

**Final Environmental Assessment
And Finding of No Significant Impact
Monterey Bay Regional Desalination Project –
Monterey Presidio Pipeline Crossing**

Prepared for:

Headquarters
U.S. Army Garrison, Presidio of Monterey
1759 Lewis Road, Suite 210
Monterey, CA 93944-3223

California American Water
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950
Contact: John Kilpatrick
Title: Engineering Manager, Project Delivery

Prepared by

RBF Consulting
9755 Clairemont Mesa Boulevard, Suite 100
San Diego, California 92124-1324
www.rbf.com
(858) 614-5044

March 2012

Finding of No Significant Impact

Monterey Bay Regional Desalination Project – Monterey Presidio Pipeline Crossing

March 2012

The finding of no significant impact (FONSI) has been prepared pursuant to Council on the Environmental Quality Regulations (40 CFR Parts 1500-1508) for implementing the procedural provisions of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and Army Regulation 200-2 (*Environmental Effects of Army Actions*). The FONSI is based on the Attached Environmental Assessment (EA) for the Monterey Bay Regional Desalination Project – Monterey Presidio Pipeline Crossing project (Proposed Action).

DESCRIPTION OF PROPOSED ACTION

As a component of the Monterey Bay Regional Desalination Project, the Monterey Presidio Pipeline would be used to convey water produced from the Monterey Bay Regional Desalination Project to the Monterey Peninsula and surrounding communities. Under the Proposed Action, the preferred alignment for the pipeline would consist of the pipe entering the Presidio of Monterey at the High Street entrance and following Stilwell Avenue northward, turn onto Fitch Avenue and exit the Presidio of Monterey at Spencer Street (henceforth referred to as the Fitch Avenue Route).

The Proposed Action would be located on the Presidio of Monterey that is currently under federal ownership. The U.S. Army will issue a Right-of-Entry and an Easement to Construct and Operate the Proposed Action with the condition that the applicable measures included in the Mitigation Monitoring and Reporting Plan are implemented. The EA serves as the U.S. Army's NEPA compliance document for the federal action of issuing the Easement and Right-of-Entry.

DESCRIPTION OF NO ACTION

The No Action Alternative would not allow CAW to construct and operate the pipeline through the Presidio of Monterey, owned by the Army, and no action would take place. Under the No Action Alternative, the Presidio would not be used to allow CAW to meet its objectives of injecting an additional 4.3 mgd (3,000 gpm) of excess available water into the Seaside Basin and later extracting the stored water to meet peak demands. None of the effects of the Proposed Action would occur on the Presidio of Monterey.

The No Action Alternative does not preclude implementation of the desalination and conveyance components of the Monterey Bay Regional Water Project. The EA does not address the effects of actions that CAW may pursue as a consequence of the No Action Alternative because at this time they are speculative and would not require federal agency approval.

ALTERNATIVES CONSIDERED

The construction and operation of the pipeline facilities through the Presidio of Monterey identified in the Monterey Bay Regional Water Project is the Proposed Action in the EA.

In addition to the Proposed Action and No Action Alternative, an additional alternative to the Proposed Action was the Clay Route Alternative. This alternative is closer to known archaeological sites and its construction has the potential to expose unknown subsurface cultural resources and/or affect known historic properties in an unanticipated manner; therefore, this alternative was not selected as the preferred alternative.

Other alternatives as described in the EA were considered but rejected for various reasons including proximity to historical buildings and known archaeological sites, traffic impacts, and access constraints.

POTENTIAL ENVIRONMENTAL IMPACTS

The Proposed Action, located on property under the regulatory authority of the U.S. Army, was determined to have no adverse impacts on the natural environment and human health through the implementation of avoidance, minimization, and mitigation measures provided in the Mitigation Monitoring and Reporting Plan adopted for the project. However, under the No Action Alternative, impacts to water supply and water quality degradation resulting from seawater intrusion may result.

NEPA CONSIDERATIONS

The Environmental Assessment prepared for the Proposed Action determined that significant impacts would not result from implementation of the Proposed Action; therefore, an Environmental Impact Statement will not be required.

PUBLIC REVIEW AND COMMENT

The public was provided the opportunity to review and comment on the Environmental Assessment and findings. The following places were provided a copy of the Environmental Assessment for public review: Monterey Public Library, Pacific Grove Library, and the US Army Garrison, Presidio of Monterey. The following newspaper published a Notice of Availability: the Monterey County Herald. The comment period was November 16, 2011 through December 15, 2011. The public was directed to send comments to Lenore, Grover-Bullington, POM Environmental Chief, US Army Garrison, Presidio of Monterey at P.O. Box 5004, Monterey, CA 93944, or via electronic mail to pomea@rbf.com. During the review period, four comments were received; refer to Appendix B, Responses to Comments.



