coast Range geomorphic province and are just outside the Great Valley (California Geological Survey [CGS] 2022). Bedrock at the reduction measure project sites varies slightly but consists of Pleistocene-Holocene, Cretaceous, and Pliocene-Pleistocene marine and nonmarine (continental) sedimentary and metasedimentary rocks. This includes Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated, Undivided Cretaceous sandstone, shale, and conglomerate with minor nonmarine rocks in Peninsular Ranges, and Pliocene and/or Pleistocene sandstone, shale, and gravel deposits; mostly loosely consolidated (Jennings et. al. 2013). The reduction measure project sites are generally urban land complexes. Exceptions to this

include the Penitencia Water Treatment Plant (Montara-Santerhill complex, 15 to 30% slopes), Santa Teresa Water Treatment Plant (Alo-Altamont complex, 15 to 30% slopes), and the Silicon Valley Advanced Water Purification Center (Campbell silt loam, 0 to 2% slopes, protected) (U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] 2025). Of these, the Montara-Santerhill complex has relatively high clay content (NRCS 2025).

Seismic and Geologic Hazards

Surface Fault Rupture

Seismically-induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different segments of the same fault. Ground rupture is considered more likely along active faults. The purpose of the Alquist-Priolo Act is to regulate development and prohibit construction on or near active fault traces to reduce hazards associated with fault rupture. The Alquist-Priolo Earthquake Fault Zones are the regulatory zones delineated on maps that include surface traces of active faults.

The Penitencia Water Treatment Plant is located within approximately 500 feet of the Holocene-aged Crosley Fault. The Silicon Valley Advanced Water Treatment Center is located approximately 200-300 feet from the Quaternary-aged Silver Creek Fault (CGS 2015). The reduction measure project sites located within the Blossom Hill region of San José are approximately 1.6 miles west of the Quaternary-aged San José Fault and approximately 2 miles east of the Quaternary-aged Cascade Fault (CGS 2015). The Santa Teresa Treatment plant is approximately 0.64 mile northeast of the Quaternary-aged Shannon Fault and 2.0 miles southwest of the San José Fault. The Vasona Pumping Station is approximately 700-800 feet from the Holocene-aged Monte Vista-Shannon Fault Zone and the Rinconada Water Treatment Plant is approximately 0.5 mile from the Quaternary-aged portion of the Monte Vista-Shannon Fault Zone which contains multiple unnamed faults (Jennings C.W. and Bryant W.A. 2010, CGS 2025). The Coyote Pump Plant is located about 0.5-mile from the Quaternary-aged Coyote Fault (CGS 2015). There are no reduction measure project sites located within an Alquist-Priolo Fault Zone, as delineated by the California Geological Survey (CGS 2025). However, the Penitencia Water Treatment Plant is located about 110 feet south of the outer limit of an Alquist-Priolo Fault Zone (CGS 2025).

Ground Shaking

Areas most susceptible to intense ground shaking are those located closest to an earthquake-generating fault, and areas underlain by thick, loosely unconsolidated, and saturated sediments. Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. Santa Clara County has experienced several seismic events, originating both on faults within the county and in other parts of the region, and many of the reduction measure project sites are located within, adjacent to, or near Alquist-Priolo Earthquake Fault Zones as described above.

Liquefaction

Liquefaction is a phenomenon where unconsolidated and/or near saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil cohesion during strong earthquake shaking results in the temporary fluid-like behavior of the soil. Soil layers with high potential for liquefaction include unconsolidated sands and fine-grained material. The reduction measure project sites located in the Blossom Hill region of San José, as well as the Silicon Valley

Advanced Water Treatment Plant and Vasona Pumping Station are all located within a liquefaction zone (CGS 2025).

Landslides

Landslides are deep-seated ground failures (several tens to hundreds of feet deep) in which a large section of a slope detaches and slides downhill. In Santa Clara County, landslides are commonly triggered by heavy rainfall, with the potential for landslides increasing during severe storms that saturate steep, loose soils. Earthquakes can also induce landslides. The Penitencia Water Treatment Plant site is the only reduction measure project site identified within a landslide zone (CGS 2025)

Geologic Hazards

Expansive Soils

Expansive soils are predominantly comprised of clays, which expand in volume when water is absorbed and shrink when the soil dries. Expansion is measured by shrink-swell potential, which is the volume change in soil with a gain in moisture. Soils with a moderate to high shrink-swell potential can cause damage to roads, buildings, and infrastructure. As described above, the soil surrounding the Penitencia Water Treatment Plant may contain relatively high clay content, raising the shrink-swell potential and causing it to be potentially expansive.

Applicable BMPs and AMMs

Valley Water would incorporate the following BMPs to avoid or minimize adverse effects on geology and soils that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of these measures.

- WQ-4 Limit Impacts From Staging and Stockpiling Materials
- WQ-5 Stabilize Construction Entrances and Exits
- WQ-16 Prevent Stormwater Pollution

3.8.2. Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

As described above in this section, reduction measure project sites are not located within Alquist-Priolo Earthquake Fault Zones. However, the Penitencia Water Treatment Plant is within 500 feet of an active Holocene-aged fault line. Reduction measure project activities involve minor ground disturbance and excavations at existing facilities, installing new EV charging stations at existing parking facilities, and upgrading gas to electrical equipment at existing buildings. No new habitable or critical structures would be developed, and no excavation would extend to depths that could intersect an active fault line. Considering the project sites are outside of the mapped Alquist-Priolo Fault Zones and would not involve construction new structures or facilities that could be affected by surface fault rupture, implementation of the reduction measure projects would not expose people or structures to rupture of a known earthquake fault or otherwise increase the risk of loss, injury, or death from surface fault rupture. This impact would be **less than significant**.

ii) Strong seismic ground shaking?

As described above in this section, Santa Clara County has a history of seismic activity, and the reduction measure project sites are located nearby known active faults. These faults have the potential to subject the reduction measure project sites and area to ground shaking. During project construction, operations, or maintenance activities, ground shaking could expose persons working at the reduction measure project site to seismic hazards while operating heavy equipment. Valley Water and its contractors would be required to adhere to all Cal/OSHA requirements within active construction sites that would ensure the safety of all construction workers onsite. Reduction measure project activities involve minor ground disturbance and excavations at existing facilities, installing new EV charging stations at existing parking facilities, and upgrading gas to electrical equipment at existing buildings; and no new structures would be developed. Further, the reduction measure project designs would comply with the CBC, which is based on, but more detailed and stringent than, the Federal Uniform Building Code. Chapter 18 of the CBC regulates excavation and geotechnical considerations, and Appendix J of the CBC addresses grading, excavation, fill, drainage, and erosion control considerations. Therefore, implementation of the reduction measure projects would not substantially increase risk of people or structures to seismic ground shaking. This impact would be **less than significant**.

iii) Seismic-related ground failure including liquefaction?

As described above in this section, several reduction measure project sites are within a mapped liquefaction zone, as designated by CGS. Reduction measure project activities involve minor ground disturbance and excavations at existing facilities, installing new EV charging stations at existing parking facilities, and upgrading gas to electrical equipment at existing buildings; and no new structures would be developed. Compliance with applicable CBC requirements and Santa Clara County building permits, including geotechnical recommendations for grading and compaction, would minimize potential risks. Therefore, implementation of the reduction measure projects would not substantially increase risk of people or structures to seismic-related ground failure including liquefaction. This impact would be **less than significant**.

iv) Landslides?

As described above in this section, the Penitencia Water Treatment Plant is mapped as a landslide zone by the CGS. Landslides in the area are typically triggered by heavy rainfall or seismic activity, especially on steep slopes. Reduction measure project activities involve minor ground disturbance and excavations at existing facilities, installing new EV charging stations at existing parking facilities, and upgrading gas to electrical equipment at existing buildings; and no new structures would be developed. The areas of construction would be within areas previously disturbed and developed which are relatively flat. Therefore, the reduction measure projects would not substantially increase risk of people or structures to landslides. This impact would be **less than significant**.

b) Result in substantial soil erosion or the loss of topsoil?

Reduction measure project activities include minor ground disturbance and excavations at existing facilities, which would disturb soils and could contribute to erosion or the loss of topsoil. Ground disturbance at any location would be very small and limited in location, such as for installing EV charging stations and cables at existing parking facilities. Valley Water would adhere to all relevant BMPs and guidelines during construction to avoid and minimize impacts to the environment including BMPs WQ.4 (Limit Impacts From Staging and Stockpiling Materials) and WQ-5 (Stabilize Construction Entrances and Exits). These measures will stabilize disturbed soils, contain stockpiles, and prevent tracked sediment

from entering storm drains or nearby creeks. In addition, implementation of BMP WQ-16 (Prevent Stormwater Pollution) would provide further controls to prevent polluted runoff such as installing gravel or wire mesh around drain inlets and following the latest edition of California Stormwater Quality Associate “Stormwater Best Management Practices”. These BMPs would be incorporated into project construction and operations to minimize potential geology and soils impacts. With the implementation of these BMPs, reduction measure projects are not anticipated to result in substantial soil erosion or the loss of topsoil. This impact would be **less than significant**.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

Refer to response to Questions a,ii) and a,iv), above. During project construction activities, unstable soils could expose persons working at the reduction measure project sites to hazards while operating heavy equipment. Valley Water and its contractors would be required to adhere to all Cal/OSHA requirements for working within active construction sites that would ensure the safety of all construction workers onsite. In addition, as discussed previously, the reduction measure project designs would comply with the CBC, which regulates the design of projects to reduce potential hazards, including landslides, lateral spreading, subsidence, liquefaction or collapse. Therefore, the reduction measure projects would not expose people or structures to substantial adverse effects related to unstable soils. This impact would be **less than significant**.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?**

The reduction measure project sites are predominantly located on the Montara-Santerhill complex, which is largely clay loam and may be considered expansive. However, construction would occur exclusively at existing facilities and ground disturbing activities would be minimal. Additionally, the reduction measure projects would adhere to geotechnical recommendations for soil management and all applicable CBC requirements, which include provisions to mitigate risks associated with expansive soils. These measures would ensure that the potential for soil-related hazards is addressed appropriately during project implementation. For these reasons, this impact would be **less than significant**.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

The reduction measure projects would not require the use of septic tanks or alternative wastewater disposal systems. During project implementation, Valley Water or the contractor may have portable toilet facilities available onsite temporarily for use by construction workers. Once construction activities are concluded, such portable facilities would be removed, and the wastewater properly handled and disposed of in accordance with all applicable laws and regulations. Therefore, there would be **no impact** associated with wastewater disposal.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As described above in this section, reduction measure project sites are located on marine sedimentary rocks, including sandstone, shale, and conglomerate. Since paleontological resources are found almost exclusively in sedimentary rock, there is a chance of discovering unknown paleontological resources within the reduction measure project site during construction activities. However, the reduction measure projects sites are located at existing facilities in areas that have been previously disturbed. Ground disturbing activities would be minor, and minor excavations would be shallow, typically 18 to 36 inches through existing pavement and nonnative soils (fill), and/or adjacent landscaped areas. Since excavation activities would be shallow and limited to previously disturbed areas, the destruction of paleontological resources is unlikely. Therefore, this impact would be **less than significant**.

3.9. Greenhouse Gas Emissions

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
IV. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.9.1. Environmental Setting

The Physical Scientific Basis of GHG Emissions and Climate Change

Certain gases in the earth’s atmosphere, classified as GHG emissions, play a critical role in determining the earth’s surface temperature. Solar radiation enters the atmosphere from space. The earth’s surface absorbs a portion of the radiation, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs. However, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

Human-caused emissions of GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is very likely that human-induced GHG increases were the main driver of tropospheric warming since comprehensive satellite observations started in 1979, and virtually certain that human-induced GHG forcing is the primary driver of the observed changes in hot and cold extremes on the global scale (IPCC 2023).

Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is considered enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GHG Emissions Sources and Sinks

Emissions of CO₂ are byproducts of fossil fuel combustion, of wildfires, and of natural processes such as plant respiration. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, landfills, and forest fires. Nitrous oxide (N₂O) is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water) and are two of the most common processes for removing CO₂ from the atmosphere.

Effects of Climate Change on the Environment

the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014: 10). According to California's Fourth Climate Change Assessment, with global GHGs reduced at a moderate rate, California will experience average daily high temperatures that are warmer than the historic average by 2.5°F from 2006 to 2039, by 4.4°F from 2040 to 2069, and by 5.6°F from 2070 to 2100. If GHG emissions continue at current rates, then California will experience average daily high temperatures that are warmer than the historic average by 2.7°F from 2006 to 2039, by 5.8°F from 2040 to 2069, and by 8.8°F from 2070 to 2100 (OPR et al. 2018).

As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet and the glaciers atop Greenland, the sea level along California's coastline is expected to rise 54 inches by 2100 if GHG emissions continue at current rates (OPR et al. 2018). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018; OPR et al. 2018). The effects of climate change will also have an indirect adverse impact on the economy as more severe natural disasters cause expensive physical damage to communities and the state.

Applicable Plans and Regulations

Endangerment Finding

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States concluded that CO₂ is an air pollutant as defined under the federal Clean Air Act (CAA) and that the EPA has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA. On July 29, 2025, EPA announced a proposal to rescind the Endangerment Finding and repeal all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines pursuant to CAA section 202(a). On February 12, 2026, the EPA finalized its rescission of the 2009 Greenhouse Gas Endangerment Finding and posted it in the Federal Register on February 18. Litigation has been filed challenging the rescission.

Statewide GHG Emission Targets and Climate Change Scoping Plan

State law established requirements for reducing statewide levels of GHG emissions by 2020, 2030, and 2045. These targets are in line with the scientifically established levels needed in the U.S. to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5°C (United Nations 2015).

AB 32, Health and Safety Code Section 38500 et seq.

AB 32 codified the 2020 reduction target of Executive Order (EO) S-03-05 (i.e., reduce statewide GHG emissions to 1990 levels by 2020). AB 32 required CARB to develop a scoping plan that describes California's strategy for achieving the 2020 target and to update it every five years.

SB 32, Health and Safety Code Section 38566

SB 32 codified the 2030 reduction target of EO B-30-15 (i.e., reduce statewide GHG emissions to 40% below 1990 levels by 2030). Adopted in tandem with SB 32, AB 197 of 2016 (Chapter 250, Statutes of 2016) required CARB, in implementing SB 32's 2030 GHG-reduction target, to (1) prioritize emissions reductions to consider the "social costs" of GHG emissions and (2) prioritize "direct emission reductions" at large stationary sources and at mobile sources.

AB 1279, Health and Safety Code 38562.2

On September 16, 2022, the California legislature enacted AB 1279, which codified stringent emissions targets for the state of achieving carbon neutrality no later than 2045 and negative emissions thereafter, and an 85% reduction in 1990 anthropogenic emissions level by 2045. (This superseded the previous GHG emissions-reduction target set forth by EO S-3-05).

2022 Scoping Plan for Achieving Carbon Neutrality

CARB adopted the 2022 Scoping Plan on December 16, 2022, which outlines the state's pathway to achieve its carbon neutrality and an 85% reduction in 1990 emissions goal by 2045. The 2022 Scoping Plan identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agricultural, commercial and residential, pollutants with high GWP, and recycling and waste) to achieve these goals. The 2022 Scoping Plan details a multitude of strategies for reducing GHG emissions in each of these sectors.

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards Code (CALGreen Code) is a portion of the CBC developed by the CEC that consists of both voluntary and requirements related to green building standards for statewide residential and non-residential construction. The 2025 CALGreen Code was adopted on September 11, 2024, and relative to the 2022 CALGreen Code, the 2025 version includes increased requirements for EV charging infrastructure (i.e., a higher percentage of parking spaces that must be equipped with EV chargers and more stringent requirements for the types of chargers that must be installed) in both residential and non-residential buildings. The 2025 CALGreen Code also includes required analysis of Embodied Carbon in Building Materials, which was not required under the 2022 CALGreen Code. Lastly, the 2025 CALGreen Code includes updates to energy efficiency standards aimed at further reducing energy consumption in buildings and promoting the use of renewable energy sources.

Regional and Local Laws, Regulations, and Policies

Bay Area Air District CEQA Air Quality Guidelines (2022)

The Air District has not adopted GHG thresholds for projects that would only emit short-term temporary GHG emissions (e.g., construction-only projects). According to the Air District's 2022 CEQA Guidelines, long-range plans would have a less-than-significant impact related to operational GHG emissions if the plan demonstrates that it would achieve the state's 2030 GHG reduction target, consistent with the California Global Warming Solutions Act of 2016, SB 32, and the 2045 carbon neutrality goal, consistent with EO B-55-18.

Santa Clara Valley Water District CCAP

Valley Water finalized its CCAP (Valley Water 2021) in July 2021. The CCAP builds on Valley Water's climate change response efforts and presents goals and strategies to continue and expand these efforts. The CCAP is both a plan to reduce GHG emissions and a framework to ensure a safe and resilient water supply in the future. It also provides a comprehensive guide to Valley Water's current and future climate change mitigation and adaptation efforts. The GHGRP was prepared in response to CCAP direction and would supersede the existing CCAP. However, the GHGRP does not discuss the impacts of climate change on the Santa Clara Valley or Valley Water's actions to adapt to climate change. These items are discussed in the 2021 CCAP. The following strategies from the CCAP are applicable to the GHGRP (Valley Water 2021).

- **4.1.1.1 Strategy: Reduce GHG emissions associated with the Valley Water fleet.** Fleet emissions can be reduced by replacing older, less efficient vehicles with more fuel-efficient or EVs. Valley Water plans to continue adding EVs and other fuel-efficient vehicles to its fleet, along with implementing policies to promote EV use.
- **4.1.1.3 Strategy: Reduce GHG emissions associated with Valley Water-owned equipment.** Valley Water can continue to replace various types of agency-owned equipment with more fuel efficient or electric models to reduce GHG emissions and updating diesel engines to comply with the Tier 4 diesel emissions mandate. Valley Water can further lower GHG emissions by improving the efficiency of heating and cooling equipment at agency facilities.
- **4.1.2.2 Strategy: Continue to improve energy efficiency at agency facilities.** Valley Water can continue to optimize energy use and reduce overall demand for purchased electricity. Energy efficiency can be improved throughout Valley Water, from workplaces to water treatment facilities. This can be achieved by improving the efficiency of office equipment and expanding energy and water saving measures through the Green Business Program's certification. Additionally, Valley Water can further develop a policy that improves building sustainability, maintain regular energy assessments, and implement energy-saving technologies as they become available. Valley Water can also promote energy efficient behaviors through staff education. Valley Water can continue monitoring energy optimization practices and expand the most impactful efforts.

3.9.2. Discussion

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Activities generating GHG emissions associated with facility electrification would be limited to vehicle trips hauling equipment and personnel to and from facilities that would generate temporary and minor GHG emissions. Construction activities for EV charging stations would require minimal ground

disturbance and be confined to developed or previously disturbed areas, such as shallow trenching to underground electric conduit/wiring and paving repair. These activities would consist of small-scale construction equipment and/or medium-duty work and maintenance vehicles. Use of this equipment would generate short-term and minor GHG emissions. Construction-related GHG emissions would be short-term and temporary in nature as they would only occur during the construction period and would cease once construction is finished. Operations and maintenance activities associated with new EV chargers and new electric equipment would include inspections, cleaning, software updates, and repairs (e.g., fixing cable damage), which could result in new vehicle trips. These vehicle trips would generate short-term and minor GHG emissions. While these operations activities would generate GHG emissions, the increase in emissions would be minimal. Therefore, this impact would be **less than significant**.

Furthermore, implementation of the GHGRP would reduce GHG emissions, as this is the overall goal of the plan, by requiring construction contractors to implement the phased use of zero-emission fuels (i.e., electricity and renewable diesel) in off- and on-road construction equipment fuel use, increasing electrification and decarbonization of buildings, phasing out high-GSP refrigerants, increasing solid waste diversion, increasing water conservation, sequestering carbon, and purchasing carbon offsets. The 2025 to 2030 total cumulative reduction (Scope 1-3 emissions) of the GHGRP would be 9,304 MTCO₂e and the 2025 to 2045 total cumulative reduction would be 136,666 MTCO₂e. For these reasons, emissions associated with operations and maintenance activities would be relatively minimal compared to the long-term GHG emission reductions from the GHGRP itself.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The reduction measure projects would be consistent with the requirements of the CALGreen Code, which include both building energy and water efficiency improvements. For example, Valley Water would decarbonize existing buildings by replacing gas appliances with electric alternatives at the end of their usable life. In addition, Valley Water would install EV charging stations satisfying CALGreen Tier 2 standards. The reduction measure projects, in and of themselves, are intended to reduce GHG emissions. By implementing these strategies and actions, the reduction measure projects would be consistent with CALGreen requirements. In addition, the 2022 Scoping Plan outlines several pathways to reduce emissions and achieve the targets of AB 1279 including building decarbonization, conversion of fleets to ZEVs and providing EV charging. The reduction measure projects include the implementation of EV charging stations and the decarbonization of buildings by replacing gas appliances with electric alternatives. These actions would reduce overall GHG emissions consistently with strategies identified in the 2022 Scoping Plan. Therefore, the reduction measure projects would align with state targets. The GHGRP also includes a detailed annual implementation, monitoring, and reporting process for Valley Water to assess whether it is on track to meet its carbon budget and to ensure that Valley Water maximizes GHG reductions over time in accordance with state targets. In addition to the annual process, Valley Water would update the GHGRP every five years to incorporate updates to its inventory and forecast, the latest technological developments in GHG reduction measures, and regulatory changes. For these reasons, the GHGRP would not conflict with any plan, policy, or regulation adopted to reduce GHG emissions. This impact would be less than significant.

Furthermore, implementation of the GHGRP would reduce Valley Water's GHG emissions consistent with statewide GHG emission reduction goals as established in the 2022 Scoping Plan. The state's current GHG emission reduction targets were established by SB 32 (i.e., reduce statewide anthropogenic GHG emissions to 40% below 1990 levels by 2030) and AB 1279 (i.e., reduce statewide anthropogenic GHG emissions to 85% below 1990 levels by 2045 and achieve statewide net zero GHG emissions by no later than 2045). The pathway to the reduction targets of AB 1279 is detailed in the 2022 Scoping plan.

Consistent with statewide targets under the 2022 Scoping Plan, the GHGRP targets a 40% reduction in annual emissions from its 2017-2021 baseline by 2030 and net zero emissions by 2045. The GHGRP is inherently designed to reduce GHG emissions and was prepared to align with AB 1279.

3.10. Hazards and Hazardous Materials

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
V. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

3.10.1. Environmental Setting

To identify the potential for exposure to hazardous materials within the GHGRP area, federal, state, and local databases were reviewed to identify the presence of hazardous materials sites listed pursuant to Government Code 65962.5 (Cortese List) (CalEPA 2025). These sources include the GeoTracker database, a groundwater information management system that is maintained by the State Water Resources Control Board (SWCRB); the Hazardous Waste and Substances Site List (i.e., the EnviroStor database), maintained by the California Department of Toxic Substances Control (DTSC); and EPA's Superfund Site database (DTSC 2025a, SWRCB 2025a, EPA 2025).

Known hazardous materials sites located within 0.25-mile of one or more reduction measure project sites, are described below, with the following information: Site ID, Site Type, Site Status, and Potential Contaminant(s) of Concern (PCOC), and the specific reduction measure project site(s) within 0.25-mile.

- **Bubble Machine Car Wash** (T0608553816) – Leaking Underground Storage Tank (LUST), Completed Case Closed as of 3/26/2009, PCOC – Gasoline. Reduction measure project sites nearby: Blossom Hill Annex, Water Quality Lab, and Headquarters Building (SWCRB 2025b).
- **Mobil BP** (T0608500942) – LUST, Completed Case Closed as of 5/19/2009, PCOC – Gasoline. Reduction measure project sites nearby: EV charging station: Blossom Hill Annex and Headquarters Building (SWCRB 2025c).
- **Shell** (T0608502429) – LUST, Completed Case Closed as of 5/19/2009, PCOC – Gasoline. Reduction measure project sites nearby: Blossom Hill Annex and Headquarters Building (SWCRB 2025d).
- **Wheelworks** (T10000007800) – LUST, Completed Case Closed as of 5/30/2003, PCOC – Total Petroleum Hydrocarbons. Reduction measure project sites nearby: Blossom Hill Annex, Winfield Warehouse, and Winfield Vegetation (SWCRB 2025e).
- **Valley Water Corp Yard** (T0608597451) – LUST, Completed Case Closed as of 12/20/1993, PCOC – None Specified. Reduction measure project sites nearby: Water Quality Lab, Maintenance Shops, Headquarters Building, Maintenance Building, and Administration Building (SWCRB 2025f).
- **Valley Water Corp Yard** (T0608501226) – LUST, Completed Case Closed as of 12/16/1993, PCOC – Gasoline. Reduction measure project sites nearby: Maintenance Shops, Headquarters Building, Maintenance Building, and Administration Building (SWCRB 2025g).
- **Winfield Self Storage** (T10000016946) – LUST, Completed Case Closed as of 10/29/2024, PCOC-None Specified. Reduction measure project sites nearby: Winfield Warehouse (SWCRB 2025h).
- **Almaden Imports** (T0608530995) – LUST, Completed Case Closed as of 11/23/1994, PCOC – Waste Oil/Motor/Hydraulic/Lubricating. Reduction measure project sites nearby include: Maintenance Shops, Maintenance Building, and Administration Building (SWCRB 2025i).
- **Borello Property** (43010033)- DTSC Site Cleanup under voluntary agreement, Previous agricultural site, PCOC – Dieldrin and Toxaphene. Reduction measure project sites nearby: Coyote Pump Plant (DTSC 2025b).
- **Penitencia Treatment Plant** (T0608501227) – LUST, Completed Case Closed as of 7/19/1990, PCOC – Diesel. Reduction measure project sites nearby: Penitencia Water Treatment Plant, Maintenance and Operations buildings, and Penitencia Treatment Plant (SWCRB 2025j).

Schools

There are no schools within 0.25-mile of the reduction measure project sites. The nearest schools to reduction measure project sites include Noble Elementary School and Sunshine School, located about 0.35 mile and 0.44-mile respectively from the Penitencia Water Treatment Plant, Pioneer High School located 0.5-mile west of the Headquarters Building, Allen at Steinbeck Elementary School, located about 0.7-mile east of the Winfield Warehouse, and other reduction measure project sites and the Cambrian Academy, located about 1 mile north of the Blossom Hill Annex and other reduction measure project sites.

Airports and Airstrips

The nearest airports to the reduction measure project sites include the Reid-Hillview County Airport, located 4.6 miles south of the Penitencia Water Treatment Plant; San Martin Airport, located approximately 6.25 miles south of the proposed EV charging station at the Coyote Pump Plant; and the San José Mineta International Airport, located about 4.5 miles south of the proposed EV charging station at the Silicon Valley Advanced Water Purification Center. There are no reduction measure project sites located within the airport influence areas of Reid-Hillview County Airport, San Martin Airport, and San José Mineta International Airport determined by the Santa Clara County Airport Land Use Commission (SCCALUC, 2000, 2020, 2024). As such, no hazards from airport safety zones apply to the reduction measures projects.

Emergency Response

The reduction measure projects would occur within existing Valley Water facilities located throughout the City of San José and Santa Clara County, and therefore, fall under the City's Emergency Operations Plan (EOP), Santa Clara County Multijurisdictional Hazard Mitigation Plan (MJHMP), and Valley Water's Local Hazard Mitigation Plan (LHMP), as described below.

- **City of San José's EOP** – Establishes procedures to prepare for, respond to, and recover from emergencies such as natural disasters, hazardous materials incidents, and other public safety threats (City of San José 2024). Emergency response for the reduction measure project sites would be provided primarily by local fire and police department, with coordination from regional and state agencies as appropriate. The City of San José Fire Department provides emergency response such as fire suppression and hazardous materials response, for reduction measure project sites located within San José city limits, including Blossom Hill Annex, Water Quality Lab, Winfield facilities, Maintenance Shops, Penitencia Water Treatment Plant, Santa Teresa Treatment Plant, the Silicon Valley Advanced Water Purification Center, and Valley Water Headquarters and Administration Buildings. The Santa Clara County Fire Department provides emergency response services for the Coyote Pump Plant, Vasona Pumping Station, and Rinconada Water Treatment Plant.
- **Santa Clara County Multijurisdictional Hazard Mitigation Plan** – The Santa Clara County MJHMP serves as a county-wide pre-disaster planning document that identifies hazard vulnerabilities and establishes mitigation strategies to reduce risks from natural and human-cause hazards, such as earthquakes, flooding, extreme heat, and wildfire. It provides the foundation for coordinated emergency preparedness, response, and recovery activities across jurisdictions including Santa Clara County, Valley Water, and City of San Jose. Additionally, the MJHMP incorporates the LHMP by reference and provides regional context for risk reduction and emergency coordination.
- **Valley Water LHMP** – Valley Water's LHMP provides a framework for reducing risk from natural hazards that could affect Valley Water's operations and facilities (Valley Water 2017). The following reduction measure project sites are listed as critical facilities in the LHMP: Rinconada Water Treatment Plant, Vasona Pumping Station, Coyote Pumping Station, Administration Building, Headquarters Building, Maintenance Shop, Water Quality Lab, Winfield Vegetation Management, Winfield Warehouse, and Santa Teresa Water Treatment Plant (Valley Water 2017).

Primary evacuation routes serving reduction measure project sites in San José, Morgan Hill, and Los Gatos include major freeways and state highways. U.S. Highway 101 (U.S. 101) provides regional north-south access through San José and Morgan Hill, with connections to San Francisco and Salinas.

Additional north-south routes include Interstate (I)-280 and I-680, and I-880 connects San José to Oakland (Valley Water 2017). Southern and western San José sites, such as Blossom Hill Annex, Water Quality Lab, Winfield facilities, Maintenance Shops, Penitencia Water Treatment Plant, and the Santa Teresa Treatment Plant, are served by SR 85 and SR 87. The Coyote Pump Plant is accessible via U.S. 101 and SR 152, and Los Gatos facilities, including the Vasona Pumping Station and Rinconada Treatment Plant, are served by SR 17 and SR 9 (Valley Water 2017).

Refer to Section 3.21 “Wildfire” for a detailed discussion of wildfire hazards.

Applicable BMPs and AMMs

Valley Water would incorporate the following BMPs to avoid or minimize adverse effects on hazards and hazardous materials that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of these measures.

- HM-7 Restrict Vehicle and Equipment Cleaning to Appropriate Locations
- HM-8 Ensure Proper Vehicle and Equipment Fueling and Maintenance
- HM-9 Ensure Proper Hazardous Materials Management
- HM-10 Utilize Spill Prevention Measures
- HM-11 Ensure Worker Safety in Areas with High Mercury Levels
- TR-1 Use Suitable Public Safety Measures

3.10.2. Discussion

- a, b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

The reduction measure projects require limited use and transport of hazardous materials, including fuels, lubricants, solvents, and paints typical for installation of electrical equipment and EV chargers. Improper handling of these substances could create the potential for spills, leaks, or accidental releases. However, Valley Water has adopted BMPs that are routinely implemented to minimize the potential for hazardous material incidents. Specifically, BMPs HM-7 (Restrict Vehicle and Equipment Cleaning to Appropriate Locations) and HM-8 (Ensure Proper Vehicle and Equipment Fueling and Maintenance) ensures that vehicles and equipment are not fueled, serviced, or washed in waterways or sensitive areas, and that containment measures are in place to prevent accidental releases. BMPs HM-9 (Ensure Proper Hazardous Materials Management) and HM-10 (Utilize Spill Prevention Measures) establishes procedures for safe storage, handling, and disposal of hazardous materials, require training of personnel in spill prevention and response, and ensure spill kits are accessible at all work sites. Compliance with these BMPs would prevent significant hazards to the public or environment from the routine transport, use, or disposal of hazardous materials, or from reasonably foreseeable accident conditions. Operation of reduction measure projects would not require storage of hazardous materials beyond what is currently used at Valley Water facilities. EV chargers do not store hazardous chemicals, and electrified equipment may use small amounts of refrigerants or coolants similar to existing systems. Therefore, this impact would be **less than significant**.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

There are no reduction measure project sites located within 0.25-mile of a school. Therefore, there would be **no impact**.

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Several reduction measure project sites are located within 0.25 miles of facilities identified on the Cortese List. However, all the identified LUST cases have been closed by the appropriate regulatory agencies, and DTSC-listed cleanup sites near reduction measure project sites are under voluntary cleanup agreements with no required corrective action. These sites are closed or otherwise under regulatory oversight; therefore, they do not represent ongoing sources of contamination that would pose a significant hazard to the public or environment. During minor ground disturbing and trenching activities, it would be possible to encounter previously unknown contaminated soil or groundwater. Valley Water would implement its standard hazardous materials BMPs to minimize potential risks. BMPs HM-9 (Ensure Proper Hazardous Materials Management) and HM-10 (Utilize Spill Prevention Measures) require proper labeling, storage, and handling of excavated materials, and BMP HM-11 (Ensure Worker Safety in Areas with High Mercury Levels) requires the use of personal protective equipment in areas with elevated mercury concentrations in exposed surfaces to ensure worker exposure remains below Cal/OSHA standards. If contamination is encountered, work would cease, and materials would be characterized and managed in accordance with applicable regulations and agency direction. Through implementation of these BMPs, the reduction measure projects would not create a significant hazard to the public or the environment due to proximity to Cortese List sites. Therefore, the impact would be **less than significant**.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

There are no reduction measure project sites located within 2 miles of an airport or within an airport influence area that would overlap noise safety zones. Therefore, there would be **no impact**.

- f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The reduction measure projects occur entirely within existing Valley Water facilities and involve minor ground disturbance and excavations at existing facilities, installing new EV charging stations at existing parking facilities, and upgrading gas to electrical equipment at existing buildings; and no new structures would be developed. Construction, operation, and maintenance activities would occur temporarily at existing facilities and would not block public roadways or restrict emergency vehicle access. In addition, Valley Water would implement BMPs to maintain emergency access at construction sites, including TR-1 (Use Suitable Public Safety Measures; see Section 3.18 Transportation) which ensure adequate warning is given to the public of the construction and of any dangerous condition to be encountered as a result thereof through use of fencing, signs, etc. Therefore, the reduction measure projects would not block roadways or interfere with emergency response or evacuation activities. This impact would be **less than significant**.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The reduction measure project sites occur entirely within Valley Water existing facility sites and previously disturbed areas, and involve minor construction activities such as trenching, conduit installation, and interior retrofits. There would be no increase in the number of users at the reduction measure project sites. The reduction measure projects would not install or maintain infrastructure that could exacerbate fire risks or expose people or structures to significant risks. **No impact** would occur. Refer to Section 3.21, “Wildfire,” for a thorough discussion of wildfire safety.

3.11. Hydrology and Water Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VI. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.11.1. Environmental Setting

Hydrology

The reduction measure project sites are within the USGS-delineated Coyote Watershed (HUC8 18050003) which encompasses approximately 461,005 acres (USGS 2025). Within this watershed, Valley Water identifies several major subwatersheds that include reduction measure project sites, including the Coyote, San Tomas, and Guadalupe River subwatersheds (Valley Water 2025a). Natural watershed processes are connected by a network of streams, rivers, and lakes that flow from the hillsides towards the San Francisco Bay (SCVURRP 2019). Prominent surface water bodies near Valley Water facilities include Almaden Lake, Coyote Creek, Guadalupe Creek, Los Gatos Creek, Anderson Reservoir, Alamos Creek, and Penitencia Creek and Ponds (Valley Water 2025b, 2025c).

Surface water quality in the area of the reduction measure project sites is primarily affected by the highly urbanized land uses of San José and surrounding communities (Santa Clara Valley Urban Runoff Pollution Prevention Program [SCVURPPP] 2019). The Guadalupe River, Coyote Creek, Los Gatos Creek, and Alamos Creek are listed as impaired water bodies under Section 303(d) of the CWA for pollutants including trash, mercury, toxicity, pesticides, and temperature (SWRCB 2020). Runoff from developed areas contributes pollutants such as mercury, PCBs, and trash. Upstream agricultural areas may contribute pesticides and sediment (SCVURPPP 2019). Water quality protection and pollutant load reductions are addressed regionally through the San Francisco Bay RWQCB's Municipal Regional Stormwater Permit (MRP) (Order R2-2022-0018), which implements the objectives of the San Francisco Bay Basin Plan (Basin Plan), the regulatory framework that establishes beneficial uses and water quality standards for the region. (SCVURPPP 2019).

Stormwater

Average annual rainfall in the City of San José is approximately 14.5 inches, although rainfall and seasonality can vary considerably due to drought cycles and El Niño events. Average annual evapotranspiration is about 50 inches (San José 2010). Stormwater discharges in Santa Clara County are regulated under the MRP (Order R2-2022-0018, National Pollutant Discharge Elimination System [NPDES] Permit No. CAS612008), which covers the SCVURPPP (RWQCB 2022). Stormwater drainage is managed by local municipalities, including the City of San José. Valley Water manages natural creeks and rivers for flood control. Stormwater in the area of the reduction measure project sites drains primarily to Coyote Creek and Guadalupe River watersheds, with runoff volumes influenced by topography, soils, and the extent of impervious surfaces. The City's storm drainage system includes roughly 1,100 miles of mains, 31 pump stations, and associated inlets, manholes, and outfalls, which convey runoff largely by gravity due to the flat topography of the Santa Clara Valley (San José 2022).

Flood Hazards

According to the Federal Emergency Management Agency's (FEMA's) National Flood Hazard Layer, the area of the reduction measure project sites contains Special Flood Hazard Areas (SFHA) primarily along major creeks or rivers such as Coyote Creek and Guadalupe River (FEMA 2025). However, none of the reduction measure projects are located within SFHA, which are areas that have a 1% chance of flooding in any given year (FEMA 2025). The area of the reduction measure project sites is not in a tsunami hazard zone (DOC 2025). Local earthquake events could generate minor seiche activity within reservoirs, ponds, and creeks, as observed at Anderson Reservoir during the 1984 Morgan Hill earthquake (Valley Water 2021). These events are expected to be limited in scale, with potential wave heights of a few feet in larger reservoirs such as Coyote, and overall risk of significant seiche impacts is considered low (Valley Water 2021a).

Groundwater

The plan area overlies the Santa Clara Valley Groundwater Basin (California Department of Water Resources [DWR] Basin No. 2-9.02), which is comprised of the Santa Clara and Llagas subbasins (DWR 2018). Valley Water serves as the exclusive Groundwater Sustainability Agency (GSA) for both subbasins and manages them under the 2021 Groundwater Management Plan (Valley Water 2021b). Neither subbasin is considered critically overdrafted, though both are high-priority basins due to their importance for regional water supply (DWR 2018). Groundwater resources are sustained through a combination of natural recharge and Valley Water's conjunctive management program, which coordinates groundwater and surface water use to maintain long-term reliability (Valley Water 2024). Managed recharge occurs through imported water deliveries, local reservoir releases, and percolation ponds, with key facilities in the area of the reduction measure project sites including the Alamos,

Guadalupe, Los Capitancillos, Oka, and Kirk Ponds (Valley Water 2024, 2025b). Groundwater conditions are closely tracked through Valley Water’s monitoring program, which evaluates groundwater elevations, quality, and land subsidence. Recent data show groundwater levels remain well above thresholds established to prevent subsidence and above levels observed during past droughts, indicating sustainable conditions (Valley Water 2024). Overall, groundwater quality in the Santa Clara Subbasin is considered good, with infrequent exceedances of drinking water standards (Valley Water 2021).

Applicable BMPs and AMMs

Valley Water would incorporate the following BMPs to avoid or minimize adverse effects on hydrology and water quality that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of these measures.

- HM-7 Restrict Vehicle and Equipment Cleaning to Appropriate Locations
- HM-8 Ensure Proper Vehicle Equipment Fueling and Maintenance
- HM-9 Ensure Proper Hazardous Materials Management
- HM-10 Utilize Spill Prevention Measures
- HM-11 Ensure Worker Safety in Areas with High Mercury Levels
- WQ-3 Limit Impact of Pump and Generator Operation and Maintenance
- WQ-4 Limit Impacts From Staging and Stockpiling Materials
- WQ-5 Stabilize Construction Entrances and Exits
- WQ-11 Maintain Clean Conditions at Work Sites
- WQ-15 Prevent Water Pollution
- WQ-16 Prevent Stormwater Pollution
- WQ-17 Manage Sanitary and Septic Waste

3.11.2. Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The reduction measure projects would be confined to existing facilities, such as parking facilities or building exteriors, in developed or previously disturbed areas. Construction would involve only minor ground disturbance and excavation and each disturbance at each reduction measure project site would be less than 1 acre. While ground disturbance would be minimal and confined to developed areas, construction activities could expose small amounts of soil, mobilize sediment, or introduce pollutants such as fuels and lubricants from equipment. To minimize these risks, Valley Water would implement its standard erosion control BMPs, including WQ-4 (Limit Impacts From Staging and Stockpiling Materials) and WQ-5 (Stabilize Construction Entrances and Exits) to ensure that disturbed soils are stabilized, stockpiles are contained, and to reduce the likelihood that tracked sediment would enter local storm drains or nearby creeks. Additionally, to prevent a spill or accidental discharge, the following BMPs would be implemented: WQ-11 (Maintain Clean Conditions at Work Sites), WQ-17 (Manage Sanitary Septic Waste), WQ-15 (Prevent Water Pollution), and WQ-16 (Prevent Stormwater Pollution). Together, these measures require regular cleaning of access points and staging areas, containment of accidental releases, use of storm drain inlet protection, and overall pollution prevention practices to reduce risks of contaminants entering surface waters. Finally, implementation of BMPs to protect groundwater, including WQ-3 (Limit Impact of Pump and Generator Operation and Maintenance), would carefully manage pump operations, temporary dewatering, and equipment fueling to avoid contaminating shallow groundwater or discharging to storm drains. Collectively, these BMPs would reduce the likelihood of water quality degradation from erosion, discharges, or groundwater contamination. Construction impacts would be temporary, localized, and minimal. Operations and maintenance

activities associated with reduction measure projects would not generate new pollutant discharges or wastewater beyond existing facility conditions. Therefore, implementation of the Plan would not violate water quality standards or waste discharge requirements, nor would it substantially degrade surface or groundwater quality. This impact would be **less than significant**.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The Santa Clara Valley Groundwater Basin, which underlies the reduction measure project sites, is managed by Valley Water under the 2021 Groundwater Management Plan. Current monitoring data show that groundwater elevations remain well above thresholds established to prevent subsidence, indicating sustainable basin conditions. The reduction measure projects would not rely on groundwater pumping, nor would they increase water demand, or substantially increase impervious surfaces in a manner that could inhibit natural recharge. The reduction measure projects would not decrease groundwater supplies, interfere with recharge, or impede sustainable groundwater management. Therefore, this impact would be **less than significant**.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i, ii, iii, iv) Result in substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or Impede or redirect flood flows?

The reduction measure projects would involve minor construction activities including minor ground disturbance and excavations, installation of EV chargers within existing parking facilities, and upgrading gas to electric equipment within existing Valley Water facilities. These activities would occur within previously disturbed or paved areas and would not alter natural drainage features, stream courses, or floodplains. Although construction could introduce small areas of new impervious surfaces these would be limited in scale and would not substantially increase runoff or affect stormwater system capacity. None of the reduction measure project sites are located within FEMA-designated SFHAs, and no components of the projects would impede or redirect flood flows. To minimize construction-related runoff and sedimentation, Valley Water would implement erosion and sediment control BMPs including WQ-4 (Limit Impacts From Staging and Stockpiling Materials) and WQ-5 (Stabilize Construction Entrances and Exits) to stabilize disturbed soils, contain stockpiles, and prevent tracked sediment from entering storm drains or nearby creeks. In addition, implementation of WQ-16 (Prevent Stormwater Pollution) would provide further controls to prevent polluted runoff such as installing gravel or wire mesh around drain inlets and following the latest edition of California Stormwater Quality Association's "Stormwater Best Management Practices". These BMPs would be incorporated into project construction and operations to minimize potential hydrology and water quality impacts. With implementation of these BMPs, reduction measure projects would not substantially alter drainage patterns in a manner which would result in substantial erosion or siltation on- or off-site, substantially increase the rate or amount of surface runoff, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows. Therefore, this impact would be **less than significant**.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

None of the reduction measure project sites are located within a FEMA-designated SFHA. The reduction measure project sites are not located within a tsunami hazard zone, and the risk of seiche activity within local reservoirs or ponds is considered low and limited to minor wave heights during large seismic events. During construction, Valley Water would implement pollution prevention BMPs, including WQ-11 (Maintain Clean Conditions at Work Sites) and WQ-16 (Prevent Stormwater Pollution) to require clean work sites, containment of materials, and prevention of pollutant discharges. Additionally, as discussed in Section 3.10 Hazards and Hazardous Materials, the reduction measure projects require limited use and transport of hazardous materials, including fuels, lubricants, solvents, and paints typical for construction of electrical equipment. During a flood hazard, there could be potential for spills, leaks, or accidental releases. However, Valley Water has adopted BMPs that are routinely implemented to minimize the potential for release of pollutants. Specifically, BMPs HM-7 (Restrict Vehicle and Equipment Cleaning to Appropriate Locations), HM-8 (Ensure Proper Vehicle Equipment Fueling and Maintenance) ensure that vehicles and equipment are not fueled, serviced, or washed in waterways or sensitive areas, and that containment measures are in place to prevent accidental releases. BMPs HM-9 (Ensure Proper Hazardous Materials Management) and HM-10 (Utilize Spill Prevention Measures) establish procedures for safe storage, handling, and disposal of hazardous materials, require training of personnel in spill prevention and response, and ensure spill kits are accessible at all work sites. Compliance with these BMPs would prevent significant release of pollutants due to project inundation. Operation of reduction measure projects would not require storage of hazardous materials beyond what is currently used at Valley Water facilities. EV chargers do not store hazardous chemicals, and electrified equipment may use small amounts of refrigerants or coolants similar to existing systems. Therefore, the project would not introduce new sources of hazardous materials that could be released during flood, tsunami, or seiche events. Since the projects would be constructed outside mapped flood hazard areas and would not be located in tsunami or high-risk seiche zones, the potential for inundation to release pollutants from construction or operation would be very limited, and Valley Water BMPs would minimize the risk of pollutants released during construction. Therefore, impacts would be **less than significant**.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The San Francisco Bay RWQCB regulates surface water quality in the area of the reduction measure project sites under the Basin Plan and the MRP (Order R2-2022-0018, NPDES Permit No. CAS612008), which addresses pollutant load reductions, stormwater quality, and runoff management across Santa Clara County. The Santa Clara Valley Groundwater Basin is managed by Valley Water under the 2021 Groundwater Management Plan. Groundwater levels in the basin were documented in 2024 as well above subsidence thresholds. Reduction measure project activities involve minor ground disturbance and excavations at existing facilities, installing new EV charging stations at existing parking facilities, and upgrading gas to electrical equipment at existing buildings; and no new structures would be developed. The reduction measure projects would not conflict with either of the management plans because they do not rely on a water supply, nor would they increase water demand, or impair groundwater recharge. Additionally, Valley Water would implement BMPs WQ-4 (Limit Impacts From Staging and Stockpiling Materials), WQ-5 (Stabilize Construction Entrances and Exits), and WQ-16 (Prevent Stormwater Pollution) to reduce the risk of polluted runoff and sediment from entering the storm drain and nearby waterways and ensure compliance with the Basin Plan and MRP. Therefore, the reduction measure projects would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact would be **less than significant**.