Joel J. Clark
Colonel, US Army
Commanding
Presidio of Monterey

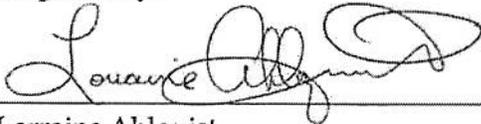
30 April 2012

Date

Final Environmental Assessment
And Finding of No Significant Impact
Monterey Bay Regional Desalination Project –
Monterey Presidio Pipeline Crossing

March 2012

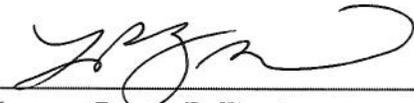
Prepared by:



Lorraine Ahlquist
RBF Consulting
Project Manager

3/26/12
Date

Reviewed by:



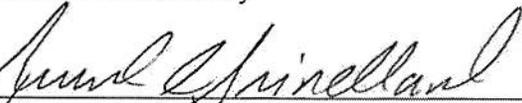
Lenore Grover-Bullington
Chief, Environmental Division
Presidio of Monterey Public Works

29 March 2012
Date



James Willison
Director, Directorate of Public Works
Presidio of Monterey

4 April 2012
Date



Richard Svindland
Director of Engineering
California American Water

3/26/12
Date

Approved by:



Joel J. Clark
Colonel, US Army
Commanding
Presidio of Monterey

30 April 2012
Date

Executive Summary

As a component of the Monterey Bay Regional Desalination Project, California American Water (CAW) has prepared this Environmental Assessment (EA) to analyze potential environmental impacts associated with the construction of the proposed Monterey Presidio Pipeline Crossing project (proposed project analyzed herein). As a portion of the project would be constructed on Federally-owned property, this EA is being prepared consistent with the requirements of the National Environmental Policy Act (NEPA). Although the project is being proposed by and will be implemented by CAW, the United States (U.S.) Army will serve as the Lead Agency for the portion of the pipeline crossing the Presidio of Monterey with regard to NEPA requirements.

Background

The Monterey Bay Regional Desalination Project is a new water supply project for the Monterey Peninsula and surrounding communities; refer to Exhibit 1, *Regional Vicinity Map*, and Exhibit 2, *Location Map*.

The Monterey Bay Regional Desalination Project would produce desalinated water, convey it to the existing CAW distribution system, and increase the system's use of storage capacity in the Seaside Groundwater Basin. The Monterey Bay Regional Desalination Project would consist of several distinct components: a seawater desalination plant; product water conveyance pipelines and storage facilities; and, an aquifer storage and recovery system. The construction and operation of the segment of the Monterey Presidio Pipeline that is located within the Federally-owned property of the Presidio of Monterey is the Proposed Action in this EA. The other components of the Monterey Bay Regional Desalination Project are undergoing separate environmental review.

Project Description

As a component of the Monterey Bay Regional Desalination Project, the Monterey Presidio Pipeline would be used to convey water produced from the Monterey Bay Regional Desalination Project to the Monterey Peninsula and surrounding communities. The proposed pipeline alignment required for this component is shown in Exhibit 3, *Proposed Action and Clay Street Route Alternative Alignments*.

Under the Proposed Action, the preferred alignment for the pipeline would consist of the pipe entering the Presidio of Monterey at the High Street entrance and following Stilwell Avenue northward, turn onto Fitch Avenue and exit the Presidio of Monterey at Spencer Street (henceforth referred to as the Fitch Avenue Route).

The U.S. Army's finding that the implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

Issue Area	No Impact	Potential Adverse Impact Prior to Mitigation	Minimization Measures	Mitigation Measures to Reduce Potentially Adverse Impacts
Air Quality	✓		AQ-1, AQ-2, AQ-3	
Biological Resources		✓		BIO-1, BIO-2, BIO-3, BIO-4, BIO-5
Cultural Resources		✓		CULT-1, CULT-2, CULT-3
Indian Trust Assets	✓			
Socioeconomic Resources	✓			
Energy	✓			
Environmental Justice	✓			
Geology and Soils	✓		GEO-1, GEO-2, GEO-3	
Hydrology and Water Quality		✓		HWQ-1
Land Use	✓			
Noise	✓		NOI-1, NOI-2, NOI-3, NOI-4	
Public Utilities and Service Systems	✓			
Traffic	✓		TRA-1	
Water Supply	✓			
Irreversible and Irretrievable Commitment of Resources	✓			

Refer to Section 6.0, *List of Environmental Commitments*, for details on the minimization and mitigation measures.

Cumulative Impacts

The Proposed Action could contribute to cumulative construction-related effects on air quality, biological resources, cultural resources and noise. However, the construction-related effects of the Proposed Action are typically short-term and, therefore, have a relatively narrow window of construction time relative to other planned projects. Operational impacts of the Proposed Action are less-than-significant or avoided by adoption and implementation of the Environmental Commitments of the Proposed Action, such as pre-construction and post-construction surveys and coordination with local agencies to reduce potential impacts.