3.12. Land Use and Planning

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VII. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.12.1. Environmental Setting

Table 3.12-1 shows the existing land use designations and zoning at the reduction measure project sites. The reduction measure project sites have a land use designations ranging from residential, to public facilities, to open space, to commercial/industrial (City of San José 2011, Town of Los Gatos 2022, City of Morgan Hill 2022). Several of the reduction measure project sites (i.e., Penitencia Water Treatment Plant, Maintenance Shops, Winfield Warehouse) have a land use designation of hillside, open space, or are adjacent to these parcels with these land uses (City of San José 2011, Town of Los Gatos 2022, City of Morgan Hill 2022).

The reduction measure project sites are zoned as agriculture/planned development, residential, and public facilities (City of San José 2025a, Town of Los Gatos 2024, City of Morgan Hill 2023). Some of the reduction measure sites (i.e., Maintenance Shops, Winfield Warehouse, Blossom Hill Annex, Water Quality Laboratory) are zoned as Agriculture/Planned development by the City of San José, meaning these parcels have a “base” zone of Agriculture but development is an allowable use (City of San José 2025b). While the Vasona Pumping Station is located in an area zoned as residential, the facility is a legal non-conforming use. The Penitencia Water Treatment Plant is currently located in an area zoned as residential, is adjacent to residential communities, and is a legal non-conforming use. Additionally, there are several points of overlap between facilities that are targeted by both projects, including the Penitencia Water Treatment Plant, the Water Quality Lab, Winfield Warehouse, Maintenance Shops, and Vasona Pumping Station.

Table 3.12-1. Land Use Designation and Zoning of Reduction Measure Project Sites

Name	Existing Land Use Designation	Adjacent Land Use Designation	Zoning
Blossom Hill Annex	OSPH	CIC	A[PD]
Water Quality Laboratory	OSPH	CIC	A[PD]
Vasona Pumping Station	Public	High Density Residential	Single Family Residential/Prezoned (R-1)
Coyote Pump Plant	Public Facilities	Residential	Public Facilities
Penitencia Water Treatment Plant	PQP	Lower Hillside, Residential	R-1-8 Residence District (8DU/Acre) (R-1-8)

Name	Existing Land Use Designation	Adjacent Land Use Designation	Zoning
Silicon Valley Advance Water Purification Center	PQP, IP, CIC	PQP, IP, CIC	LI District
Maintenance Shops	CIC	UR, OSPH, RC	A[PD]
Winfield Warehouse	CIC	OSPH, TR, MUN, MHP, NCC	A[PD]
Rinconada Treatment Plant	Single Family Residential	Single Family Residential, Public Utilities, and Open Space Recreation	Single Family Residential (R1)

OSPH = Open Space, Parklands, and Habitat; CIC = Combined Industrial/Commercial; A[PD] = Agricultural-Planned Development; PQP = Public/Quasi-Public; IP = Industrial Park; LI = Light Industrial; UR = Urban Residential; RC = Regional Commercial; TR = Transit Residential; MUN = Mixed Use Neighborhood; MHP = Mobile Home Park; NCC = Neighborhood/Community Commercial

Sources: City of San José 2011, City of San José 2025, Town of Los Gatos 2022, Town of Los Gatos 2024, City of Morgan Hill 2022, City of Morgan Hill 2023

3.12.2. Discussion

a) Physically divide an established the community?

The physical division of an established community generally refers to the construction of a feature such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impact mobility within an existing community or between a community and outlying area. The reduction measure projects would be located at and upgrade existing facilities. Because there would be no construction of roads or change in access or mobility, the reduction measure projects would not physically divide an established community. There would be **no impact**.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The reduction measure projects would be located at existing facilities and would not involve changes to land use designations or the introduction of new land uses. Replacement of existing equipment for facility electrification at existing buildings does not constitute a land use issue and would not conflict with a land use plan, policy, or regulation for the purpose of avoiding or mitigating environmental effects. Installation of EV charging stations would be accessory and incidental to existing parking and operational uses. EV charging infrastructure is consistent with Valley Water's CCAP and GHG Reduction Plan, which were prepared to reduce greenhouse gas emissions and achieve carbon neutrality by 2045 in accordance with CEQA Guidelines Section 15183.5 and State greenhouse gas reduction goals. The reduction measure projects would be consistent with Valley Water's adopted climate policies and would be implemented within existing developed facilities; therefore, they would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects. **No impact** would occur.

3.13. Mineral Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VIII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.13.1. Environmental Setting

In compliance with the Surface and Mining Reclamation Act, the CGS established a Mineral Resource Zones (MRZ) classification system to denote location and significance of key extractive resources. Lands throughout Santa Clara County are classified as MRZs of varying significance. The MRZ categories are as follows:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

The area of the reduction measure project sites is represented by the South San Francisco Bay Production-Consumption Region and the Monterey Bay Production-Consumption Region. The reduction measure project sites are primarily within areas designated as MRZ-1 or MRZ-4. In addition, the reduction measure project sites at Blossom Hill Annex, Water Quality Laboratory, Headquarters Building, Administration Building, Maintenance Building, Maintenance Shops, Winfield Warehouse/Vegetation are in areas designated as MRZ-3 (Key, E. L. 2021; Stinson, Manson, & Plappert 1983). There are no other significant mineral resources within the City of San José (City of San José 2025).

3.13.2. Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?**

The reduction measures projects would be constructed within existing facilities in previously disturbed areas. The reduction measure project sites are located in MRZ-1, 3, and 4 zones, which means available geologic information is inadequate to assign to any other mineral resource zone category or no significant mineral resources are present. Facilities that are located in areas with an MRZ-3 designation are Blossom Hill Annex, Water Quality Laboratory, Headquarters Building, Administration Building,

Maintenance Building, Maintenance Shops, Winfield Warehouse/Vegetation, and they have the potential to be surrounded by mineral resources. However, these are existing facilities where ground disturbance has previously occurred to develop the facilities. Furthermore, ground disturbance associated with the reduction measure projects would be minor and limited to activities for installation of EV charging stations, such as shallow trenching typically 18 to 36 inches through existing pavement and nonnative soils (fill), and/or adjacent landscaped areas. Because reduction measure projects do not include substantial ground disturbance, they would not reasonably lead to the loss of available nearby mineral resources, if they are present. Therefore, this impact would be **less than significant**.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The reduction measure project sites are not located within the vicinity of a locally important mineral resource recovery site (County of Santa Clara 2016). There would be **no impact**.

3.14. Noise

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
IX. NOISE – Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or Federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.14.1. Environmental Setting

Prior to discussing the environmental setting and applicable noise standards, the following definitions of technical noise terms referenced throughout this section are provided.

- **A-Weighted Decibel (dBA):** An expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced, compared with unweighted decibels, in which no correction is made for audio frequency.
- **L_{eq} (Equivalent Noise Level):** The average noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the L_{eq}. In noise environments determined by major noise events, such as aircraft overflights, the L_{eq} value is heavily influenced by the magnitude and number of single events that produce the high noise levels.
- **L_{max} (Maximum Noise Level):** The maximum instantaneous noise level during specific a specific period of time. The L_{max} may also be referred to as the peak noise level.
- **VdB (Vibration Decibels):** VdB is the vibration velocity level in the decibel scale (Federal Transit Administration [FTA] 2018).
- **PPV (Peak Particle Velocity):** PPV is the peak signal value of an oscillating vibration waveform. Usually expressed in inches/second (in/sec) (FTA 2018).

Existing Noise Environment

Noise-sensitive land uses (i.e., sensitive receptors) are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an

essential element of their intended purpose. Residential dwellings are of primary concern due to the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, as well as the potential for nighttime noise to disrupt sleep. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance. However, commercial and industrial buildings are not considered noise sensitive.

The noise environment in the plan area comprises two major categories of noise sources: transportation and non-transportation. Transportation noise sources include surface traffic on public roadways, railroad line operations, and aircrafts in flight. Non-transportation (or fixed) noise sources commonly include commercial, industrial, and mixed-use land uses; mechanical equipment (i.e., lawnmowers; HVAC equipment), and other non-transportation noise sources not included in the traffic, railroad, and aircraft category. Non-transportation noise levels are difficult to quantify at the county level, as noise levels can vary dramatically from location to location, even in the same community type. The types of land uses, the distance between noise sources, and the presence or absence of barriers can all greatly affect noise levels within a given area. Typically, daytime ambient noise levels in quiet urban areas will range from 50 dB to 60 dBA and in more busy urban areas will range between 60 and 80 dBA (Caltrans 2013: Table 2-5). Traffic noise levels also vary depending on the type (e.g., heavy truck) and distance between the roadway and nearby receptors. Similarly, industrial activity also has a widely varying range of noise outputs, depending on the type of activity taking place and whether the activity is indoors or outdoors.

Applicable Noise Standards

Federal Transit Administration

The FTA Division of Environmental Analysis developed the *Transit Noise and Vibration Impact Assessment Manual*, which provides guidance for assessing vibration and noise from construction, operation, and maintenance of projects. To address the human response to ground vibration, FTA has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in **Table 3.14-1**. FTA has also established construction vibration damage criteria, shown in **Table 3.14-2**.

Table 3.14-1. Ground-borne Vibration Impact Criteria for General Assessment for Human Response

Land Use Category	Frequent ^a Events	Occasional ^b Events	Infrequent ^c Events
Category 1: Buildings where vibration would interfere with interior operations.	65 ^d	65 ^d	65 ^d
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 microinch per second and based on the root mean square velocity amplitude.

^a "Frequent Events" is defined as more than 70 vibration events of the same source per day.

^b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

^c "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

^d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018: 126.

Table 3.14-2. Construction Vibration Damage Criteria

Building/Structural Category	PPV, in/sec	Approximate L _{Va}
Reinforced-concrete, steel or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Notes: PPV in/sec = peak particle velocity, inches per second; L_V = RMS velocity in decibels, vibration decibels re 1 micro-inch per second.

Source: FTA 2018: Table 7-5.

In addition to vibration criteria, FTA has established construction noise criteria based on the land use type (i.e., residential or nonresidential) affected by noise and depending on whether construction noise would occur during the daytime or nighttime. The FTA criteria are as follows:

- Residential: 90 dBA Leq (day) and 80 dBA Leq (night)
- Commercial/Industrial (nonresidential): 100 dBA L_{eq} (day and night)

Local Noise/Vibration Ordinances and Municipal Codes

Local jurisdictions regulate noise through enforcement of their noise ordinances, which are typically contained in the municipal code. Many noise ordinances provide separate standards to control noise from construction activities that typically include a combination of construction noise level limits and/or restrictions on the hours during which construction is permitted. **Table 3.13-3** summarizes construction noise and vibration standards for the jurisdictions within which reduction measure projects with the potential for physical impacts would be located. **Table 3.13-4** presents the operational noise standards for these jurisdictions.

Table 3.14-3. Summary of Local Construction Noise and Vibration Standards

Jurisdiction	Municipal Code Chapter	Permitted Hours of Construction	Construction Noise Level Limits	Municipal Code Chapter	Vibration Regulation
Los Gatos	Chapter 16	8:00 a.m. – 6:00 p.m. weekdays 9:00 – 4:00 p.m. Saturdays	- No individual piece of equipment shall exceed 85 dBA at 25 feet - Noise level at any point outside the property plan shall not exceed 85 dBA	N/A	None
Morgan Hill	Chapter 8.28	7:00 a.m. -8:00 p.m. Monday through Friday 9:00 – 6:00 p.m. Saturdays	N/A	Chapter 18.76	Vibration transmitted through the ground that is discernible without instruments at the lot line of the establishment or use is prohibited. Vibrations from temporary construction, demolition, and vehicles that enter and leave the lot (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard.
San José	Chapter 20.100	7:00 a.m. – 7:00 p.m. Monday through Friday when located within 500 feet of a residential unit	N/A	Chapter 20.30	There shall be no activity on any site that causes ground vibration that is perceptible without instruments at the property line of the site.

Notes: dBA = A-weighted decibels; N/A = not applicable.

Source: Compiled by Ascent in 2025.

Table 3.14-4. Summary of Local Noise Level Limits

Jurisdiction	Municipal Code Chapter	Residential	Commercial	Industrial
Los Gatos	Chapter 16	6 dB above the noise level specified for that particular noise zone	8 dB above the noise level specified for that particular noise zone	8 dB above the noise level specified for that particular noise zone
Morgan Hill	Chapter 18.76	60 dBA L_{max} at lot line of receiving use ¹	65 dBA L_{max} at lot line of receiving use ¹	70 dBA L_{max} at lot line of receiving use ¹
San José	Chapter 20.30	55 dB L_{max} at property line ²	55 dB L_{max} at property line ²	55 dB L_{max} at property line ²

Notes: dB = decibels; dBA = a-weighted decibels; L_{max} = maximum noise level

¹ Pursuant to Section 18.76.090 of the Morgan Hill Municipal Code, the planning commission may allow an additional 5 dbA noise level at the lot line if the maximum noise level shown in Table 18.76-1 cannot be achieved with reasonable and feasible mitigation.

² Pursuant to Section 20.30.700 of the City of San José Municipal Code, the sound pressure level generated by any use or combination of uses on a property shall not exceed the decibel levels indicated in Table 20-85 [shown as Table 3.13-4 in this analysis] at any property line, except upon issuance and in compliance with a special use permit as provided in Chapter 20.100 [of the City of San José Municipal Code].

Applicable BMPs and AMMs

Valley Water would incorporate the following AMMs to avoid or minimize adverse effects on noise that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of these measures.

- AMM NO-1 Minimize Noise Generation

3.14.2. Discussion

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?**

This discussion includes a qualitative analysis of short-term construction noise and long-term operational noise. Because noise standards are often regulated differently depending on the source (e.g., stationary, transportation), each source is evaluated using the appropriate adopted noise source and associated analytical methodology. Thus, each type of noise impact (i.e., temporary or permanent) that could occur is discussed separately below.

Construction

The reduction measure projects would involve replacement of natural gas and propane-consuming equipment at Valley Water facilities with electrically powered equipment. Construction activities would generate temporary noise from the use of small-scale equipment, shallow trenching, and excavation. Noise levels associated with typical equipment that could be used during construction activities are listed in **Table 3.14-5**. However, noise effects from construction activities depend on several factors, including the types of surrounding land uses, duration and type of construction activities, time of day noise is being generated, distance between source and receptor, existing ambient noise levels, and the presence or absence of barriers between source and receptor.

Table 3.14-5. Typical Construction Equipment Noise Levels

Equipment	Maximum Noise Level at 50 feet, dB
Bulldozer	85
Compactor	82
Concrete Saw	90
Dozer	85
Excavator	85
Grader	85
Paver	85
Roller	85
Tractor	84
Trencher	82

Notes: dB = decibel.

Sources: FTA 2018: Table 7-1; FHWA 2006.

Specific construction-related details (e.g., equipment type/quantity, construction schedule) for reduction measure projects are not yet known. As shown in **Table 3.14-5**, noise levels associated with individual pieces of construction equipment could range between 82 dBA Lmax and 90 dBA Lmax at 50

feet. Short-term construction noise levels on and near a reduction measure project site would fluctuate depending on the type, quantity, and duration of usage for the various types of equipment. Construction noise is considered temporary and localized in nature, as it is limited to the time during which the project is being constructed and confined to areas adjacent to the construction site. After construction is complete, construction equipment would be removed. Further, these types of activities would occur during normal daytime hours, when people are less susceptible to noise. Therefore, construction activities would not affect any one offsite area for extended periods of time and an individual receptor's exposure to increased noise would be limited.

Valley Water would implement BMPs and AMMs as part of the reduction measure projects. AMM NO-1 (Minimize Noise Generation) would ensure that noise produced by construction activities would not exceed the applicable local noise ordinance standards. Reduction measure projects would take place in three jurisdictions, two of which have established hours of construction during which construction noise is exempt from local noise standards. The City of San José has established specific noise level limits for construction (see **Table 3.14-3**). AMM NO-1 would require that all construction activities comply with applicable construction noise standards by requiring incorporation of available best practices to reduce noise, including locating equipment as far away as possible from receptors, enclosing stationary equipment with temporary sound barriers, limiting idle times to three minutes, and separating the work site from receptors with temporary sound barriers affixed to chain link fences. In addition, heavy-duty equipment would be inspected prior to use to ensure they are in good working order, adequately muffled, and equipment with manufacturers' standard noise control devices. The noise reductions associated with these measures would vary. For example, noise control devices can reduce noise by 5 to 10 dB (NCHRP 1999). AMM NO-1 would also prohibit the excessive idling of vehicles, which could also reduce overall noise levels. AMM NO-1 would require that construction activity does not exceed applicable noise ordinance standards and would reduce the exposure of existing sensitive receptors, regardless of proximity to project activities, to noise levels that exceed applicable noise standards. In addition, because construction activity would be temporary and would take place during less sensitive times of day, project construction would not result in substantial noise increases or adverse health effects such as sleep disruption. Therefore, impacts from construction would be **less than significant**.

Operations and Maintenance

The reduction measure projects do not propose land use development that would increase employment or population in the region and would not induce growth-related VMT. Therefore, the reduction measure projects would not result in a substantial increase in traffic noise levels. Once constructed, EV charging stations would not introduce any major sources of long-term operational stationary noise. Operation and maintenance activities associated with the EV charging stations would include inspections, cleaning, and software updates as well as addressing issues such as cable damage and connector wear, which would not generate permanent substantial noise. Facility electrification would involve replacing natural gas and propane consuming equipment with electrically powered equipment at the end of its useful life. Specifically, existing gas-fired boilers, water heaters, and HVAC units would be decommissioned and removed, and new electric water heaters, heat pump space heaters, and/or air handling systems would be installed in the same or adjacent locations to the former gas appliances. Replacing existing gas appliances with electric appliances would generate similar noise levels at those locations. As it pertains to noise increases and perception, noise sources would need to double to result in a perceptible increase, which would not occur with replacement of existing equipment. Operational noise would not result in an increase in ambient noise exposure at existing sensitive receptors. Therefore, impacts from operations and maintenance activities would be **less than significant**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Reduction measure project construction would not involve the use of ground vibration-intensive activities such as pile driving or blasting. Pieces of equipment that generate lower levels of ground vibration, such as dozers and pavers, may be used. These types of common construction equipment do not generate substantial levels of ground vibration that could result in structural damage, except at extremely close distances (i.e., within 10 feet). Construction vibration impacts for individual receptors near a reduction measure project site would be short-term, as the equipment would move about the reduction measure project site and would be used intermittently. In addition, implementation of AMM NO-2 would generally limit construction activity near residential neighborhoods to normal working hours (i.e., daytime hours). With implementation of AMM NO-1 (Minimize Noise Pollution), the use of vibration-intensive equipment (e.g., dozers, rollers) would not occur during nighttime hours and thus would not result in sleep disturbance. Once constructed, the reduction measure projects would not introduce major sources of long-term or permanent ground vibration such as commercial railways, and therefore, would not result in long-term operational vibration associated with such sources. For these reasons, nearby sensitive receptors would not be exposed to excessive groundborne vibration levels. This impact would be **less than significant**.

c) For a project located within-the vicinity of a private airstrip or-an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Santa Clara County Airport Land Use Commission is the agency responsible for developing and maintaining airport land use compatibility plans for areas around each airport in the plan area. Each airport land use compatibility plan identifies noise policies including noise compatibility standards related to the siting of new development. The reduction measure projects do not propose new land use development and would not expose people residing or working in the area to excessive airport noise. Therefore, this impact would be **less than significant**.

3.15. Population and Housing

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
X. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1. Environmental Setting

Santa Clara County was estimated to have a population of 1,936,259 in 2020 (U.S. Census Bureau 2025a). The reduction measure project sites are within and nearby the City of San José, which had a population of 1,013,240 in 2020 (U.S. Census Bureau 2025b), the City of Morgan Hill, which had a population of 45,483 in 2020 (Bay Area Census 2025a), and the Town of Los Gatos, which had a population of 33,529 in 2020 (Bay Area Census 2025b).

3.15.2. Discussion

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

The reduction measure projects do not include construction of new homes or businesses that would result in a direct increase in population or create a substantial number of jobs. While the reduction measure projects could result in temporary employment during construction activities, the on-site workforce for construction is negligible over the temporary construction period. The construction workers would come from the existing labor pool within the City of San José and Santa Clara County. As such, the reduction measure projects would not require construction of housing to accommodate workers, since they would commute to the sites.

Once construction activities are complete, the reduction measure projects would not otherwise directly induce population growth. However, there are no extensions of roadways or other infrastructure that could directly induce growth, and any new or extended electrical infrastructure would serve the proposed project and existing demand only. The reduction measure projects would not result in an increase in traffic, as described in section 3.18 “Transportation”. **No impact** would occur.

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

The locations of the reduction measure projects include industrial, commercial, residential, and open space areas. No residences would be condemned or displaced by the reduction measure projects. Therefore, the reduction measure projects would not displace people or housing necessitating the construction of replacement housing elsewhere. There would be **no impact**.

3.16. Public Services

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XI. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.16.1. Environmental Setting

Fire Services

Fire protection services in Santa Clara County are provided by the following local fire protection districts: Saratoga Fire District, Central Fire District, Los Altos Fire District, South County Fire District, and CAL FIRE (CAL FIRE; County of Santa Clara 1994). Reduction measure project sites within the City of San José may also utilize fire services from the San José Fire Department (City of San José 2025).

Police Services

Police services through Santa Clara County are primarily provided through individual cities and the Santa Clara County Sheriff's Department (County of Santa Clara 1994). The reduction measure project sites are served by the San José Police Department, Los Gatos Police Department, Morgan Hill Police Department, and the Santa Clara County Sheriff's Department (City of San José 2025).

Schools

Santa Clara County contains numerous school districts. The reduction measure projects are in urban settings, which are inherently close to schools. The nearest schools to reduction measure project sites include Noble Elementary School and Sunshine School, located about 0.35 mile and 0.44-mile respectively from the Penitencia Water Treatment Plant, Allen at Steinbeck Elementary School, located about 0.7-mile east of the Winfield Warehouse, and other reduction measure project sites and the Cambrian Academy, located about 1 mile north of the Blossom Hill Annex and other reduction measure project sites.

Parks

Santa Clara County contains numerous regional parks, public open space lands, trails, and scenic highways that are generally managed by Santa Clara County Parks Department, various city parks departments, the Midpeninsula Regional Open Space District, the State Parks Department, and the San Francisco Bay National Wildlife Refuge (County of Santa Clara 1994).

3.16.2. Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; Other public facilities.**

The reduction measure projects would install electric charging stations and replace gas equipment with electrical equipment at existing facilities. Implementation of the reduction measure projects would not change existing demand for public services described above because they would not result in a permanent increase of employees or population. The reduction measure projects would not substantially increase the need for new public services' staff or new facilities as compared to existing conditions. The reduction measure projects also would not result in the need for new or physically altered governmental facilities, the construction of which could cause environmental impacts. There would be **no impact**.

3.17. Recreation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XII. RECREATION – Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.17.1. Environmental Setting

The County and various cities in the area of the reduction measure project sites offer an extensive recreational network for their residents and visitors. This includes numerous city parks, regional parks, public open space lands, and trails, that are generally managed by Santa Clara County Parks Department, various city parks departments, the Santa Clara Valley Open Space Authority, the State Parks Department, and the San Francisco Bay National Wildlife Refuge (County of Santa Clara 1994). The City of San José operates more than 200 parks, and the Santa Clara County Parks Department manages the regional park system, which includes 28 parks covering more than 55,000 acres, offering many different recreational facilities. These include five campgrounds, ten reservoirs for boating and fishing, 350 miles of trails for biking, hiking, and horseback riding (County 2025). The Sierra Vista Open Space reserve is adjacent to the Penitencia Water Treatment Plant site, and is used for activities such as biking, environmental education, hiking, horseback riding, and connection to nature (Santa Clara Valley Open Space Authority 2025). The Rinconada Water Treatment Plant is located about 900 feet west of the Town of Los Gatos La Rinconada Park, and the Vasona Pumping Station is about 960 feet south of the Los Gatos Creek County Park. The Coyote Pumping Plant is approximately 0.4 miles south of the Anderson Lake County Park. These parks include activities such as hiking, biking, fishing, picnic tables (Santa Clara County Parks 2025a, 2025b).

3.17.2. Discussion

- a, b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

The reduction measure projects would not directly or indirectly induce population growth, because they are within existing facilities and do not involve new or expanded infrastructure and (see also Section 3.15 “Population and Housing”). Existing services at existing facilities would continue to be provided and the reduction measure projects would not lead to an increase of new residents to the reduction measure project areas. Further, recreational activities would not be impacted during construction, and therefore, recreational visitors would not be deterred from the area or increase the use of other recreational facilities in the area such that physical deterioration of the facility would occur or be

accelerated. Furthermore, the reduction measure projects do not include construction or expansion of any recreational facilities. Therefore, there would be **no impact**.

3.18. Transportation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XIII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.18.1. Environmental Setting

Santa Clara County is served by a regional roadway system that includes U.S. 101, Interstate (I)-280, I-680, SR 85, SR 87, and multiple local arterials, which provide both regional and local connectivity throughout Santa Clara County.

Bikeways and multi-use trails are present or planned in proximity to several of the reduction measure project sites. According to the City of San José Better Bike Plan 2025 and the City of Morgan Hill Bicycle Master Plan (2017), Blossom Hill Road includes a protected bikeway that transitions to a bike lane west of Almaden Expressway. Additional protected bikeways are located along Sanchez Drive, Winfield Boulevard, and Suncrest Avenue, with bike lanes extending west of Almaden and adjacent to the Penitencia Water Treatment Plant (City of San José 2025a). Coleman Road and Camden Avenue also include bikeway facilities, with Camden Avenue serving as a north-south bike lane corridor. Multi-use trails parallel to the Guadalupe River and Alamitos Creek, and to Los Gatos Creek near the Vasona Pumping Station project site, provide further north-south bicycle connectivity (City of San José 2025a). Near the Coyote Pump Plant in Morgan Hill, Cochrane Road includes an unpaved bike and pedestrian path, and a shared bike and pedestrian path is located along U.S. 101 (City of Morgan Hill 2017).

Public transit within the project vicinity is primarily provided by the Santa Clara Valley Transportation Authority (VTA). The reduction measure project sites near Blossom Hill Road are served by several VTA bus routes, including Route 64A (Ohlone/Chynoweth Station to McKee and White), Route 83 (Almaden and McKean to Ohlone/Chynoweth via Winfield Boulevard and Almaden Road), and Route 27 (Winchester Transit Center to Kaiser San José along Blossom Hill Road) (City of San José 2025b). The VTA Light Rail Blue Line also travels east along SR 85 or West Valley Freeway and provides access to the area. The Vasona Pump Station is located near VTA Frequent Route 61, which operates between Good Samaritan Hospital and Sierra and Piedmont along Bascom Avenue, approximately 0.8 mile east of this reduction measure project site (City of San José 2025b).

Transportation planning in the project area is guided by several adopted local and regional plans that emphasize multimodal access, mobility, and GHG reduction. For example, the City of San José Better Bike Plan (2020-2025) and the City of Morgan Hill Bicycle Master Plan (2017) identify bikeway and pedestrian improvements near reduction measure project sites (City of Morgan Hill 2017, City of San José 2020). The Valley Transportation Plan 2050 (VTA 2020) establishes countywide priorities for transit, roadway, and active transportation investments. The Move San José Plan (2022) also integrates mobility and climate goals consistent with Climate Smart San José (City of San José 2025c, City of San José 2025d).

Applicable BMPs and AMMs

Valley Water would incorporate the following BMP to avoid or minimize adverse effects on transportation that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of this measure.

- TR-1 Use Suitable Public Safety Measures

3.18.2. Discussion

a, b) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

During construction, reduction measure project activities could temporarily increase VMT related to worker commutes, delivery of equipment and materials, and hauling debris offsite. These increases would be short-term and limited in scope, and would not conflict with adopted plans addressing roadway, transit, bicycle, or pedestrian facilities. Operation of the projects would not result in new long-term traffic, transit, or circulation impacts. New EV charging stations would be used by Valley Water’s on-road fleet and employees, replacing gasoline and diesel trips with EVs but would not generate additional traffic. Facility electrification upgrades would not result in new vehicle trips or circulation changes. The reduction measure projects are consistent with adopted local and regional transportation and climate plans, which emphasize reducing VMT and supporting ZEV. As such, the reduction measure projects would support, rather than conflict with, applicable circulation policies and CEQA Guidelines Section 15064.3(b). Operation and maintenance activities would generate negligible, if any, new trips and VMT. Therefore, this impact would be a **less than significant impact**.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The reduction measure projects would be accessed from existing public roads and would not alter the physical configuration of the roadway network serving the area or introduce unsafe design features. Construction activities would temporarily increase traffic to the reduction measure project sites by a small number of worker commute and delivery trips per day during construction activities but would not involve the construction of new roadways or access roads that could introduce incompatible uses or circulation hazards. Therefore, reduction measure projects would not result in an increase of hazards due to geometric design features or incompatible uses. There would be **no impact**.

d) Result in inadequate emergency access?

Construction activities would occur within the boundaries of existing Valley Water facilities and would not require lane closures or detours on public roadways. Therefore, emergency access would be maintained during construction of reduction measure projects. The temporary increase in vehicle trips during construction would not substantially increase traffic volumes or impede emergency vehicle travel on surrounding streets. Implementation of Valley Water's BMP TR-1 (Use Suitable Public Safety Measures) would ensure that appropriate traffic control and safety procedures, such as installation of fences, signage, flagging, and lighting, are in place to maintain safe circulation and access for both the public and emergency responders. Operation and maintenance activities would generate negligible, if any, new trips and would not generate additional traffic to Valley Water facilities that could affect emergency access. Therefore, the project would not result in inadequate emergency access, and impacts would be **less than significant**.

3.19. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XIV. TRIBAL CULTURAL RESOURCES – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

3.19.1. Tribal Cultural Resources

As defined in PRC Section 21074, a TCR is either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the CRHR or has been determined by the lead agency to be significant.

Environmental Setting

Ethnohistoric Setting

The project lies within the traditional territory of the Ohlone (previously known as Costanoan) speaking peoples. Ohlone is a language family that consists of eight distinct but related languages (Levy 1978), although Kroeber (1925) recognized only seven. Ohlone language family speakers were and are organized into multiple ethnic groups, which are generally based on a common language or dialect and territory. At the time of European contact, the Ohlone lived in approximately 50 separate, politically autonomous nations or “tribelets,” four of which were in Santa Clara County, where the Tamien language was spoken (Levy 1978). Overall, the Bay Area was the densest populated area in California, north of Mexico (Margolin 1978:1). Coyote Creek, and thus the project area, appears to have been the boundary between the Tamien speaking Tamien tribelet and the lesser-known Santa Ysabel tribelet, who had at least one village located along Coyote Creek (Milliken et al. 2009).

The Ohlone carefully managed the land, helping to ensure good animal and plant yields through controlled burning of extensive areas (Paddison 1999:11). This reduced risk of large, uncontrolled fires, minimized the presence of chaparral species, promoted the growth of seed-bearing annual plants, and provided extensive grazing areas for game animals. Acorns were likely the most important food for the

Ohlone and were used to make mush or acorn bread (Levy 1978; Margolin 1978:41). Acorn was harvested during the fall (Margolin 1978:42). Poles were used to dislodge acorns from trees; the acorns were then ground and leached to remove tannin. Leaching was a complicated and involved process, with the time necessary to complete dependent on the species of acorn (Margolin 1978:43–44). Buckeye nuts were similarly used but secondary in importance. Some of the other plant foods used included tarweed, chia, digger pine, blackberries, elderberries, wild onion, thistle, and several other greens and roots (Levy 1978; Margolin 1978:46–51).

A variety of mammals were hunted, often taken by a single hunter. These species included black-tailed deer, grizzly bear, elk, antelope, sea lion, and whale. Hunting techniques included disguise, driving prey off cliffs, or ambushes; hunting was strictly a male activity (Margolin 1978:25–26, 84). Smaller mammals that were used for food included dog, wildcat, skunk, raccoon, cottontail, jackrabbit, and many rodent and reptile species (Levy 1978; Margolin 1978:25). Rabbits were communally hunted with nets. Waterfowl, including Canada goose, snow goose, white-fronted goose, mallard, teal, and American coot, were the most important birds eaten. Fish species that were important to the Ohlone included steelhead, salmon, sturgeon, and lamprey. Sturgeon and salmon were caught in seine nets. Other fish-catching techniques included the use of baskets, dip nets, and spearing. Honey was also gathered. Mussels were a very important food source along the coast (Levy 1978). Some animals, such as frogs, eagles, buzzards, ravens, and owls, were taboo for religious reasons (Margolin 1978:24).

Dwellings consisted of domed structures thatched with tule, grass, wild alfalfa, ferns, or carrizo. These plants were tied onto a framework of poles using willow withes. Some groups used a more conical structure made of split redwood or redwood bark. These homes tended to be small (Margolin 1978:15). Sweathouses generally held only six to eight individuals. Sweathouses were constructed by excavating a pit near a creek or stream bank. The remainder of the structure was built against the bank. Dance areas were circular or oval and enclosed by fences made of brush or laurel branches. Some assembly structures were large enough to hold an entire community of 200 individuals; they were usually located in the center of the village, with dwellings around the periphery (Levy 1978).

The Ohlone employed an extensive technological array of items. Tule balsas were used for watercraft and propelled with a double-bladed paddle. There are some reports that stone anchors were used (Levy 1978). The Ohlone made both sinew-backed and self-bows for hunting and warfare; the wood for the bows was often acquired through trade (Margolin 1978:30). Arrows were made with three-feather radial fletching attached with asphaltum, a cane shaft, and a hardwood foreshaft. Arrowheads were made of stone, bone, or were created out of the foreshaft. Nets were used to capture a variety of animals. Rocks and minerals were used for tools including manos, metates, net sinkers, anchors, pipes, arrowheads, and a variety of flaked stone tools. Stuffed ducks were used as hunting decoys (Margolin 1978:15). Minerals also were used to make pigments. Cordage was made from milkweed, Indian hemp, or nettle. Blankets were made from strips of sea otter while bedding was manufactured from tule mats or animal skins (Levy 1978).

Basket making was a highly developed art and craft among the Ohlone (Margolin 1978:117–122). Baskets were twined rather than coiled and made of willow, rush, tule, and various cut grasses. Often, baskets were ornamented with abalone shell, quail plumes, and woodpecker scalps. Baskets were used for the collection, preparation, storage, and serving of food, and for water containers and a variety of other tasks and gifts (Levy 1978; Margolin 1978:117–122).

Tribal Consultation

PRC Section 21080.3.1(b) requires the lead agency to begin consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project if the Tribe requests the lead agency, in writing, to be informed by the lead agency through formal notification of projects that are proposed in that geographic area, and the tribe subsequently requests consultation. PRC Section 21084.3 states that “public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.

Valley Water sent letters to Tribes who requested notification under AB 52 including, the Muwekma Ohlone Indian Tribe and Tamien Nation, on October 15, 2025 to provide formal notification of Valley Water’s decision to propose undertaking a project and notification of AB 52 consultation opportunity for the GHGRP. Valley Water also sent informal courtesy notices to the Amah Mutsun Tribal Band of Mission San Juan Bautista, Indian Canyon Mutsun Band of Costanoan, Ohlone Indian Tribe, Costanoan Rumsen Carmel Tribe, and Wuksachi Indian Tribe/Eshom Valley Band.

In response to the AB 52 formal notification regarding the GHGRP, the Tamien Nation requested additional information and Valley Water, along with their consultant GEI, met with them on December 4, 2025, via virtual meeting. As a follow up to the call, Valley Water provided a map to the Tamien Nation showing where the proposed EV charging stations would be installed. The Tamien Nation responded that they were only concerned with one location in San Jose and requested to monitor construction at that location.

Applicable BMPs and AMMs

Valley Water would incorporate the following BMPs to avoid or minimize adverse effects on TCRs that may result from the implementation of reduction measure projects. Refer to Section 2.4, “Avoidance and Minimization Measures,” for the full text of this measure.

- CU-1 Accidental Discovery of Archaeological Artifacts or Burial Finds

3.19.2. Discussion

- a, b) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

The reduction measure projects would have a significant impact on TCRs if they were to cause a substantial adverse change in the significance of a TCR as defined in California PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.

The reduction measure projects would be located within existing facilities and would involve minimal ground disturbance in general and are situated on soils/matrix that have been imported, include

pavement, or have been highly disturbed by prior construction and landscaping. Any TCRs that are present, which is unlikely, would not be impacted by work conducted in imported soils (nonnative soils/fill) or soils that have previously been disturbed.

Valley Water's BMP CU-1 (Accidental Discovery of Archaeological Artifacts or Burial Finds) is sufficient to address the extremely low likelihood of encountering any TCRs because the project would be in compliance with state regulations, discoveries addressed, and Native American Tribes contacted. Therefore, the impacts would be **less than significant**.

3.20. Utilities and Service Systems

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XV. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with Federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.20.1. Environmental Setting

Water

Valley Water provides water for potable and non-potable uses in Santa Clara County. Long-term average water use in Santa Clara County is approximately 350,000 acre-feet per year and is used for domestic, municipal, industrial, and agricultural uses (Valley Water 2019). Water in the Santa Clara County is sourced from a combination of imported water from the Sierra Nevada mountain range delivered through the SWP and CVP (approximately 40%), as well as from the San Francisco Public Utilities Commission (15%), local groundwater (15%), local surface water (20%), and recycled water (5%) (Valley Water 2019).

Several of the reduction measure project sites are water treatment plants. This includes the Silicon Valley Advanced Water Purification Center, the Penitencia Water Treatment Plant, Rinconada Water Treatment Plant, Vasona Pumping Station, and Santa Teresa Water Treatment Plant. These plants are used to recycle, purify, and distribute water, including drinking water, throughout Santa Clara County and its cities.

Stormwater Drainage

Santa Clara County utilizes a variety of methods to manage stormwater runoff and drainage. This includes drainage systems, catch basins, water basins, detention basins, artificial channels, curbs, gutters, ditches, sumps, pumping stations, storm drain inlets, and storm drains. Regions within Santa

Clara County may utilize a Municipal Separate Storm Sewer System that diverts runoff into water bodies for drainage instead of treatment plants. For additional information, refer to Section 3.11, “Hydrology and Water Quality.”

Wastewater

The reduction measure project sites are under the jurisdiction of several sanitary districts: the City of San José, the City of Milpitas, and the West Valley Sanitation District (City of San José Environmental Services Department 2015). Properties not served by a public wastewater provider generally use private septic systems.

Electrical Service

Valley Water facilities receive electrical service from the PWRPA, PG&E, SJCE, and SVP. Most electricity consumed by Valley Water facilities, more than 94%, is supplied through PWRPA. Since 2016, electricity procured through PWRPA has been sourced from the Zero Carbon Water portfolio, which consists of zero-emission power resources. Additionally, SVP provides emission free electricity to the City of Santa Clara.

Solid Waste

Solid waste in the area of the reduction measure project sites is managed by Environmental Services from City of San José, the Town of Los Gatos, and City of Morgan Hill (City of San José 2026, City of Morgan Hill 2026, Town of Los Gatos 2026). The Newby Island Landfill is nearest the Silicon Valley Advanced Water Purification Center and Penitencia Water Treatment Plant, the Kirby Canyon Recycle and Disposal Facility is nearest the Coyote Pump Plant, and the Guadalupe Sanitary Landfill is nearest the proposed reduction measure project sites in Blossom Hill and Los Gatos.. The Newby Island Landfill (43-AN-0003) is a Class III landfill with 57,500,000 cubic yards (cy) maximum capacity, 16,400,000 cy remaining capacity, and an anticipated closure date in 2041 (CalRecycle 2026a). The Kirby Canyon Recycle and Disposal Facility (43-AN-0008) is a Class III landfill with 36,400,000 cy maximum capacity, 10,400,000 cy remaining capacity, and an anticipated closure date in 2059 (CalRecycle 2026b). The Guadalupe Sanitary Landfill (43-A-0015) is a Class III landfill with 28,238,855 cy maximum capacity, 7,518,220 cy remaining capacity, and an anticipated closure date in 2044 (CalRecycle 2026c).

The California Green Building Code (Cal Green) was developed in response to AB 32, a program to reduce GHG emissions across the state. Cal Green is a mandatory green building code, and mandates that 65% of nonhazardous construction and demolition waste from construction is recycled or reused (California Department of General Services 2018).

3.20.2. Discussion

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

The reduction measure projects may require limited use of water during construction activities for dust suppression purposes during ground disturbing activities within existing facilities. New water facilities or expansion of existing facilities would not be required to support this nominal use. No new water, wastewater treatment facilities, stormwater drainage, or telecommunication facilities would be installed or relocated as part of the reduction measure projects. Therefore, this impact is **less than significant**.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The reduction measure projects may require limited use of water during construction activities for dust suppression purposes during ground disturbing activities within existing facilities. No new permanent demand would be created, and no permanent water supply would be required. Therefore, this impact would be **less than significant**.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

During construction, Valley Water or its contractor may have portable toilet facilities available onsite temporarily for use by construction workers, which would result in the temporary generation of wastewater. Given the small construction workforce and temporary nature of construction activities, this amount of waste would be minimal and intermittent over the period when reduction measure projects are implemented. Once construction is concluded at each reduction measure project site, such portable facilities would be removed, and the wastewater properly handled and disposed in accordance with all applicable laws and regulations. Therefore, the reduction measure projects do not require a wastewater treatment services. There would be **no impact**.

d, e) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?

Implementation of the reduction measure projects would result in the temporary generation of solid waste in the form of trash and construction-related materials. The reduction measure projects may involve minor excavation, but the limited amount of soil excavated would likely be reused onsite. Facility electrification would require the removal and decommissioning of existing natural gas and propane equipment, including existing gas-fired boilers, water heaters, HVAC units, propane tanks, and related infrastructure. Waste would be recycled or disposed of at a nearby landfill, as described above in this section, and would be done according to all necessary utility regulations, laws, and codes. Statewide policies regarding solid waste have become progressively more stringent, reflecting AB 939, which requires local government to develop waste reduction and recycling policies and meet mandated solid waste reduction targets (CalRecycle 2024). Furthermore, the reduction measure projects would comply with the Cal Green mandate of recycling or reusing 65% of qualified construction debris. For the minor amount of solid waste anticipated to be produced by the reduction measure projects, Valley Water would be required to comply with all laws and regulations, including the California Green Building Code, related to the disposal and recycling of waste. Therefore, the reduction measure projects would not exceed the capacity of local infrastructure, would not impair attainment of solid waste reduction goals, and would comply with applicable statutes and regulations related to solid waste. This impact would be **less than significant**.

3.21. Wildfire

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVI. WILDFIRE.				
If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.21.1. Environmental Setting

Appendix G of the CEQA Guidelines determines wildfire impacts based on whether a proposed project would occur within or near a state responsibility area (SRA) or on lands classified as a very high fire hazard severity zone. Fire prevention areas considered to be under state jurisdiction are referred to as SRAs, and CAL FIRE is responsible for vegetation fires in SRA lands. In general, SRA lands contain trees producing, or capable of producing, forest products; timber, brush, under growth, and grass, whether of commercial value or not, that provide watershed protection for irrigation or for domestic or industrial use; or lands in area that are principally used, or are useful for range or forest purposes. The reduction measure project sites are not within a SRA (CAL FIRE 2025). The closest SRA lands to the EV charging station locations are shown in **Table 3.20-1**. CAL FIRE identifies only very high fire hazard severity zones in local responsibility areas (LRAs), which are areas under the jurisdiction of local entities (e.g., cities and counties). The project areas are in LRAs (i.e., the cities of San José and Morgan Hill and the Town of Los Gatos); however, there are no very high fire hazard severity zones in the LRAs that encompass the reduction measure project sites (CAL FIRE 2024). The closest very high fire hazard severity zone to the proposed EV charging station locations are shown in **Table 3.21-1**.

Table 3.21-1. Distance to the Closest State Responsibility Area and Very High Fire Hazard Severity Zone

Location	Distance to SRA	Distance to VHFHSZ
Blossom Hill Annex	2.8 mi southeast	2.9 mil southwest
Water Quality Lab	2.8 mi southeast	2.9 mi southwest
Winfield Warehouse and Vegetation	2 mi southeast	3.1 mi southwest
Maintenance Shops	2.3 mi southeast	3.1 mi west
Coyote Pump Plant	0.5 mi east	2 mii southwest
Penitencia Water Treatment Plant (Operations and Maintenance Bldgs)	3.6 mi south	0.5 mi southeast
Vasona Pumping Station	3.2 mi south	1.5 mi south
Silicon Valley Advance Water Purification Center	3.3 mi north	6.6 mi southeast
Rinconada Water Treatment Plan	2 mi north	2 mi north

Notes: mi = mile, SRA = State Responsibility Area, VHFHSZ = very high fire hazard severity zone

Source: CALFIRE 2024, 2025

3.21.2. Discussion

a), b), c), d) Substantially impair an adopted emergency response plan or emergency evacuation plan? Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The reduction measure project sites are not within a SRA or very high fire hazard severity zone. Therefore, there would be no impact related to impairment of an adopted emergency response plan or emergency evacuation plan for areas within a SRA or very high fire hazard severity zone. Section 3.10 “Hazards and Hazardous Materials,” provides additional discussion on the potential for project-related construction activities to substantially impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The reduction measure project sites occur entirely within Valley Water existing facility sites and previously disturbed areas, and involve minor construction activities such as trenching, conduit installation, and interior retrofits. There would be no increase in the number of users at the reduction measure project sites. The reduction measure projects would not install or maintain infrastructure that could exacerbate fire risks or expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes within a SRA or very high fire hazard severity zone. **No impact** would occur.

3.22. Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE – Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.22.1. Discussion

- a) **Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

The analysis conducted in this ND concludes that implementing the reduction measure projects would not have any of these potential significant impacts on the environment. As evaluated in Section 3.5 "Biological Resources," there would be no impacts, or less-than-significant impacts with implementation of Valley Water's BMPs. The reduction measure projects would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of an endangered, rare, or threatened species. As discussed in Section 3.6 "Cultural Resources," the reduction measure projects would not eliminate important

examples of the major periods of California history or prehistory. This impact would be **less than significant**.

- b) Would the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

The analysis in this ND indicates that implementing the reduction measure projects would have no impact on aesthetics, agricultural and forestry resources, population and housing, public services, recreation, or wildfire and would thus not contribute to any cumulative impacts on those resources.

The temporary nature of the construction impacts associated with reduction measure projects and the inclusion of Valley Water’s BMPs would result in less-than-significant impacts on the physical environment. However, cumulative impacts could result from the projects combined with other approved, proposed, or in-progress projects in the region or project vicinity.

The reduction measure projects would be confined to existing facilities and developed or previously disturbed areas, such as parking facilities within buildings. The reduction measure project sites were evaluated for potential impacts to sensitive biological communities, jurisdictional aquatic resources, and special-status plant and wildlife species. As discussed in Section 3.5 “Biological Resources,” the reduction measure projects would have no impacts to special-status plants and less-than-significant impacts with incorporation of Valley Water BMPs BI-5 (Avoid Impacts to Nesting Migratory Birds), BI-6 (Avoid Impacts to Nesting Migratory Birds From Pending Construction), B-10 (Avoid Animal Entry and Entrapment), and B-11 (Minimize Predator-Attraction) on special-status wildlife and nesting birds. Impacts at these reduction measure project sites would be highly localized and short-term in already disturbed areas. Other planned and reasonably foreseeable projects in Santa Clara County would be required to adhere to federal, state, and local regulations related to biological resources. Furthermore, projects within the VHP would be subject to regional mitigation for impacts on biological resources. Therefore, cumulative impacts to biological resources would not be cumulatively considerable.

As discussed in Section 3.6 “Cultural Resources” and Section 3.19 “Tribal Cultural Resources,” the reduction measure projects would have minimal ground disturbance in general and are situated on soils/matrix that have been imported, include pavement, or have been highly disturbed by prior construction and landscaping. Valley Water BMP CU-1 (Accidental Discovery of Archaeological Artifacts or Burial Finds) is sufficient to address the extremely low likelihood of encountering any TCRs because the project would comply with state regulations, discoveries addressed, and Native American Tribes contacted. It is expected that other Valley Water projects would implement Valley Water BMP CU-1, and other projects in Santa Clara County would adhere to state regulations and requirements related to Tribal cultural resources. Overall, reduction measure projects’ potential incremental contribution to any cumulative impacts on TCRs would be negligible.

Emissions of criteria air pollutants and GHGs are inherently cumulative impacts and a project’s individual emissions contribute to existing cumulatively significant adverse air quality and GHG impacts. In general, if a project exceeds its identified project-level significance thresholds, the project’s cumulative impact would be cumulatively considerable. As discussed in Section 3.9 “Greenhouse Gas Emissions,” implementation of the GHGRP itself would reduce Valley Water’s overall GHG emissions. Therefore, criteria air pollutants and GHG emissions would remain below applicable significance thresholds.

None of the reduction measure projects' impacts make cumulatively considerable, incremental contributions to significant cumulative impacts with incorporation of Valley Water BMPs presented in this ND. This cumulative impact would be **less than significant**.

c) Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Implementation of the reduction measure projects would result in less than significant impacts to air quality, GHG emissions, hazards, hydrology, noise, and wildfire. There would be no substantial adverse effects on human beings, either directly or indirectly. The impact would be **less than significant**.

4. References

1.0 Introduction

None.

2.0 Project Description

Besen Group. 2025. What Are The Main Components of EV Chargers. <https://www.besen-group.com/components-of-ev-chargers/> Accessed April 29, 2025.

California Air Resources Board (CARB). 2022. 2022 Draft Scoping Plan Update. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf>. Accessed September, 2025.

Valley Water. 2021. Climate Change Action Plan. Available: <https://fta.valleywater.org/dl/WE26jeeXbS>. Accessed April 2025.

_____. 2025. Best Management Practices Handbook, Santa Clara Valley Water District Comprehensive List.

3.1 Reduction Measures Dismissed from Further Analysis

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2015 (May). *LUTRANews*, Volume 9, Issue 2.

Zaw Oo, et. al. 2024. The role of global waste management and circular economy towards carbon neutrality. <https://www.sciencedirect.com/science/article/pii/S2352550924003336>. Accessed February 4, 2026.

3.2 Aesthetics

California Department of Transportation. 2025. State Scenic Highway Map. Available: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed September 30, 2025.

City of San José. 2011. Envision San José 2040 General Plan. Amended October 24, 2024. Available: <https://www.sanJoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/citywide-planning/envision-san-jos-2040-general-plan>. Accessed September 30, 2025.

City of Morgan Hill. 2016. 2035 General Plan. Available: <https://www.morganhill.ca.gov/75/General-Plan>. Accessed September 30, 2025.

Santa Clara County. 1995. General Plan: Book A and Book B. Available: <https://plandev.santaclaracounty.gov/codes-and-policies/general-plan>. Accessed September 30, 2025.

Town of Los Gatos. 2021. 2040 General Plan Draft Environmental Impact Report. Available: <https://www.losgatosca.gov/2138/General-Plan>. Accessed September 30, 2025.

3.3 Agriculture/Forestry Resources

California Department of Conservation (DOC), Division of Land Resource Protection. 2004. A Guide to the Farmland Mapping and Monitoring Program, 2004 Edition. Available online at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/Archive/fmmp_guide_2004.pdf. Accessed: August 17, 2025.

_____. 2022. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed: August 17, 2025.

City of San José. 2011. General Plan 2040 Map. Available: <https://csj.maps.arcgis.com/apps/instant/lookup/index.html?appid=ef685f767b484eb6bcfc70f8fb651ef6#find=69609035>. Accessed: August 17, 2025.

_____. 2025. Zoning. Available: <https://experience.arcgis.com/experience/c23301b236d041d5a5358a5dce1e989d>. Accessed: August 17, 2025.

City of Morgan Hill. 2022. General Plan Land Use Map. Available: https://www.morganhill.ca.gov/DocumentCenter/View/22676/GeneralPlan_LandUseMap_revised20171206?bidId=. Accessed: August 17, 2025.

County of Santa Clara. 2016. Land Use Plan. Available: https://stgenpln.blob.core.windows.net/document/landuse_plan_map.pdf. Accessed: August 17, 2025.

Town of Los Gatos. 2022. Land Use Element. Available: https://losgatos2040.com/images/docs/LGGPU_03_LU.pdf. Accessed: August 17, 2025.

3.4 Air Quality

Bay Area Air Quality Management District (BAAQMD). 2017 (April). Spare the Air Cool the Climate. A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf](https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf). Accessed September 2, 2025.

California Air Resources Board (CARB). n.d. Summary: Diesel Particulate Health Impacts. Available: <https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts>. Accessed September 2, 2025.

3.5 Biological Resources

California Department of Fish and Wildlife (CDFW), 2025a. California Natural Diversity Database. Results of electronic database search for sensitive species occurrences. Version 5. Biogeographic Data Branch. Available online at: <https://wildlife.ca.gov/Data/CNDDB>, Accessed: September 29, 2025.

_____. 2025b. Biogeographic Information and Observation System (BIOS 6 Viewer). Available online: <https://wildlife.ca.gov/Xv/Data/BIOS>. Accessed: September 30, 2025.

- California Native Plant Society (CNPS). 2025. Rare Plant Inventory. Online edition, v9.5. Sacramento, CA. Available online: <https://rareplants.cnps.org/Home/Index/>. Accessed: September 2025.
- ICF International. 2012. Final Santa Clara Valley Habitat Plan. Prepared for City of Gilroy City of Morgan Hill City of San José County of Santa Clara Santa Clara Valley Transportation Authority Santa Clara Valley Water District. Prepared by ICF International, San Francisco, CA.
- NOAA Fisheries. 2025a. Protected Resources App. Protected Resources Division, West Coast Region, National Marine Fisheries Service. Available online at: <https://www.fisheries.noaa.gov/resource/map/protected-resources-app>, accessed: Accessed: September 30, 2025.
- _____. 2025b. Essential Fish Habitat Mapper. West Coast Region. Available online: <https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper>. Accessed: September 2025.
- Santa Clara Valley Habitat Agency (SCVHA). 2023. Geobrowser. Available online: <http://www.hcpmaps.com/habitat/>. Accessed: September 30, 2025.
- U.S. Fish and Wildlife Service (USFWS), 2025a. Information for Planning and Conservation Resource List. Generated at <https://ecos.fws.gov/ipac/> on Accessed: September 30, 2025.
- _____. 2025b. Critical Habitat for Threatened and Endangered Species. Available online at: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>, Accessed: September 30, 2025.
- _____. 2025c. National Wetlands Inventory Mapper. Available online: <https://www.fws.gov/wetlands/data/mapper.html>. Accessed: September 30, 2025.

3.6 Cultural Resources

- Bennyhoff, James A., and Richard E. Hughes. 1987. Shell Beads and Ornament Exchange Networks between California and the Great Basin. In *The Archaeology of Monitor Valley, 5: Regional Synthesis and Implications*, by David H. Thomas. Anthropological Papers of the American Museum of Natural History. New York, NY.
- Jackson, T. L., and J. E. Ericson. “1994. Prehistoric Exchange Systems in California.” *Prehistoric Exchange Systems in North America*, edited by T. G. Baugh and J. E. Ericson, pp. 385–415. Plenum Press, New York, NY.
- Jones, T. L., N. E. Stevens, D. A. Jones, R. T. Fitzgerald, and M. G. Hylkema. 2007. “” In *California Prehistory: Colonization, Culture, and Complexity*,” edited by T. L. Jones and K. A. Klar, pp. 125–146. Alta Mira Press, Plymouth, United Kingdom.
- Lindley et al. (2021) – ARCHAEOLOGY
- Lindsey, S., N. Scher, J. McWaters, and N. Wu . 2024. *Preliminary Archaeological Resources Constraints Assessment for the Coyote Creek Flood Management Measures Project, San Jose, Santa Clara County, California*. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to Santa Clara Valley Water District, San Jose, California.

- Meyer, J. and Rosenthal, J.S. 2007. Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4. prepared by Far Western Anthropological Research Groups, Inc. for Caltrans District 4.
- Milliken, P., R. T. Fitzgerald, M. G. Hylkema, R. Groza, T. Origer, D. G. Bieling, A. Leventhal, R. S. Wiberg, A. Gottfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D. A. Frederickson. 2007. "Punctuated Culture Change in the San Francisco Bay Area." In *California Prehistory: Colonization, Culture, and Complexity*, edited by T. L. Jones and K. A. Klar. Alta Mira Press, Plymouth, United Kingdom.
- Moratto, M. J. 2004. *California Archaeology*. Reprinted from 1984 edition, Coyote Press, Salinas, CA.
- Office of Historic Preservation (OHP). 1999
- Rosenthal, J.S., and J. Meyer. 2004. Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Volume III: Geoarchaeological Study, Landscape Evolution and the Archaeological Record of Central California. prepared by Far Western Anthropological Research Groups, Inc. for Caltrans District 10.
- Valley Water. 2016. *Sunnyvale East and West Channels Flood Protection Project*. Prepared by the Santa Clara County Water District. March 2016. Available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.valleywater.org/sites/default/files/Fact%20Sheet_Sunnyvale%20EW%20Channels%20040816.pdf. Accessed September 2025.
- United States Census Bureau (USCB). 2025. "QuickFacts." Available at: <https://www.census.gov/quickfacts/santaclaracountycalifornia>. Accessed February 19, 2026.

3.7 Energy

- CARB. See California Air Resources Board. California Air Resources Board. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>. Accessed August 28, 2025. Santa Clara Valley Water District. 2011 (January). Best Management Practices Handbook.
- Valley Water. 2021. Climate Change Action Plan. Available: <https://fta.valleywater.org/dl/WE26jeeXbS>. Accessed April 2025.

3.8 Geology and Soils

- California Geological Survey (CGS). 2015. Fault Activity Map of California. Available at <https://maps.conservation.ca.gov/cgs/fam/>. Accessed October 14, 2025.
- California Geological Survey (CGS), 2022. California Department of Conservation. Fault Activity Map of California. Available: <https://maps.conservation.ca.gov/cgs/fam/>. Accessed: October 2023.
- _____. 2025. Earthquake Zones of Required Investigation. Available at <https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/>. Accessed October 14, 2025.
- Jennings C.W. and Bryant W.A. 2010. Fault Activity Map of California. Available: <https://maps.conservation.ca.gov/cgs/gmc/>. Accessed: September 22, 2025.

Jennings, C. W. Gutierrez, C., Bryant, W., Saucedo, G. and Wills, C. 2013. Geologic Map of California. Available: <https://maps.conservation.ca.gov/cgs/gmc/>. Accessed: September 22, 2025.

Natural Resource Conservation Service (NRCS). 2025. Web Soil Survey. Available at: <http://websoilsurvey.nrcs.usda.gov>. Accessed: November 25, 2024.

Santa Clara Valley Water District. 2014 (July). 2014-2023 Stream Maintenance Program Manual. Available: <https://www.valleywater.org/sites/default/files/2018-02/SMP%20Program%20Manual%20July%202014.pdf>

Santa Clara County. 2015. Santa Clara County General Plan. Available: https://stgenpln.blob.core.windows.net/document/HealthElement_20150825_Adopted_Final.pdf Accessed September 2025.

3.9 Greenhouse Gas Emissions

California Air Resources Board (CARB). 2022. 2022 Draft Scoping Plan Update. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf>. Accessed September, 2025.

California Natural Resources Agency (CNRA). 2018 (Jan). Safeguarding California Plan: 2018 Update, California's Climate Adaptation Strategy. Available: <https://resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf>. Accessed September 2025.

International Panel on Climate Change (IPCC). 2023. Climate Change 2023 Synthesis Report. Available: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf. Accessed September 2025.

_____. 2014. Climate Change 2014 Synthesis Report, Summary for Policymakers. Geneva, Switzerland. Available: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf. Accessed January 3, 2017.

Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency (OPR). 2018. California's Fourth Climate Change Assessment. Available: <https://www.energy.ca.gov/sites/default/files/2019-07/Statewide%20Reports-%20SUM-CCCA4-2018-013%20Statewide%20Summary%20Report.pdf>. Accessed November 4, 2019.

Valley Water. 2021. Climate Change Action Plan. Available: <https://fta.valleywater.org/dl/WE26jeeXbS>. Accessed April 2025.

Supreme Court of the United States (SCOTUS). 2007. Massachusetts et al. v. Environmental Protection Agency et al., 549 U.S. 497.

United Nations. 2015. Paris Agreement. Available: https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf. Accessed September 2025.

3.10 Hazards and Hazardous Materials

CalEPA. 2025. Cortese List Section 65962.5a. Available by <https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/>. Accessed on 09/09/2025.

City of San José. 2024. San José EOP. Available by sanjoseca.gov/home/showpublisheddocument/124501/638931023324330000. Accessed on 09/17/2025.

Department of Toxic Substances Control (DTSC). 2025a. EnviroStor Hazardous Waste and Substances Site List (Cortese List). Available by https://www.envirostor.dtsc.ca.gov/public/search.asp?PAGE=9&CMD=search&ocieerp=&business_name=&main_street_number=&main_street_name=&city=&zip=&county=&branch=&status=ACT%2CBKLG%2CCOM&site_type=CSITES%2CFUDS&cleanup_type=&npl=&funding=&reporttype=CORTESE&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&cvci=&spec_program=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&display_results=&school_district=&pub=&hwmp=False&permitted=&pc_permitted=&inspections=&inspectionsother=&complaints=&censustract=&cesdecile=&ORDERBY=county&next=Next+50. Accessed on 9/9/2025.

_____. 2025b. Borello Property (43010033). Available by https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=43010033. Accessed on 09/19/2025.

Santa Clara County Airport Land Use Commission (SCCALUC). 2020. San Martin Airport. Accessed by https://stgenpln.blob.core.windows.net/document/ALUC_E16_CLUP.pdf. Available on 09/19/2025.

_____. 2024. San José Mineta International Airport Land Use Plan. Available by https://stgenpln.blob.core.windows.net/document/ALUC_SJC_CLUP.pdf. Accessed on 09/19/2025. Accessed September 2025.

State Water Resources Control Board (SWRCB). 2025a. GeoTracker. Available by <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=1026+Blossom+Hill+Road%2C+San+José%2C+CA+95123>. Accessed on 09/09/2025.

_____. 2025b. Bubble Machine Car Wash (T0608553816). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608553816. Accessed on 09/19/2025.

_____. 2025c. Mobil BP 11228 (T0608500942). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608500942. Accessed on 09/19/2025.

_____. 2025d. Shell (T0608502429). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608502429. Accessed on 09/19/2025.

_____. 2025e. Wheelworks (T10000007800). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000007800. Accessed on 09/19/2025.

_____. 2025f. SCVWD Corp Yard (T0608597451). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608597451. Accessed on 09/19/2025.

- _____. 2025g. SCVWD Corp Yard (T0608501226). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608501226. Accessed on 09/19/2025.
- _____. 2025h. Winfield Self-Storage (T10000016946). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000016946. Accessed on 09/19/2025.
- _____. 2025i. Almaden Imports (T0608530995). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608530995. Accessed on 09/19/2025.
- _____. 2025j. Penitencia Treatment Plant (T0608501227). Available by https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608501227. Accessed on 09/19/2025.
- Valley Water. 2017. Local Hazard Mitigation Plan. Available by [https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021-05/R14163%2020217%20FINAL%20LOCAL%20HAZARD%20MITIGATION%20PLAN%20v.%2004-09-21%20\(04-12-21\).pdf](https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021-05/R14163%2020217%20FINAL%20LOCAL%20HAZARD%20MITIGATION%20PLAN%20v.%2004-09-21%20(04-12-21).pdf). Accessed on 09/19/2025.

3.11 Hydrology and Water Quality

- California Dept of Conservation (DOC). 2025. Tsunami Hazard Area. Available by https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/. Accessed on 09/23/2025.
- California Department of Water Resources (DWR). 2018. SGMA Data Viewer - Bulletin 118 Groundwater Basins. Available by <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#boundaries>. Accessed on 09/23/2025.
- City of San José. 2022. 2022-2026 Storm Sewer System Capital Improvement Program. Available by <https://www.sanJoseca.gov/home/showpublisheddocument/77993/637691195302270000>. Accessed on 09/23/2025.
- Federal Emergency Management Agency (FEMA). 2025. FEMA National Flood Hazard Layer (NFHL) Viewer. Available at <https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>. Accessed 09/23/2025.
- Regional Water Quality Control Board (RWQCB). 2022. San Francisco Bay Regional Stormwater NPDES Permit. Available by https://www.waterboards.ca.gov/rwqcb2/board_decisions/adopted_orders/2022/R2-2022-0018.pdf. Accessed on 09/23/2025.
- Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). 2019. Santa Clara Basin Stormwater Resource Plan. Available by https://scvurppp.org/wp-content/uploads/2019/08/SCB_SWRP_FINAL_8-20-19.pdf. Accessed on 09/23/2025.
- State Water Resources Control Board (SWRCB). 2020. California 2020-2022 Integrated Report. Available by

<https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=6cca2a3a1815465599201266373cbb7b>. Accessed on 09/23/2025.

U.S. Geological Survey (USGS). 2025. The National Map: Watershed Boundary Dataset. Available by <https://apps.nationalmap.gov/viewer/>. Accessed on 09/22/2025.

Valley Water. 2021a. Local Hazard Mitigation Plan. Available by [https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021-05/R14163%20%202017%20FINAL%20LOCAL%20HAZARD%20MITIGATION%20PLAN%20v.%2004-09-21%20\(04-12-21\).pdf](https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021-05/R14163%20%202017%20FINAL%20LOCAL%20HAZARD%20MITIGATION%20PLAN%20v.%2004-09-21%20(04-12-21).pdf). Accessed on 09/23/2025.

_____. 2021b. Groundwater Management Report. Available by https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2021_GWMP.pdf. Accessed on 09/23/2025.

_____. 2024. Water Year 2024 Groundwater Report. Available at https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/WY_2024%20Report%20for%20Santa%20Clara%20and%20Llagas%20Subbasins.pdf. Accessed on 09/23/2025.

_____. 2025a. SCVWD Major Watersheds Map. Available by https://data-valleywater.opendata.arcgis.com/datasets/f53b596995ef4b25aee5a610ff7d4f0a_0/explore?location=37.203649%2C-121.853631%2C10.60. Accessed on 09/22/2025.

_____. 2025b. SCVWD Water Bodies Map. Available by https://data-valleywater.opendata.arcgis.com/datasets/6697c3faa129401eb3e0f84c931eef8a_0/explore?location=37.241373%2C-121.849308%2C13.93. Accessed on 09/22/2025.

_____. 2025c. SCVWD Creeks. Available by https://data-valleywater.opendata.arcgis.com/datasets/5b070085889348058e634b7e9559421b_0/explore?location=37.266880%2C-121.882172%2C12.78. Accessed on 09/23/2025.

3.12 Land Use/Planning

City of San José. 2011. General Plan 2040 Map. Available: <https://csj.maps.arcgis.com/apps/instant/lookup/index.html?appid=ef685f767b484eb6bcfc70f8fb651ef6#find=69609035>. Accessed: August 17, 2025.

_____. 2025a. Zoning. Available: <https://experience.arcgis.com/experience/c23301b236d041d5a5358a5dce1e989d>. Accessed: August 17, 2025.

_____. 2025b. City of San José Municipal Code. Available: https://library.municode.com/ca/san_josé/codes/code_of_ordinances?nodeId=TIT20ZO_. Accessed: August 17, 2025.

City of Morgan Hill. 2022. General Plan Land Use Map. Available: https://www.morganhill.ca.gov/DocumentCenter/View/22676/GeneralPlan_LandUseMap_revised20171206?bidId=. Accessed: August 17, 2025.

_____. 2023. City of Morgan Hill Updated Zoning Map. Available: <https://www.morganhill.ca.gov/DocumentCenter/View/328/Zoning-Map>. Accessed: August 17, 2025.

Town of Los Gatos. 2022. Land Use Element. Available: https://losgatos2040.com/images/docs/LGGPU_03_LU.pdf. Accessed: August 17, 2025.

_____. 2024. Town of Los Gatos Zoning Map. Available: <https://www.losgatosca.gov/DocumentCenter/View/338/Zoning-Map?bidId=>. Accessed: August 17, 2025.

3.13 Mineral Resources

City of San José. 2025. Envision San José 2040 General Plan. Available: <https://www.sanJoseca.gov/home/showpublisheddocument/121586/638828345723130000>. Accessed: August 17, 2025.

County of Santa Clara. 2016. Santa Clara County General Plan Book A. Available: https://stgenpln.blob.core.windows.net/document/GP_Book_A.pdf. Accessed: August 17, 2025.

Key, E. L., 2021. Mineral Resource Zone Map for Construction Aggregate in the Monterey Bay Production-Consumption Region.

Stinson, M.C., Manson, M.W., & Plappert, J.J. 1983. South San Francisco Bay Production-Consumption Region.

3.14 Noise

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Final. CT-HWNP-RT-13-069.25.2. Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, and Paleontology Office, Sacramento, CA.

Federal Transit Administration. 2018 (September). Transit Noise and Vibration Impact Assessment Manual. Final. FTA Report No. 0123. Washington, DC. Volpe National Transportation Systems Center, Cambridge, MA. Available: www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed September 2025.

3.15 Population/Housing

United States Census Bureau. 2025a. Santa Clara County, California. Available at: <https://www.census.gov/search-results.html?searchType=web&cssp=SERP&q=Santa+Clara+County%2C+California&search%3Atab=Tables#search>. Accessed: August 18, 2025.

_____. 2025b. San José, California. Available at: <https://www.census.gov/search-results.html?searchType=web&cssp=SERP&q=San%20José%20city,%20California>. Accessed: August 18, 2025.

Bay Area Census. 2025a. Morgan Hill. Available at: https://census.bayareametro.gov/cities-counties/santa_clara_county/morgan_hill. Accessed: October 3, 2025.

_____. 2025b. Los Gatos. Available at: https://census.bayareametro.gov/population?year=2020&location=los_gatos. Accessed: October 3, 2025.

3.16 Public Services

City of San José. 2025. Envision San José 2040 General Plan. Available: <https://www.sanJoseca.gov/home/showpublisheddocument/121586/638828345723130000>. Accessed: August 18, 2025.

County of Santa Clara. 1994. Santa Clara County General Plan Book B. Available: https://stgenpln.blob.core.windows.net/document/GP_Book_B.pdf. Accessed: August 18, 2025.

3.17 Recreation

County of Santa Clara. 1994. Santa Clara County General Plan Book B. Available: https://stgenpln.blob.core.windows.net/document/GP_Book_B.pdf. Accessed: August 19, 2025.

_____. 2025. About Us, Santa Clara County Parks. Available at <https://parks.santaclaracounty.gov/about-us>. Accessed January 19, 2026.

Santa Clara Valley Open Space Authority. 2025. Sierra Vista Open Space Preserve. Available: <https://www.openspaceauthority.org/preserve/sierra-vista>. Accessed: August 19, 2025.

Santa Clara County Parks. 2025a. Los Gatos Creek County Park. Available: <https://parks.santaclaracounty.gov/locations/los-gatos-creek-county-park>. Accessed: August 19, 2025.

_____. 2025b. Vasona Lake County Park. Available: <https://parks.santaclaracounty.gov/locations/vasona-lake-county-park>. Accessed: August 19, 2025.

3.18 Transportation

City of Morgan Hill. 2017. Appendix E: Bike/Walk Morgan Hill Map. Available by <https://www.morganhill.ca.gov/DocumentCenter/View/21730/Appendix-E---Bike-Walk-Map?bidId=>. Accessed on 09/20/2025.

City of San José. 2020. San José Better Bike Plan. Available by <https://www.sanJoseca.gov/home/showpublisheddocument/68962/637477999451470000>. Accessed on 09/20/2025.

_____. 2025a. Existing Bikeways Map. Available by <https://experience.arcgis.com/experience/90edaef240034a6ebc3c5716eef33500>. Accessed on 09/20/2025.

_____. 2025b. Public Transportation Map. Available by <https://experience.arcgis.com/experience/4f06a396893f44cdb870030856a1dd7a>. Accessed on 09/20/2025.

- _____. 2025c. Move San José. Available at <https://www.sanJoseca.gov/your-government/departments-offices/transportation/projects-planning/move-san-jos>. Accessed 09/25/2025.
- _____. 2025d. Climate Smart San José. Available at <https://www.sanJoseca.gov/your-government/departments-offices/energy/climate-smart-san-josé>. Accessed 09/09/2025.

3.19 Tribal Cultural Resources

- Kroeber, A. 1925. Handbook of the Indians of California, Bulletin Smithsonian Institution. Bureau of American Ethnology, vol. 78. Smithsonian Institution Press, Washington, D.C.
- Levy, R. S. 1978. Costanoan. In The Handbook of North American Indians, Volume 8, California, edited by R. F. Heizer, pp. 485–495. Smithsonian Institution, Washington, D.C.
- Margolin, M. 1978. The Ohlone Way: Indian Life in the San Francisco–Monterey Bay Area. Heyday Books. Berkeley, CA.
- Milliken, R., L. H. Shoup, and B. R. Ortiz. 2009. Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today. Prepared by Archaeological and Historical Consultants, Oakland, CA. Prepared for National Park Service, Golden Gate National Recreation Area, San Francisco, CA. Solicitation No. Q8158020405.
- Paddison, J., editor. 1999. A World Transformed: Firsthand Accounts of California Before the Gold Rush. Heyday Books, Berkeley, CA.

3.20 Utilities/Service Systems

- City of Morgan Hill. 2026. Garbage and Recycling in Morgan Hill. Available at <https://www.morganhill.ca.gov/106/Garbage-Recycling>. Accessed on 01/24/26.
- City of San José. Recycling & Garbage. Available at <https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/recycling-garbage>. Accessed on 02/19/2026.
- California Department of General Services. 2018. Cal Green. Available: <https://www.dgs.ca.gov/bsc/calgreen>. Accessed : October 3, 2025.
- CalRecycle. 2025. SWIS Facility/Site Search. Available: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>. Accessed: August 19, 2025.
- _____. 2026a. SWIS Facility/Site Activity Details: Newby Island Sanitary Landfill (43-AN-0003). Available at <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388>. Accessed: 01/24/26.
- _____. 2026b. SWIS Facility/Site Activity Details: Kirby Canyon Recycling & Disp. Facility (43-AN-0008). Available at <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1370?siteID=3393>. Accessed: 01/24/26.
- _____. 2026c. SWIS Facility/Site Activity Details: Guadalupe Sanitary Landfill (43-AN-0015). Available at <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1376?siteID=3399>. Accessed 01/24/26.

City of San José Environmental Services Department. 2015. Tributary Agencies. Available:
<https://www.sanJoseca.gov/home/showpublisheddocument/32063/636703801192470000>.
Accessed: August 19, 2025

Town of Los Gatos. 2026. Solid Waste Management. Available at
<https://www.losgatosca.gov/2168/Solid-Waste-Management>. Accessed on 01/24/26.

Valley Water. 2019. Santa Clara Valley Water Master Plan. Available:
https://www.valleywater.org/sites/default/files/Water%20Supply%20Master%20Plan%202040_11.01.2019_v2.pdf. Accessed: August 19, 2025.

3.21 Wildfire

CAL FIRE. 2024. Fire Hazard Severity Zone Viewer – LRA. Available at:
<https://experience.arcgis.com/experience/6a9cb66bb1824cd98756812af41292a0>. Accessed
April 3, 2026.

_____. 2025. Fire Hazard Severity Zone Viewer for Real Estate Inspections. Available:
<https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/>. Accessed
April 3, 2026.

3.22 Mandatory Findings

Valley Water. 2025. Calabazas/San Tomas Aquino Creek-Marsh Connection Project. Available:
<https://www.valleywater.org/project-updates/calabazas-san-tomas-aquino-creek-marsh-connection-project>. Accessed October 1, 2025.

5. Report Preparers

Valley Water

Nick Mascarello.....Senior Environmental Planner
Michael Martin.....Senior Water Resources Specialist
Kurt Lueneburger.....Environmental Services Manager
Samantha Greene.....Water Resources Planning and Policy Manager
Lisa Bankosh.....Assistant Officer
Susana Inda.....Assistant District Counsel
Mark Poole.....Senior Assistant District Counsel

GEI Consultants

Ryan Jolley.....Principal and Senior Project Director
Jody Fessler Senior Project Manager
Jenifer King.....Senior Environmental Planner
Jesse Martinez.....Senior Archaeologist
Madeline Bowen Senior Architectural Historian
Anne King Senior Biologist
Becky Brandt Environmental Scientist
Amanda Ibara Environmental Scientist
Ryan Snyder Geographic Information Systems

Ascent Environmental

Honey Walters Principal (Air Quality, GHG, and Noise)
Dimitri Antoniou Director of Air Quality, GHG, and Noise
Julia Wilson Senior Air Quality and GHG Specialist
Elena Savignano Noise Specialist

Appendix A. Greenhouse Gas Reduction Plan



March 2026

FINAL DRAFT

Greenhouse Gas Reduction Plan

PREPARED FOR:
Santa Clara Valley Water District

Water Resources Planning and Policy Unit
5750 Almaden Expressway
San Jose, CA 95118

FINAL DRAFT

Greenhouse Gas Reduction Plan

PREPARED FOR

Santa Clara Valley Water District
Water Resources Planning and Policy Unit
5750 Almaden Expressway
San Jose, CA 95118

PREPARED BY

Ascent Environmental, Inc. dba Ascent
455 Capitol Mall, Suite 300
Sacramento, CA 95814
Brenda Hom,
Project Manager

MARCH 11, 2026

PREPARED BY



Ascent

Brenda Hom, Project Manager

Fred Hochberg, Technical Lead

Honey Walters, Principal



Valley Water

Samantha Greene, *Water Resources Planning and Policy Manager*

Sarah Young, *Senior Project Manager*

Nick Mascarello, *Associate Environmental Planner*

Plan Contributors and Implementation Leads

Tony Leonardo, *Facilities Management Unit*

Frank Chesonis, *Equipment Management Unit*

Emily Scanlan, *Equipment Management Unit*

Carlos Avila, *Facilities Management Unit*

John Brosnan, *Utility Electrical and Control Systems Unit*

Brendan Maher, *Utility Electrical and Control Systems Unit*

Jing Wu, *Water Supply Planning and Conservation Unit*

Todd Sexauer, *Dam Safety Environmental Services Unit*

Tiffany Chao, *Dam Safety Environmental Services Unit*

Wendy Young, *Dam Safety Environmental Services Unit*

Justin Burks, *Water Supply Planning and Conservation Unit*

Brian Mendenhall, *Operations and Maintenance Environmental Support Unit*

Jeffrey Lewis, *Operations and Maintenance Environmental Support Unit*

Patrick Carter, *Construction Services Unit*

Under the Direction of

Lisa Bankosh, *Assistant Officer, Watersheds Stewardship and Planning Division*

Acknowledgements



GEI Consultants

Ryan Jolley, *Contract Manager*

Peer Reviewers



Metropolitan Water District

Malinda Stalvey, Program Manager



Rincon Consultants Inc.

Ryan Gardner, Director of Climate Action

Emily Saul, Climate Planner

TABLE OF CONTENTS

Chapter	Page
LIST OF ABBREVIATIONS.....	i
1 INTRODUCTION.....	1
1.1 Background and Purpose.....	1
1.2 Valley Water's Commitment to GHG Reduction.....	2
2 CEQA-QUALIFIED GREENHOUSE GAS REDUCTION PLAN.....	3
3 REGULATORY CONTEXT.....	5
4 GHG EMISSIONS INVENTORY.....	6
4.1 Emissions Scopes.....	6
4.2 Valley Water's Updated GHG Emissions Inventory.....	8
5 COMPARISON OF EMISSIONS INVENTORIES ACROSS WATER DISTRICTS.....	12
6 VALLEY WATER'S GREENHOUSE GAS EMISSIONS FORECAST.....	14
6.1 Legislative Reductions.....	14
6.2 Forecast Results.....	15
7 TARGET SETTING.....	18
7.1 State GHG Reduction Targets.....	18
7.2 Valley Water GHG Reduction Targets.....	18
7.3 The Carbon Budget Concept.....	19
8 GREENHOUSE GAS REDUCTION MEASURES.....	22
8.1 Scope 1 Reduction Measures.....	25
8.2 Scope 3 Reduction Measures.....	30
9 IMPLEMENTATION AND MONITORING PLAN.....	43
9.1 Implementation, Monitoring, and Reporting Process.....	43
9.2 Measure Implementation Details.....	43
9.3 CEQA Checklist for Discretionary Projects.....	45
10 CONCLUSION.....	47
11 REFERENCES.....	48

Appendices

Appendix A	Inventory, Forecast, and Measures Calculations
Appendix B	GHGRP Consistency Review Checklist
Appendix C	Renewable Diesel Considerations
Appendix D	Inventory and Forecasting Technical Memo
Appendix E	Implementation Plan Details
Appendix F	GHGRP Implementation Flow Diagram
Appendix G	Prioritization Matrix
Appendix H	Carbon Budget Consistency Calculation Examples for New Projects

List of Figures

Figure 1	Emission Scopes.....	6
Figure 2	Valley Water Greenhouse Gas Baseline Emissions (2017-2021 Average).....	9
Figure 3	Valley Water Greenhouse Gas Emissions (2014 to 2021).....	11
Figure 4	Annual Average Emissions per Capita Comparison Across Water Districts.....	12
Figure 5	Business-As-Usual and Legislative-Adjusted Forecast Emissions Forecasts (MTCO ₂ e/year).....	16
Figure 6	Legislative-Adjusted Emissions Forecasts by Sector (MTCO ₂ e/year)	17
Figure 7	Carbon Budget Illustration.....	19
Figure 8	Legislative-Adjusted Forecast, Targets, and Carbon Budget, 2025-2045.....	20
Figure 9	Valley Water Tidal Marsh Restoration Areas under Shoreline Phase I.....	39
Figure 10	Annual Implementation, Monitoring, and Reporting Process.....	44

List of Tables

Table 1	Valley Water Included Emissions Sectors by Scope	7
Table 2	2017-2021 Valley Water GHG Emissions Inventory by Scope and Sector.....	9
Table 3	State of California Legislative Effects on Valley Water's GHG Emissions Reduction Measures.....	14
Table 4	BAU and Legislative-Adjusted Emissions Forecasts and Targets by Sector (MTCO ₂ e/year) ¹	15
Table 5	Cumulative GHG Reductions from Measures in 2030 and 2045 (MTCO ₂ e).....	23
Table 6	Data Used to Calculate Emissions Factors for Treatment and Distribution of Water.....	36
Table 7	Cumulative GHG Reductions from Valley Water Carbon Sequestration.....	38
Table 8	Recommended Measure Implementation Order.....	45
Table E-1	Implementation Plan Details.....	E-1

LIST OF ABBREVIATIONS

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
BMP	best management practice
CAP	climate action plan
CCAP	climate change action plan
CCUS	carbon capture, utilization, and storage
CEQA	California Environmental Quality Act
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CVWD	Coachella Valley Water District
GHG	greenhouse gas
GHGRP	greenhouse gas reduction plan
GWP	global warming potential
IPCC	Intergovernmental Panel on Climate Change
MTCO ₂ e	metric tons of carbon dioxide equivalent
MWD	Metropolitan Water District of Southern California
N ₂ O	nitrous oxide
PRWPA	Power and Water Resources Pooling Authority
SB	Senate Bill
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
VMT	vehicle mile traveled
ZEV	zero-emission vehicle

This page is intentionally left blank.

1 INTRODUCTION

The Santa Clara Valley Water District (Valley Water) supplies clean and safe water, provides flood protection, and serves as a steward of streams on behalf of Santa Clara County's 1.9 million residents. The effects of climate change, including warmer temperatures, changing precipitation and runoff patterns, reduced snowpack, and rising sea levels, challenge Valley Water's ability to provide these services. Managing climate change-related uncertainties, vulnerabilities, and risks to local communities, water resources, and water supplies is critical to fulfilling Valley Water's mission. The mitigation of greenhouse gas (GHG) emissions in this greenhouse gas reduction plan (GHGRP) supports Valley Water's mission to act as an environmental steward.

The GHGRP aims to reduce Valley Water's emissions and achieve a carbon neutrality target by 2045. This target aligns with the State of California's goals under Assembly Bill (AB) 1279, signed by Governor Newsom in 2022. The GHGRP updates an inventory of Valley Water's GHG emissions through 2021, a forecast of future GHG emissions, and a list of measures to achieve a goal of net zero emissions by 2045. It provides specific implementation steps as well as metrics to measure progress.

This GHGRP aligns with the framework outlined under the California Environmental Quality Act (CEQA) Guidelines Section 15183.5. The intent is to provide a "CEQA-qualified" plan, adopted by the Board of Directors to streamline GHG analyses and support incorporating reduction measures needed in project-specific CEQA documents.

1.1 BACKGROUND AND PURPOSE

In 2021, Valley Water adopted its climate change action plan (CCAP) (Valley Water 2021a). The CCAP established a guide for Valley Water to respond to climate change through adaptation and mitigation. Climate mitigation focused on reducing GHG emissions, including those emitted by Valley Water operations from 2010 through 2017, excluding emissions from construction and other sources. Additionally, the CCAP called for preparing a qualified GHGRP that meets the requirements of the CEQA Guidelines Section 15183.5. Chapter 2 provides more details on CEQA-qualified plans.

Given the State's latest target to achieve carbon neutrality statewide by 2045 under AB 1279, the direction in the CCAP, and the framework outlined under CEQA Guidelines Section 15183.5, this GHGRP has the following objectives:

- ▶ Update Valley Water's GHG emissions inventory to include historical years 2017 through 2021 to support emissions forecasts for 2030 and 2045;
- ▶ Establish a carbon budget that supports a carbon neutrality target by 2045 consistent with State GHG targets under AB 1279;
- ▶ Develop new and refined GHG reduction measures that, if implemented, would help Valley Water achieve the GHG reduction targets;
- ▶ Develop an implementation and monitoring plan to ensure the progress of the reduction measures;
- ▶ Develop a CEQA Streamlining Checklist for future projects that may tier from the GHGRP;
- ▶ Be adopted through a public process following environmental review.

Valley Water intends for the GHGRP to provide CEQA streamlining for future Valley Water construction activity through 2045, whose environmental documents, such as Environmental Impact Reports, have not yet gone through the public review process and/or do not already include actions to achieve net zero greenhouse gas emissions. Hence, the forecast of construction emissions is necessary for this GHGRP.

This GHGRP does not discuss the impacts of climate change on the Santa Clara Valley or Valley Water's actions to adapt to climate change. These items are discussed in the 2021 CCAP.

This document also organizes emissions in terms of scope. The scope of emissions sources indicates an entity's level of control over the sources. The three emissions scopes are described as:

- ▶ **Scope 1:** Emissions under the reporting entity's direct control (e.g., methane emissions from natural gas combustion in buildings, fuel combustion in the district-owned fleet, and refrigerant leakage).
- ▶ **Scope 2:** Emissions generated by purchased energy, where the actual energy generation source is outside the inventory boundary, but the use of that energy is within the inventory boundary (e.g., grid-purchased electricity).
- ▶ **Scope 3:** All other emissions sources that are not Scope 1 or Scope 2 sources. Valley Water's Scope 3 emissions include business travel, construction, water imported from the State Water Project (SWP), employee commute, wastewater, solid waste, and contracted sediment hauling.

1.2 VALLEY WATER'S COMMITMENT TO GHG REDUCTION

Since 2008, Valley Water has committed to reducing GHG emissions. A partial list of its progress to date is provided below. Measures in this GHGRP are intended to go above and beyond these efforts.

- ▶ Since 2016, Valley Water has procured zero-emission power for its facilities from the Power and Water Resources Pooling Authority (PWRPA) via the Zero Carbon Water portfolio. PWRPA provides over 94 percent of Valley Water facilities' electricity usage. Due to this and ongoing reductions in the carbon intensity of other grid-based electricity under the State's Renewable Portfolio Standards, total emissions from Valley Water's electricity consumption have fallen by over 94 percent since 2016.
- ▶ Valley Water is committed to water conservation to reduce per capita water use in its service territory. Water conservation provides numerous benefits, including reducing GHG emissions by avoiding energy usage for conveyance and treatment of additional water supply, increased drought resilience, cost savings, and ecosystem function. Valley Water's long-term savings target is to achieve approximately 99,000 acre-feet per year (AFY) in water savings by 2030, 109,000 AFY by 2040, and 126,000 AFY by 2050 (Valley Water 2019: 25 and A-5, Valley Water 2024a). As of fiscal year 2023, Valley Water's Water Conservation Programs and policies have saved 83,174 acre-feet per year (Valley Water 2024b: 93).
- ▶ Valley Water implements and provides grants and partnership funding for riparian and wetland habitat enhancement and restoration projects throughout the South San Francisco Bay (South Bay). By restoring native habitats and removing invasive species, Valley Water has expanded carbon sequestration while preserving or enhancing ecosystem health.
- ▶ Valley Water provides a telework program and commuter benefits that reduce its employees' commuting emissions. Valley Water employees also maintain the Green Team Employee Resource Group, which promotes sustainable practices through lifestyle changes and workplace improvement.
- ▶ In addition to decarbonizing its operations, Valley Water supports countywide programs to reduce GHG emissions. For instance, Valley Water contributed to the Countywide green business program and promoted best practices for energy management, water efficiency, pollution prevention, waste minimization, recycling, and material reuse.

2 CEQA-QUALIFIED GREENHOUSE GAS REDUCTION PLAN

As part of the CEQA process, a lead agency must determine if discretionary projects' GHG emissions result in a significant impact. According to the CEQA Guidelines, "the determination of the significance of GHG emissions calls for careful judgment by the lead agency..." (Section 15064.4(a)). Across the San Francisco Bay Area, many project CEQA analyses use the Bay Area Air District, formerly known as the Bay Area Air Quality Management District, significance thresholds to determine whether a project has a significant impact from GHGs. Bay Area Air District's thresholds focus on emissions from the operation of new land use projects meeting specific design criteria (e.g., no natural gas appliances in new buildings) (Bay Area Air District 2022). However, most of Valley Water's discretionary projects are related to infrastructure improvements that generally do not result in new operational emissions beyond Valley Water's ongoing maintenance of its assets. Bay Area Air District also allows projects to determine significance based on consistency with a qualified plan per CEQA Guidelines Section 15183.5.

Valley Water intends for the GHGRP to meet the qualifications outlined in Section 15183.5(b)(1) of the CEQA Guidelines (See Box 1) to streamline the determination of significance during the environmental review of future capital improvement projects (CIPs) that demonstrate consistency with the GHGRP. Questions a) and b) under part VIII (Greenhouse Gas Emissions) of Appendix F of the CEQA Guidelines question if a project would "[g]enerate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment" and if it would "[c]onflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases." A project consistent with the GHGRP can conclude, under both questions, that the project would have a less than significant impact on greenhouse gas emissions.

To determine project consistency with the GHGRP, this document includes a GHGRP Consistency Review Checklist (see Appendix B). Project managers can use the Checklist to determine whether a proposed Valley Water project is consistent with the GHGRP and, thereby, determine its CEQA GHG impact. The checklist provides a streamlined review process for projects subject to discretionary approval that prompts environmental review under CEQA. Projects that demonstrate consistency with the GHGRP may be able to conclude that they cause no additional significant environmental effects with respect to GHG emissions and climate change in their CEQA review. According to CEQA Guidelines Section 15183.5:

- a) *Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review.*
- b) *Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.*

In addition, under CEQA Guidelines Section 15183.5, a CEQA-qualified GHG reduction plan must consist of the following attributes, which are covered under the objectives of this GHGRP:

- ▶ Quantifies GHG emissions, both existing and projected over a specified period, resulting from activities within a defined geographic area;
- ▶ Establishes a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- ▶ Identifies and analyzes GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- ▶ Specifies measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified levels; and
- ▶ Is adopted in a public process following the preparation and adoption of CEQA documentation corresponding to the GHG reduction plan.
- ▶ Projects that do not demonstrate consistency may, at Valley Water's discretion, include a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements.

CEQA Guidelines Section 15382 defines a "significant" impact as "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." To determine whether a Valley Water project has a significant impact from GHG emissions, the project must not cause Valley Water to exceed its GHG reduction target.

What Projects Can Tier from the GHGRP?

- ▶ New projects that have not yet undergone public review of their CEQA documents are eligible to be tiered from the GHGRP.

And

- ▶ Projects that are currently under CEQA review and have not yet been adopted may choose to tier from this document.

3 REGULATORY CONTEXT

Below is a partial list of the primary guiding policies the State of California adopted to achieve its climate goals, in addition to supporting guidelines from the Bay Area Air District. These policies inform Valley Water's emissions forecasts and the development of Valley Water's GHG reduction targets.

- ▶ **Executive Order (EO) S-3-05 (2005)** directs California to reduce statewide GHG emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050.
- ▶ **Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006**, established regulatory requirements to reduce statewide emissions to 1990 levels by 2020 and gave the California Air Resources Board (CARB) the authority to develop regulations and market mechanisms necessary to achieve these reductions. AB 32 also established the State's first Climate Change Scoping Plan to establish a pathway for achieving the statewide emission reduction goals. The State met AB32's 2020 target in 2017, four years earlier than mandated (CARB 2024a).
- ▶ **Senate Bill (SB) 32 (2016)** requires that CARB ensures GHG reductions of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.
- ▶ **AB 1279 (2022)** requires California to achieve net zero GHG emissions as soon as possible but no later than 2045 and maintain net negative GHG emissions thereafter. By 2045, anthropogenic(human-caused) GHG emissions must be reduced by at least 85 percent below 1990 levels.
- ▶ **CARB's December 2022 Scoping Plan** provides a path to achieving the AB 1279 targets, including analyses of specific emissions sectors such as building decarbonization and electric vehicle deployment.
- ▶ **Bay Area Air District's 2022 CEQA Guidelines** include guidance for local government-qualified GHG reduction plans. The guidance clarifies the requirements under CEQA Guidelines Section 15183.5 and recommends, in support of AB 1279, that local governments demonstrate a 40 percent reduction below 1990 levels by 2030 and be able to demonstrate that they will "achieve as ambitious emissions reductions as technologically and financially feasible by 2045, minimizing the residual amount of emissions needed to close the gap to carbon neutrality" (Bay Area Air District 2022). The 2022 CEQA Guidelines do not include thresholds of significance specifically for construction-related GHG emissions. Instead, Bay Area Air District continues to encourage the use of best management practices to minimize construction-related GHG emissions.

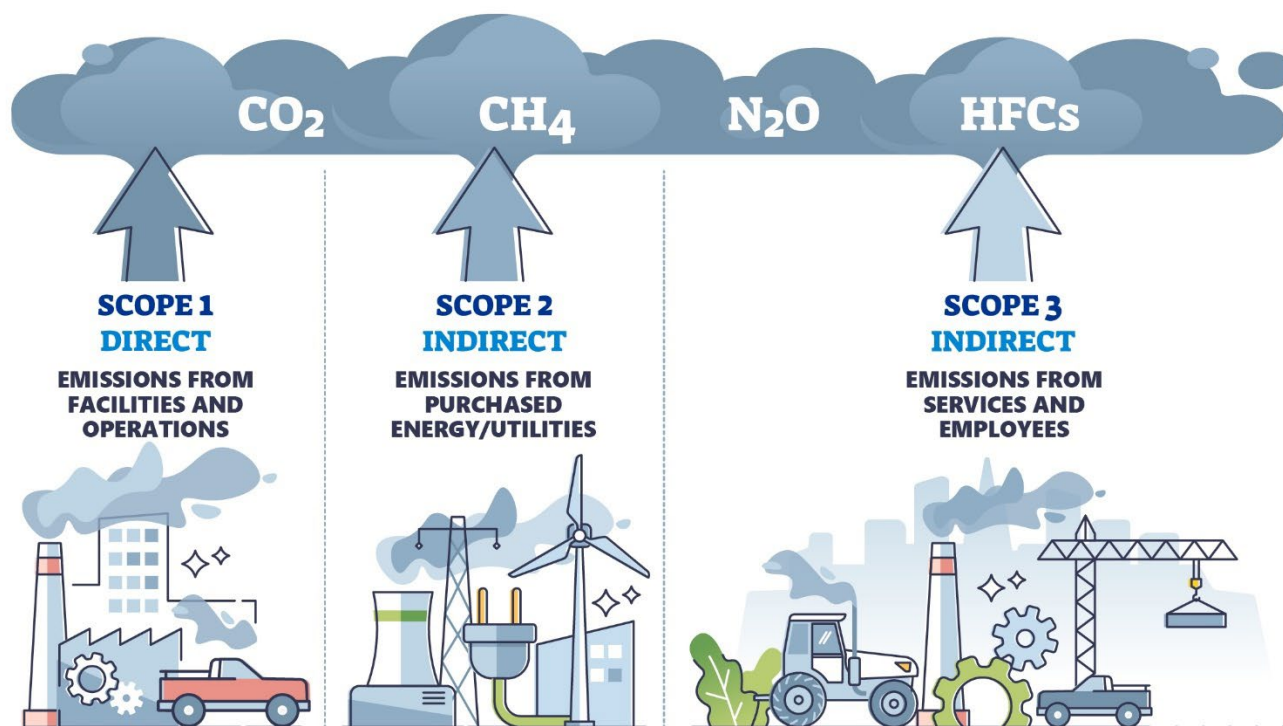
4 GHG EMISSIONS INVENTORY

This chapter presents Valley Water's updated GHG emissions for calendar years 2017 through 2021 and forecasts for 2030 and 2045. It updates the 2021 CCAP's GHG estimates, which presented emissions from 2010 to 2017, and adds additional emissions from sectors that were not accounted for in the CCAP owing to limited data availability: construction, solid waste, high-global warming potential (GWP) gases, employee-generated wastewater, and sediment hauling. GWPs for the respective GHGs estimated in this section are derived from the Intergovernmental Panel on Climate Change's (IPCC's) Sixth Assessment Report (Greenhouse Gas Protocol 2024).

4.1 EMISSIONS SCOPES

For tracking purposes, emissions fall under one of three "scopes," which the US Environmental Protection Agency defines as follows and illustrated in Figure 1:

- ▶ **Scope 1 (Direct Emissions):** Direct emissions that occur from sources controlled or owned by an organization (e.g., emissions associated with fuel combustion in on-site boilers, furnaces, and vehicles directly controlled by the organization).
- ▶ **Scope 2 (Indirect Emissions):** Indirect emissions associated with purchasing electricity, steam, heat, or cooling. (Valley Water does not purchase steam, heat, or cooling from third parties, so only electricity purchases are included in this GHGRP).
- ▶ **Scope 3 (Indirect Emissions):** Indirect emissions from activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects its value chain (EPA 2023).



Source: Prepared by Ascent in 2025.

Figure 1 Emission Scopes

An emission's scope is highly related to an organization's degree of control over a particular sector. Valley Water generally has more control over Scope 1 and 2 emissions because it directly controls Scope 1 sources and has discretion over its Scope 2 electricity purchases (i.e., it can choose to buy or not buy a low-carbon electricity product). Scope 3 emissions, in contrast, are indirect and come from non-Valley Water entities. Valley Water can persuade and influence these entities (e.g., via outreach to employees to reduce waste disposal, implementing countywide water conservation programs, or contracting policies for new construction that incentivize GHG reductions), but cannot directly control them. Despite the lack of direct control over Scope 3 emissions, Valley Water is committed to including and mitigating as many sources of the district's emissions as possible, including those from Scope 3. Table 1 describes Valley Water's specific emissions sectors and their associated scope.

Table 1 Valley Water Included Emissions Sectors by Scope

Scope	Emissions Sector	Description
1	Natural Gas Use in Buildings	Valley Water buildings (e.g., offices, pumping plants, and water treatment plants) combust natural gas for space and water heating.
	On-Road Fleet	Valley Water owns and operates on-road vehicles to transport employees and perform maintenance on its assets. Many of these vehicles consume gasoline.
	Off-Road Fleet	Valley Water owns and operates construction equipment and other off-road heavy-duty equipment for infrastructure and stream maintenance that consume diesel. ¹
	High GWP Gases	Refrigerants are the primary high-GWP gases used by Valley Water for building and vehicle cooling. These annual purchases correspond to the annual leakage of these refrigerants into the atmosphere. The high-GWP gases associated with refrigerants can be thousands of times as potent as CO ₂ in warming the atmosphere.
2	Facility Electricity Use	Valley Water facilities, buildings, and equipment consume electricity procured from PWRPA, PG&E, SJCE, and SVP. Electricity use is primarily from operating facilities and equipment, including water treatment plants, the Silicon Valley Advanced Water Purification Center, pumping plants, and lighting, appliances, air conditioning, plug loads, and on-site EV charging stations at offices and facilities. Facility electricity use emissions include emissions associated with the conveyance and treatment of water within Santa Clara County conducted by Valley Water.
3	Imported Water	Valley Water imports water from the SWP and CVP. Water extraction and conveyance ¹ consume electricity, which in turn results in emissions.
	Employee Commute	Valley Water employees commute to work in light-duty vehicles, which generally combust gasoline or use electricity.
	Business Travel	Valley Water employees use a combination of passenger cars (which combust gasoline or use electricity) and aircraft (which combust aviation gasoline) for business travel.
	Construction	Valley Water's capital improvement projects produce emissions through contracted activities such as operation of construction equipment, hauling of materials, and construction worker commute. ¹
	Solid Waste	Valley Water facilities generate landfilled materials that decompose and produce methane.
	Wastewater	Valley Water facilities generate wastewater. Anaerobic decomposition of this wastewater produces methane.
	Sediment Hauling	Valley Water performs sediment management to remove accumulated sediment from waterways and maintain the conveyance capacity of creeks. This work involves contracting with third-party companies that use dump trucks to haul sediment from the job site to nearby landfills as needed. The dump trucks consume diesel.

Notes: GWP = global warming potential, PG&E = Pacific Gas & Electric, PWRPA = Power and Water Resources Pooling Authority, SJCE = San Jose Clean Energy, SVP = Silicon Valley Power, EV = electric vehicles, SWP = State Water Project, CVP = Central Valley Project, CH₄ = methane, GHG = greenhouse gas.

¹ Valley Water construction projects use a combination of Valley Water-owned and operated construction off-road equipment as well as contracted construction equipment. Emissions from construction activities performed by fleet vehicles and equipment owned by Valley Water are included in Scope 1. Emissions from contracted construction activities are included in Scope 3.

Source: Prepared by Ascent in 2024.

¹ Extraction is defined as taking the water from its point of origin, such as a river or aquifer, and conveyance is defined as moving the water from the river or aquifer to its destination—in this case, to Valley Water's service area.

The statewide policies and regional guidelines in Chapter 3 apply to Scope 1 and Scope 2 emissions captured in the State's emissions inventory. However, the policies and guidelines do not prescribe how entities within the state should reduce emissions from each scope. Due to the difference in the organizational and operational boundaries, emissions sources are categorized differently between the State's emissions inventory and inventories of smaller entities within the state, such as Valley Water. An entity such as Valley Water generates emissions from all three scopes, but all of these emissions would be categorized under the State's Scope 1 and 2 emissions because Valley Water functions entirely within the boundaries of the state. This includes using electricity and natural gas, burning fuel (e.g., Valley Water fleet, construction equipment, business travel), and importing water from within the state, therefore, these emissions occur as part of the State's Scope 1 and 2 emissions. Although the State itself does not include Scope 3 emissions relative to its own boundaries, Valley Water recognizes the importance of its own Scope 3 emissions from construction and other sources in the context of the State's carbon neutrality target by 2045. By integrating strategies that address all scopes within the agency's emissions inventory, Valley Water is creating a robust framework to reduce its carbon footprint and support statewide emissions reductions goals.

4.2 VALLEY WATER'S UPDATED GHG EMISSIONS INVENTORY

This section updates Valley Water's pre-2017 emissions to include data through 2021 and additional emissions sources, documenting trends over time and providing data to support emissions forecasting through 2045. At the time that inventory preparation began, 2021 was the most recent year with complete activity data available. Additionally, a new baseline emissions level was created that accounts for the latest 5-year average between 2017 and 2021. Figure 3 shows the updated historical trend of Valley Water's emissions from 2014 to 2021. Although the CCAP included emissions between 2010 and 2017, data between 2010 and 2014 were excluded in this update due to poor data quality. Based on these results, Valley Water emissions have generally declined since 2014, and especially since the agency began purchasing zero-carbon emission electricity in 2016 through a Zero Carbon Water Portfolio purchase agreement with the Power and Water Resources Pooling Authority (PRWPA).

Given the significant change in the emissions portfolio starting in 2016, this inventory uses emissions from calendar years 2017 through 2021 as a baseline level. This five-year average baseline was selected to normalize year to year variation in emissions from Valley Water's operations. For example, the amount of imported water delivered to Valley Water fluctuates annually depending on hydrological conditions. Using a single year for an emissions inventory could capture a year with an unusually high or low quantity of imported water (and its associated emissions), thus substantially overstating or understating Valley Water's typical emissions.

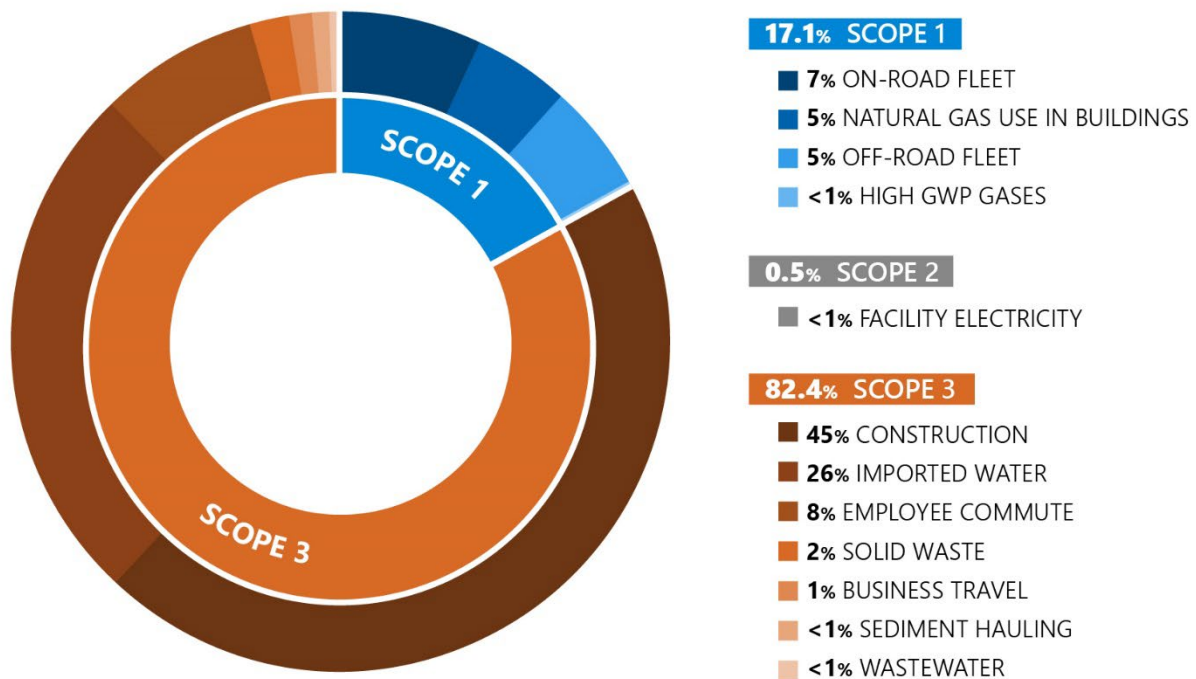
As shown in Table 2 and Figure 2, Valley Water's operations generated an average of 15,399 metric tons of carbon dioxide equivalent (MTCO_{2e}) per year between 2017 and 2021.

Table 2 2017-2021 Valley Water GHG Emissions Inventory by Scope and Sector

Scope	Sector	Average GHG Emissions (MTCO ₂ e)	Percent of Total
1	On-Road Fleet	1,102	7.2%
	Natural Gas Use in Buildings	745	4.8%
	Off-Road Fleet	703	4.6%
	High GWP Gases	79	0.5%
	Scope 1 Total	2,630	17.1%
2	Facility Electricity	84	0.5%
	Scope 2 Total	84	0.5%
3	Construction	6,990	45.4%
	Imported Water	4,022	26.1%
	Employee Commute	1,219	7.9%
	Solid Waste	236	1.5%
	Business Travel	147	1.0%
	Sediment Hauling	62	0.4%
	Wastewater	9	0.1%
	Scope 3 Total	12,686	82.4%
Total		15,399	100.0%

Notes: GWP = global warming potential, MTCO₂e = metric tons of carbon dioxide equivalent, NA = not applicable, kg = kilogram

Source: Prepared by Ascent in 2025.



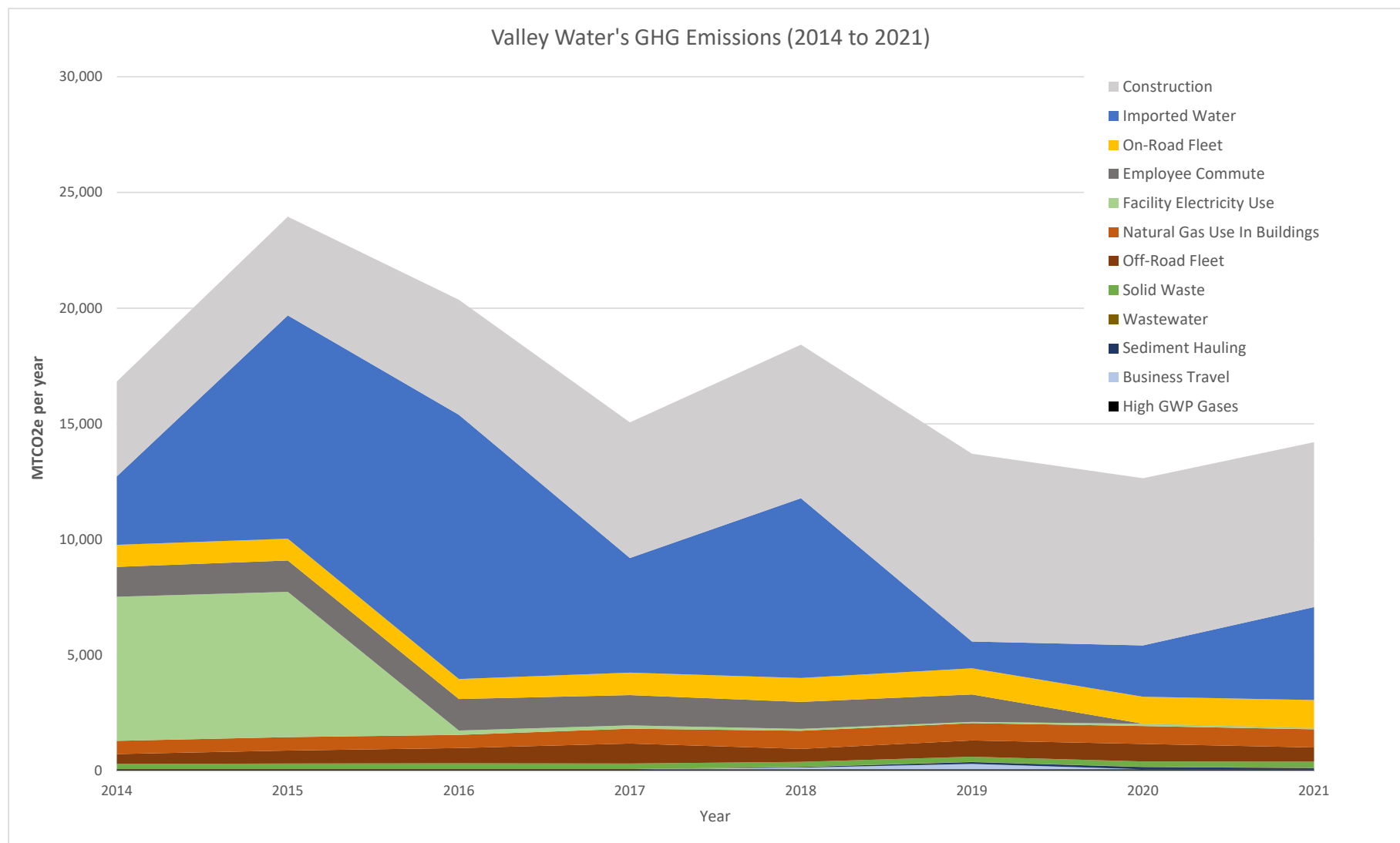
Source: Prepared by Ascent in 2025.

Figure 2 Valley Water Greenhouse Gas Baseline Emissions (2017-2021 Average)

Scope 3 emissions account for 82 percent of Valley Water's baseline emissions, with 45 percent of Scope 3 generated by construction-related activities and 26 percent of Scope 3 from imported water. Because the CCAP did not include construction emissions, their addition in this GHGRP increased Valley Water's emissions inventory relative to the CCAP, with construction emissions accounting for between 40 to 60 percent of Valley Water's baseline emissions. Solid waste, high-GWP gases, and wastewater, which were also not included in the CCAP, resulted in smaller increases of up to five percent of total emissions depending on the year.

Despite the overall increase relative to the CCAP's inventory, the baseline inventory update shows that Valley Water's annual emissions are on a downward trajectory over the past decade. Imported water (accounting for 56 percent of emissions in 2016) was the largest single source in 2016, but emissions from this sector have declined. This is primarily due to decreased GHG emission factors for the electricity used to pump and treat water, despite interannual variability in the volume imported². By 2021, the imported water emissions factor declined to approximately 35 percent of its 2016 value as the SWP used increasing proportions of carbon-free electricity in its operations. Additional discussion of the baseline inventory data, calculation methodology, and results can be found in Appendices A and D.

² Although the quantity of imported water fluctuated as well over this time period due to hydrological conditions, there was no meaningful upward or downward trend in that quantity; thus, the drop in imported water emissions is largely due to the decline in electric emissions factors just described.



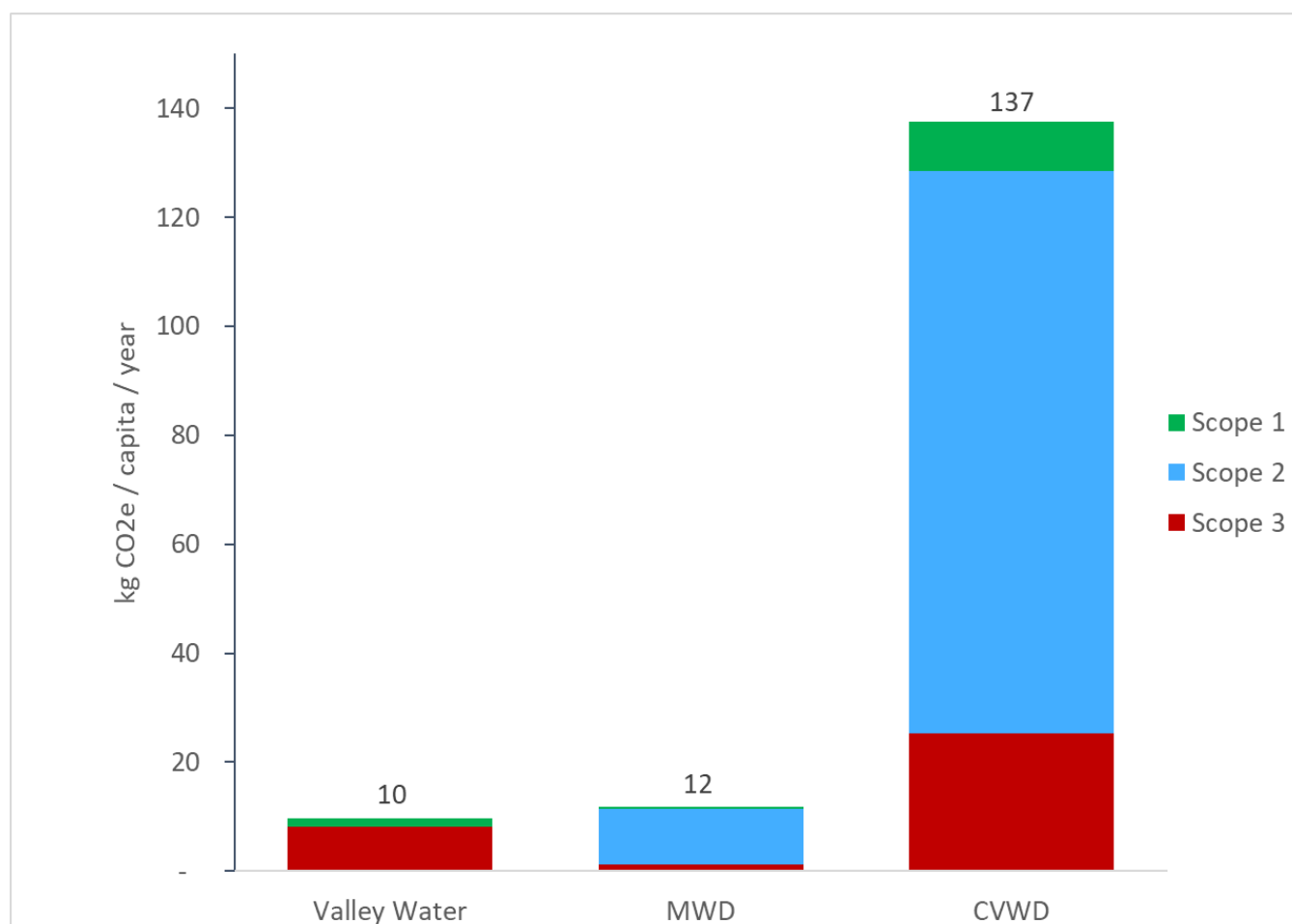
Notes: GHG = Greenhouse Gas, MT CO₂e = metric tons of CO₂-equivalent.

Source: Prepared by Ascent in 2025.

Figure 3 Valley Water Greenhouse Gas Emissions (2014 to 2021)

5 COMPARISON OF EMISSIONS INVENTORIES ACROSS WATER DISTRICTS

During the development of this GHGRP, the project team reviewed two other water district climate action plans (CAP), which are analogous to this GHGRP: the Coachella Valley Water District (CVWD) Climate Action and Adaptation Plan and the Metropolitan Water District of Southern California's (MWD's) Climate Action Plan (CVWD 2021, MWD 2022). This comparison helped to inform and contextualize Valley Water's inventory methodology, reduction goals, and measures among other water districts. Additionally, to account for differences in the scale of operations and population served by each district, the estimated annual GHG emissions between these districts are compared on a per-capita basis in Figure 4 below. Valley Water's per-capita emissions (2017-2021 average) are lower than MWD's reported 2017 emissions and substantially lower emissions than CVWD's 2016 to 2019 average emissions per capita. As shown in Figure 4, Valley Water also has the largest proportion of Scope 3 emissions relative to its annual emissions.



Notes: MWD = Metropolitan Water District of Southern California; CVWD = Coachella Valley Water District; kg CO₂e = kilograms of carbon dioxide equivalent.

¹ Emissions data from MWD (2022: 81) and CVWD (2021: 49); population data from Valley Water (2021b: 2), MWD (2022: 32), and CVWD (n.d.). To ensure comparability across these water districts, emissions related to wastewater treatment were removed from CVWD's totals, as Valley Water and MWD do not perform significant amounts of wastewater treatment.

Source: Prepared by Ascent in 2024.

Figure 4 Annual Average Emissions per Capita Comparison Across Water Districts

In addition to the quantitative GHG values above, the following qualitative assessments were made of these plans:

- ▶ MWD and CVWD's plans set a carbon neutrality goal by 2045 but note several caveats. MWD stated that emissions have high interannual variability because they depend heavily on pumping water supplies via the Colorado River Aqueduct, and thus, MWD uses a carbon budget-based approach (which measures total emissions over a range of years rather than reductions in a single year; see Chapter 7 for more details on Valley Water's carbon budget) to help achieve carbon neutrality (MWD 2022: ES.7). CVWD acknowledged that its suite of measures still resulted in emissions in 2045 and stated that future CAPs would have additional measures to achieve this goal (CVWD 2021: 53). However, both plans were finalized before the passage of AB 1279 in September 2022, which means that the State's carbon neutrality target by 2045 was not yet in effect.
- ▶ MWD and CVWD's plans describe emission reduction strategies for Scope 1, 2, and 3 emissions sources (See Chapter 4 for an explanation of emission scopes), including the phase-out of natural gas combustion and the replacement of internal combustion engine vehicles with zero-emission vehicles (CVWD 2021: ES-6 through ES-7 and MWD 2022: 5.1 through 5.22).
- ▶ Neither plan quantified the reduction potential of all GHG reduction measures. Both districts labeled some measures as "supportive" in reducing GHG emissions (CVWD 2021: ES-7 and MWD 2022: 5.1 through 5.22).
- ▶ Cost was an important issue, as water districts must balance the need for climate action with their ratepayers' need for affordable water. Therefore, CVWD removed measures from consideration that could result in a "significant" increase in costs (CVWD 2021: 54), and MWD committed to updating the implementation measures to balance impacts to the cost of providing water to its customers (MWD 2022: 5.3).
- ▶ Availability of technology dictated the pace and scale of climate action. For example, MWD divided its measures into "Phase 1" and "Phase 2." Phase 1 measures had already available technology, whereas Phase 2 measures required additional research and new or emerging technology (MWD 2022: ES.18).

6 VALLEY WATER'S GREENHOUSE GAS EMISSIONS FORECAST

To determine the level of GHG reductions needed to meet Valley Water's goals, it is necessary to forecast its emissions in future years. Two forecasts were developed for this GHGRP, a Business-As-Usual (BAU) and a legislative-adjusted forecast. The BAU forecast extrapolates from historical trends and assumes that no additional action is taken by Valley Water or local, State, or federal agencies to reduce GHG emissions. The legislative-adjusted forecast uses the BAU forecast as a starting point and accounts for the effects of the emissions-reducing policies detailed in Chapter 3. Both forecasts were developed based on trends identified in 2010-2021 data and consultation with subject matter experts at Valley Water on likely future trends in emissions drivers such as fuel usage, electricity usage, and construction activity.

6.1 LEGISLATIVE REDUCTIONS

In addition to the high-level State and regional policies and guidance listed in Chapter 3, the emissions forecast in this GHGRP considers the effects of specific emissions-reducing regulations, listed in Table 3 below. These are called "legislative reductions" and are assumed to reduce Valley Water's future emissions in specific sectors without any new actions from Valley Water.

Table 3 State of California Legislative Effects on Valley Water's GHG Emissions Reduction Measures

No.	Legislative Reduction	Description	Sectors Affected
1	SB 100 (Renewables Portfolio Standard)	Requires California energy utilities to procure 60 percent of electricity from renewable sources by 2030 and 100 percent carbon-free electricity by 2045.	Building Energy, Imported Water
2	SB 1020 (Clean Energy, Jobs, and Affordability Act)	Requires that 100% renewable electricity is procured to serve all State agencies by December 31, 2035 (this affects imported water received from the Department of Water Resources).	Imported Water
3	SB 1206 (Stationary Hydrofluorocarbon Reduction Measures)	Sets increasingly stringent prohibitions on the GWP content of bulk HFCs. In 2025, sales of HFCs with GWP over 2,200 are prohibited; in 2033, sales of HFCs with GWP over 750 are prohibited. Additionally, by January 1, 2025, CARB must post an assessment on its website specifying how to transition the state's economy, by sector, away from HFCs and to ultra-low or no GWP alternatives no later than 2035.	High-GWP ¹
4	SB 1383 (Short-Lived Climate Pollutant Reduction Strategy)	Targets a 40 percent reduction in methane and a 40 percent reduction in hydrofluorocarbons (e.g., high-GWP refrigerants) compared to 2013 levels by 2030. Includes specific targets for reducing organic waste in landfills.	Solid Waste, Wastewater, High-GWP ¹
5	Advanced Clean Car Standards (ACC)	Establishes GHG emission reduction standards for model years 2017-2025 that are more stringent than federal CAFE standards.	On-Road Fleet, Employee Commute, Business Travel, Construction Emissions
6	Advanced Clean Cars II (ACCI)	Assumes that 100 percent of new light-duty vehicle sales will be either ZEV or PHEV by model year 2035. Requirements will ramp up from a 35 percent requirement for the 2026 model year.	On-Road Fleet, Employee Commute, Business Travel, Construction Emissions
7	Advanced Clean Fleet (ACF)	Establishes zero-emissions targets for heavy-duty vehicles (such as utility trucks with a gross vehicle weight of over 8,500 pounds, dump trucks, and haulers) in California state- and local government- fleets.	On-Road Fleet, Construction Emissions

Notes: CAFE = Corporate Average Fuel Economy; CARB = California Air Resources Board; CEC = California Energy Commission; EPA = U.S. Environmental Protection Agency; GHG = greenhouse gas; HFC = hydrofluorocarbons; SB = Senate Bill; ZEV = zero emission vehicle; PHEV = plug-in hybrid electric vehicle; GWP = global warming potential.

1 The effects of SB 1383 do not impact Valley Water's future emissions because Santa Clara County is already implementing separate organic waste collection. Also, the State's Refrigerant Management Program, which supports the reduction of high GWP gases, is mainly focused on record keeping and mitigating leaks. The effects of SB 1206 are accounted for in the GHG reduction measures.

Source: Compiled by Ascent in 2024.

6.2 FORECAST RESULTS

Table 4 shows the BAU and legislative-adjusted forecasts for 2030 and 2045 by emissions scope and sector. Figure 5 visually summarizes the same data to illustrate the trends over time. In the legislative-adjusted forecast, Valley Water's GHG emissions are expected to decline by 18 percent to 12,656 MTCO₂e by 2030 and by 48 percent to 8,071 MTCO₂e by 2045 relative to baseline values. These legislative-adjusted values are the starting point for the reduction measures described in this plan. A detailed description of the methods and assumptions used for the forecast can be found in Appendix D.

Table 4 BAU and Legislative-Adjusted Emissions Forecasts and Targets by Sector (MTCO₂e/year)¹

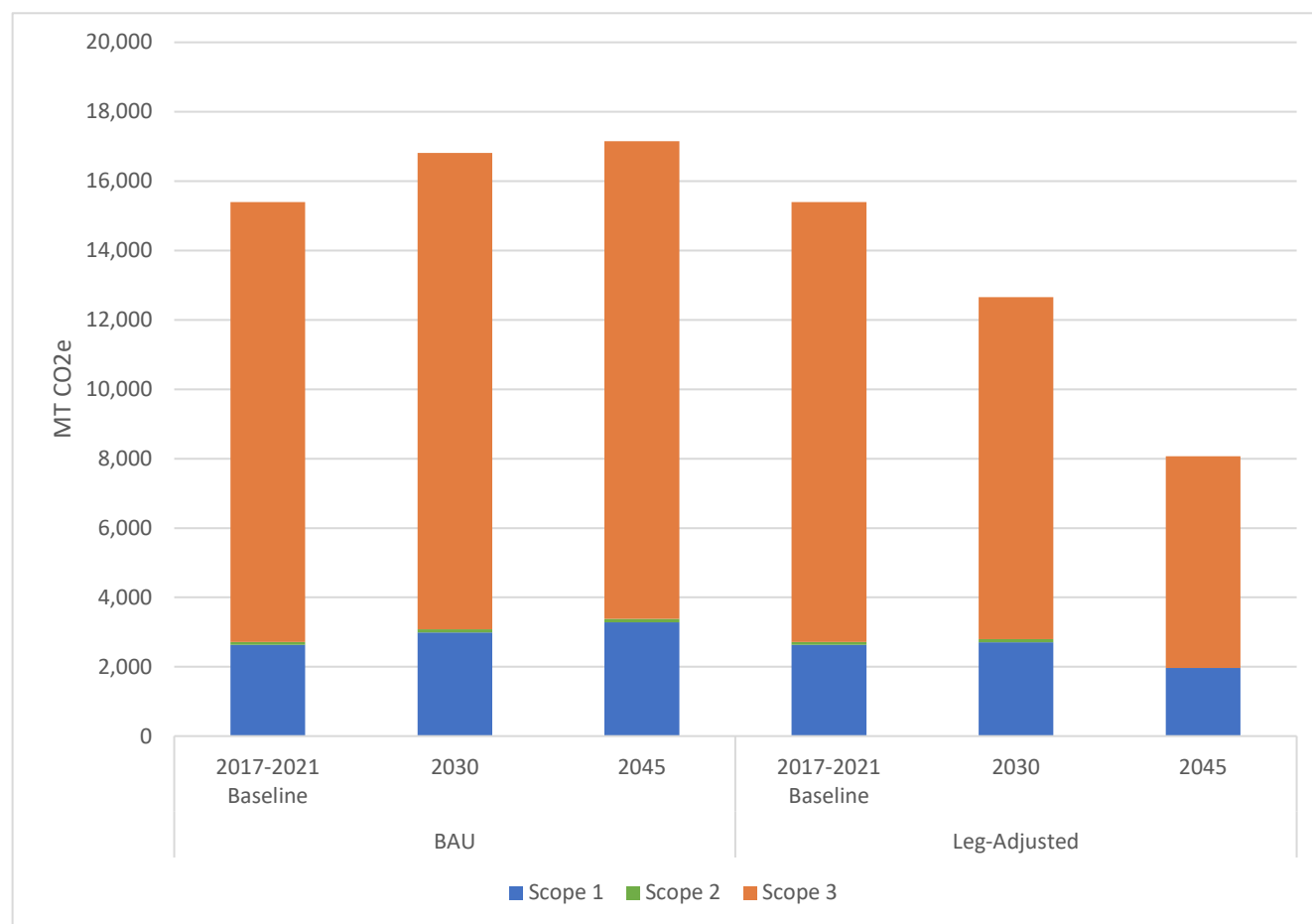
Scope	Sector	Baseline Emissions	BAU Emissions		Legislative-Adjusted Emissions	
		2017-2021	2030	2045	2030	2045
1	On-Road Fleet	1,102	1,212	1,378	933	58
	Natural Gas Use in Buildings	745	745	745	745	745
	Off-Road Fleet	703	952	1,082	952	1,082
	High GWP Gases	79	79	79	79	79
	Scope 1 Subtotal	2,630 (17%)	2,989 (18%)	3,284 (19%)	2,710 (21%)	1,965 (24%)
2	Facility Energy	84	95	95	93	0
	Scope 2 Subtotal	84 (<1%)	95 (1%)	95 (1%)	93 (1%)	0 (0%)
3	Construction	6,990	8,115	8,115	7,408	5,629
	Imported Water	4,022	4,174	4,222	1,372	0
	Employee Commute	1,219	981	981	651	129
	Solid Waste	236	236	236	236	236
	Business Travel	147	147	147	131	104
	Sediment Hauling	62	62	62	48	0
	Wastewater	9	9	9	9	9
	Scope 3 Subtotal	12,686 (82%)	13,724 (82%)	13,772 (80%)	9,854 (78%)	6,107 (76%)
Total		15,399	16,808	17,151	12,656	8,071
Percent Change from Baseline Levels		NA	9%	11%	-18%	-48%

Notes: BAU = Business-As-Usual; MTCO₂e = metric tons of carbon dioxide equivalent, GWP = global warming potential, GHG = greenhouse gas, NA = not applicable. Percents shown as percent of total annual emissions.

¹ Global warming potentials from the Intergovernmental Panel on Climate Change's Sixth Assessment Report were used in emissions inventorying.

Source: Prepared by Ascent in 2025.

Emissions reductions are primarily due to the State's progression toward a carbon-neutral electricity grid and cleaner vehicles, as detailed in Table 3 (Legislative Reductions). Reduced emissions from the electricity grid and vehicles result in less emissions from Valley Water's on-road fleet, facility energy, construction, imported water, employee commute, business travel, and sediment hauling. Based on existing data, activity and emissions from other sectors, such as facility natural gas and high-GWP gas use and solid waste and wastewater production, are anticipated to remain unchanged in the forecast. The emissions forecasts and comparisons to 2017-2021 baseline emissions are shown in Table 4 and Figure 6.

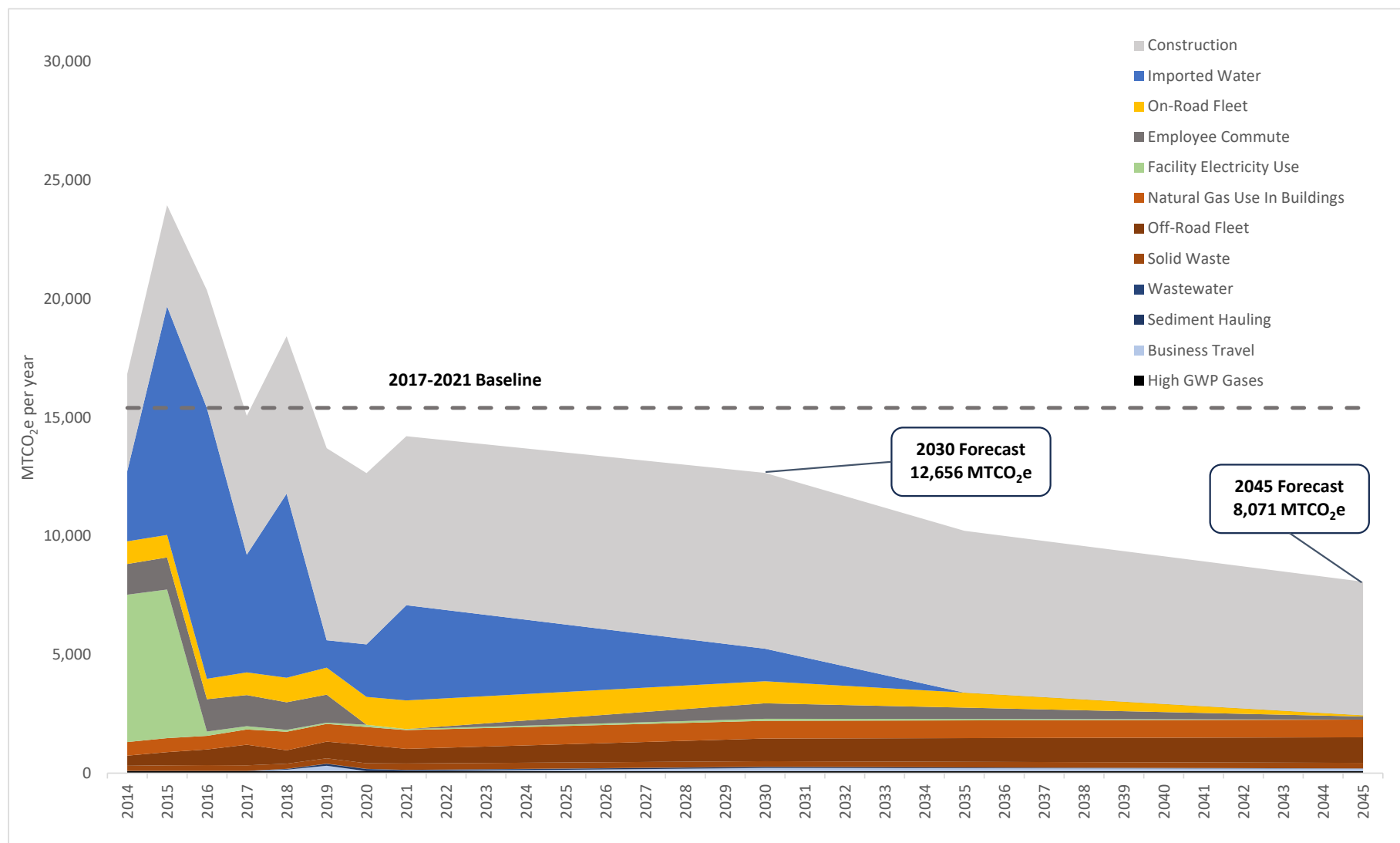


Note: Valley Water's Scope 2 emissions are included in this graph but are less than 100 MTCO₂e/year.

Source: Prepared by Ascent in 2025.

Figure 5 Business-As-Usual and Legislative-Adjusted Forecast Emissions Forecasts (MTCO₂e/year)

With the implementation of legislative reductions from SB 1020 and SB 100, electricity used by the SWP becomes cleaner, and the associated emissions from imported water are expected to be reduced. As a result, construction-related emissions are anticipated to dominate Valley Water's future emissions profile. By 2045, construction emissions are predicted to account for 70 percent of Valley Water's total emissions—up from 45 percent in the baseline. Emissions from future projects with CEQA mitigation measures requiring net-zero construction emissions, including the Anderson Dam Seismic Retrofit Project, are not included in the GHGRP construction emissions forecast. Although construction emissions will make up a larger share of the emissions portfolio, absolute construction emissions are forecasted to decrease over time from the baseline of 6,990 MTCO₂e/year to 5,629 MTCO₂e/year by 2045. Additional discussion of the emission forecast data, calculation methodology, and results can be found in Appendices A and D.



Source: Prepared by Ascent in 2025.

Figure 6 Legislative-Adjusted Emissions Forecasts by Sector (MTCO₂e/year)

7 TARGET SETTING

Establishing a GHG emissions reduction goal, commonly referred to as a “GHG reduction target,” is a key step in the local GHG reduction planning process. Valley Water’s updated GHG emissions inventory and forecast provide a basis for target setting by understanding the additional actions needed to meet emissions targets. They also provide a benchmark against which future GHG reductions can be tracked. In CEQA-qualified GHGRPs, local GHG reduction targets are developed in a manner consistent with statewide GHG emissions targets established under State law.

7.1 STATE GHG REDUCTION TARGETS

The State’s current GHG reduction targets were established by SB 32 and AB 1279 and incorporated into the 2022 Scoping Plan. They include the following:

- ▶ Reduce statewide anthropogenic GHG emissions to 40 percent below 1990 levels by 2030 (SB 32);
- ▶ Reduce statewide anthropogenic GHG emissions to 85 percent below 1990 levels by 2045 (AB 1279); and
- ▶ Achieve statewide net zero GHG emissions (i.e., “carbon neutrality”) no later than 2045 and achieve and maintain net negative GHG emissions after that (AB 1279).

AB 1279 defines net zero GHG emissions as balancing remaining GHG emissions by 2045 with removals of GHG emissions over the same time.

7.2 VALLEY WATER GHG REDUCTION TARGETS

The 2022 Scoping Plan sets individual targets for each emissions sector that, when combined, meet statewide emission reduction targets. To scale these state-level targets to Valley Water, it is important to first understand Valley Water’s level of control over the emissions sources included in the Scoping Plan. Valley Water has direct or indirect control over emissions from six of the seven anthropogenic emissions sectors included in the Scoping Plan’s statewide inventory: residential and commercial, electric power, high-GWP gases, industrial, recycling and waste, and transportation. Valley Water has no control over agricultural emissions. Thus, the Scoping Plan targets for non-agricultural emissions sectors are applicable to Valley Water.

The state inventories its emissions annually and between 2017 and 2021, the state’s emissions were approximately 5 percent lower than they were in 1990 (CARB 2007, CARB 2024b). Thus, adjusting the state GHG reduction targets relative to Valley Water’s baseline years (average 2017 and 2021) and removing targets associated with agricultural emissions, Valley Water’s emissions would need to be reduced by 86 percent below baseline by 2045 (43 percent by 2030) to be consistent with the reduction target established by AB 1279. While these targets are focused on reducing anthropogenic emissions, AB 1279 also sets a carbon neutrality goal for 2045 that includes reductions from the removal of carbon dioxide (CO₂) from the air, including carbon sequestration and mechanical carbon capture, utilization, and storage (CCUS). Though Valley Water does not have CCUS activities, it does manage thousands of acres of natural lands, such as streams, riparian areas, and marshes, where there are notable carbon sequestration opportunities. Therefore, to demonstrate consistency with state targets and considering relevant emissions sectors, Valley Water should, at minimum:

- ▶ reduce Valley Water’s anthropogenic GHG emissions by 86 percent below 2017-2021 baseline levels by 2045,
- ▶ achieve carbon neutrality no later than 2045 through enhanced carbon sequestration, and
- ▶ in the near term, plan to reduce Valley Water’s anthropogenic GHG emissions by 43 percent below 2017-2021 baseline levels by 2030.

These reduction targets align with the state’s goal of carbon neutrality by 2045, as outlined in the 2022 Scoping Plan and AB 1279. While the 2030 target serves as an interim benchmark, the unique and variable nature of water district

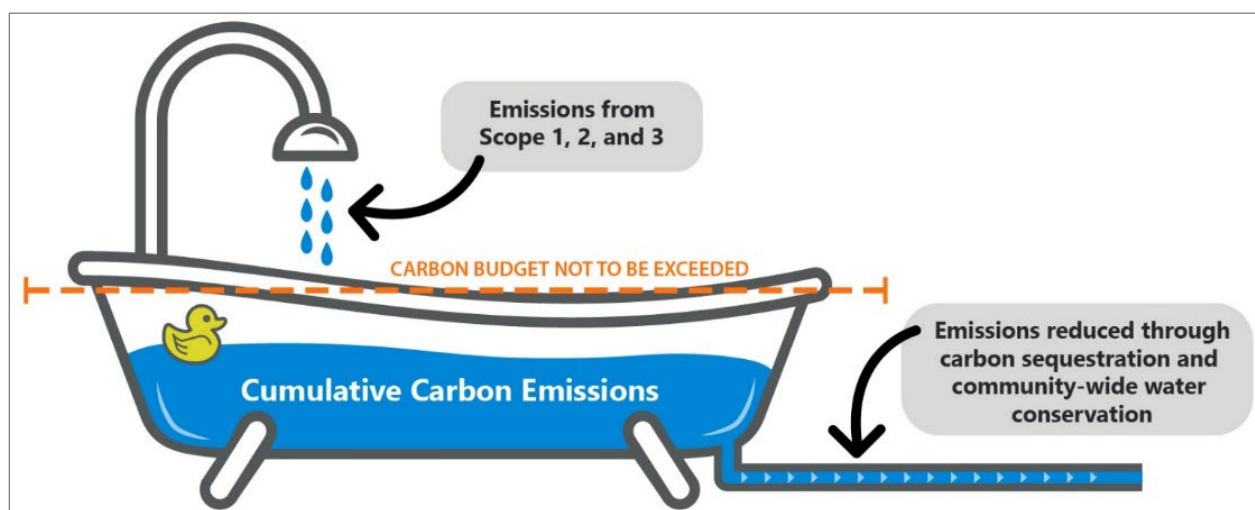
operations—driven by fluctuating climate and resource needs—makes achieving exact annual reductions challenging. As such, the GHGRP’s 2030 analyses are provided for informational and benchmarking purposes. Rather than focusing on specific yearly targets, Valley Water commits to a cumulative reduction approach. By managing emissions from 2025 to 2045, total emissions should stay within a defined carbon budget (described further below), that are cumulatively consistent with both 2030 and 2045 statewide objectives. This carbon budget strategy ensures Valley Water’s path to carbon neutrality remains on track, despite variability in emissions year-to-year.

7.3 THE CARBON BUDGET CONCEPT

Traditionally, CAPs prepared by cities and counties set a GHG reduction target by which a community or agency’s operations should reduce their annual emissions in a particular future year. These targets are based on communitywide emissions that are generally consistent year-to-year, except under extreme socioeconomic or environmental circumstances. However, Valley Water’s GHG emissions often vary year to year, due primarily to the demand for imported water) and the need to perform construction projects.

With this variable emissions trend, a traditional approach to targeting a percent reduction in annual emissions from a past baseline year could result in the unintended consequence of exceeding a particular year’s GHG reduction target. To address this issue, the GHGRP uses a carbon budget approach similar to that adopted by MWD in their CAP (MWD 2022).

Figure 7 illustrates a bathtub as an analogy to explain the carbon budget approach. A bathtub has an inflow, a holding capacity, and an outflow. The water collected in the bathtub represents emissions. The inflow represents Scopes 1-3 emissions generated by Valley Water, and the outflow represents emissions reduction from carbon sequestration and community-wide water conservation that Valley Water is responsible for. The capacity of the bathtub represents the total carbon budget. When the inflow increases and the outflow decreases, water begins to accumulate in the bathtub (i.e., cumulative emissions). To stay within budget (i.e., keep the tub from overflowing), the inflow can either decrease through the reduction of operational and construction emissions implemented through the GHGRP measures, or the outflow can increase through the implementation of increased community-wide water conservation and local carbon sequestration. Any imbalance of these flows, over time, can result in the tub becoming overfilled, representing an exceedance of the carbon budget. Managing the rate of inflows and the accumulation in the bathtub is essential to remain within the budget and achieve Valley Water’s carbon neutrality goals by 2045. Appendix H shows an example calculation of the carbon budget concept and how new projects can show consistency with the carbon budget.

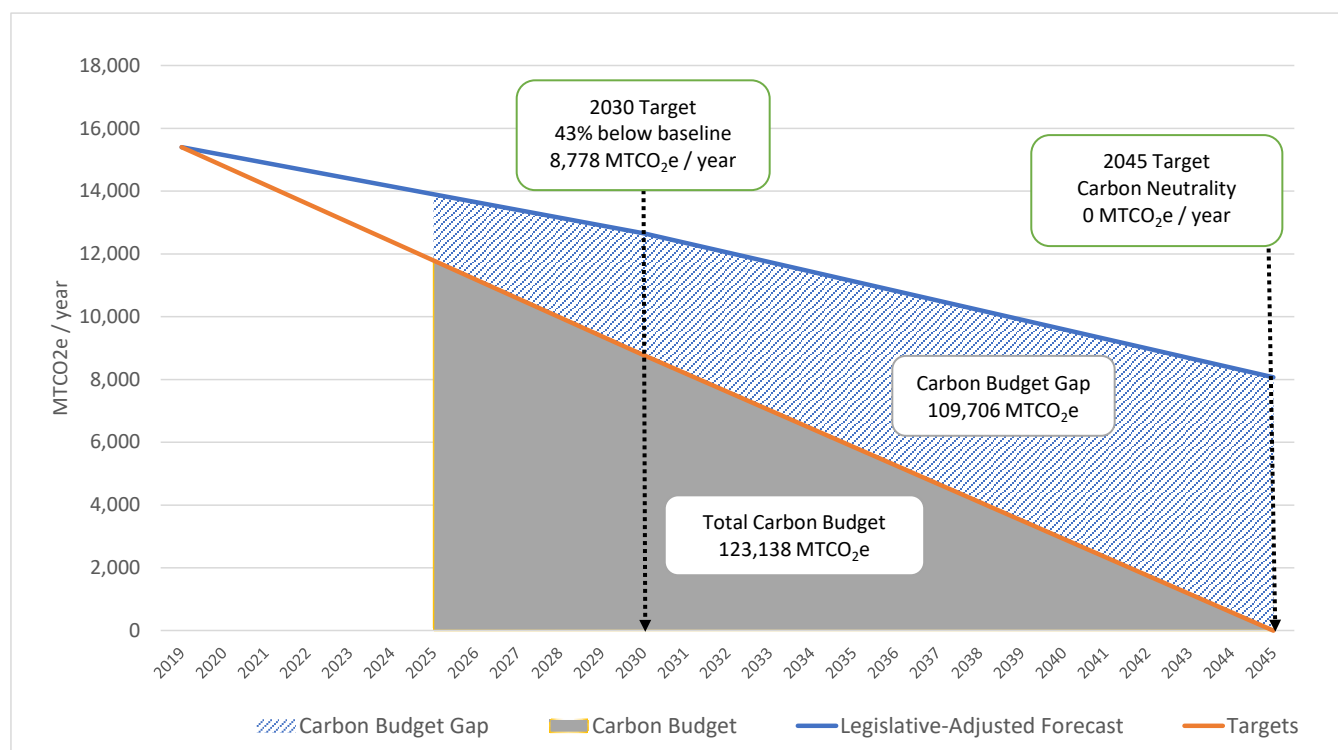


Source: Prepared by Ascent in 2024.

Figure 7 Carbon Budget Illustration

Consistent with SB 32 and AB 1279, statewide targets under the 2022 Scoping Plan, and guidance from the Bay Area Air District, Valley Water is targeting a 43 percent reduction in annual emissions from its 2017-2021 baseline by 2030 and net zero emissions by 2045. These targets were then translated into the carbon budget for 2030 to 2045. The carbon budget limits cumulative GHGs emitted over a set time frame. This limit is equivalent to the sum of annual GHG emissions that, across a set number of years, follow a linear trajectory toward achieving the emissions reduction targets (see Figure 7). Based on the 2045 net-zero emissions target, Valley Water's total carbon budget is 123,138 MTCO₂e for the GHGs emitted between 2025 and 2045. To be consistent with this target, Valley Water's total emissions from 2025 to 2045 must be less than or equal to this amount to remain within the budget. 2025 is likely when implementation of this GHGRP will begin, and as such, was chosen as the year in which emissions accounting under the carbon budget would begin.

Figure 8 below shows this concept graphically for Valley Water's context. The gray-shaded area represents the carbon budget, and the blue gap between the legislative-adjusted forecast and the targets line represents additional reductions that must be achieved by the measures described in Chapter 8. The orange line shows the annual emissions that form the carbon budget follow a linear trajectory from the baseline level to zero by 2045. The baseline shown in Figure 8 is the average annual emissions between 2017-2021, assigned to the year 2019, which is the median year between 2017 and 2021.



Notes: MTCO₂e = metric tons of carbon dioxide equivalent.

Source: Prepared by Ascent in 2025.

Figure 8 Legislative-Adjusted Forecast, Targets, and Carbon Budget, 2025-2045

7.3.1 Emissions Reduction Target Alignment with CEQA

These targets, as aligned with SB 32 and AB 1279, provide the basis for the GHGRP's use as a qualified plan adopted to reduce emissions of GHGs. CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (Section 15064.4[a]). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (Section 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining cumulatively considerable impacts from GHG emissions on the environment (Section 15064.4[b]):

1. *The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.*
2. *Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*
3. *The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.*

As proposed, the GHGRP and its targets satisfy these criteria by providing a framework for future projects' contribution of GHG emissions above baseline conditions and serve as a threshold that is inherently tied to the State's long-term GHG reduction targets using Valley Water's local, independent inventory.

After adopting the GHGRP, future Valley Water projects may tier from the GHGRP under CEQA, and this GHGRP establishes a pathway to ensure Valley Water's operations do not result in a cumulatively considerable level of emissions by committing to net zero emissions by 2045. This level of commitment is consistent with AB 1279, the guidance outlined in the CARB's 2022 Climate Change Scoping Plan (Scoping Plan), and the Bay Area Air District's 2022 CEQA Guidelines. Under the latest Scoping Plan, the State also aims to achieve carbon neutrality by 2045 but does so with carbon dioxide removal (CDR) technologies and sequestration to achieve carbon neutrality (CARB 2022a). Valley Water has a significant role in local conservation, restoration, and enhancement of riparian lands, wetlands, and other aquatic habitat types, which could help offset Valley Water's anthropogenic GHG emissions. The role of carbon sequestration in Valley Water's GHG reduction targets is discussed in Chapter 8.

8 GREENHOUSE GAS REDUCTION MEASURES

Identifying and implementing GHG reduction measures to reduce Valley Water's emissions is essential to achieving carbon neutrality objectives. Reaching carbon neutrality will require unprecedented levels of investment in zero-emission on-road and off-road vehicles, building decarbonization, waste reduction, and a commitment to conserving and enhancing natural lands, thereby increasing carbon sequestration. As was previously mentioned and discussed further below, Valley Water's jurisdiction is limited, especially for Scope 3 emissions. Valley Water cannot unilaterally mandate that its contractors or employees perform specific actions to reduce GHG emissions. Furthermore, Valley Water has an obligation to its ratepayers to provide safe, clean water at an affordable rate, and thus must balance the implications of additional costs and the resulting rate effects. Despite these challenges, Valley Water is committing to reach net zero emissions for Scopes 1, 2, and, as feasible, Scope 3 by 2045.

This chapter proposes 11 measures to reduce emissions from Scopes 1 and 3 and to provide additional reductions through water conservation and carbon sequestration. It establishes a pathway to carbon neutrality consistent with AB 1279 and CEQA Guidelines Section 15183.5(b)(1)(D).

Table 5 summarizes the list of GHGRP measures, presented by scope, and the anticipated reductions resulting from implementing each measure. The GHG reduction values are shown as cumulative reductions for two periods: 2025 through 2030 and 2025 through 2045. The cumulative reductions by 2030 and 2045 are compared against the cumulative emissions under the legislative adjusted forecast and the allowed carbon budget by those years. If successfully implemented, the proposed measures would achieve a 38 percent reduction in annual emissions below the baseline by 2030 and carbon neutrality by 2045 with support from carbon sequestration-related actions. As construction emissions are forecasted to comprise the majority of Valley Water's emissions in 2045, much of the proposed measure reductions are focused on construction activities. Note that no Scope 2 measures were proposed because electricity, the only emissions source under that scope, does not currently and will not generate GHG emissions in the future under Valley Water's subscription to PWRPA's Zero Carbon Water portfolio.

A detailed discussion of each measure is included under "8.1 Measure Details."

Table 5 Cumulative GHG Reductions from Measures in 2030 and 2045 (MTCO_{2e})

Sector	Measure Number	Measure Name	Measure Description	2025-2030 Cumulative Reduction ^a	2025-2045 Cumulative Reduction
Scopes 1					
Fleet	VF-1	Zero Emission On-Road Fleet	Convert 35% of Valley Water's on-road fleet fuel use to zero-emission fuels (e.g., electricity, renewable diesel) by 2030, and 100% by 2045.	434	1,912
Fleet	OF-1	Zero Emission Off-Road Fleet	Require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 95% of Valley Water's off-road fleet by 2030, and 100% by 2045.	2,713	17,700
High GWP Gases	HG-1	Phase Out High-GWP refrigerants	Replace high-GWP refrigerants with low-GWP alternatives above and beyond the requirements of SB 1206.	122	734
Facility Energy	FE-1	Facility Electrification	Electrify 30% of existing facility natural gas use by 2030, and 76% by 2045.	671	6,769
Total Scope 1 Reductions				3,941	27,115
Scope 3					
Employee Commute	EC-1	Reduce Employee Commute Emissions	Implement incentives to encourage employees to reduce their VMT or reduce emissions from their commute vehicle.	39	171
Solid Waste	SW-1	Increase Solid Waste Diversion	Divert 80% of waste from Valley Water offices from landfills by 2030, and 90% by 2045. Improve solid waste tracking by conducting regular assessments of waste characterization.	472	3,147
Construction	CN-1	Zero Emission Off-Road Construction Equipment	For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 17% of off-road construction equipment fuel use in equipment greater than 25 hp by 2030, and 70% by 2045 regardless of the engine Tier.	2,818	40,201
Construction	CN-2	Zero Emission On-Road Construction Vehicles	For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 35% of on-road construction vehicle fuel use by 2030, and 100% by 2045.	446	1,805
Water Conservation	WA-1	Increase Water Conservation	Increase communitywide water conservation to 98,800 acre-feet per year by 2030 and 118,000 acre-feet per year by 2045.	1,409	4,164
Carbon Sequestration	CS-1	Sequester Carbon	Sequester carbon in habitat enhancement and restoration projects. Collaborate with regional conservation agencies to identify projects that are beyond project mitigation. (Non-anthropogenic source)	179	60,063
Offsets	CS-2	Purchase Carbon Offsets	Purchase carbon offsets from verified offset registries, prioritizing local or regional projects and, if necessary, projects outside of the state, but within the United States. Prohibit carbon offset purchases that are unverified or located outside the United States. (Non-anthropogenic source)	Not Quantified	Not Quantified
Total Scope 3 Reductions				5,363	109,552
Total Cumulative Reductions (all scopes)				9,304	136,666
Forecasted^b Cumulative Emissions (without reductions)				79,678	232,844
Forecasted^b Cumulative emissions (with reductions)				70,374	96,178
Allowed Carbon Budget				61,695	123,138
Remaining Emissions Gap after Reductions^c				8,679	-26,961

Notes: VMT = Vehicle Miles Traveled, MTCO₂e = metric tons of carbon dioxide equivalent, GHG = greenhouse gas emissions, BMP = best management practices.

^a 2030 emissions reductions, forecasts, and carbon budgets provided for informational and benchmark purposes only.

^b Legislative-adjusted forecast

^c Indicates cumulative-emissions needed to meet the carbon budget for a given time period (e.g., 2025 to 2030 or 2025 to 2045). Negative value indicates that the carbon budget is met and there is a surplus of emissions reductions.

Source: Modeled by Ascent in 2025.

As shown in Table 5, the proposed measures would result in an excess emission reduction over the 20-year period between 2025 and 2045. There would be 26,961 MTCO₂e remaining in the carbon budget in 2045, accounting for cumulative emissions after measure implementation. Most reductions are attributed to the significant wetland restoration work planned by Valley Water under CS-1, which represents just over half of the estimated reductions across all measures. This is followed by significant reductions from the use of zero emission fuels in off-road construction equipment under CN-1. With respect to the anthropogenic target, the reductions from all measures except for CS-1 and CS-2 are estimated to result in annual emissions that are 86 percent below baseline levels by 2045, meeting the target identified under AB 1279 (See Section 7.2). The estimated reductions are based on an extensive internal feasibility assessment of each measure and reduction opportunities from each emissions source. To ensure that these targets are achieved, the GHGRP also includes an implementation monitoring plan, which will provide oversight and facilitate adaptive management throughout the process.

The discussion below presents the details of each measure. For each measure, a short measure summary is provided, followed by the context of the measure in terms of Valley Water operations, substantiation of specific measure targets, if any, the calculation assumptions, and the resulting estimated cumulative reductions. Additionally, the discussion recommends specific implementation actions and are categorized as either “quantified” or “supportive.” These actions are described as “quantified” if they were directly used in the calculation of a measure’s GHG reduction potential. “Supportive” actions were not quantified but are essential to support the successful implementation of the measure (e.g., annual reporting and updating purchasing policies).

8.1 SCOPE 1 REDUCTION MEASURES



VF-1: Zero Emission On-Road Fleet

Convert 35% of on-road fleet fuel use to zero-emission fuels (e.g., electricity, renewable diesel) by 2030, and 100% by 2045.

Under current practices, Valley Water-owned on-road vehicles (including passenger cars, pickup trucks, and heavy-duty trucks) are replaced at the end of their life (generally around 100,000 miles or 10 years) with hybrid or zero-emission vehicles (ZEVs). Under ACCII, an increasing number of new light-duty vehicle sales are required to be zero-emission vehicles, and under ACF, an increasing percentage of local government agencies' heavy-duty fleets must be ZEVs. As these regulations are implemented, 23 percent of Valley Water's on-road vehicles are projected to be ZEVs by 2030 and 96 percent by 2045—see Section 2.3 of Appendix D for more details on how ACCII and ACF were used to derive these projections. VF-1 proposes that Valley Water exceed these projections to achieve a 35 percent ZEV fleet by 2030 and a 100 percent ZEV fleet by 2045 across all on-road vehicle types.

2030 Target	2045 Target
35% of Valley Water's on-road fleet uses zero-emission fuels.	100% of Valley Water's on-road fleet uses zero-emission fuels.
Install 20 electric vehicle charging stations	Install 35 electric vehicle charging stations
Cumulative Reduction Potential by 2030: 434 MTCO _{2e}	Cumulative Reduction Potential by 2045: 1,912 MTCO _{2e}

- **Quantified Action VF-1.1:** Require an expansion of ZEV procurement during vehicle replacement or fleet growth, where available and financially feasible, such that 35 percent of Valley Water's on-road fleet fuel use comes from zero-emission fuels by 2030 and 100 percent by 2045.
- **Supportive Action VF-1.2:** Install at least 20 additional electric vehicle charging stations, Level 2 or faster, by 2030 and 35 by 2045. Valley Water currently has 12 operational EV stations with 18 charging ports and already has a plan outside of the GHGRP to install 20 stations (with 40 charging ports) by the end of 2026.
- **Supportive Action VF-1.3:** Establish a formal "ZEV/EV first policy" to prioritize the purchase of ZEVs and EVs when acquiring new fleet vehicles, while also considering cost, technological feasibility, and operational needs.

Calculation Assumptions

For calculation purposes, Valley Water's on-road fleet was assumed to be all gasoline vehicles, with a weighted average emissions factor of approximately 622 grams carbon dioxide equivalent (CO_{2e}) per vehicle mile traveled (VMT). On-road diesel use is captured in the calculation under OF-1. ACF and ACCII are expected to increase the penetration of zero-emission vehicles in the fleet, so this emissions factor is expected to drop to 478 grams CO_{2e} per VMT in 2030 and 26 grams CO_{2e} per VMT in 2045. This implies that, under ACF and ACCII, 77 percent of the fuel used in Valley Water's on-road fleet would be from fossil fuel use in 2030, and 4 percent in 2045. Under Measure VF-1, those percentages would further decrease to 65 percent in 2030 and 0 percent in 2045. These rates are applied to forecast future fleet growth based on historical fuel use trends in Valley Water's fleet.



OF-1: Zero Emission Off-Road Fleet

Convert 95% of Valley Water's off-road fleet conventional diesel use to zero-emission fuels in 2030 and 100% by 2045, regardless of engine tier.

Off-road vehicles and equipment, such as excavators and bulldozers, are typically fueled by diesel. However, zero-emission technologies exist, such as electric backhoes. Additionally, renewable diesel is readily available, with 24 stations already operating in Santa Clara County, according to the US Department of Energy (DOE 2023). Renewable diesel is sourced solely from renewable sources, similar to B100 biodiesel, but is chemically identical to conventional diesel and can be used in its place without the need for new equipment or modifications. The combustion of renewable diesel is biogenic, resulting in net zero emissions by returning the carbon sequestered from biological activities back into the atmosphere. Thus, for the purposes of this GHGRP, the combustion of renewable diesel and biodiesel is counted as having no CO₂ emissions, though both fuels still emit methane (CH₄) and nitrous oxide (N₂O). This is consistent with CARB's GHG reduction strategies and the state's GHG inventories, which do not count biogenic CO₂ towards the total GHG emissions allowed by AB 32 (CARB 2022b: 12-13). Additionally, it is consistent with the US Community Protocol from Local Governments for Sustainability (also known as the International Council for Local Environmental Initiatives, or ICLEI), which states that biogenic carbon emissions are part of the short-term carbon cycle and, thus, should not be added to any inventory total (Local Governments for Sustainability 2013: 5).

OF-1 proposes that Valley Water uses either zero-emission off-road fleet equipment or zero-emission fuels (e.g., renewable diesel) to replace 95 percent of conventional fuel use in its off-road fleet by 2030 and 100 percent by 2045. As of 2024, 100 percent of diesel dispensed at Valley Water's headquarters fueling station is renewable diesel. While zero-carbon emissions fuels, such as renewable diesel, are sufficient in achieving the climate goals of the GHGRP, true zero-emissions vehicles emit neither direct GHG emissions (including CH₄ and N₂O) nor direct criteria air pollutant emissions. As such, under OF-1, Valley Water would maintain existing renewable diesel usage and expand the use of other zero-emissions fuels, such as electric alternatives, where feasible. In cases where new zero-emission off-road technology is unavailable or financially infeasible, this measure is designed to be flexible to enable Valley Water to determine how it can achieve zero emissions from its off-road fleet. Additional discussion about the current and future availability of renewable diesel and the accounting of biogenic emissions from renewable diesel can be found in Appendix C.

2030 Target	2045 Target
95% of Valley Water's off-road fleet fuel use is from zero-emission fuels.	100% of Valley Water's off-road fleet fuel use is from zero-emission fuels.
Cumulative Reduction Potential by 2030: 2,713 MTCO _{2e}	Cumulative Reduction Potential by 2045: 17,700 MTCO _{2e}

- **Quantified Action OF-1.1:** Require the use of zero-emission fuels or purchase and use of zero-emission equipment during vehicle replacement or fleet growth, such that 95 percent of Valley Water's off-road fleet fuel use comes from zero-emission fuels by 2030 and 100 percent by 2045.

Calculation Assumptions

In the legislative-adjusted scenario, emissions in this sector are expected to increase over time due to increased conventional diesel fuel usage (10 percent over the 2017 – 2021 maximum for 2030, and 25 percent over the 2017 – 2021 maximum for 2045; [Young, pers. comm., 2023]). Implementation of this measure would result in a reduction of these emissions by 95 percent and 100 percent in each of those years. This reduction is driven, in part, by the CARB Off-Road Regulation. This regulation requires that beginning January 1, 2024, all California fleets procure and use R99

or R100 renewable diesel fuel in vehicles subject to the regulation, with limited exceptions (such as vehicles in captive attainment areas, fleets that already have Tier 4 off-road engines, or vehicles operating in cold weather) (CARB 2023a). The rest of the reduction is assumed to be due to the use of other zero-emission fuels, such as electricity and renewable diesel (the use of which goes above and beyond the Off-Road Regulation). For calculation purposes, this measure applies to the off-road fleet, and diesel on-road fleet, operated by Valley Water and does not pertain to off-road equipment used by Valley Water contractors, which is addressed by Measure CN-1.



HG-1: Phase Out High-GWP Refrigerants

Replace high-GWP refrigerants with low-GWP alternatives above and beyond the requirements of SB 1206.

High-GWP gases account for less than 1 percent of Valley Water's total emissions, but as a Scope 1 source, Valley Water has direct control over these emissions. Refrigerant leakage and resulting fugitive emissions are the primary sources of emissions of high-GWP gases from the Valley Water facility and vehicle cooling demands. High-GWP gases have the potential to warm the earth's atmosphere hundreds to thousands of times more than CO₂. For example, a common refrigerant used in Valley Water facilities and vehicles is R-134a, which is 1,430 times more insulative than CO₂ in the atmosphere. Under SB 1206, CARB requires all refrigerants sold to have less than 750 GWP by 2035. Some examples of ultra-low GWP refrigerants that have less than 750 GWP include R-454B, R-123, and R-30 – a list is available on CARB's website (CARB 2024c). Under HG-1, Valley Water would exceed State requirements by meeting this requirement five years earlier.

2030 Target	2045 Target
100% of refrigerants purchased must be rated as low-GWP, having less than 750 GWP	100% of refrigerants purchased must be rated as low-GWP, having less than 750 GWP
Cumulative Reduction Potential by 2030: 122 MTCO ₂ e	Cumulative Reduction Potential by 2045: 734 MTCO ₂ e

- **Quantified Action HG-1.1:** Adopt an internal policy to require that all purchases of refrigerants be for low-GWP refrigerants by 2030.

Calculation Assumptions

Valley Water's refrigerants currently have a weighted average current GWP of 1,542. SB 1206 prohibits the sale of HFCs with a GWP greater than 750, starting in January 2033 (CARB 2023b). Valley Water plans to accelerate compliance with this requirement, achieving it by January 2030. Thus, compliance with this requirement would reduce Valley Water's refrigerants' weighted average GWP by approximately 51 percent.



FE-1: Facility Electrification

Electrify 30% of existing facility natural gas use by 2030, and 76% by 2045.

Natural gas consumption in buildings and facilities accounts for four percent of GHG emissions generated by Valley Water operations and 52 percent of emissions from facility operations. Decarbonizing existing buildings by replacing gas appliances with electric alternatives is critical to reducing GHG emissions from facilities. Electric alternatives to space and water heating, such as heat pumps, are already available. Under FE-1, Valley Water would gradually transition Valley Water's facilities to all-electric, targeting electrification of 30 percent of existing natural gas use by 2030 and 76 percent by 2045. Valley Water does not anticipate new buildings to be built through 2045.

2030 Target	2045 Target
30% of natural gas use is replaced with electricity.	76% of natural gas use is replaced with electricity.
Cumulative Reduction Potential by 2030: 671 MTCO _{2e}	Cumulative Reduction Potential by 2045: 6,769 MTCO _{2e}

- **Supportive Action FE-1.1:** At the end of their usable life, replace natural gas appliances and HVAC systems with electric alternatives.
- **Supportive Action FE-1.2:** Perform an internal review of all facilities and identify opportunities for electrification, prioritizing the replacement of older equipment first. For more challenging transitions, such as for large-scale building heating systems, conduct a formal study with a commercial or industrial energy consultant to identify feasible electrification solutions, as necessary.

Calculation Assumptions

Valley Water currently uses natural gas stoves and HVAC equipment in some of its buildings and is targeting the replacement of 30 percent of natural gas use by 2030 and 76 percent by 2045. The 2045 target exceeds a similar target from a study estimating that 65 percent of existing commercial building stock in California could be retrofitted by 2050 (Mozingo 2021: xviii). This exceedance is needed to help Valley Water achieve its target of reducing anthropogenic emissions by 86 percent below baseline levels by 2045. It is assumed that the electricity used as the heat source in these buildings is procured from PWRPA's zero-carbon portfolio; thus, there would be no additional emissions from electricity.

8.2 SCOPE 3 REDUCTION MEASURES



EC-1: Reduce Employee Commute Emissions

Implement incentives to encourage employees to reduce their VMT or reduce emissions from their commute vehicle.

Emissions from employee commute trips make up seven percent of Valley Water's emissions, but these emissions are anticipated to decline in the future under ACCII. Although Valley Water does not have direct control over the commute choices of its employees, it can influence them by offering incentives to reduce VMT. Valley Water currently offers preferential parking for carpools, EV charging, and bicycle amenities such as secured bike parking. Other approaches Valley Water could explore include providing subsidized or free transit passes, a bike tool library, bike-to-work events, and subsidies for bicycle-related expenses. However, the California Air Pollution Control Officer Association recognizes that these types of voluntary measures have limited effectiveness (CAPCOA 2021: 83-84). Valley Water does not anticipate a net increase in the number of employees through 2045.

2030 Target	2045 Target
Implement at least 50% of the commute emissions reduction programs listed under EC-1.	Implement 100% of the commute emissions reduction programs listed under EC-1.
Cumulative Reduction Potential by 2030: 39 MTCO _{2e}	Cumulative Reduction Potential by 2045: 171 MTCO _{2e}

- ▶ **Supportive Action EC-1.1:** Evaluate the possibility of offering free or subsidized transit passes to all employees.
- ▶ **Supportive Action EC-1.2:** See Action VF-1.2.
- ▶ **Supportive Action EC-1.3:** Evaluate the status of existing bicycle facilities and amenities at Valley Water office buildings and identify areas of improvement. Install or improve bicycle facilities and amenities, if necessary, to:
 - Continue providing and ensuring that existing bicycle parking facilities are 1) secured either indoors, 2) secured in outdoor lockers, or 3) secured in outdoor racks with video monitoring.
 - Continue offering well-maintained on-site showers.
 - Make available a secured bicycle tool library and tire pumps at or near bicycle parking facilities to assist with any on-site maintenance needs.
- ▶ **Supportive Action EC-1.4:** Encourage cycling through holding bike-to-work events and prizes.
- ▶ **Supportive Action EC-1.5:** Expand preferential parking for carpools and ZEVs.
- ▶ **Supportive Action EC-1.6:** Develop a remote work protocol to provide employees the opportunity to execute work tasks at home or off site to reduce commute trips.

Calculation Assumptions

This measure assumes that in 2030 and 2045, 50 and 100 percent of the actions recommended in this measure would be implemented, respectively. These actions are assumed to directly apply to forecasted emissions from employee commutes. This program is assumed to reduce VMT by 4 percent (CAPCOA 2021: 83-84).



SW-1: Increase Solid Waste Diversion

Divert 80% of waste from Valley Water offices from landfills by 2030, and 90% by 2045. Improve solid waste tracking by conducting regular assessments of waste characterization.

Employee-generated solid waste accounts for 1 percent of Valley Water’s emissions. Although Valley Water does not have direct control over the emissions generated from the decomposition of this generated waste, it can influence it by first having a better understanding of the characterization of the waste being generated (e.g., percent organics vs percent recyclable). Once the waste stream is better understood and with the knowledge that organic waste is the primary source of methane in landfills, Valley Water can take steps to reduce organics from being landfilled by encouraging increased usage of organics collection bins and utilizing the organics waste-collection services offered by Republic Services. Under SW-1, Valley Water would target an 80 percent diversion rate from landfills by 2030 and 90 percent by 2045.

2030 Target	2045 Target
80% of organics and recyclables must be diverted from landfills by 2030.	90% of organics and recyclables must be diverted from landfills by 2045.
Cumulative Reduction Potential by 2030: 472 MTCO _{2e}	Cumulative Reduction Potential by 2045: 3,147 MTCO _{2e}

- ▶ **Supportive Action SW-1.1:** Begin regular tracking of waste disposal at all Valley Water facilities to better understand the characterization of Valley Water’s waste generation rates (e.g., pounds of recyclable waste per employee per year).
- ▶ **Supportive Action SW-1.2:** Conduct an annual waste characterization study that identifies the distribution of organics, recyclables, and non-recyclables among the generated waste.
- ▶ **Supportive Action SW-1.3:** Where not already implemented, provide and collect separate organics and recycling bins.
- ▶ **Supportive Action SW-1.4:** Provide educational materials and signage for existing and new organics and recycling bins to ensure the proper disposal of waste at Valley Water facilities.

Calculation Assumptions

Currently, 40 percent of waste is assumed to be diverted from landfills, and the remaining 60 percent is landfilled (CalRecycle 2023). This measure would increase diverted waste to 80 and 90 percent by 2030 and 2045, implying landfill rates of 20 percent and 10 percent by those years, respectively.



CN-1: Zero Emission Off-Road Construction Equipment

For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 17% of off-road construction equipment fuel use in equipment greater than 25 hp by 2030, and 70% by 2045 regardless of the engine Tier.

As a provider of flood protection and safe, clean water, construction activities occur regularly as Valley Water continues to enhance and improve the water resources and ecosystems of Santa Clara County. These include both large- and medium-scale infrastructure improvements like the construction of flood walls, levees, dams, pipelines, and water treatment plants, as well as smaller flood protection activities, such as levee and stream maintenance, and restoration of native habitat. Using a combination of historical trends, plans from Valley Water's Five Year Capital Improvement Program, and known legislative reductions, Valley Water anticipates construction-related emissions to decline modestly in the future by about 20 percent from baseline conditions through 2045 (Valley Water 2023). However, without further reductions, it will still be the largest emissions sector in 2045, comprising 70 percent of the total emissions in that year. Thus, to achieve Valley Water's 2045 carbon neutrality target and reduce anthropogenic emissions by 86 percent below baseline levels by 2045, aggressive additional actions need to be taken to reduce emissions further.

Construction emissions come from off-road equipment and on-road vehicles (on-road vehicles include both construction-related transport vehicles, such as haul trucks, as well as the vehicles that construction workers use to commute to the job site). Currently, off-road emissions account for 67 percent of construction emissions, with the other 33 percent from on-road vehicles (Appendix D). However, on-road emissions are expected to drastically decline under ACCII³ and ACF policies, resulting in off-road emissions accounting for a much greater share of construction emissions by 2045 (96 percent off-road and 4 percent on-road). Because ACCII and ACF generally do not apply to off-road construction equipment and recognizing that construction is Valley Water's largest emissions sector, reducing emissions from off-road construction equipment is a crucial step towards achieving Valley Water's agency-wide emission reduction goals. On-road construction emissions are addressed under CN-2.

As discussed under OF-1 and Appendix C, technology and zero-carbon fuels for off-road equipment are currently available and are anticipated to become more prevalent in the future. For projects where Valley Water operates its own off-road fleet, OF-1 would be implemented. However, for contracted construction projects, Valley Water may not control contractors' fuel selection and use of equipment, but it can require in its contract terms that contractors use a certain percentage of zero-emission equipment or use available renewable diesel and require regular reporting of the equipment inventory and fuel usage to Valley Water. To allow for flexibility, the contractor may use any combination of technology or fuels to meet these requirements. Under CN-1, Valley Water would target 17 percent of zero-emission fuel use by off-road construction equipment by 2030 and 70 percent by 2045.

Additionally, in support of this measure, supporting actions include consideration of project design.

2030 Target

17% zero-emission fuel use in contracted off-road construction equipment by 2030.

Cumulative Reduction Potential by 2030:

2,818 MTCO_{2e}

2045 Target

70% zero-emission fuel use in contracted off-road construction equipment by 2045.

Cumulative Reduction Potential by 2045:

40,201 MTCO_{2e}

³ The status of ACCII is currently pending litigation. Until finalized by courts, forecasts assume that ACCII is in effect, per CARB recommendations. (CARB 2025; Islam, pers. comm., 2025)

- ▶ **Quantified Action CN-1.1:** Update internal capital project specifications to reduce GHGs through the Technical Review Committee, including fleet and equipment specifications for contractors. This should include a requirement for construction projects to require contractors to apply all feasible construction best management practices (BMPs) to reduce GHG emissions as recommended by the Bay Area Air District in Table 6-1 of the 2022 CEQA Guidelines or the latest analogous set of BMPs. This list of BMPs is included as part of the GHGRP Consistency Review Checklist in Appendix B. Of the recommended BMPs, require that zero-emission fuels account for at least 17 percent of construction off-road fuel use by 2030 and 70 percent by 2045. Given the planning required for construction projects and the time needed for contractors to procure and plan for these requirements, begin the revision to the contract requirement policy process as soon as possible.
- ▶ **Supportive Action CN-1.2:** Require as part of construction contracts that contractors submit an annual report of fuel usage in the off-road equipment used on site (e.g., gallons of renewable diesel, gallons of conventional diesel, kWh of electricity and name of utility from which electricity is purchased).
- ▶ **Supportive Action CN-1.3:** Incorporate process-based geomorphic channel designs into capital projects and use natural energy (e.g., existing natural waterways and gravity-fed systems) and local materials.

Calculation Assumptions

This measure assumes that 17 percent of forecasted conventional diesel fuel use in off-road construction equipment would be replaced by zero-emission fuels by 2030 and 70 percent by 2045. See Measure OF-1 above for a discussion of eligible types of zero-emissions fuel; those same assumptions apply to this measure as well.



CN-2: Zero Emission On-Road Construction Vehicles

For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 35% of on-road construction vehicle fuel use by 2030, and 100% by 2045.

On-road construction vehicle emissions account for 33 percent of construction-related emissions and are expected to drastically decline under ACCII and ACF policies. On-road construction vehicles consists of medium- and heavy-duty trucks used for transporting building materials, equipment, and waste or earth hauling as well as worker commute and light-duty trucks. The heavier-duty vehicles typically use conventional diesel. However, heavy-duty ZEVs and zero-carbon fuels, including renewable diesel, for on-road vehicles, are currently available and will become more prevalent in the future, as noted in Appendix E. Under ACF, some heavy-duty fleets are required to purchase only ZEVs starting in 2024. Worker commute vehicles are excluded from this measure. For projects where Valley Water operates its own on-road fleet, VF-1 would be implemented. However, for contracted construction projects, Valley Water may not control contractors' selection of vehicles, but it can require in its contract terms that contractors use a certain percentage of ZEVs, use available zero-carbon fuels, and require regular reporting of the on-road vehicle mileage and fuel usage to Valley Water. Under CN-1, Valley Water would require that 35 percent of on-road construction fuel use be from zero-carbon sources (e.g., electricity, renewable diesel) by 2030 and 95 percent by 2045.

2030 Target	2045 Target
35% zero-emission fuel use in contracted on-road construction vehicles by 2030.	100% zero-emission fuel use in contracted on-road construction vehicles by 2045.
Cumulative Reduction Potential by 2030: 446 MTCO _{2e}	Cumulative Reduction Potential by 2045: 1,805 MTCO _{2e}

- **Quantified Action CN-2.1:** Update internal capital project specifications to reduce GHGs, including on-road fleet specifications for contractors. This should include a requirement for construction project contractors to apply all feasible construction best management practices (BMPs) for the purposes of reducing GHG emissions as recommended by the Bay Area Air Quality Management District in Table 6-1 of the 2022 CEQA Guidelines, or the latest analogous set of BMPs. This list of BMPs is included as part of the GHGRP Consistency Review Checklist in Appendix B. Of the recommended BMPs, require that zero-emission fuels or technologies account for at least 35 percent of construction on-road fuel use by 2030 and 95 percent by 2045. Given the planning required for construction projects and the time needed for contractors to procure and plan for these requirements, begin the revision to the contract requirement policy process as soon as possible.
- **Supportive Action CN-2.2:** Incorporate process-based geomorphic channel designs into capital projects and local materials to reduce transportation-related emissions.

Calculation Assumptions

As a baseline, the legislative-adjusted forecast for this measure assumes that ACCII and Advanced Clean Fleets increase the proportion of ZEVs in the on-road construction fleet. Under these rules, it is estimated that, by 2030, 73 percent of on-road heavy-duty construction vehicles would be fueled by conventional diesel and, by 2045, only 7 percent of heavy-duty vehicles would be fueled by diesel. Under this measure, the percentage of diesel-powered on-road construction fuel would be reduced to 65 percent by 2030 and 5 percent by 2045.



WA-1: Community-Wide Water Conservation

Conserve 98,800 acre-feet of water per year by 2030 and 118,000 acre-feet by 2045.

As part of its commitment to environmental stewardship, and pursuant to Board Ends Policy 2.1.5 (“Maximize water use efficiency, water conservation and demand management opportunities”) and the Water Supply Master Plan 2040, Valley Water is targeting the conservation of 98,800 acre-feet (AF) of water per year by 2030 and 118,000 AF per year by 2045, up from the current rate of approximately 85,000 AF per year by 2030. This increased conservation would result from current and planned conservation activities and programs. These include landscape rebate programs (e.g., rebates for turf conversion, irrigation equipment upgrades, and rainwater capture projects, including rain barrels), incentives to update plumbing and irrigation equipment to more water-efficient versions (including products labeled by the Environmental Protection Agency WaterSense Program), and technical services to increase water-use efficiency indoors and outdoors. This conservation, in turn, results in decreased electricity use from water pumping and treatment activities incurred by Valley Water’s retail customers (e.g., San Jose Water Company, City of Sunnyvale) and an associated decrease in greenhouse gas emissions. Additionally, end users at residential, commercial, industrial, and institutional properties can decrease their electricity used for water heating by participating in Valley Water’s conservation programs that incentivize water-efficient plumbing (like showerheads, faucet aerators, etc.). Although the emissions from retail customer pumping and treatment are not included in Valley Water’s emissions inventory, these reductions would not occur without Valley Water’s water conservation actions. Thus, this reduction is considered a Scope 3 emissions reduction similar to reductions associated with carbon sequestration, which are also not directly included in Valley Water’s emissions inventory.

2030 Target	2045 Target
98,800 acre-feet of water conserved per year	118,000 acre-feet of water conserved per year
Cumulative Reduction Potential by 2030: 1,448 MTCO ₂ e	Cumulative Reduction Potential by 2045: 4,263 MTCO ₂ e

- **Quantified Action WA-1:** Increase implementation of water-saving programs and incentives, in keeping with Board Ends Policy 2.1.5 and the Water Supply Master Plan 2040.

Calculation Assumptions

The conservation program goals to reduce water use by 118,000 AF per year by 2045 (with other intermediate goals) is achieved through Valley Water’s conservation programs and through policies and regulatory requirements. Emissions reductions are only accounted for the conservation directly attributable to Valley Water’s programs, estimated to be 25 percent of total conservation savings. Therefore, this measure was assumed to save 22,000 acre-feet of water per year over existing annual conservation savings (based on data from the Water Supply Master Plan [Valley Water 2019]) and 30,000 additional annual conservation savings by 2045 (07/09/2024 Valley Water Board Meeting, Item 6.1). Emissions reductions per acre-foot from water conservation were calculated using the sum of:

- 1) A weighted average emissions factor (0.005 MTCO₂e per AF in 2030) reflecting the 2030 anticipated mix of water supply sources – per the Water Supply Master Plan (Valley Water 2019) – and their associated emissions factors. This weighted average emissions factor is associated with the extraction and conveyance of water delivered by Valley Water to the retailers. These are emissions associated with pumping water from the source to Valley Water. Sources include natural groundwater recharge, local surface water, recycled water, water from the San Francisco Public Utilities Commission, and Delta-Conveyed water from the Central Valley Project and State Water Project. Depending on hydrological conditions, the State Water Project sometimes purchases non-renewable energy to pump water, and thus it has nonzero emissions in 2030

(however, per SB 1020, SWP as a State agency must procure 100 percent zero-carbon resources by 2035; its emissions factor in 2030 was interpolated accordingly). All other sources have an emissions factor of zero, due to Valley Water's Zero Carbon Water energy portfolio from PWRPA as well as the Central Valley Project using carbon-free hydroelectric energy to pump. See Appendix D, Inventory and Forecasting Technical Memo, for details on emissions factors for local and imported water.

- 2) An average emissions factor (0.05 MTCO₂e per AF in 2030) for water treatment and distribution by the local water retailers to whom Valley Water delivers wholesale quantities of water, assuming that all water conservation avoids potable water use.

The emissions factors for extraction and conveyance were calculated using data from the Water Supply Master Plan 2040 and forecast emission factors for the water sources listed above (see Appendix D, Inventory and Forecast Technical Memo for more details on how these were derived).

The emissions factors for treatment and distribution were calculated using Valley Water's customer data on volumes delivered by retailers (Valley Water 2021c: 32). These were used in conjunction with estimated 2030 electricity emissions factors for each local utility (based on 2022 emissions factor data from the California Energy Commission Power Content Labels, extrapolated to 2030 values assuming a carbon neutrality target of 2045), as well as energy intensity factors for water (CEC 2024, Next10 2021: 19). Table 6 below shows the values used for this calculation.

Table 6 Data Used to Calculate Emissions Factors for Treatment and Distribution of Water

Water Provider	Corresponding Utility Provider	Total acre-feet per year from Valley Water (2017-2021 annual average)	2030 emissions factors (lb CO ₂ e per MWh)	Energy intensity of pumping: kWh per acre-foot per year
CWS Los Altos	SVCE	12,108	46	1,214
City of Morgan Hill	SVCE	7,340	46	1,011
City of Gilroy	SVCE	7,890	46	1,086
City of Mountain View	SVCE	9,544	46	968
City of Sunnyvale	SVCE	18,951	46	1,064
City of Milpitas	SVCE	9,153	46	989
San Jose Water Company	SJCE	115,119	76	1,193
San Jose Municipal Water	SJCE	16,997	76	1,021
Great Oaks Water Company	SJCE	10,436	76	1,150
City of Palo Alto	City of Palo Alto Utilities	10,856	283	1,075
City of Santa Clara	City of Santa Clara DBA Silicon Valley Power	18,110	345	1,118
Total		236,503	NA	NA

Notes: lb CO₂e per MWh = pounds of carbon dioxide equivalent per megawatt-hour; kWh = kilowatt-hour; CWS = California Water Service; SVCE = Silicon Valley Clean Energy; SJCE = San Jose Clean Energy; DBA = Doing Business As.

Source: Prepared by Ascent in 2024.



CS-1: Carbon Sequestration

Sequester carbon in habitat enhancement and restoration projects. Collaborate with regional conservation agencies to develop habitat enhancement and restoration above and beyond project mitigation requirements.

Carbon sequestration provides a natural sink of carbon emissions. Valley Water performs a variety of habitat restoration and enhancement projects as part of its mission. These include riparian habitat restoration and other native vegetation plantings that occur as part of stream maintenance activities or other projects. Additionally, Valley Water performs tidal marsh restoration in the South Bay that converts former salt production ponds to a mosaic of wetlands with an excellent ability to absorb carbon. Under existing conditions, salt ponds are primarily open water with minimal vegetation present on their margins. As such, their potential for carbon sequestration is low. On an acre-per-acre basis, wetland restoration can sequester approximately two times more carbon than planting trees (assuming 50 trees per acre) and 30 times more carbon than riparian restoration (see Appendix A). Due to the relatively high potential for salt pond restoration to sequester carbon, this measure assessment focuses on Valley Water's tidal marsh restoration projects.

One future Valley Water tidal marsh restoration projects was considered in this measure: the South San Francisco Bay Shoreline Phase I Project (Shoreline Phase I). Shoreline Phase I's goals are to provide horizontal levees, reduce flood risk, restore tidal marsh habitat, and provide trail connections in the area between the Alviso Slough and Coyote Creek (Valley Water 2024c). The first phase of flood protection components associated with the project are anticipated to be completed in 2025. Activities to prepare the salt ponds included in the project (Figure 9) for tidal marsh restoration will commence subsequently, with pond breaching anticipated to begin in 2030. This project will result in the restoration of approximately 2,783 acres of tidal marsh once pond breaches are fully implemented (USACE 2015:4-225). The majority of Shoreline Phase I land where restoration will occur is owned by the US Fish and Wildlife Service (USFWS) as part of the Don Edwards San Francisco Bay National Wildlife Refuge, with a portion owned by the City of San Jose. Implementation of Shoreline Phase I is partnership between Valley Water, the US Army Corps of Engineers (USACE), and the California State Coastal Conservancy (SCC), which are all contributing staff resources and funding towards restoration efforts.

In terms of the ownership of GHG reductions from carbon sequestration, it is possible that the current land owners and/or project partners could claim carbon sequestration reductions associated with Shoreline Phase I in future climate action plans. These claims could undermine the requirement for these reductions to be "additional" as defined under CEQA Guidelines Section 15183.5. Valley Water is currently in discussions with project partners to ensure that sequestration from Shoreline Phase I will not be double counted.

Depending on the outcome of negotiations with the landowners, Valley Water could account for a greater share of carbon sequestration than required to close its carbon budget gap as estimated in this GHGRP. Additional sequestration from other future restoration projects may be accounted for by Valley Water and utilized to offset construction-related emissions associated with future CIP projects (such as the Anderson Dam Seismic Retrofit Project) that require mitigation of GHGs as part of their CEQA compliance.

The carbon sequestration rate applied to estimate potential sequestration from Shoreline Phase I is based on data collected in Alameda County at Eden Landing Ecological Reserve, 12 miles north of the Shoreline Phase I project area. (Shahan et al. 2022). This study performed a wetland-specific assessment, evaluating not just the change in soil carbon and CH₄ emissions over time, but also the transfer of sequestered carbon into the bay through tidal eddies. Data was collected in fully restored tidal marshes that were previously salt ponds restored in a similar manner to the planned Shoreline Phase I restoration. Although a more specific study for tidal marshes in the southernmost San Francisco Bay is not currently available, the rates presented in this study were used as a proxy due to the proximity and similarity of ecological and pre-restoration conditions in the Shoreline Phase I and Eden Landing areas.

Additionally, to account for any uncertainty regarding tidal losses of carbon, an additional 50 percent reduction was applied to estimated lateral eddy loss rates⁴.

While the Eden landing sequestration rate is locally specific, it only applies to a fully restored marsh. In reality, the actual rate of tidal marsh establishment after restorations are implemented is uncertain and dependent on a variety of factors such as the order in which berms are breached, the location of the removed berms, and the resulting sedimentation from flows from the bay and creeks. Previously restored salt ponds in the South Bay have seen tidal marsh establishment ranging from 7 to 100 percent of pond area within 13 years of pond breaching, with those bordering the bay having the fastest restoration rates (Valley Water 2015, Valley Water 2025). Based on these rates and the geographical similarities between the previously restored ponds and the planned Shoreline Phase I ponds, it is estimated that 82 percent, or 2,280 acres, of Shoreline Phase I ponds would be restored by 2045 (if breached in 2030).

Table 7 below shows the hypothetical amount of carbon sequestration that could be realized with the restoration of Shoreline Phase I, beginning with the breaching of the ponds in 2030. However, due to the uncertainty of how quickly restoration will actually occur in the Shoreline Phase I, the reductions presented in Table 7 are subject to change as Valley Water annually assesses its progress toward meeting carbon budget. See Appendix A for detailed calculations and assumptions behind the applied sequestration rates and the rates of restoration for each pond.

Table 7 Cumulative GHG Reductions from Valley Water Carbon Sequestration

Item	2025-2045
Sequestration from tidal marsh restoration (MT CO ₂ e / restored acre / year) ¹	3.58
Total Shoreline Phase I Acres	2,783
Estimated percent restoration by 2045 for Shoreline Phase I ²	82%
Estimated restored acres of Shoreline Phase I	2,280
Average annual rate of restoration	5%
Potential Cumulative Reductions from Shoreline Phase I (MT CO₂e)	60,063
Carbon Budget Gap after Accounting for All Measures except for CS-1 and CS-2 (MT CO₂e)	33,102
Excess Reductions (MT CO₂e)	26,961

Notes: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

¹ Shahan et al. 2022. The sum of carbon sink and minor methane emissions and assumes a 50 percent loss in carbon sequestered to lateral eddies. See Appendix A for calculations.

² Assuming ponds are breached starting in 2030.

Source: Modeled by Ascent Inc. in 2025.

Although the restoration of Shoreline Phase I would not take place until 2030, the proximity of the ponds to the bay (see Figure 9) would likely allow those ponds to revegetate at a rapid pace once berms are breached. Based on the analysis conducted, the estimated cumulative carbon sequestration from this restoration effort could help Valley Water meet its carbon budget with a buffer of nearly 30,000 MTCO₂e to allow for variability in operational emissions and restoration work. Additionally, Valley Water is planning to restore a minimum of another 1,000 acres of salt ponds in future years, though the timing of those restoration activities is unknown at this time and not accounted for in this measure.

⁴ According to Shahan et al. 2022, approximately 40 percent of carbon sequestered by tidal marshes is transported laterally into the San Francisco Bay with the tide as dissolved CO₂. However, the study does not indicate the fate of the exported CO₂, whether it will remain dissolved in water or return to the atmosphere, and notes that further study is needed in this area; therefore, it was conservatively assumed that 50 percent of this dissolved CO₂ is returned to the atmosphere.



Source: USACE 2015.

Figure 9 Valley Water Tidal Marsh Restoration Areas under Shoreline Phase I

Although this assessment focuses on Shoreline Phase I, the intent of the measure is to allow Valley Water to achieve its carbon sequestration goals through any type of vegetative restoration work under its purview, including additional tidal marsh restoration, so long as the work is real, quantifiable, additional, enforceable, verifiable, and permanent, consistent with Division 25.5 (commencing with Chapter 38500) of the Health and Safety Code. The calculations shown in Table 7 demonstrate the sequestration potential available.

2030 Target	2045 Target
Valley Water restores 50 acres of tidal marsh	Valley Water restores 2,280 acres of tidal marsh
Cumulative Reduction Potential by 2030: 179 MTCO ₂ e	Cumulative Reduction Potential by 2045: 60,063 MTCO ₂ e

- **Supportive Action CS-1.1:** Prior to accounting for any carbon sequestration in future GHG inventories, Valley Water would establish an internal carbon sequestration registry that tracks the additional carbon sequestration derived from Valley Water projects. These projects can be any type of vegetative restoration work, so long as the work is real, quantifiable, additional, enforceable, verifiable, and permanent, consistent with Division 25.5 (commencing with Chapter 38500) of the Health and Safety Code. These terms are defined as follows (CARB 2021):
- **“Real”** means, in the context of sequestration projects, that GHG reductions or GHG enhancements result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage.
 - **“Quantifiable”** means, in the context of purchased offset and sequestration projects, the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage.
 - **“Additional”** means, in the context of purchased offset and sequestration projects, greenhouse gas emission reductions or removals that exceed any greenhouse gas reduction or removals otherwise required by law, regulation or legally binding mandate, and that exceed any greenhouse gas reductions or removals that would otherwise occur in a conservative business-as-usual scenario.
 - **“Enforceable”** means the authority for CARB to hold a particular party liable and to take appropriate action if any of the provisions of this article are violated.
 - **“Verifiable”** means that purchased offset and sequestration data is well documented and transparent such that it lends itself to an objective review by an accredited verification body.
 - **“Permanent”** means, in the context of purchased offset and sequestration projects, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years.

The calculations shown above in Table 7 provide projections of potential future sequestration enhancements that would occur after the implementation of the Shoreline Phase I. A registry developed by Valley Water must track the size and type of restoration activity being conducted and will use the most accurate, scientifically sound sequestration rates available. The registry will check against the targets established under CS-1.1 or provide a stopgap for any emissions exceeding the carbon budget.

Specific Valley Water projects may already implement restoration activities as compensatory mitigation required by permits from USACE, RWQCB, and/or CDFW. The carbon sequestered by these restoration activities can only be counted toward the reductions under CS-1 if they meet the above-bulleted requirements. Thus, the carbon sequestration from those projects must be quantifiable, enforceable, verifiable, and permanent, and also:

- ▶ Not already be credited to a separate entity or project outside of CS-1 (e.g., another agency or another Valley Water project that is not directly supporting CS-1) and
- ▶ Result in additional carbon sequestration above and beyond any vegetation removal of the project itself, such that only the net additional carbon sequestration can be credited toward CS-1 (e.g., only account for the net increase in annual carbon sequestration between a loss of 10 acres of invasion vegetation compared to 30 acres of restored riparian habitat).

Calculation Assumptions

According to a study conducted at a similar salt pond restoration project in the eastern part of the San Francisco Bay (Bay) at Eden Landing Ecological Reserve, restoration of salt ponds in the Bay could sequester on average 407 grams of carbon per square meter per year or 6 MTCO₂e per acre per year (Shahan et al. 2022).

The 6 MTCO₂e per acre per year value was adjusted downward to 3.6 MTCO₂e per acre per year. This is a conservative assumption to account for the carbon lost laterally (i.e., that flows offsite) after restoration work. Details of this calculation appear in Appendix A, Measures Calculations.

In addition to the tidal marsh restoration projects used in the calculation above, Valley Water also performs other activities that promote carbon sequestration, such as revegetation in degraded riparian areas and tree planting. The pace and scale of these activities and associated carbon sequestration potential have not been quantified in this GHGRP. Pending data availability, these activities could also count as reducing emissions under this measure and will continue to be tracked and monitored throughout the lifetime of the GHGRP.



CS-2: Purchase Carbon Offsets

If necessary, purchase carbon offsets from verified offset registries, prioritizing local or regional projects and, if necessary, projects outside of the state, but within the United States. Prohibit carbon offset purchases that are unverified or located in locations outside the United States.

The success of all previous measures is dependent on funding availability and technical feasibility, such as the availability of renewable diesel for construction projects or the available reductions from restoration projects under CS-1. As a last resort to ensure that Valley Water can meet its GHG reduction targets if estimated reductions from previous measures do not occur, Valley Water may purchase carbon offsets. Purchases may occur at its discretion, following an assessment of Valley Water's remaining carbon budget (discussed further in Chapter 9), depending on the progress of the implementation of Measures VF-1 through CS-1.

Any offsets procured under Measure CS-2 must be voluntary and not otherwise required by law or regulation (CEQA Guidelines §15126.4(c)(3)), must avoid double counting, and must not be used to satisfy any compliance obligation. Geographic preference will be given using the following preference hierarchy: offsets originating within the San Francisco Bay Area Air Basin; offsets originating within California; and offsets originating within other U.S. states. While offset purchases associated with Measure CS-2 cannot be procured from CARB's Compliance Offset Program⁵, any offsets procured must meet requirements at least as strict as California's under CEQA. All offsets must meet the validation criteria set forth in 17 CCR §95802, offset protocols must be consistent with CARB requirements under 17 CCR §95972, and be registered with a recognized and reputable registry (e.g., Climate Action Reserve, American Carbon Registry, or Verra). Offsets from outside the United States will not be purchased.

⁵ The Compliance Offset Program is an element of CARB's Cap and Invest (formerly Cap and Trade) Program, to which Valley Water is not subject.

9 IMPLEMENTATION AND MONITORING PLAN

This chapter outlines the steps needed to ensure that the specific measures and actions identified in this GHGRP will be successfully implemented and that Valley Water's emissions stay within the carbon budget, once the plan is completed and adopted. The chapter is divided into three parts: 1) the agency-wide implementation, monitoring, and reporting process; 2) details for measure implementation; and 3) the CEQA checklist process for Valley Water projects intended to tier from this CEQA-qualified plan.

9.1 IMPLEMENTATION, MONITORING, AND REPORTING PROCESS

Successfully implementing the GHGRP will require an agency-wide evaluation of Valley Water's progress toward meeting its GHG reduction targets by staying with its carbon budget through 2045. This would be done through an annual implementation, monitoring, and reporting process that would parallel measure implementation. A key aspect of this process, summarized in Figure 10 and detailed in a flow chart in Appendix F, is an adaptive management approach where Valley Water evaluates its emissions activity drivers and GHG emissions annually. Using this information, Valley Water would assess whether it is on track to meet its carbon budget, applying reductions available from measure CS-1 and purchasing carbon offset credits via CS-2. Offset purchases may occur on an as-needed basis depending on emissions trends related to the carbon budget (i.e., in some years, no offsets may be purchased, but may be purchased in others). Additionally, any new projects that were not included in this GHGRP could be used, at Valley Water's discretion, to update the forecast and recalculate the budget accordingly. This process would allow Valley Water to identify opportunities to improve measures and see which ones are being implemented behind or ahead of schedule. This process is outlined in Figure 10 and detailed below.

In addition to the annual process shown in Figure 10, Valley Water will update the GHGRP every five years to incorporate updates to its inventory and forecast, the latest technological developments in GHG reduction measures (e.g., the availability of zero-emissions construction equipment), regulatory changes, and Valley Water's capital improvement projects. This update process will allow Valley Water to refine its GHG reduction measures and actions to account for changing construction project schedules, market conditions, costs, and technological developments.

9.2 MEASURE IMPLEMENTATION DETAILS

Once the GHGRP is adopted, Valley Water will begin implementing the measures in order of effectiveness and the level of control Valley Water has over those emissions, starting with measures associated with Valley Water's direct operations, then moving on to measures over which Valley Water has a decreasing level of control. The role of the sequestration and offset-related measures (CS-1 and CS-2) will depend on the outcome of the annual assessment process (Figure 10).

9.2.1 Implementation Order

Valley Water has the most control over its Scope 1 and 2 emissions. Since its Scope 2 emissions are already minimal, Valley Water plans to prioritize Scope 1 emissions for reductions, subject to future feasibility and cost constraints. Because Valley Water does not have direct control over Scope 3 emissions, these are more difficult to reduce; however, this GHGRP proposes that Scope 3 reductions be prioritized in the order shown in Table 8. This order considers the certainty of reductions that can be achieved and the degree of influence that Valley Water has over measure implementation. A higher rank on the list implies more direct control and more certainty of achieving reduction; a lower rank implies less control and less certainty. A prioritization matrix that addresses the feasibility, relative cost, and GHG reduction potential for each measure is included in Appendix G.

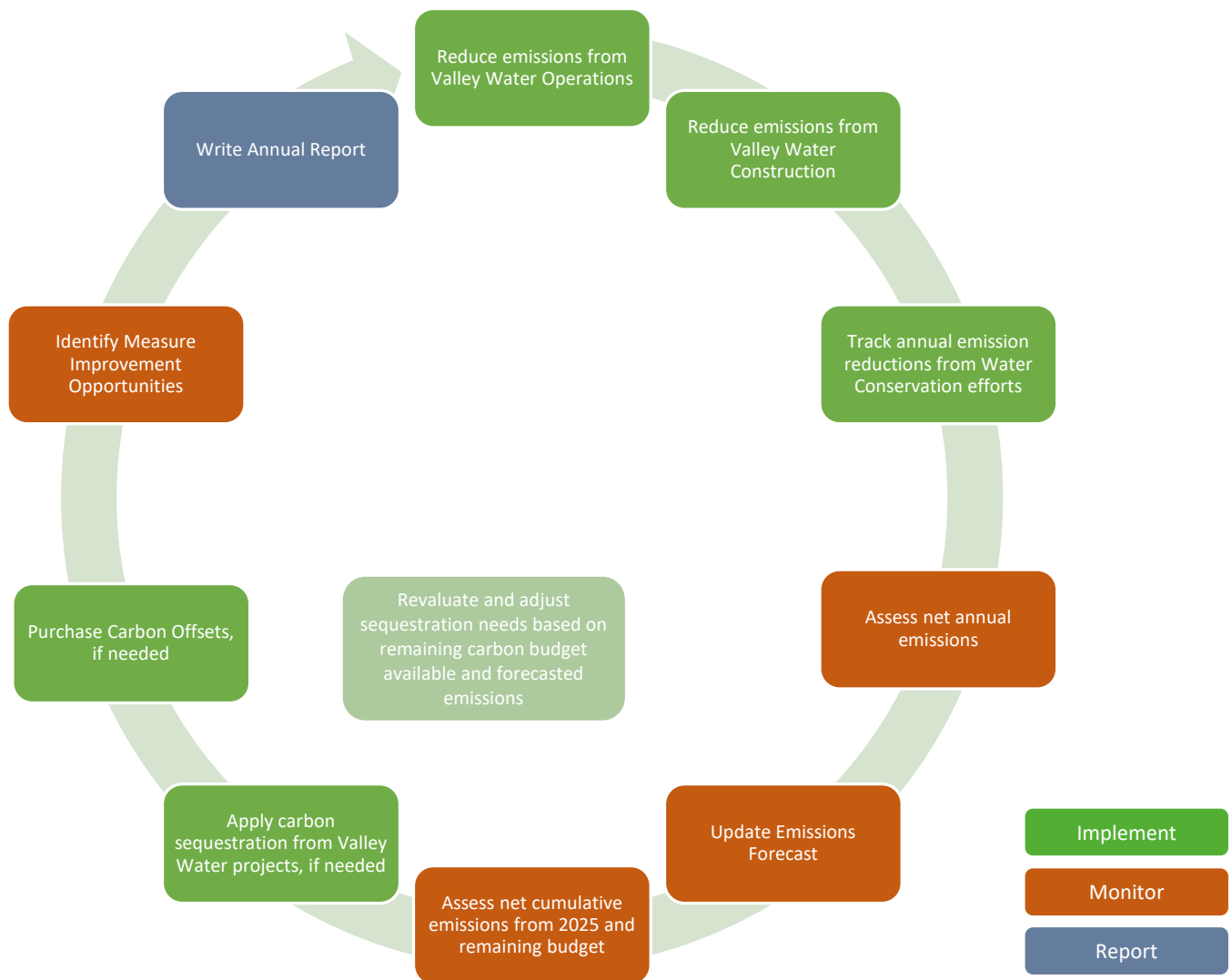


Figure 10 Annual Implementation, Monitoring, and Reporting Process

Table 8 Recommended Measure Implementation Order

Implementation Order	Applicable Measures	Implementation Action
1	VF-1 through SW-1	Reduce Valley Water's operational emissions. Prioritizing measures with the greatest GHG reduction effectiveness and feasibility (See Appendix G).
2	CN-1 and CN-2	Reduce construction emissions by revising the requirements for contractors responding to Valley Water's requests for proposals (RFPs). These requirements should mandate that a certain percentage of on-road and off-road fuel used in construction be zero-emission.
3	WA-1	Continue to promote water conservation to achieve the conservation goals set by the Water Supply Master Plan. This involves influencing end-users to consume less water by scaling up existing programs, incentives, and rebates, as well as developing new programs.
4	CS-1	If the measures listed in the three rows above fail to keep Valley Water's emissions within the carbon budget, implement carbon sequestration projects in natural lands. These projects can include tidal marsh restoration, riparian restoration, and tree planting. Valley Water plans to partner with other organizations, such as the Army Corps of Engineers and the United States Fish and Wildlife Service (USFWS), to complete the tidal marsh restoration projects. Because these are shared projects and those organizations may want to claim carbon reductions for themselves in future climate action planning work, it is not possible to quantify Valley Water's share of those reductions at this time. This GHGRP, therefore, calculates the minimum reduction that Valley Water would have to receive to stay within its carbon budget. Details on this calculation are provided in "8.1 Measure Details."
5	CS-2	Purchase carbon offsets to close any remaining gap between actual emissions and the budget.

Source: Compiled by Ascent in 2024

9.2.2 Implementation of Individual Measures

Implementing the individual measures will require a coordinated effort across Valley Water and a detailed plan for monitoring implementation progress for each measure. A key step is forming a **GHGRP Implementation Team** to coordinate all aspects of Plan implementation, such as oversight of reduction measures, regular assessment of GHG reduction progress, preparation of annual reports, and acquiring carbon credits, as necessary. Below are some key actions that will implement each GHGRP measure:

- ▶ **Define roles and responsibilities** for each measure, describing how the specific Valley Water programs, units, or teams will work together to implement the measures, including roles, responsibilities, and expected work products.
- ▶ **Develop a monitoring plan** that details how data on the tracking metrics (i.e., emissions activity data) will be collected and analyzed.
- ▶ **Develop enforcement mechanisms** that modify Valley Water policies and processes to ensure compliance with reduction measures.
- ▶ **Seek and source of funding** for each measure's implementation. This generally combines Valley Water's operations, capital improvement programs, grants, and incentives.

A table summarizing how these actions apply to each measure can be found in Appendix E. Specific plans for each measure will be developed after the GHGRP is adopted.

9.3 CEQA CHECKLIST FOR DISCRETIONARY PROJECTS

To ensure that proposed discretionary projects and their associated construction-related emissions are on track for reductions consistent with this GHGRP, Valley Water will collect data from each of its future construction projects on the anticipated types of vehicles to be used in construction, their annual hours of operation, and fuel usage (including

both zero-emission and conventional fuels). Valley Water will then verify that these projects' emissions are consistent with this GHGRP using the process outlined in Appendix B, GHGRP Consistency Review Checklist (Checklist), and in Chapter 9.3.1. The Checklist is intended to document whether individual projects are minimizing GHG emissions in accordance with the applicable reduction measures from the GHGRP. Project consistency with the GHGRP can also be demonstrated through a quantitative analysis that shows the project will not impede the achievement of the GHG emissions reduction targets or cause Valley Water to exceed its carbon budget (explained further in 9.3.1). Projects that fulfill the criteria in this Checklist will be streamlined and allowed to proceed without additional GHG mitigation in accordance with CEQA Guidelines Sections 15064(h) and 1513.5(b)(2). Moving forward, this Checklist will serve as the tool to document a streamlined analysis of GHG impacts consistent with CEQA Guidelines Section 15183.5(b), which states:

Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

9.3.1 Determining Project Compliance with the GHGRP

Determining a project's compliance with the GHGRP, and subsequently, its alignment with the carbon budget is inherently an iterative process due to the uncertainty of future emissions. For Valley Water's construction emissions, the GHGRP's emissions forecast is based on a combination of known emissions from ongoing existing construction projects (e.g., Stream Maintenance Program) and an extrapolation of historical trends in construction activity. This methodology is used because specific future project emissions data are unknown and unavailable at this time. Thus, once project annual emissions data are known, Valley Water must evaluate its own operational emissions and analyze how the additional construction project emissions would impact Valley Water's cumulative carbon emissions starting in 2025. This is necessary because the carbon budget is calculated based on cumulative emissions from 2025 to 2045 (Chapter 7.1). Ground truthing Valley Water's carbon budget is essential to align reality with projections, ensuring that Valley Water is genuinely reducing emissions and also providing substantial evidence for project compliance with the GHGRP where needed.

Three outlined steps below provide a process for assessing consistency with the carbon budget for a new discretionary Valley Water project that begins its CEQA process after the adoption of this GHGRP, based on the implementation process shown in Figure 10.

- ▶ First, Valley Water conducts an annual assessment of its emissions and creates a running total of emissions from its existing activities (e.g., operations and ongoing construction) starting after 2025.
- ▶ Second, Valley Water annually assesses the status of the implementation of the GHGRP measures and determines their effectiveness in reducing emissions as they are implemented.
- ▶ Third, for every new project that undergoes discretionary CEQA review, the estimated annual emissions from those projects will be added to the forecasted emissions reported in this GHGRP and evaluated for their effect on Valley Water's cumulative emissions.

For the third step, Valley Water will evaluate the contribution of the new project emissions in terms of how it affects Valley Water's cumulative emissions from 2025, alongside the concurrent implementation of the GHGRP measures. If new projects are expected to cause Valley Water's carbon budget to be exceeded before 2045, Valley Water would assess if additional reductions from operations and construction through the GHGRP measures, including CS-1, are needed to balance or offset the new project emissions. If the reductions cannot offset the new project emissions to keep Valley Water under its carbon budget prior to 2045, then the new project would be deemed inconsistent with the GHGRP and Valley Water must either find additional reductions to be consistent with the carbon budget or reject or revise the proposed project. An example assessment of the consistency of hypothetical future projects with the carbon budget is provided in Appendix H.

10 CONCLUSION

Reducing GHGs supports Valley Water’s mission and its role in responding to climate change. This GHGRP outlines strategies and actions Valley Water may take to reduce GHG emissions on the path to carbon neutrality. As 100 percent renewable electricity becomes commonplace, the importance of reducing emissions from Valley Water’s electricity-reliant pumping activity, which historically dominated the agency’s emissions profile, has been minimized. In contrast, reducing emissions from construction activities and other non-electric sources is now a key priority. This GHGRP identifies effective measures to reduce further Valley Water’s emissions from fossil fuel use in Valley Water facilities, vehicles, and equipment, as well as in contracted construction vehicles and equipment. Requirements for future projects to assess consistency with this CEQA-qualified plan will address construction-related emissions. Supporting the implementation of projects to enhance carbon sequestration locally in Santa Clara County represents an important opportunity to address forecasted operational and construction emissions and an alternative to purchased carbon offsets.

Despite the uncertainty behind the availability of technology and infrastructure solutions, Valley Water will pursue emissions reductions in these areas to the extent feasible. Additionally, Valley Water’s commitment to water conservation and habitat restoration provides opportunities to reduce Valley Water’s emissions further. Implementing these actions where feasible, combined with regular monitoring and reporting, will ensure that Valley Water achieves its carbon neutrality goal.

11 REFERENCES

- Bay Area Air District. 2022. California Environmental Quality Act Air Quality Guidelines. Appendix C: Guidance for GHG Reduction Strategies. Available: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-c-ghg-reduction-strategies_final_edits-for-ascent-pdf.pdf?rev=8e5bb7d8ad504dd6accd3c04e58bdf87&sc_lang=en. Accessed March 1, 2024.
- California Air Pollution Control Officer Association. 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. Available: https://www.caleemod.com/handbook/full_handbook.html. Accessed March 1, 2024.
- California Energy Commission. 2024. 2022 Power Content Labels – Sortable Table. Available: <https://www.energy.ca.gov/media/9281>. Accessed July 23, 2024.
- CalRecycle. 2023. *State of Disposal and Recycling in California*. Available: <https://calrecycle.ca.gov/reports/stateof/>. Accessed January 29, 2024.
- CAPCOA. See California Air Pollution Control Officer Association.
- CARB. See California Air Resources Board.
- California Air Resources Board. 2007. California Greenhouse Gas Inventory (millions of metric tonnes of CO₂ equivalent) — By Sector and Activity. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/ghg_inventory_sector_all_90-04_AR4.pdf. Accessed September 12, 2025.
- . 2021. Cap-And-Trade Regulation (Unofficial Electronic Version). Available: https://ww2.arb.ca.gov/sites/default/files/2021-02/ct_reg_unofficial.pdf. Accessed November 5, 2024.
- . 2022a. 2022 Draft Scoping Plan Update. Available: <https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf>. Accessed October 19, 2023.
- . 2022b. California Greenhouse Gas Emissions for 2000 to 2020: Trends of Emissions and Other Indicators. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf. Accessed January 24, 2024.
- . 2023a. Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation. Available: <https://ww2.arb.ca.gov/resources/fact-sheets/fact-sheet-renewable-diesel-fuel-requirements>. Accessed January 24, 2024.
- . 2023b. SB 1206. Available: <https://ww2.arb.ca.gov/our-work/programs/sb-1206/about>. Accessed January 24, 2024.
- . 2024a. Climate Change. Available: <https://ww2.arb.ca.gov/our-work/topics/climate-change>. Accessed July 19, 2024.
- . 2024b. California Greenhouse Gas Emissions from 2000 to 2022: Trends of Emissions and Other Indicators. Available: https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf.
- . 2024c. High GWP Refrigerants. Available: <https://ww2.arb.ca.gov/resources/documents/high-gwp-refrigerants>. Accessed March 1, 2024.
- . 2025. Current Litigation. Available: <https://ww2.arb.ca.gov/current-litigation>. Accessed September 3, 2025.
- CEC. See California Energy Commission.
- Coachella Valley Water District. 2021. *Coachella Valley Water District Climate Action & Adaptation Plan*. Available: <https://www.cvwd.org/DocumentCenter/View/5670/CVWD-Climate-Action--Adaptation-Plan-9282021?bidId=>. Accessed February 9, 2024.

- . n.d. 2018-2019 Annual Review. Available: <https://www.cwvd.org/ArchiveCenter/ViewFile/Item/738>. Accessed July 18, 2024.
- CVWD. See Coachella Valley Water District of Southern California.
- DOE. See US Department of Energy.
- EPA. See US Environmental Protection Agency.
- Greenhouse Gas Protocol. 2024. IPCC Global Warming Potential Values. Available: <https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf>. Accessed February 25, 2024.
- Islam, Mohammad. Air Resources Engineer. California Air Resources Board, Sacramento, CA. August 28, 2025—email response to Brenda Hom of Ascent regarding question on impact of call for EPA waiver removal by the U.S. Department of Justice.
- Local Governments for Sustainability. 2013. U.S. Community Protocol, Appendix E: Wastewater and Water Emissions activities and Sources. Available: <https://iclei.usa.org/us-community-protocol/>.
- Metropolitan Water District of Southern California. 2022. *Climate Action Plan*. Available: <https://www.mwdh2o.com/media/12469/final-cap.pdf>. Accessed February 9, 2024.
- Mozingo, Louis. *Zero-Carbon Buildings in California: A Feasibility Study*. 2021. Available: (https://www.researchgate.net/profile/Carrie-Brown-12/publication/359931845_Zero-Carbon_Buildings_in_California_A_Feasibility_Study/links/649caec295bbbe0c6efda59e/Zero-Carbon-Buildings-in-California-A-Feasibility-Study.pdf?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIn19). Accessed January 29, 2024.
- MWD. See Metropolitan Water District of Southern California.
- Next10. 2021. The Future of California's Water-Energy-Climate Nexus. Available: https://www.next10.org/sites/default/files/2021-09/Next10-Water-Energy-Report_v2.pdf. Accessed July 24, 2024.
- Santa Clara Valley Water District. 2015. Island Ponds Mitigation Monitoring and Reporting Year 10.
- . 2019. *Water Supply Master Plan 2040*. Available: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/Water_Supply_Master_Plan_2040_11_01_2019_v3.pdf. Accessed July 15, 2024.
- . 2021a. *Climate Change Action Plan*. Available: <https://fta.valleywater.org/dl/WE26jeeXbS>. Accessed January 24, 2024.
- . 2021b. *2020 Annual Report: Large Landscape Program*. Available: <https://www.valleywater.org/sites/default/files/2020%20WaterflurenceAnnualReport%20ValleyWater%202-26-2021.pdf>. Accessed July 18, 2024.
- . 2021c. *Water Conservation Strategic Plan*. Available: <https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/Water%20Conservation%20Strategic%20Plan.pdf>. Accessed July 23, 2024.
- . 2023 (June). *Five Year Capital Improvement Program, Fiscal Year 2024-28*. Available: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2023-06/CIP_Tab-01_061423_LS.pdf. Accessed January 24, 2024.
- . 2024a. *Monthly Water Tracker*. Available: <https://www.valleywater.org/your-water/water-supply-planning/monthly-water-tracker>. Accessed November 5, 2024.
- . 2024b. *Minutes from Santa Clara Valley Water District Water Supply and Demand Management Committee Meeting, May 17, 2024*. Available: <https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/051724%20%20WSDMC%20Agenda%20Packet.pdf>. Accessed July 18, 2024.

- . 2024c. South San Francisco Bay Shoreline Project Fact Sheet. Available: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/s3fs-public/2024-09-05_San%20Francisco%20Bay%20Shoreline%20Project_Fact%20Sheet_LS_v3.pdf. Accessed November 6, 2024.
- . 2025. *Calabazas/San Tomas Aquino Creek–Marsh Connection Project Final Feasible Alternatives Report*. Prepared by Stillwater Sciences.
- Shahan, J., H. Chu, L. Windham-Myers, M. Matsumura, J. Carlin, E. Eichelmann, E. Stuart-Haentjens, B. Bergamaschi. 2022 (September 15). "Combining Eddy Covariance and Chamber Methods to Better Constrain CO₂ and CH₄ Fluxes Across a Heterogeneous Restored Tidal Wetland." *JGR Biogeosciences* 127 (9). Available: <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2022JG007112>. Accessed March 1, 2024.
- USACE. See US Army Corps of Engineers.
- US Army Corps of Engineers. 2015. *South San Francisco Bay Shoreline Phase I Study Final Integrated Document Final Interim Feasibility Study with Environmental Impact Statement / Environmental Impact Report*. Prepared by HDR Engineering. Sacramento, CA. Available: https://s3.us-west-1.amazonaws.com/valleywater.org.us-west-1/E7_Final%20Integrated%20Document.pdf. Accessed July 10, 2025.
- US Department of Energy. 2023. Alternative Fuels Data Center: Alternative Fuels Station Locator. Available: <https://afdc.energy.gov/stations/#/analyze?country=US®ion=US-CA&fuel=BD&fuel=RD>. Accessed January 24, 2024.
- US Environmental Protection Agency. 2023. Scope 1 and Scope 2 Inventory Guidance. Available: <https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance>. Accessed March 1, 2024.
- Valley Water. See Santa Clara Valley Water District.
- Young, Sarah. Senior Project Manager. Santa Clara Valley Water District, San Jose, CA. August 22, 2023—summary spreadsheet of projected fleet gasoline and diesel fuel usage to 2045; July 15, 2024—email message with Brenda Hom of Ascent regarding Valley Water's Tidal March Restoration areas.

Appendix A

Inventory, Forecast, and
Measures Calculations

Appendix B

GHGRP Consistency Review Checklist

SANTA CLARA VALLEY WATER DISTRICT

GREENHOUSE GAS REDUCTION PLAN CONSISTENCY REVIEW CHECKLIST

Introduction and Purpose

The Valley Water Greenhouse Gas Reduction Plan (GHGRP) outlines the actions the Valley Water will undertake to achieve greenhouse gas (GHG) emissions reductions. As part of GHGRP implementation, the GHGRP Consistency Checklist (Checklist) has been developed to ensure that Valley Water-led discretionary projects appropriately incorporate all applicable GHG reduction measures from the GHGRP into project design, planning, and implementation on a project-by-project basis. Implementation of these measures will ensure that projects are executed consistently with the assumption supporting relevant GHGRP strategies toward achieving Valley Water's identified GHG reduction targets.

The Checklist, in conjunction with the GHGRP, provides a streamlined review process for proposed Valley Water projects subject to discretionary review that triggers environmental review pursuant to the California Environmental Quality Act (CEQA). Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The GHGRP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to cumulative GHG emissions may be determined to be less than significant if it complies with the applicable measures in a "plan for the reduction of GHG emissions" (e.g., GHGRP). Under these provisions, if a project can show consistency with applicable GHG reduction measures, the level of analysis for the project required under CEQA with respect to GHG emissions can be reduced considerably (i.e., a detailed analysis of project-level GHG emissions and potential climate change impacts is not needed).

Valley Water will complete a Checklist for projects requiring environmental review pursuant to CEQA. This Checklist is designed to assist Valley Water in identifying the minimum GHGRP-related requirements specific to the proposed project. However, the final determination of a project's consistency with the Checklist will be made by Valley Water's GHGRP Implementation Team before the agency's review process ends. As a result, it may be necessary to supplement the completed Checklist with supporting materials, calculations, or certifications to demonstrate full compliance with the Checklist requirements.

Projects requiring discretionary review that cannot demonstrate consistency with the GHGRP using this Checklist will be required to prepare a separate, more detailed project-level GHG analysis as part of the applicable CEQA document.

Applicability

This Checklist is intended for Valley Water construction-only projects, not for operational projects (e.g., new buildings and facilities requiring energy use). For land use projects, such as new buildings or operational facilities, projects must show mark "yes" or N/A for all questions in this Checklist and show consistency with GHGRP Measures VF-1, OF-1, HG-1, FE-1, EC-1, and SW-1. The GHGRP Implementation Team will determine the final consistency determination with the GHGRP.

Section A. General Project Information

Projects required to complete this Checklist must first provide the following information:

Project Name and Project Number:	
Property Address/Location:	
Project Footprint (Acres):	
Project Description: (submit separate attachments if necessary)	
Existing Land Use of the Property: (General Description, including an assessment of existing vegetation)	

Section B: GHGRP Measures

The completion of this Checklist will document a project's compliance with the applicable GHG reduction measures in Valley Water's GHGRP. The compliance requirements apply to projects that include discretionary review, require environmental compliance, and are not exempt under CEQA.

All applicable Checklist questions must be answered "Yes," and documentation must be provided that substantiates how compliance would be achieved. For measures for which a "Yes" is indicated, the features must be demonstrated as part of the project's design and described. All applicable requirements in the checklist will be included in the conditions of approval or issuance of building permit stage of project approval.

If any questions are marked with a "No," the project cannot be determined to be consistent with the GHGRP, and project-specific GHG analysis and mitigation would be required.

If any questions are marked "N/A" (meaning "not applicable"), a statement describing why the question is not applicable shall be provided to the satisfaction of the GHGRP Implementation Team.

Checklist Requirement	Corresponding GHGRP Measure	Yes	No	N/A
On- and Off-Road Equipment				
1) Per measure CN-1, will at least 17 percent of the Project's construction off-road fuel use be zero-emission by 2030, and (if construction is ongoing) at least 45 percent by 2045?	CN-1	☐	☐	☐
2) Per measure CN-2, will at least 35 percent of the Project's construction on-road fuel use be zero-emission by 2030, and (if construction is ongoing) at least 95 percent by 2045?	CN-2	☐	☐	☐
3) Per measure CN-1 and CN-2, will the project apply all feasible construction best management practices (BMPs) recommended in Table 6-1 of the Bay Area Air Quality Management District's 2022 CEQA Guidelines, as shown in Section C, or latest analogous set of BMPs?	CN-1 and CN-2	☐	☐	☐
4) Will contractors track and monitor fuel uses for all construction equipment and vehicles and annually submit fuel and electricity use data ¹ for submission to the GHGRP Implementation Team, including the annual accounting of emissions?	CN-1 and CN-2	☐	☐	☐
Carbon Storage and Sequestration				
5) If the project results in the removal of vegetation, will the removed vegetation be composted, landfilled, reused, or otherwise avoid direct combustion?	CS-1	☐	☐	☐

If the answers to the questions above **are either N/A or Yes**, please provide the GHGRP Implementation Team with:

- ▶ Project documentation in an attachment showing the types of vehicles used, their estimated annual hours of operation, projected fuel usage (including both zero-carbon fuels and conventional fuels), if applicable, and
- ▶ Project documentation showing how the removal of existing vegetation, if any, will be treated and the difference in carbon sequestration rates for the project land use between existing conditions and project build-out.

Pending review and approval of this documentation by GHGRP Implementation Team, your project is streamlined and does not need to conduct further GHG analysis or propose additional mitigation measures.

If the answer to **EITHER of the questions above is No**, please provide GHGRP Team with documentation of your project's total construction emissions and effect on existing vegetation (i.e., existing carbon storage) and carbon sequestration.

- ▶ If the GHGRP Implementation Team determines that emissions from your project will allow Valley Water to stay within the allotted carbon budget, your project is streamlined and does not need to conduct further GHG analysis or propose additional mitigation measures.
- ▶ If the GHGRP Implementation Team determines that the net emissions from your project will NOT ALLOW Valley Water to stay within the allotted carbon budget, this project cannot streamline from the GHGRP to determine significance for GHG impacts; and the project must complete a separate CEQA document (e.g., an Environmental Impact Report) that includes a project-specific GHG impact analysis and proposes mitigation measures.

If “N/A” has been checked for any question, please provide a statement explaining why the measure is not applicable. Include attachments, if needed.

¹ Fuel and electricity use data include, but are not limited to, gallons of renewable diesel, gallons of conventional diesel, kWh of electricity and name of utility from which electricity is purchased.

Section C. Supporting Tables

Table C-1 Best Management Practices for Construction-Related GHG Emissions

1. Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or located within a Bay Area Air District-designated Community Air Risk Evaluation (CARE) area or Assembly Bill 617 community.
2. Require all diesel-fueled off-road construction equipment be equipped with EPA Tier 4 Final compliant engines or better as a condition of contract.
3. Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent emissions standard, such as model year (MY) 2024 to 2026, as a condition of contract.
4. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes (A 5-minute limit is required by the state airborne toxics control measure [Title 13, Chapters 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure.
5. Prohibit off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day.
6. Use California Air Resources Board–approved renewable diesel fuel in off-road construction equipment and on-road trucks.
7. Use U.S. Environmental Protection Agency SmartWay certified trucks for deliveries and equipment transport.
8. Require all construction equipment is maintained and properly tuned in accordance with manufacturer’s specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation.
9. Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
10. Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.
11. Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees.
12. Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
13. Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible.
14. Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15% more by weight than the diversion requirement in Title 24.
15. Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program.
16. Use low-carbon concrete, minimize the amount of concrete used and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix.
17. Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water.
18. Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities.

Source: Bay Area Air District 2022: Table 6-1.

Section D: References

Bay Area Air Quality Management District. 2022. *California Environmental Quality Act Air Quality Guidelines*. Appendix C: Guidance for GHG Reduction Strategies. Available: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-c-ghg-reduction-strategies_final_edits-for-ascent-pdf.pdf?rev=8e5bb7d8ad504dd6accd3c04e58bdf87&sc_lang=en. Accessed March 1, 2024.

Appendix C

Renewable Diesel Considerations

This appendix provides technical details on renewable diesel how it can be used to decarbonize vehicles and equipment. It also describes supply and demand dynamics with this fuel, which Valley Water should consider when incorporating them into its decarbonization strategy.

Renewable diesel is a biogenic fuel that can help Valley Water reduce its emissions from fleet operations, as well as in contracted construction vehicles. As a biogenic fuel, CO₂ emissions from combustion of renewable are not counted towards Valley Water's total GHG emissions. This is consistent with the California Air Resource Board's (CARB's) emissions counting conventions, which do not include biogenic CO₂ in comparing emissions to State GHG reduction targets (CARB 2022: 12-13).

Renewable diesel is currently available in Santa Clara County, with 24 active renewable diesel fueling stations (DOE 2023a). Since 2020, the price of renewable diesel has been comparable to that of conventional diesel, ranging from 30 cents per gallon cheaper to 9 cents per gallon more expensive (DOE 2023b).

In the near term, both supply and demand for renewable diesel fuel are expected to increase. On the supply side, eight new renewable diesel refineries in the United States began operation in 2022 and early 2023, which is projected to more than double domestic production (US EIA: 2023a). On the demand side, consumption is anticipated to rise for these fuels due to state-level renewable and low-carbon fuel standards and the Inflation Reduction Act (IRA) tax credits. It is, therefore, possible that a feedstock "crunch" may be approaching, where these fuels may not necessarily be readily available (International Energy Agency 2022). Additionally, supply of these fuels is dependent on imports from other countries. For instance, the United States imports substantial quantities of renewable diesel from Singapore, and biodiesel from Canada, Germany, Italy, South Korea, and Spain (U.S. EIA: 2023b). Future demand in these or other countries (due, for instance, to these countries implementing their own low-carbon fuel standards) may impact the availability of renewable diesel in the United States.

References

- California Air Resources Board. 2022. California Greenhouse Gas Emissions for 2000 to 2020: Trends of Emissions and Other Indicators. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf. Accessed January 24, 2024.
- CARB. See California Air Resources Board.
- DOE. See U.S. Department of Energy.
- International Energy Agency. 2022. Is the biofuel industry approaching a feedstock crunch? Available: <https://www.iea.org/reports/is-the-biofuel-industry-approaching-a-feedstock-crunch>. Accessed January 24, 2024.
- U.S. Department of Energy. 2023a Alternative Fuels Data Center: Alternative Fuels Station Locator. Available: <https://afdc.energy.gov/stations/#/analyze?country=US®ion=US-CA&fuel=BD&fuel=RD>. Accessed January 24, 2024.
- . 2023b Alternative Fuels Data Center: Fuel Prices. Available: <https://afdc.energy.gov/fuels/prices.html>. Accessed January 24, 2024.
- U.S. EIA. See U.S. Energy Information Administration.
- U.S. Energy Information Administration. 2023a. Domestic renewable diesel capacity could more than double through 2025. Available: <https://www.eia.gov/todayinenergy/detail.php?id=55399>. Accessed January 24, 2024.
- . 2023b. US Imports by Country of Origin. Available: https://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_EPOORDO_im0_mbbbl_m.htm. Accessed January 24, 2024.

Appendix D

Inventory and Forecasting Technical Memo

Appendix E

Implementation Plan Details

Table E-1 Implementation Plan Details

Sector	Measure #	Measure Name	Measure Description	Implementing Division and Unit	Tracking Metric	Roles and Responsibilities	Monitoring Plan	Enforcement Plan	Funding Mechanism
Fleet	VF-1	Zero Emission On-Road Fleet	Convert 35% of Valley Water’s on-road fleet fuel use to zero-emission fuels by 2030, and 100% by 2045.	Division: General Services Unit: Equipment Management (885)	Total gallons of conventional fuel divided by VMT - use multiyear average to account for inter-year variability	Fleet Manager to accelerate procurement of ZEVs as necessary to achieve targets for zero-emission fuel usage.	Collect list of all vehicles in fleet, gallons of gasoline used, and their associated VMT, every 2 years.	Require fleet planning and vehicle procurement process to accelerate the replacement of existing on-road fleet vehicles with ZEVs to achieve zero-emission fuel targets.	CARB Clean Truck and Bus Vouchers, California Vehicle Rebate Program, Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Inflation Reduction Act
Fleet	OF-1	Zero Emission Off-Road Fleet	Convert 50% of Valley Water’s off-road fleet conventional diesel use to zero-emission fuels in 2030 and 100% by 2045, regardless of engine tier.	Division: General Services Unit: Equipment Management (885)	Total gallons conventional fuel - multiyear average	Fleet Manager to maintain usage of renewable diesel and accelerate replacement of off-road fleet as necessary to achieve targets for zero-emission fuel usage.	Collect list of all equipment in fleet and gallons of conventional fuel used, every 2 years	Maintain contracts for renewable diesel at fuel farm and require fleet planning and vehicle procurement process to accelerate the replacement of existing off-road fleet to achieve zero-emission fuel targets.	Clean Off-Road Equipment Voucher Incentive Project (CORE), Carl Moyer Program
High GWP Gases	HG-1	Phase out High-GWP refrigerants	Replace high GWP refrigerants with low GWP alternatives above and beyond the requirements of Senate Bill 1206.	Division: General Services Unit: Facilities Management (887)	Weighted average GWP of purchased refrigerants	Supervising HVAC Mechanic to continue procurement of low GWP refrigerants at time of replacement, as feasible.	Collect list and quantities of high-GWP gases purchased annually.	Develop purchasing requirements to prohibit purchase of high-GWP refrigerants is prohibited unless no low GWP alternative is available.	CARB F-gas Reduction Incentive Program
Facility Energy	FE-1	Facility Electrification	Electrify 30% of existing facility natural gas use by 2030, and 60% by 2045.	Division: General Services Unit: Facilities Management (887)	Natural gas usage – multiyear average	Facilities Manager/ Supervising HVAC Mechanic to continue practice of replacing gas-fired equipment with electric equipment upon end of serviceable life or failure.	Collect data on natural gas usage in buildings annually.	Develop purchasing requirements to mandate the purchase of electric space and water heating equipment at time-of-replacement at the pace necessary to achieve electrification targets.	Energy Conservation Assistance Act Low-Interest loans, Inflation Reduction Act
Employee Commute	EC-1	Reduce Employee Commute VMT	Implement incentives to encourage employees to reduce their VMT or reduce emissions from their commute vehicle.	Division: Human Resources Unit: Total Rewards and Data Analytics	Employee VMT	Human Resources to explore additional incentives to reduce commute VMT and encourage alternatives to vehicle commuting.	Review utilization and effectiveness of incentives every two years.	N/A - Valley Water cannot directly control employee commute choices.	California E-Bike Incentive Project
Solid Waste	SW-1	Increase Solid Waste Diversion	Divert 80% of waste from Valley Water offices from landfills by 2030, and 90% by 2045. Improve solid waste tracking by conducting regular assessments of waste characterization.	Division: General Services Unit: Facilities Management (887)	Tons of landfilled waste collected from Valley Water facilities	Valley Water to ensure that all buildings have easily accessible recycling and composting bins and explore opportunities to educate employees about appropriate bin sorting.	Valley Water will conduct a waste characterization survey every three years, and will monitor tons landfilled, recycled, and composted.	N/A - Valley Water can advocate for waste diversion, but cannot directly enforce this measure.	Pollution Prevention (P2) Grant Program, CalRecycle Food Waste Prevention and Rescue Grant Program, CalRecycle Beverage Container Recycling Grants
Construction	CN-1	Carbon Free Off-Road Construction Equipment	For all contracted construction projects, require the use of zero-emission fuels instead of conventional diesel in 17% of off-road construction equipment fuel use in equipment greater than 25 hp by 2030, and 45% by 2045 regardless of the engine Tier.	Division: Water Utility Capital Unit: Construction Services (351)	Fuel used in construction – multiyear average	Construction Services Division to update Standard Provisions to mandate increasing percentages of zero-emission vehicles and zero-emission fuels to be used in construction.	For every future construction project, contractor to submit fuel usage reports to Valley Water, documenting fleet composition and all forms of fuel usage during project construction.	Construction contractors will be required to conform with Standard Provision dictating usage targets for zero-emission fuels and associated reporting requirements.	Clean Off-Road Equipment Voucher Incentive Project (CORE), Carl Moyer Program
Construction	CN-2	Carbon Free On-Road Construction Vehicles	For all contracted construction projects, require the use of zero-emission fuels instead of conventional fuel in 35% of on-road construction vehicle fuel use by 2030, and 95% by 2045.	Division: Water Utility Capital Unit: Construction Services (351)	Fuel used in construction – multiyear average	Construction Services to update Standard Provisions to mandate increasing percentages of zero-emission vehicles and zero-emission fuels to be used in construction.	For every new construction project, contractor to submit fuel usage reports to Valley Water, documenting all forms of fuel usage during project construction.	Construction contractors will be required to conform with Standard Provision dictating usage targets for zero-emission fuels and associated reporting requirements.	CARB Clean Truck and Bus Vouchers, California Vehicle Rebate Program, Hybrid and Zero Emission Truck and Bus Voucher Incentive Project, Inflation Reduction Act

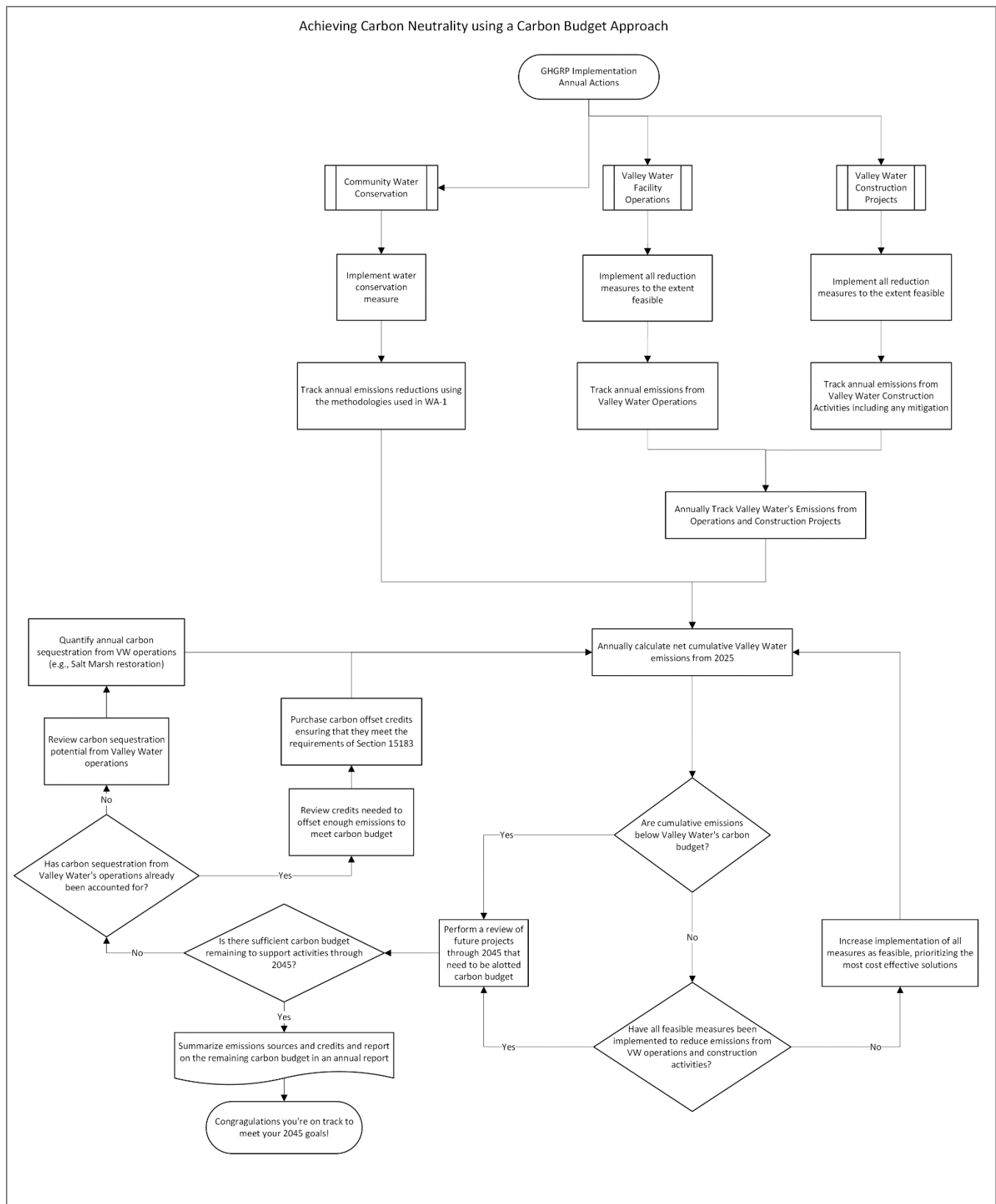
Sector	Measure #	Measure Name	Measure Description	Implementing Division and Unit	Tracking Metric	Roles and Responsibilities	Monitoring Plan	Enforcement Plan	Funding Mechanism
Water Conservation	WA-1	Community-Wide Water Conservation	Increase communitywide water conservation to 118,000 acre-feet per year by 2045.	Division: Water Supply Unit: Water Supply Planning and Conservation	Acre-feet of water conserved	Conservation Program provide annual update on water conservation and upon request, provide funding or resources to support Valley Water facilities that results in reduced water use.	Annually review and assess effectiveness of Valley Water’s water conservation program.	N/A - Valley Water can promote water conservation, but cannot directly require it.	Valley Water Operations Budget
Carbon Sequestration	CS-1	Sequester Carbon	Sequester carbon in enhancement and voluntary projects. Collaborate with regional conservation agencies to identify projects that are beyond project mitigation.	Division: Watersheds Stewardship and Planning Unit: Water Resources Planning and Policy	Additional carbon sequestration (MTCO ₂ e) derived from restoration/enhancement projects	GHGRP Implementation Team to establish Carbon Sequestration Registry per CS-1.	Track success of restoration/enhancement projects and net change in carbon sequestration.	Prepare documentation that carbon sequestration reductions conform to criteria described in CS-1 prior to their accounting as part of future GHG inventories.	Measure AA, San Francisco Bay Water Quality Improvement Fund, other Local, State, Federal grants, Valley Water CIP Budget.
Carbon Sequestration	CS-2	Purchase Carbon Offsets	If necessary, purchase carbon offsets from verified offset registries, prioritizing local or regional projects and, if necessary, projects outside of the state, but within the United States. Prohibit carbon offset purchases that are unverified or located in locations outside the United States.	Division: Watersheds Stewardship and Planning Unit: Water Resources Planning and Policy	MTCO ₂ e of carbon offsets purchased and retired	GHGRP Implementation Team to develop process to purchase carbon offsets from CARB-verified registry.	GHGRP Implementation Team to track progress of GHG reductions from measures above and assess need for carbon offsets as a backstop to remain within carbon budget.	Revise Board Ends Policy for carbon neutrality to align with GHGRP targets and carbon budget. If purchased, acquire documentation that carbon offsets conform to criteria described in CS-1 from registry.	Valley Water CIP Budget

Notes: CARB = California Air Resources Board; EV = Electric Vehicle; F-Gas = Fluorinated Greenhouse Gases; GWP = Global Warming Potential; RFP = Request for Proposal; VMT = Vehicle-Miles Traveled.

Source: Prepared by Ascent in 2025.

Appendix F

GHGRP Implementation Flow Diagram



Appendix G

Prioritization Matrix

Table G-1 Prioritization Matrix

Sector	Measure Number	Measure Name	Measure Description	Feasibility ¹	Cost ²	GHG Reduction Potential, 2025-2045 ³
Fleet	VF-1	Zero Emission On-Road Fleet	Implement a Zero Emission Fleet Plan to convert 35% of on-road fleet fuel use to zero-emission fuels (e.g., electricity, renewable diesel) by 2030, and 100% by 2045.	Medium ⁴	Medium	Low
Fleet	OF-1	Zero Emission Off-Road Fleet	Require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 50% of Valley Water's off-road fleet fuel use in equipment by 2030, and 100% by 2045 regardless of engine Tier.	Medium	High	High
High GWP Gases	HG-1	Phase Out High-GWP refrigerants	Replace high GWP refrigerants with low GWP alternatives above and beyond the requirements of SB 1206.	High	Low	Low
Facility Energy	FE-1	Facility Electrification	Electrify 30% of existing facility energy use by 2030, and 60% by 2045.	Medium	Medium	Medium
Employee Commute	EC-1	Reduce Employee Commute Emissions	Implement a companywide commute challenge with rewards and competitions to encourage employees to reduce their VMT or reduce emissions from their commute vehicle. Offer a variety of incentives, including e-bike rebates, and parking cash-out programs.	High	Low	Low
Solid Waste	SW-1	Increase Solid Waste Diversion	Divert 80% of waste from Valley Water offices from landfills by 2030, and 90% by 2045. Improve solid waste tracking by conducting regular assessments of waste characterization.	Low	Medium	Medium
Construction	CN-1	Zero Emission Off-Road Construction Equipment	For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional diesel in 17% of off-road construction equipment fuel use in equipment greater than 25 hp by 2030, and 45% by 2045 regardless of the engine Tier.	Low	High	High
Construction	CN-2	Zero Emission On-Road Construction Vehicles	For all contracted construction projects, require the use of zero-emission fuels (e.g., electricity, renewable diesel) instead of conventional fuel in 35% of on-road construction vehicle fuel use by 2030, and 95% by 2045.	Low	High	Low
Water Conservation	WA-1	Increase Water Conservation	Increase communitywide water conservation to 118,800 acre-feet per year by 2045.	High	Low	Medium
Carbon Sequestration	CS-1	Sequester Carbon	Sequester carbon in enhancement and voluntary projects. Collaborate with regional conservation agencies to identify projects that are beyond project mitigation.	Medium	High	High

Notes: GHG = Greenhouse Gases; GWP = Global Warming Potential; VMT = Vehicle-Miles Traveled

¹ For feasibility, a "High" score means that the measure relies on proven, currently commercially available, and scalable technology or processes. A "Medium" score means that the technology or process to implement the measure is available but may still be in its pilot or demonstration stages and have challenges scaling or deploying. A "Low" score means that there are substantial technical barriers to implementing a measure because the technology is still in its early stages, or because its ability to scale is unknown.

² Cost is a qualitative metric intended only to rank the different cost impacts of measures. Quantitative cost estimates are unknown and depend on market conditions, engineering constraints, and the availability of technology. "High" means that the measure has substantial effects on Valley Water's costs; "Medium" and "Low" imply progressively lower costs.

³ For GHG reduction potential, total 2025-2045 reductions were calculated for each measure, and then measures were then ranked according to those reductions. The top third of measures received a score of "High," the middle third "Medium," and the bottom third "Low."

⁴ Depending on market conditions and supply chain availability for zero-emission fuels.

Source: Prepared by Ascent in 2025.

Appendix H

Carbon Budget Consistency Calculation
Examples for New Projects

Tables H-1 and H-2, respectively, show two examples of a hypothetical project that is consistent with the carbon budget (Project A) and one that is not (Project B). The tables intend to show Valley Water's forecasted emissions with the implementation of GHGRP reduction measures, reductions from WA-1 and CS-1, the new project, and the carbon budget. Because actual future emissions would vary year to year depending on the status of the GHGRP implementation, the values shown in the yellow cells are example inputs and are rounded versions of the forecasts shown in Table 4 and Figure 6. Because actual future Valley Water emissions are not yet known, the example forecasts in the second column are for demonstration purposes only.

PROJECT EXAMPLE THAT MEETS THE CARBON BUDGET

In Table H-1, Project A is a six-year project that is anticipated to emit 500 MTCO₂e per year between 2030 and 2035. This annual emissions level is similar to that of an environmental restoration project. The cumulative carbon budget for 2045 is 123,138 MTCO₂e.

Table H-1 Carbon Budget Tracking Table Example for Project A that meets Carbon Budget (MTCO₂e)

Year	Operations and On-Going Construction Projects	Reductions from WA-1 and CS-1	Emissions from New Project A	Carbon Offset Credits Purchased	Total Annual Emissions	Cumulative Emissions from 2025	Cumulative Carbon Budget	2045 Budget Exceeded?
2025	12,500	0	0	0	12,500	12,500	11,787	No
2026	11,800	-300	0	0	11,500	24,000	22,973	No
2027	11,100	-300	0	0	10,800	34,800	33,556	No
2028	10,500	-300	0	0	10,200	45,000	43,538	No
2029	9,800	-300	0	0	9,500	54,500	52,918	No
2030	9,100	-500	500	0	9,100	63,600	61,695	No
2031	8,700	-600	2,000	0	8,600	72,200	69,888	No
2032	8,300	-700	2,000	0	8,100	80,300	77,495	No
2033	7,900	-800	2,000	0	7,600	87,900	84,517	No
2034	7,500	-900	2,000	0	7,100	95,000	90,954	No
2035	7,200	-1,200	2,000	0	6,500	101,500	96,806	No
2036	6,800	-1,500	0	0	5,300	106,800	102,072	No
2037	6,400	-2,700	0	0	3,700	110,500	106,754	No
2038	6,000	-3,900	0	0	2,100	112,600	110,850	No
2039	5,600	-5,000	0	0	600	113,200	114,361	No
2040	5,300	-5,900	0	0	-600	112,600	117,287	No
2041	4,900	-6,900	0	0	-2,000	110,600	119,627	No
2042	4,500	-8,000	0	0	-3,500	107,100	121,383	No
2043	4,100	-8,200	0	0	-4,100	103,000	122,553	No
2044	3,700	-8,200	0	0	-4,500	98,500	123,138	No
2045	3,400	-8,200	0	0	-4,800	93,700	123,138	No

Notes: Cells in yellow are sample Valley Water inputs.

Source: Prepared by Ascent in 2025

As shown in Table H-1, the addition of Project A's emissions would not result in an exceedance of Valley Water's carbon budget by 2045, given the known emissions forecasts and emissions current as of the project analysis. With the project, Valley Water's cumulative emissions from 2025 to 2045 would be estimated at 93,700 MTCO₂e, which is less than the carbon budget of 123,138 MTCO₂e. The cumulative emissions decline over time mostly due to the reductions from CS-1.

PROJECT EXAMPLE THAT EXCEEDS THE CARBON BUDGET

In Table H-2, Project B is a 10-year project that is anticipated to emit 2,000 MTCO₂e per year from 2030 through 2044. This annual emissions level is similar to that of a flood protection project. The cumulative carbon budget for 2045 remains at 123,138 MTCO₂e. The forecasted operational and known construction emissions remain the same, as shown in Table H-1.

Table H-2 Carbon Budget Tracking Table Example for Project B that exceeds Carbon Budget (MTCO₂e)

Year	Operations and On-Going Construction Projects	Reductions from WA-1 and CS-1	Emissions from New Project B	Carbon Offset Credits Purchased	Total Annual Emissions	Cumulative Emissions from 2025	Cumulative Carbon Budget	2045 Budget Exceeded?
2025	12,500	0			12,500	12,500	11,787	No
2026	11,800	-300			11,500	24,000	22,973	No
2027	11,100	-300			10,800	34,800	33,556	No
2028	10,500	-300			10,200	45,000	43,538	No
2029	9,800	-300			9,500	54,500	52,918	No
2030	9,100	-500			8,600	63,100	61,695	No
2031	8,700	-600			8,100	71,200	69,888	No
2032	8,300	-700			7,600	78,800	77,495	No
2033	7,900	-800			7,100	85,900	84,517	No
2034	7,500	-900			6,600	92,500	90,954	No
2035	7,200	-1,200	3,000		9,000	101,500	96,806	No
2036	6,800	-1,500	3,000		8,300	109,800	102,072	No
2037	6,400	-2,700	3,000		6,700	116,500	106,754	No
2038	6,000	-3,900	3,000		5,100	121,600	110,850	No
2039	5,600	-5,000	3,000		3,600	125,200	114,361	Yes
2040	5,300	-5,900	3,000		2,400	127,600	117,287	Yes
2041	4,900	-6,900	3,000		1,000	128,600	119,627	Yes
2042	4,500	-8,000	3,000		-500	128,100	121,383	Yes
2043	4,100	-8,200	3,000		-1,100	127,000	122,553	Yes
2044	3,700	-8,200	3,000		-1,500	125,500	123,138	Yes
2045	3,400	-8,200	3,000		-1,800	123,700	123,138	Yes

Notes: Cells in yellow are sample Valley Water inputs.

Source: Prepared by Ascent in 2025.

As shown in Table H-2, the addition of Project B's emissions would exceed Valley Water's carbon budget by 2045, given the known emissions forecasts and current emissions. With the project, Valley Water's carbon budget would be exceeded 2 years early in 2044, by which time Valley Water's cumulative emissions from 2025 to 2044 would be estimated at 123,700 MTCO₂e, which is greater than the carbon budget of 123,138 MTCO₂e.

The results in Tables H-1 and H-2 depend on emissions from all sources considered in this GHGRP, not just the emissions from the new project being evaluated. In the case where emission reduction credits from WA-1 or CS-1 may not be as high in the future or where emissions from operations and currently known construction would be higher than anticipated, the carbon budget could be exceeded. Additionally, there could be instances where projects occurring between the 2025 and 2045 period cause an exceedance of the carbon budget during that time, but afterwards the reductions from CS-1 and WA-1 balance out Valley Water's cumulative emissions to meet the carbon budget by 2045. Given these variances, adaptive management of Valley Water's emissions is crucial to achieving carbon neutrality by 2045.

Appendix B. Biological Data

Appendix B Biological Data

CDFW 2025a – California Natural Diversity Database

CNPS 2024 – Rare Plant Inventory

ICF International 2012 – Final Santa Clara Valley Habitat Plan, August 2012

NOAA 2025a – West Coast Region: ESA Critical Habitat and MSA Essential Fish Habitat

NOAA 2025b – Essential Fish Habitat Mapper: Coho Salmon EFH

SCVHA 2023 – HCP Permit Area

USFWS 2025a – IpaC resource List for Santa Clara County, California

USFWS 2025b – FWS HQ ES Critical Habitat

USFWS 2025c – FWS HQ ES National Wetlands Inventory - Wetlands



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad(Milpitas (3712148) OR Calaveras Reservoir (3712147) OR San Jose East (3712137) OR San Jose West (3712138) OR Los Gatos (3712128) OR Santa Teresa Hills (3712127) OR Morgan Hill (3712126))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Calyptridium parryi</i> var. <i>hesseae</i> Santa Cruz Mountains pussypaws	PDPOR09052	None	None	G3G4T2	S2	1B.1
<i>Castilleja affinis</i> var. <i>neglecta</i> Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
<i>Castilleja rubicundula</i> var. <i>rubicundula</i> pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
<i>Ceanothus ferrisiae</i> Coyote ceanothus	PDRHA041N0	Endangered	None	G1	S1	1B.1
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
<i>Chlorogalum pomeridianum</i> var. <i>minus</i> dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<i>Cirsium fontinale</i> var. <i>campylon</i> Mt. Hamilton thistle	PDAST2E163	None	None	G2T2	S2	1B.2
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Dirca occidentalis</i> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<i>Dudleya abramsii</i> ssp. <i>setchellii</i> Santa Clara Valley dudleya	PDCRA040Z0	Endangered	None	G4T2	S2	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	PDAP10Z043	None	None	G5T1	S1	1B.1
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Fritillaria liliacea</i> fragrant fritillary	PML1L0V0C0	None	None	G2	S2	1B.2
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Lessingia micradenia</i> var. <i>glabrata</i> smooth lessingia	PDAST5S062	None	None	G2T2	S2	1B.2
<i>Malacothamnus arcuatus</i> var. <i>arcuatus</i> arcuate bushmallow	PDMAL0Q0E0	None	None	GNRT2	S2	1B.2
<i>Malacothamnus hallii</i> Hall's bushmallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
<i>Penstemon rattanii</i> var. <i>kleei</i> Santa Cruz Mountains beardtongue	PDSCR1L5B1	None	None	G4T2	S2	1B.2
<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G2	S2	1B.2
<i>Ravenella exigua</i> chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Sanicula saxatilis</i> rock sanicle	PDAP11Z0H0	None	Rare	G2	S2	1B.2
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	1B.2
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Streptanthus albidus</i> ssp. <i>albidus</i> Metcalf Canyon jewelflower	PDBRA2G011	Endangered	None	G2T1	S1	1B.1
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Suaeda californica</i> California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2

Record Count: 40



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Milpitas (3712148) OR Calaveras Reservoir (3712147) OR San Jose East (3712137) OR San Jose West (3712138) OR Los Gatos (3712128) OR Santa Teresa Hills (3712127) OR Morgan Hill (3712126))
 AND Taxonomic Group OR (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Adela oplerella</i> Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G3T3	S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Aneides niger</i> Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
<i>Anniella pulchra</i> Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
<i>Anodonta californiensis</i> California floater	IMBIV04220	None	None	G3	S2?	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Calasellus californicus</i> An isopod	ICMAL34010	None	None	G2	S3	
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S2	SSC
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S3	SSC
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S2	
<i>Dipodomys heermanni goldmani</i> Salinas kangaroo rat	AMAFD03065	None	None	G4T2T3	S2S3	
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G4G5T1	S3	
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Hesperoleucus venustus subditus</i> southern coastal roach	AFCJB19032	None	None	GNRT2	S2	SSC
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S4	SSC
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2	SSC
<i>Microcina homi</i> Hom's micro-blind harvestman	ILARA47020	None	None	G1	S2	
<i>Myotis evotis</i> long-eared myotis	AMACC01070	None	None	G5	S3	
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T3Q	S3	SSC
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G4	S4	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
<i>Rana boylei pop. 4</i> foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S3	FP
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Spirinchus thaleichthys pop. 2</i> longfin smelt - San Francisco Bay-Delta DPS	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Trimerotropis infantilis</i> Zayante band-winged grasshopper	IIORT36030	Endangered	None	G1	S1	
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S3	

Record Count: 61



CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

63 matches found. Click on scientific name for details

Search Criteria: , Quad is one of [3712137:3712148:3712147:3712138:3712128:3712127:3712126]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK
<i>Acanthomintha lanceolata</i>	Santa Clara thorn-mint	Lamiaceae	Mar-Jun	None	None	4.2
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	Boraginaceae	Mar-Jun	None	None	1B.2
<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	Primulaceae	Mar-Jun	None	None	4.2
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	Fabaceae	Mar-Jun	None	None	1B.2
<i>Atriplex depressa</i>	brittlescale	Chenopodiaceae	Apr-Oct	None	None	1B.2
<i>Atriplex minuscula</i>	lesser saltscale	Chenopodiaceae	May-Oct	None	None	1B.1
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	Asteraceae	Mar-Jun	None	None	1B.2
<i>Calandrinia breweri</i>	Brewer's calandrinia	Montiaceae	(Jan)Mar-Jun	None	None	4.2
<i>Calyptridium parryi</i> var. <i>hesseae</i>	Santa Cruz Mountains pussypaws	Montiaceae	May-Aug	None	None	1B.1

<i>Calystegia collina</i> <i>ssp. venusta</i>	South Coast Range morning-glory	Convolvulaceae	Apr-Jun	None	None	4.3
<i>Castilleja affinis</i> var. <i>neglecta</i>	Tiburon paintbrush	Orobanchaceae	Apr-Jun	FE	CT	1B.2
<i>Castilleja</i> <i>rubicundula</i> var. <i>rubicundula</i>	pink creamsacs	Orobanchaceae	Apr-Jun	None	None	1B.2
<i>Ceanothus ferrisiae</i>	Coyote ceanothus	Rhamnaceae	Jan-May	FE	None	1B.1
<i>Centromadia parryi</i> <i>ssp. congdonii</i>	Congdon's tarplant	Asteraceae	(Apr)May- Oct(Nov)	None	None	1B.1
<i>Chlorogalum</i> <i>pomeridianum</i> var. <i>minus</i>	dwarf soaproot	Agavaceae	May-Aug	None	None	1B.2
<i>Chloropyron</i> <i>maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	Orobanchaceae	Jun-Oct	None	None	1B.2
<i>Chorizanthe</i> <i>douglasii</i>	Douglas' spineflower	Polygonaceae	Apr-Jul	None	None	4.3
<i>Chorizanthe robusta</i> var. <i>robusta</i>	robust spineflower	Polygonaceae	Apr-Sep	FE	None	1B.1
<i>Cirsium fontinale</i> var. <i>campylon</i>	Mt. Hamilton thistle	Asteraceae	(Feb)Apr-Oct	None	None	1B.2
<i>Clarkia breweri</i>	Brewer's clarkia	Onagraceae	Apr-Jun	None	None	4.2
<i>Clarkia concinna</i> ssp. <i>automixa</i>	Santa Clara red ribbons	Onagraceae	(Apr)May- Jun(Jul)	None	None	4.3
<i>Clarkia lewisii</i>	Lewis' clarkia	Onagraceae	(Feb)May-Jul	None	None	4.3
<i>Collinsia multicolor</i>	San Francisco collinsia	Plantaginaceae	(Feb)Mar-May	None	None	1B.2
<i>Convolvulus</i> <i>simulans</i>	small-flowered morning-glory	Convolvulaceae	Mar-Jul	None	None	4.2

<i>Dirca occidentalis</i>	western leatherwood	Thymelaeaceae	Jan-Mar(Apr)	None	None	1B.2
<i>Dudleya abramsii</i> <i>ssp. setchellii</i>	Santa Clara Valley dudleya	Crassulaceae	Apr-Oct	FE	None	1B.1
<i>Eleocharis parvula</i>	small spikerush	Cyperaceae	(Apr)Jun-Aug(Sep)	None	None	4.3
<i>Eriogonum argillosum</i>	clay buckwheat	Polygonaceae	Mar-Jun	None	None	4.3
<i>Eriophyllum jepsonii</i>	Jepson's woolly sunflower	Asteraceae	Apr-Jun	None	None	4.3
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	Apiaceae	(Jun)Jul(Aug)	None	None	1B.1
<i>Erysimum franciscanum</i>	San Francisco wallflower	Brassicaceae	Mar-Jun	None	None	4.2
<i>Extriplex joaquinana</i>	San Joaquin spearscale	Chenopodiaceae	Apr-Oct	None	None	1B.2
<i>Fritillaria liliacea</i>	fragrant fritillary	Liliaceae	Feb-Apr	None	None	1B.2
<i>Galium andrewsii</i> <i>ssp. gatense</i>	phlox-leaf serpentine bedstraw	Rubiaceae	Apr-Jul	None	None	4.2
<i>Grindelia hirsutula</i> var. <i>maritima</i>	San Francisco gumplant	Asteraceae	Jun-Sep	None	None	3.2
<i>Hoita strobilina</i>	Loma Prieta hoita	Fabaceae	May-Jul(Aug-Oct)	None	None	1B.1
<i>Iris longipetala</i>	coast iris	Iridaceae	Mar-May(Jun)	None	None	4.2
<i>Isocoma menziesii</i> var. <i>diabolica</i>	Satan's goldenbush	Asteraceae	Aug-Oct	None	None	4.2
<i>Lasthenia conjugens</i>	Contra Costa goldfields	Asteraceae	Mar-Jun	FE	None	1B.1

<i>Leptosiphon ambiguus</i>	serpentine leptosiphon	Polemoniaceae	Mar-Jun	None	None	4.2
<i>Leptosiphon grandiflorus</i>	large-flowered leptosiphon	Polemoniaceae	Apr-Aug	None	None	4.2
<i>Lessingia hololeuca</i>	woolly-headed lessingia	Asteraceae	Jun-Oct	None	None	3
<i>Lessingia micradenia</i> var. <i>glabrata</i>	smooth lessingia	Asteraceae	(Apr-Jun)Jul-Nov	None	None	1B.2
<i>Lessingia tenuis</i>	spring lessingia	Asteraceae	May-Jul	None	None	4.3
<i>Lomatium parvifolium</i>	small-leaved lomatium	Apiaceae	Jan-Jun	None	None	4.2
<i>Malacothamnus arcuatus</i> var. <i>arcuatus</i>	arcuate bushmallow	Malvaceae	Apr-Sep	None	None	1B.2
<i>Malacothamnus hallii</i>	Hall's bushmallow	Malvaceae	(Apr)May-Sep(Oct)	None	None	1B.2
<i>Mielichhoferia elongata</i>	elongate copper moss	Mielichhoferiaceae		None	None	4.3
<i>Monolopia gracilens</i>	woodland woollythreads	Asteraceae	(Feb)Mar-Jul	None	None	1B.2
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	Polemoniaceae	Apr-Jul	None	None	1B.2
<i>Penstemon rattanii</i> var. <i>kleei</i>	Santa Cruz Mountains beardtongue	Plantaginaceae	(Mar)May-Jun	None	None	1B.2
<i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i>	Hickman's popcornflower	Boraginaceae	Apr-Jun	None	None	4.2
<i>Plagiobothrys glaber</i>	hairless popcornflower	Boraginaceae	Mar-May	None	None	1A

<i>Puccinellia simplex</i>	California alkali grass	Poaceae	Mar-May	None	None	1B.2
<i>Ravenella exigua</i>	chaparral harebell	Campanulaceae	May-Jun	None	None	1B.2
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Alismataceae	May-Oct(Nov)	None	None	1B.2
<i>Sanicula saxatilis</i>	rock sanicle	Apiaceae	Apr-May	None	CR	1B.2
<i>Senecio aphanactis</i>	chaparral ragwort	Asteraceae	Jan-Apr(May)	None	None	1B.2
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	(Mar)Apr-Aug	None	None	4.2
<i>Streptanthus albidus</i> ssp. <i>albidus</i>	Metcalf Canyon jewelflower	Brassicaceae	Apr-Jul	FE	None	1B.1
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewelflower	Brassicaceae	(Mar)Apr-Sep(Oct)	None	None	1B.2
<i>Suaeda californica</i>	California seablite	Chenopodiaceae	Jul-Oct	FE	None	1B.1
<i>Trifolium hydrophilum</i>	saline clover	Fabaceae	Apr-Jun	None	None	1B.2

Showing 1 to 63 of 63 entries

Go to top

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2025. Rare Plant Inventory (online edition, v9.5.1). Website <https://www.rareplants.cnps.org> [accessed 30 September 2025].
}

Final Santa Clara Valley Habitat Plan

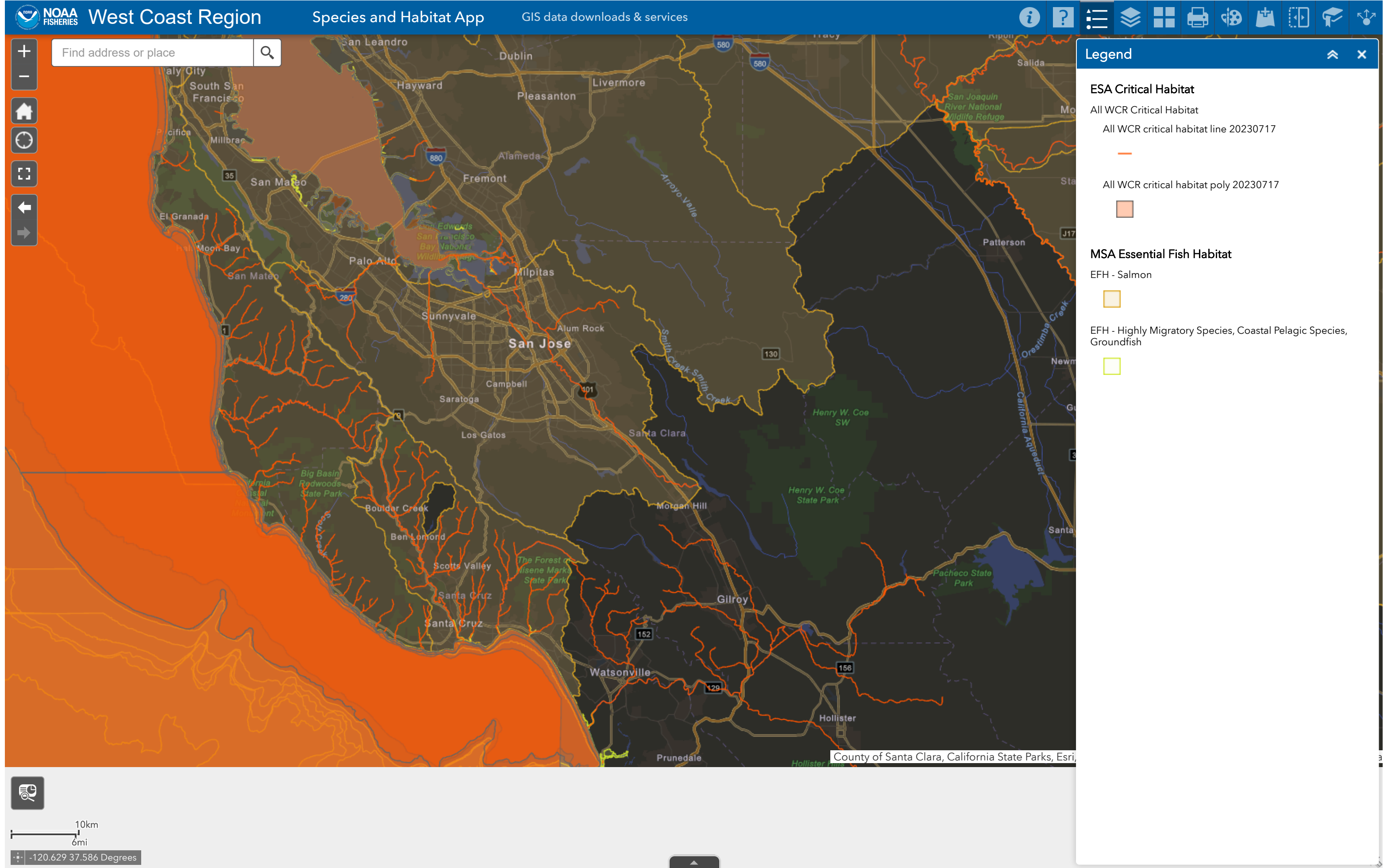
August 2012

Prepared for:

City of Gilroy
City of Morgan Hill
City of San José
County of Santa Clara
Santa Clara Valley Transportation Authority
Santa Clara Valley Water District

Prepared by:

ICF International
620 Folsom Street, Suite 200
San Francisco, CA 94107
Project Manager: David Zippin, Ph.D.
(415) 677-7179
david.zippin@icfi.com





☰ MENU

Essential Fish Habitat Mapper

Pacific FMC

- ☐ EFH Areas Protected From Fishing ...
- ☐ Habitat Areas of Particular Concern ...
- ☒ Essential Fish Habitat ...

☐ Groundfish EFH ...

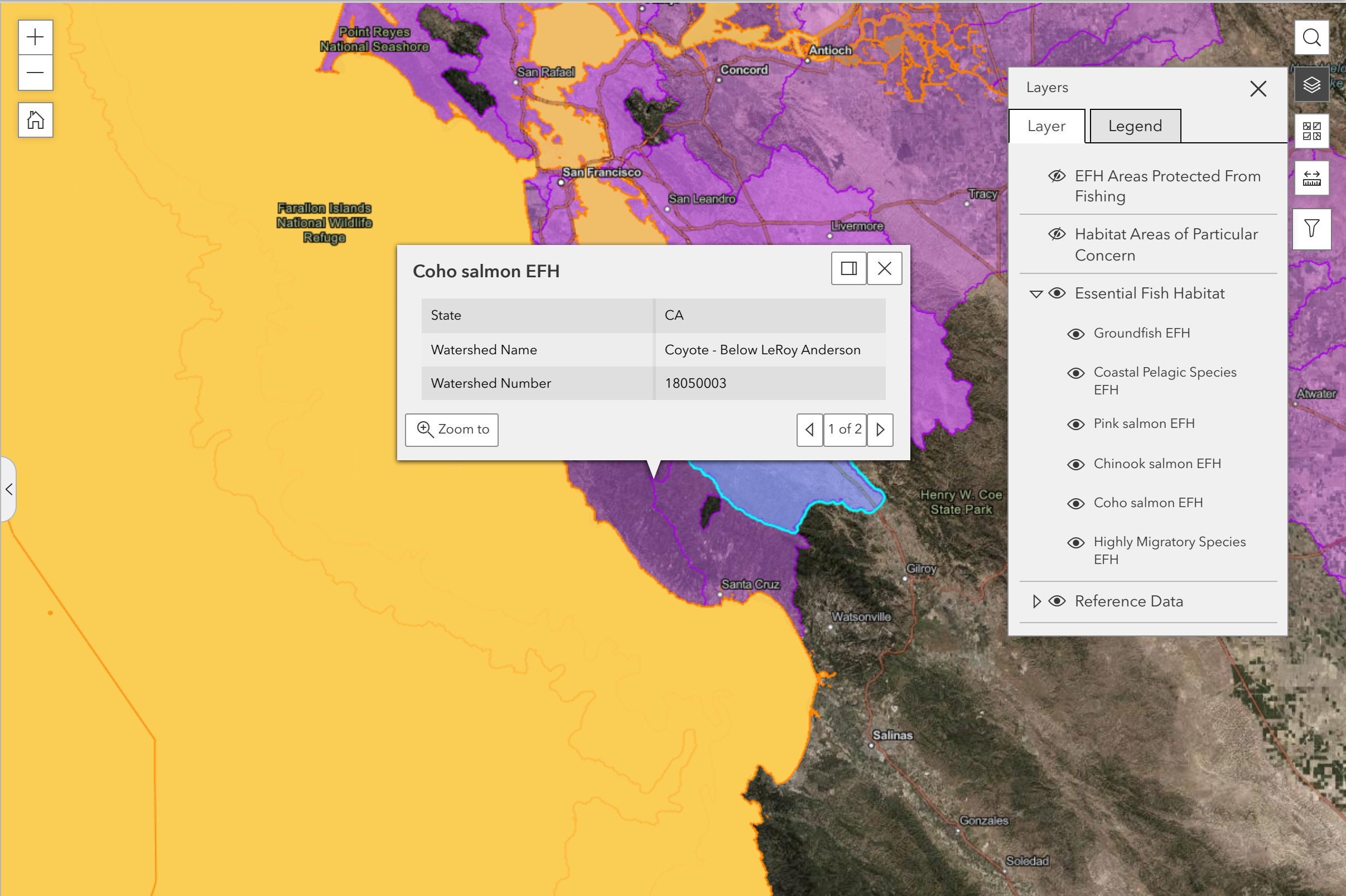
☐ Coastal Pelagic Species EFH ...

☐ Pink salmon EFH ...

☐ Chinook salmon EFH ...

☐ Coho salmon EFH ...

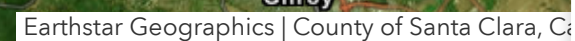
☐ Highly Migratory Species EFH ...
- ☒ Reference Data ...



Choose Another Council

Generate Report





IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Santa Clara County, California



Local offices

San Francisco Bay-Delta Fish And Wildlife

(916) 930-5603
(916) 930-5654
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered

California Ridgway's Rail	<i>Rallus obsoletus obsoletus</i>	Endangered
Wherever found		
No critical habitat has been designated for this species.		
https://ecos.fws.gov/ecp/species/4240		
Western Snowy Plover	<i>Charadrius nivosus nivosus</i>	Threatened
There is final critical habitat for this species. Your location does not overlap the critical habitat.		
https://ecos.fws.gov/ecp/species/8035		
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened
There is final critical habitat for this species. Your location does not overlap the critical habitat.		
https://ecos.fws.gov/ecp/species/3911		

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i>	Threatened
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/5524	
Green Sea Turtle <i>Chelonia mydas</i>	Threatened
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/6199	
Northwestern Pond Turtle <i>Actinemys marmorata</i>	Proposed Threatened
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/1111	

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened
Foothill Yellow-legged Frog <i>Rana boylei</i> There is proposed critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/5133	Threatened
Western Spadefoot <i>Spea hammondi</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Fishes

NAME	STATUS
Tidewater Goby <i>Eucyclogobius newberryi</i>	Endangered
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/57	

Insects

NAME	STATUS
Bay Checkerspot Butterfly <i>Euphydryas editha bayensis</i>	Threatened
Wherever found	
There is final critical habitat for this species. Your location overlaps the critical habitat.	
https://ecos.fws.gov/ecp/species/2320	

Monarch Butterfly Danaus plexippus

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/9743>

Mount Hermon June Beetle Polyphylla barbata

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3982>

Zayante Band-winged Grasshopper Trimerotropis infantilis

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/1036>

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio	Endangered
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/8246	
Vernal Pool Tadpole Shrimp Lepidurus packardi	Endangered
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/2246	

Flowering Plants

NAME	STATUS
Ben Lomond Spineflower Chorizanthe pungens var. hartwegiana	Endangered
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/7498	
Ben Lomond Wallflower Erysimum teretifolium	Endangered
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/7429	
California Seablite Suaeda californica	Endangered
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/6310	
Contra Costa Goldfields Lasthenia conjugens	Endangered
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/7058	
Coyote Ceanothus Ceanothus ferrisae	Endangered
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/8440	
Metcalf Canyon Jewelflower Streptanthus albidus ssp. albidus	Endangered
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/4186	
Robust Spineflower Chorizanthe robusta var. robusta	Endangered
Wherever found	
There is final critical habitat for this species. Your location does not overlap the critical habitat.	
https://ecos.fws.gov/ecp/species/9287	

Santa Clara Valley Dudleya Dudleya setchellii

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3207>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Bay Checkerspot Butterfly Euphydryas editha bayensis https://ecos.fws.gov/ecp/species/2320#crithab	Final
Foothill Yellow-legged Frog Rana boylei https://ecos.fws.gov/ecp/species/5133#crithab	Proposed

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The [data](#) in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the [Supplemental Information on Migratory Birds and Eagles document](#) to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Bald and Golden Eagle information is not available at this time

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior [authorization](#) by the Department of Interior U.S. Fish and Wildlife Service (FWS).

1. The [Migratory Birds Treaty Act](#) of 1918.

2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Migratory bird information is not available at this time

Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
DON EDWARDS SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE	24,983 acres

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE
DEEPWATER
[E1UBL](#)

ESTUARINE AND MARINE
WETLAND
[E2EM1N](#)
[E2EM1Nh](#)
[E2USMh](#)
[E2SBNx](#)
[E2SBN](#)
[E2EM1Nx](#)
[E2USN](#)
[E2USNh](#)

FRESHWATER EMERGENT

WETLAND

- [PEM1Cx](#)
- [PEM1Ch](#)
- [PEM1Fx](#)
- [PEM1/SSF](#)
- [PEM1C](#)
- [PEM1B](#)
- [PEM1A](#)
- [PEM1K](#)
- [PEM1F](#)
- [PEM1Ah](#)
- [PEM1Fh](#)

FRESHWATER

FORESTED/SHRUB WETLAND

- [PFOA](#)
- [PFOC](#)
- [PSSC](#)
- [PSS1C](#)
- [PSSA](#)
- [PSSCx](#)
- [PFOAh](#)
- [PFOAx](#)
- [PSSB](#)
- [PSSAx](#)
- [PFOCh](#)
- [PSSCh](#)
- [PFOCx](#)
- [PSSF](#)

FRESHWATER POND

- [PUBHx](#)
- [PUBHh](#)
- [PUSKx](#)
- [PUBKx](#)
- [PUBFh](#)
- [PUBFx](#)
- [PUSCx](#)
- [PUBH](#)
- [PUBF](#)
- [PUSCh](#)

LAKE

- [L2UBHh3](#)
- [L1UBHh](#)
- [L1UBKx](#)
- [L1UBHx](#)
- [L2USCx](#)

RIVERINE

- [R4SBC](#)
- [R4SBCx](#)
- [R3UBH](#)
- [R2UBHx](#)
- [R5UBFx](#)
- [R2UBH](#)
- [R4SBAx](#)
- [R4SBA](#)
- [R5UBF](#)
- [R2USC](#)
- [R3UBHx](#)
- [R1UBVx](#)
- [R3UBFx](#)
- [R3UBF](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

[illegible]



Layers



Get started

You can explore maps, add layers, and more without signing in. To save your work, sign in before creating your map.

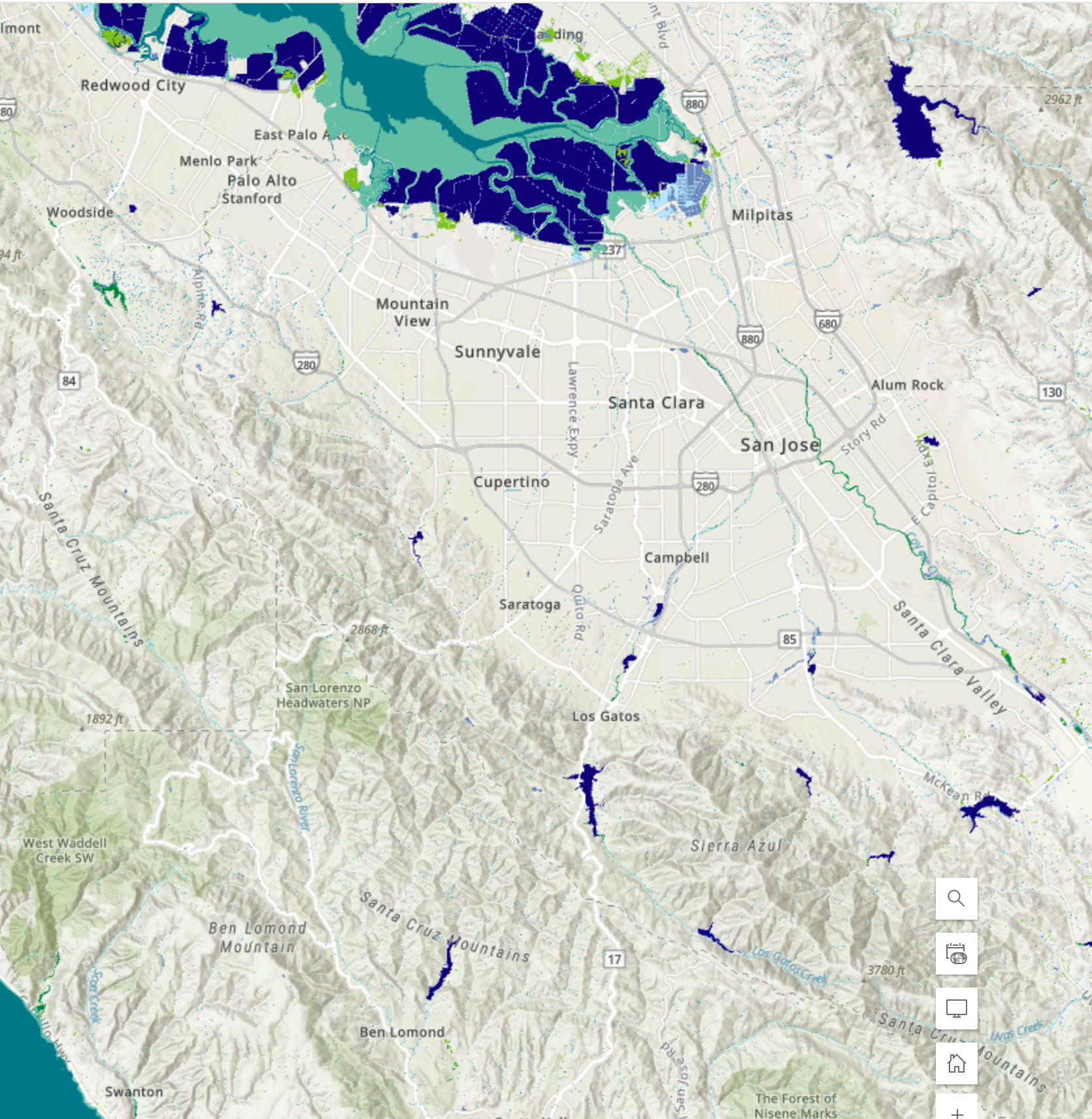
[Learn more about Map Viewer](#)



FWS HQ ES National
Wetlands Inventory -
Wetlands



Add



FWS HQ ES National Wetlands Invento...



Properties



Use the selector above to switch between layers in the map.



Information



Symbology



FWS HQ ES National Wetlands
Inventory - Wetlands

Wetlands

WETLAND_TYPE

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Appearance

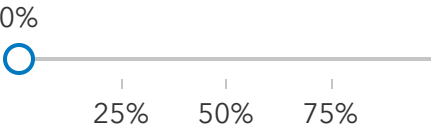


Blending

Normal



Transparency



Appendix C. Response to Comments

From: Lena Drape <ldrape@openspaceauthority.org>

Sent: Monday, May 18, 2026 2:19 PM

To: Nick Mascarello <NMascarello@valleywater.org>

Cc: Lisa Bankosh <LBankosh@valleywater.org>; Roseryn Hessabi <RHessabi@valleywater.org>; Andrea Mackenzie <amackenzie@openspaceauthority.org>; John Bourgeois <JBourgeois@valleywater.org>; Aaron Hébert <ahebert@openspaceauthority.org>

Subject: FW: Invitation to Review the Draft Initial Study for Valley Water's Greenhouse Gas Reduction Plan

***** This email originated from outside of Valley Water. Do not click links or open attachments unless you recognize the sender and know the content is safe. *****

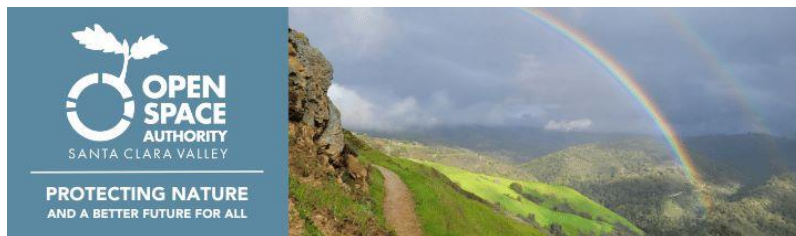
Hello Nick,

On behalf of the Open Space Authority, thank you for the opportunity to review the Draft Initial Study/Negative Declaration for Greenhouse Gas Reduction Plan. As Valley Water proceeds towards implementation, we encourage the continued recognition of the multi-benefit conservation value of natural and working lands and their role in achieving these GHG reduction goals. CNRA's *Natural and Working Lands Climate Smart Strategy* ([link](#)) and the *Natural and Working Lands Element of Climate Smart San Jose* ([link](#)) are excellent tools and references.

Thank you,
Lena Drape

Lena (Eyen) Drape (she/her)
Conservation Policy Specialist
408.759.1935 Cell
408.224.7476 Office main
Openspaceauthority.org

We care for nature, so nature can care for you. [Visit our website](#) to discover the countless benefits of investing in nature to secure a better future for all.



Please print only if necessary.

Confidentiality Notice: This message, including any attachments, is intended to be used only by the person(s) or entity to which it is addressed. This message may contain confidential and/or legally privileged information. If the reader is not the intended recipient of this message or an employee or agent responsible for delivering this message, you are hereby notified that you are prohibited from printing, copying, storing, disseminating, or distributing this communication. If you received this communication in error, please delete it from your computer along with any attachments and notify the sender by telephone or by reply e-mail.

Comments on the Greenhouse Gas Reduction Plan Draft

Submitted via email on May 18th, 2026, to the
Santa Clara Valley Water District
Attn: Nick Mascarello, Senior Environmental Planner

From:
Doug Peterson
Environmental and Water Resources Committee Member
Water 101 Academy Graduate, Cohort 3, 2021
6181 Rocky Glen Court
San Jose, California, 95123
(408) 224-7668 (home)
(408) 307-5147 (cell)
dougpeterson789@yahoo.com

Dear Nick Mascarello,

The Santa Clara Valley Water District is to be commended for aggressively confronting the scourge of Climate Change, and the District's thoughtful Greenhouse Gas Reduction Plan (GHGRP) contributes significantly to this noble endeavor. Quantifying greenhouse gas (GHG) emissions, setting targets, and identifying specific GHG reduction strategies are fundamental starting points for any government entity wishing to support the global climate effort, and I concur wholeheartedly with Valley Water's decision to do so. I believe that climate change represents the single greatest challenge ever to face humankind. Our moral obligations to one another, future generations, and innocent wildlife demand that we halt the damage we are inflicting on our common home. For technical clarification regarding effective climate mitigation strategies, I look to the unbiased expertise of the Intergovernmental Panel on Climate Change (IPCC). For guidance regarding our moral obligations, I follow the counsel of the late Pope Francis and consider his Second Encyclical, *Laudato Si*, to be the most compelling summary of the crisis to appear during my lifetime. In all its deliberations regarding the environment, I urge Valley Water to value moral arguments as highly as scientific ones, forging solutions that ring true to the heart as well as the mind.

I applaud the GHGRP Draft and the considerable effort that has gone into its development but believe that the District's accounting methodology for Scope 2 emissions has significant deficiencies. The use of Market-Based Accounting assigns near zero Scope 2 emissions to Valley Water's GHG inventory because the District purchases clean electricity generated by a certified provider. The accounting methodology is consistent with state guidance from the California Energy Commission and the California Air Resources Board, but it fails to support our duty to conserve energy and disregards the physical nature of electricity and its distribution. I believe that we should use Location-Based Accounting to quantify upstream emissions associated with our electricity consumption, basing our Scope 2 calculations on the carbon-intensity of the California grid.

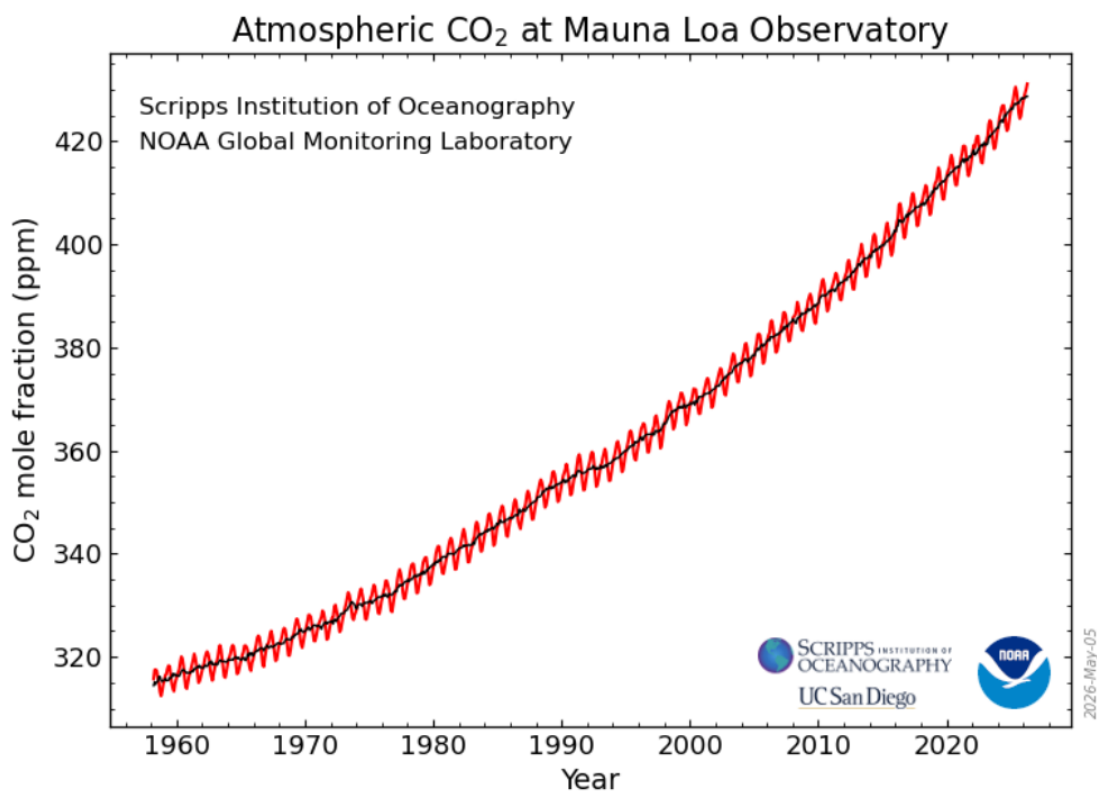
At the very least, the GHGRP should adhere to the internationally recognized Greenhouse Gas Protocol by implementing a Dual-Reporting framework, quantifying and reporting Scope-2 emissions using both accounting methodologies. The GHG Protocol was developed by the World Resources Institute and the World Business Council for Sustainable Development under the direction of their GHG Protocol Independent Standards Board. It is considered the gold standard of carbon accounting, increases transparency, and helps progressive corporations and governmental entities make defensible decisions regarding their real-world climate impacts. It would not be difficult or expensive to incorporate Dual-Reporting into our GHGRP, and doing so would provide a more appropriate, wholistic view of the actual physical burden Valley Water places on California's grid. Market-Based Accounting would remain in the GHGRP and be used for GHG quantification related to the California Environmental Quality Act (CEQA), assigning near-zero Scope-2 emissions to our formal GHG inventory just as it does now. Simultaneously, data generated using Location-Based Accounting would be readily available to stakeholders and the Board of Directors as they work to make environmentally responsible policy decisions that affirm our obligation to conserve energy.

Applying the logic of Market-Based Accounting, the GHGRP Draft argues that Valley Water's operations produce almost no Scope-2 emissions because we procure our electricity from the Power and Water Resources Pooling Authority's Zero Carbon Water Portfolio. While it may seem reasonable to conclude that we do not contribute to the buildup of GHGs in the troposphere when we consume clean electricity purchased from a state-certified provider, it is surely true that California is struggling to produce enough clean electricity to match growing demand and will continue to struggle for some time. It makes little sense to set aside our obligation to support this struggle as we work independently to reduce our GHG emissions. If we

truly wish to maximize our contribution to California's GHG mitigation effort, we need to help expedite the transition to clean electricity by working proactively to reduce or offset our own considerable electricity consumption. The GHGRP Draft may not be incorrect regarding our Scope 2 emissions, but it is incomplete, focusing exclusively on paper GHG accounting while downplaying the real-world environmental significance of our aggregate electricity usage. A meaningful GHGRP should include accurate data on our overall electricity consumption and its individual components, identify promising opportunities for net savings, set achievable conservation targets, monitor notable trends, and provide appropriate guidance regarding policy options that might significantly impact the demands we place on the grid. To simply report that, on paper, our Scope 2 emissions stand permanently near zero suggests that the magnitude of our electricity consumption is environmentally meaningless, and it is not meaningless. The need for all industrial societies to conserve electricity is as important today as it has ever been, and excessive energy consumption remains a root cause of the global climate crisis. Ideally, our approach to carbon accounting should inspire others to recognize that robust electricity conservation remains a valid element of any comprehensive GHG reduction strategy and should not be dismissed as irrelevant when clean electricity becomes available for purchase.

It is important to begin by emphasizing that the global effort to mitigate GHG emissions appears to be failing, and our own very prosperous nation has defected from the international effort to defeat climate change orchestrated by the United Nations, formally withdrawing from the Paris Climate Agreement for the second time in January of this year. In 2008, U.S. crude oil production stood at 5 million barrels per day and has risen dramatically to reach 13.6 million bpd in 2025. We are now the world's leading exporter of petroleum-based products, and our per-capita GHG emissions are among the highest in the world. The global scientific community fully understands the physical properties of the most destructive GHGs and their inevitable contributions to radiative forcing and ocean acidification, and the basic mitigation strategies that might diffuse the escalating crisis have been known for decades. We have also learned that modern human societies like our own are extremely reluctant to surrender the comforts and conveniences that industrialization has delivered. The global crisis is a classic tragedy of the commons that will require coordinated action, shared sacrifice, and strong, compassionate leadership. We are currently faced with the morally outrageous circumstance whereby vulnerable underdeveloped societies across the global are suffering the most harm from climate volatility while producing a tiny fraction of the anthropogenic emissions that are fueling the crisis. Indeed, the collective impotence of prosperous nations in the face

of the profoundly immoral climate atrocity generates a question that all of humanity should be asking itself again and again: Why are we failing? The steady accumulation of carbon dioxide in the Earth's troposphere should lead us to question all assumptions about GHG mitigation that currently pass for common sense, and assumptions related to carbon accounting should surely be included in such deliberations. Anthropogenic carbon dioxide is considered the primary GHG causing climate change, and the troubling graph below is irrefutable evidence that the global mitigation effort is failing.



The GHGRP's approach to Scope 2 emissions is entirely consistent with the commonly accepted practice of Market-Based Accounting. No agency of Valley Water's size could possibly aspire to achieve carbon neutrality without the availability of certified clean electricity that counts as zero in a formal GHG inventory. There is something oddly disingenuous, however, about granting a large organization a free pass on all the GHGs that might otherwise be associated with its

electricity consumption simply because it has access to clean electricity and wisely chooses to purchase it. Within California, roughly two-thirds of our electricity is currently generated cleanly and is widely available for purchase, but one third is still generated using fossil fuels. That dirty third is purchased by other entities and generally flows on the same grid as the clean electricity. All entities that consume electricity draw from a common pool and place roughly the same burden on our collective efforts to generate and distribute an adequate clean supply. Clean electricity obviously does no good if it is not purchased, but the struggle to produce enough of it to go around is not being limited by an insufficient number of willing buyers. The decarbonization of our shared grid can only happen so fast, requiring robust capital investments and tedious, careful planning. Granted, the money spent to purchase clean electricity flows into the right coffers to help speed the transition, but the overall pace of industrial decarbonization is primarily being limited by a broad assortment of challenges that slow the construction of all kinds of large infrastructure projects.

The GHGRP Draft anticipates the steady decarbonization of the state's grid and considers the pace of the transition irrelevant to our GHG inventory under its proposed Market-Based Accounting methodology. Valley Water's 2045 target date for achieving carbon neutrality is consistent with state guidance, and the same state guidance promotes 2045 as the target date for generating 100% of California's electricity using clean technologies. If all goes as planned (a big if), my concern will become moot in 2045, but it surely is not moot now, and a lot of environmental progress might happen or not happen over the course of the next two decades. The transition to 100% clean electricity from the current two thirds sounds straightforward and achievable but will need to accommodate the electrification of many vital mechanisms that currently run on fossil fuels, including our vast gasoline powered transportation fleets. Artificial Intelligence is also certain to generate significant new electricity demand as data centers proliferate. Importantly, the expense of grid decarbonization increases when it is accompanied by increasing demand, and the growing need to augment and modernize our transmission capacity is anticipated to be very costly. It is going to be a monumental challenge to develop a modern, fully decarbonized grid by 2045 with these significant headwinds slowing our progress, and large agencies like Valley Water need to question the efficacy of blowing wind in the same direction. Given our demonstrated commitment to proactive environmental progress, we need to consider exceeding the state's minimum carbon accounting requirements by developing an intellectually rigorous GHGRP that affirms the value of electricity conservation.

One way to fully integrate electricity conservation into the GHGRP would be to quantify Scope 2 GHG emissions based on the carbon intensity of California's entire grid rather than the null carbon intensity of our electricity provider. Location-Based Accounting would reflect the reasonably logical argument that Valley Water's electricity load taps into a single statewide pool of available electricity that is currently generated by renewables and fossil fuels. The accounting methodology would represent a modest mathematical departure from Market-Based Accounting and would surrender a manageable portion of the GHG reduction windfall gifted to us in 2016 when we began procuring affordable, clean electricity from the Power and Water Resources Pooling Authority. If the state were to somehow meet its ambitious 2045 target for fully decarbonizing the grid, our Scope 2 emissions would fall back to zero just as we are hoping to achieve our carbon neutrality goal. In the near term, the incentivization of electricity conservation by the GHGRP would align our blueprint with the urgent statewide effort to produce all electricity cleanly, delivering a tailwind rather than a headwind.

Location-Based Accounting would also be helpful as we try to compare the carbon intensity of our imported water to the carbon intensity of analogous local water supply options. Under the proposed GHGRP, the GHGs associated with imported water are seen as fluctuating, trending downward as the massive water conveyance system outside our control increases its reliance on clean electricity providers. If the carbon intensity of the entire California grid were to be used as a common mathematical basis for calculating the upstream GHG emissions of any and all water supply options, including our imported water, we could make defensible apples to apples comparisons; the confounding variable of where electricity is procured and how clean it is would not distort what should logically be a direct correlation between electricity usage and GHG emissions. Every source of available electricity within California would be viewed as having the same level of cleanliness. The carbon intensity of, say, potable reuse could be directly compared to the carbon intensity of imported water without the intervention of the confounding variable.

Realistically, I do not anticipate Valley Water being amenable to the wholesale use of Location-Based Accounting, but one more potential benefit is worth exploring before moving on. If our Scope 2 emissions were no longer penciled out at near zero, our electricity consumption and its corresponding GHG emissions could be mitigated and accounted for in the GHGRP by investing in large solar panel arrays erected in favorable locations on our own lands. These new generation facilities could be included in our Capital Improvement Program and financed with

money that would otherwise be used to purchase electricity. It is important to stop here and acknowledge that Valley Water has few promising options for significantly reducing its current use of electricity. Past conservation efforts have already made significant progress, and many of our small electricity demands cannot be further reduced. Our operations also depend on many powerful mechanisms that consume a large, unalterable quantity of electricity. The electricity used for local water conveyance, for instance, is essentially unavoidable. The most promising way to independently conserve electricity at this point is to offset our consumption by generating it ourselves. If Valley Water were to fully embrace this strategy, we would be actively contributing to the generation of clean electricity, helping the statewide effort to decarbonize the grid rather than simply drawing from it. The strategy is just one example of how electricity conservation dovetails with the GHGRP's core purpose and how a different approach to carbon accounting might help quantify and magnify these synergistic benefits.

Consider three houses that sit side by side on the same street and are connected to the same grid through the same transformer. One household purchases electricity that is partially generated using fossil fuels. The second purchases 100% clean electricity from a certified provider, and the third purchases no electricity whatsoever, relying on its own rooftop solar panels. The rooftop array is large enough to fully satisfy the third household's energy demands, including fuel for an electric vehicle, and even produces a small amount of excess electricity that is returned to the grid. Under the Market-Based Accounting procedure of the GHGRP Draft, the Scope 2 calculations for each home show a large GHG discrepancy between the first home and the second, even though both homes draw their power from the same pool of electricity. The only difference between them is the destination of their monthly electricity payments, but one is said to emit GHGs while the other is said to emit none. More importantly, the accounting procedure makes no meaningful distinction between the second house and the third, even though the third house is no longer depleting the state's limited supply of clean electricity. In the grand scheme of things, the third household is contributing mightily to the broader GHG reduction effort in ways that the second household is not, but the logic of Market-Based Accounting dismisses the contribution as mathematically irrelevant, assigning zero upstream GHG emissions to both households.

I do not predict that Valley Water will decide to inventory its formal Scope 2 emissions using the stricter logic of Location-Based Accounting. Fortunately, I have been happily married for almost forty years and am accustomed to not getting my way. Another modification that would deliver similar benefits on a smaller scale was

outlined earlier. If the District were to incorporate Dual-Reporting into the GHGRP, it would bring the plan into compliance with the internationally recognized Greenhouse Gas Protocol while retaining our legal right to use Market-Based Accounting for matters involving CEQA. The GHGRP would overtly state that it sees value in both accounting approaches as they pertain to Scope 2 emission, acknowledging the value of electricity conservation and its close connection to the statewide GHG reduction effort. It would explicitly clarify that Market-Based Accounting guides the quantification of Scope-2 emissions appearing in our formal GHG inventory in accordance with state guidance. In addition, location-based GHGs associated with our electricity consumption would be quantified informally and reported side by side with our official Scope 2 emissions. Texts explaining the theoretical relationship between clean electricity procurement and null GHGs would be supplemented by texts explaining the synergistic advantages of electricity conservation incentivized by Location-Based Accounting. A GHGRP that adhered to the GHG Protocol's Dual Reporting standard would be truly exemplary, demonstrating Valley Water's bold, unwavering commitment to environmental stewardship.

When reporting data related to electricity consumption, it would be important to break out the primary components of Valley Water's electricity usage, graph the most relevant trends, and identify any remaining conservation strategies for each component, treating electricity just as we treat GHG emissions. Some rising components of electricity consumption would be accurately characterized as positive contributions to the GHG reduction effort, displacing fossil fuel technologies in favor of electrification. The additional electricity consumed by the growing fleet of electric vehicles would be an obvious example of this anomaly, increasing aggregate electricity consumption while driving down net GHGs. It is also easy to see how the previously mentioned strategy of building large scale solar panel arrays might find its way into a subsection of the GHGRP devoted specifically to electricity conservation, quantifying the electricity offsets generated by Valley Water's own arrays and setting goals and timetables for similar projects.

Incorporating Location-Based Accounting into the GHGRP using the Dual-Reporting framework called for in the GHG Protocol would incentivize thorough investigation and implementation of promising conservation strategies, keeping the value of the conservation effort front and center. It would also be valuable when policy decisions had to be made that would significantly impact aggregate electricity consumption but might otherwise be seen as neutral with respect to GHGs under Market-Based Accounting. A good example of this deliberative benefit might

include additional insight into the pros and cons of desalination. There are already monumental environmental drawbacks associated with desalination in the shallow, environmentally fragile South Bay, and excessive electricity consumption surely ought to be considered as well. If the GHGRP were to actively quantify our electricity consumption and validate its close connection to the statewide GHG reduction effort, it would help decisionmakers as they evaluate the advisability of an energy-intensive water supply strategy like desalination. A GHGRP that neglects the relevance of electricity consumption would seem to do the opposite, masking a valid environmental concern that ought to remain prominent.

With sustained effort, we might also be able to identify multiple conservation benefits on a smaller scale. One example that comes to mind involves the purchase of electric vehicles as we steadily move away from gasoline. Our proactive focus on GHG reduction leads us to believe, correctly, that we need to steadily electrify Valley Water's fleet and install the necessary equipment to deliver electric fuel. We should also recognize that some electric vehicles squander electric fuel while others are carefully designed to conserve it. A more inclusive GHGRP that embraces and elucidates the value of electricity conservation might help steer us to more environmentally responsible purchasing decisions, forgoing bulky, overpowered electric vehicles in favor of more efficient ones. Similar small conservation opportunities are likely lurking throughout our complex facilities, and we ought to be hunting for them systematically. Market-Based Accounting does not incentivize or quantify these kinds of potential gains.

Wrapping up, it is important for me to reaffirm my wholehearted support for the GHGRP and the sophisticated public process that is guiding its development. I would also like to return briefly to the guidance from of the IPCC and Pope Francis that supports my comments. When I examine the extensive writings of the IPCC, I am struck by the sheer breadth of the global climate effort and the great number of mitigation strategies that need to be implemented enthusiastically if we ever hope to defeat climate change. The IPCC's detailed, comprehensive reports include many mitigation strategies that work in tandem to produce synergistic benefits, but no silver bullets that might miraculously diffuse the crisis. There is much work to be done, and we need to do a lot of things right as quickly as possible, acting in solidarity with one another on a global scale. A carbon accounting practice that makes upstream emissions magically disappear by writing a check to the right electricity provider seems inconsistent with the stern advice coming from the IPCC. There is a clear connection between systematically reducing our own GHG

emissions and systematically reducing our electricity consumption, and the GHGRP should highlight the synergistic nature of this connection.

The specific moral guidance from Pope Francis is rooted in the Catholic faith, but it is directed outward to the secular world and deliberately infused with a nonsectarian universality. Francis frames our obligation to care for our common home as a sacred covenant between the global human family and God, but his rare intuitive wisdom regarding the fundamental causes of the climate crisis does not rely on his religious perspective or his moral authority as the leader of the Catholic Church. He speaks eloquently about the extraordinary gifts of the natural world and our proper role as stewards, urging us to do better in a gentle but firm manner. He is especially forceful and effective when conveying the simple truth that the profound harms we are inflicting on all of Earth's living creatures are primarily caused by those who enjoy the vast material advantages of the industrialized world. The most fortunate among us have brought about the climate crisis collectively, we remain responsible for it, and it is only through our collective actions that we can diffuse it. This unvarnished message from this very learned man seems especially relevant as we consider our duty to support global GHG reduction and the role our GHGRP might play in that effort. When the global climate crisis is seen for what it truly is and its major causes are candidly defined, our moral obligation to conserve electricity cannot be easily dismissed, and agencies like Valley Water that have the power to shape our collective actions should fulfill this obligation.

I should not conclude my thoughts without expressing sincere gratitude for this occasion to comment on the GHGRP Draft. It is remarkable that individual members of the public are given a genuine opportunity to influence the specific content of such an important policy document. Valley Water is to be commended for its robust efforts to foster public engagement, and I find it personally gratifying to contribute as an informed participant. I do not expect my thoughts to have the gravitas of comments from an environmental organization that represents the aspirations of its numerous members, but I would hope that the strength of my argument might carry weight of its own. I would also urge you to recognize that my comments are consistent with civil discourse, presented in a timely, appropriate manner. Above all, I hope that you appreciate how deeply important this issue is to me as a compassionate environmentalist. I strongly believe that the international effort to defeat climate change will one day succeed, and I wish to highlight this core belief by ending with a short piece I wrote back in 2021, reproduced below.

A Prophecy of Peace

Our precious blue planet shall be healed by all of humanity
acting together in a spirit of goodwill,
placing our faith in one another,
affirming that we can and must succeed.

When the equilibrium of our ancestral climate is restored,
it will be a victory like no other in human history.

We will celebrate as one global family,
safe together in our common home,
remembering our joint labors with fondness,
as the tools of war are set aside for all time.

Few who toil today on behalf of our noble mission
will live to join that celebration.

But the jubilation of future generations shall surely come to pass,
and they will give thanks for the strength and wisdom of their forebears.

Let our fellowship be worthy of their gratitude,
fulfilling our duty with grace,
that their joy may be felt in our hearts.

Doug Peterson

Earth Day

2021

Response to Public Comments for Valley Water's Greenhouse Gas Reduction Plan Initial Study/Negative Declaration

Response to Lena Drape's Comment Letter

Thank you for taking the time to review and comment on the Draft GHG Reduction Plan Initial Study and Negative Declaration. Valley Water values the multiple benefits that natural and working lands provide. We will keep the provided links in mind as we implement our strategies to reduce carbon emissions and increase carbon sequestration.

Response to Doug Peterson's Comment Letter

Valley Water appreciates the commenter's thoughtful and detailed letter, as well as the strong support expressed for the Greenhouse Gas Reduction Plan (GHGRP) and Valley Water's broader climate mitigation efforts. We value the time and care taken to provide substantive feedback on the draft plan, including perspectives regarding energy conservation and greenhouse gas (GHG) accounting methodologies. Valley Water agrees that energy conservation remains an important component of a comprehensive sustainability strategy and acknowledges the commenter's concerns regarding the accuracy and appropriateness of the current Scope 2 accounting approach.

Valley Water also appreciates the commenter's discussion of the GHG Protocol and the recommendation to modify the GHGRP's treatment of Scope 2 emissions. However, Valley Water does not agree that the GHGRP is inconsistent with the GHG Protocol. The GHG Protocol defines Scope 2 emissions as emissions associated with purchased electricity and states that "Companies report the emissions from the generation of purchased electricity that is consumed in its owned or controlled equipment or operations as scope 2" ([World Resources Institute 2015](#)). Consistent with this framework, the GHG Protocol includes examples demonstrating that organizations may account for electricity emissions based on specific contractual procurement arrangements, including purchases of low- or zero-carbon electricity. Valley Water's accounting approach reflects its procurement of carbon-free electricity through the Power and Water Resources Pooling Authority (PWRPA) and is therefore consistent with the treatment of purchased electricity described in the GHG Protocol.

With respect to Scope 2 emissions more broadly, Valley Water uses a GHG accounting methodology that is consistent with the California Air Resource Board's Scoping Plan approach and common industry practice. Because there is not yet a GHG accounting protocol tailored specifically to water districts, Valley Water considered both local government frameworks, such as the International Council for Local Environmental Initiatives (ICLEI) U.S. Community Protocol, and the practices of peer water agencies, including the Metropolitan Water District, in developing the GHGRP. This reflects the unique operational characteristics of water districts, which often have substantial and annually variable energy demands associated with pumping, treatment, conveyance, and water resource management. Consistent with this approach, the

GHGRP reflects Valley Water's procurement of carbon-free electricity through PRWPA. Valley Water's participation in PWRPA allows member agencies, mostly water districts in the Bay Area, to pool purchasing power and secure carbon-free electricity in a financially responsible manner. This procurement strategy not only advances Valley Water's GHG reduction goals, it also inherently reduces the upstream emissions associated with the water consumption of Valley Water's customers. Additionally, in response to the commenter's recommendation to use California-average electricity emission factors to reflect broader grid conditions, doing this would not reflect the emissions reductions achieved through Valley Water's carbon-free electricity purchases and would not capture the corresponding upstream emissions benefits provided to Valley Water customers. Valley Water therefore believes that the accounting methodology used in the GHGRP provides a more accurate representation of its operational emissions and an appropriate basis for the plan.

Valley Water agrees that electricity consumption remains environmentally relevant even where clean electricity is available and that energy conservation should continue to be a priority. At the same time, the GHGRP is intended to serve primarily as a GHG reduction strategy rather than a comprehensive energy management plan. Energy efficiency and conservation are being advanced through other Valley Water initiatives, including the Climate Change Action Plan and related operational efforts. Valley Water appreciates the commenter's perspective that conservation should remain closely connected to broader climate planning and will continue to consider how these related efforts are communicated across agency planning documents. In addition, the GHGRP takes a comprehensive approach to emissions accounting by including construction-related emissions that are not always addressed in comparable local government climate plans.

Valley Water also considered the commenter's recommendation to adopt a dual-reporting framework for Scope 2 emissions. After review, Valley Water has elected to retain the accounting methodology presented in the draft GHGRP because it aligns with current guidance and industry practice, is consistent with the GHG Protocol's treatment of purchased electricity, reflects the emissions associated with Valley Water's actual electricity procurement decisions, and supports a clear, consistent, and legally defensible emissions inventory. Nevertheless, Valley Water appreciates the commenter's thoughtful discussion regarding the relationship between electricity consumption, clean energy procurement, and GHG accounting, and this feedback will help inform future discussions regarding how these topics are communicated within Valley Water's broader climate and sustainability efforts.