Irreversible and Irretrievable Commitment of Resources

Although the Proposed Action will use minor amounts of both renewable and nonrenewable natural resources for project construction, this use will not increase the overall rate of use of any natural resource or result in the substantial depletion of any nonrenewable natural resource.

Because the Proposed Action is not proposing the development of or creating access to previously inaccessible areas, the project will not commit future generations to adverse, irreversible changes. Though the Proposed Action has the potential to allow additional growth by

providing additional water supplies, this growth is already planned by the local jurisdictions and CAW has no jurisdiction over growth-related planning.

The demand for electricity by the Proposed Action is not expected to present an adverse effect on the load for the electrical grid.

The Proposed Action has some effects due to the indirect emission of greenhouse gases from the production of new electricity demand needed to operate; however, it is not considered substantial.

Table of Contents

Section 1	Purpose and Need for Action	1
1.1	Background	1
1.1.1	Proposed Action - Monterey Presidio Pipeline Component of the Monterey Bay Regional Desalination Project	1
1.2	Purpose and Need	2
1.3	Related Monterey Bay Regional Desalination Project NEPA Documents	2
1.4	Potential Issues	3
Section 2	Alternatives Including the Proposed Action	11
2.1	No Action Alternative	11
2.2	Proposed Action	11
2.3	Clay Street Route Alternative	12
2.4	Alternatives Considered but Rejected	12
2.4.1	High Street Alternative	12
2.4.2	Segunda Pipeline Alternative	12
2.4.3	Monterey Presidio Pipeline Alternative Routes	13
2.4.4	Previous Alternative Pipeline Routes through the Presidio of Monterey	14
2.5	Construction Activities	19
2.5.1	Proposed Action	19
2.5.2	Alternative to the Proposed Action: Clay Street Route Alternative	19
2.5.3	Types of Construction Equipment	20
2.5.4	Area of Disturbance/Area of Potential Effect	20
2.5.5	Schedule / Phasing	20
Section 3	Affected Environment	23
3.1	Factors Eliminated from Further Analysis	23
3.2	Air Quality	23
3.2.1	Toxic Air Contaminants	26
3.2.2	Sensitive Receptors	26
3.2.3	Federal Clean Air Act	27
3.2.4	California Clean Air Act	27
3.2.5	Climate Change/Greenhouse Gases	27
3.3	Biological Resources	30
3.3.1	Introduction	30
3.3.2	Survey Methodology	31
3.4	Cultural Resources	41
3.4.1	Introduction	41
3.4.2	Environmental Setting	41
3.4.3	Regional Cultural Setting/Ethnography	41
3.4.4	Site Cultural Setting	57
3.4.5	Proposed Pipeline Route Alternatives Analyzed	57
3.4.6	Regulatory Setting	58

3.5	Energy	59
3.6	Environmental Justice	59
3.6.1	Introduction	59
3.6.2	Minority and Poverty Populations in the Project Area	60
3.7	Geology and Soils	61
3.7.1	Geology/Soils	61
3.7.2	Seismicity	61
3.8	Hazards and Hazardous Materials	62
3.9	Hydrology and Water Quality	63
3.9.1	Local Hydrology	63
3.10	Indian Trust Assets	63
3.11	Land Use	63
3.12	Noise	64
3.12.1	Community Noise Equivalent Level (CNEL)	64
3.12.2	Average Noise Level (Leq)	65
3.12.3	Day Night Average (Ldn)	65
3.12.4	Other Noise Measures	65
3.12.5	Sensitive Receptors	65
3.12.6	Laws, Ordinances, Regulations, and Standards	66
3.12.7	Significance of Changes in Ambient Noise Levels	66
3.13	Public Utilities and Service Systems	67
3.13.1	Introduction	67
3.13.2	Water	67
3.13.3	Wastewater	67
3.13.4	Natural Gas	67
3.13.5	Electricity	68
3.13.6	Telephone/Communication	68
3.13.7	Solid Waste	68
3.14	Socioeconomic Resources	69
3.14.1	Introduction	69
3.14.2	Socioeconomic Demographics	69
3.15	Traffic	71
3.15.1	Introduction	71
3.15.2	Proposed Action	72
3.15.3	Clay Street Route Alternative	72
3.16	Water Supply	73
Section 4	Environmental Consequences	75
4.1	Air Quality	75
4.1.1	No Action	75
4.1.2	Proposed Action	75
4.1.3	Clay Street Route Alternative	77
4.2	Biological Resources	77
4.2.1	No Action	77
4.2.2	Proposed Action	77
4.2.3	Clay Street Route Alternative	78

4.3	Cultural Resources	78
4.3.1	No Action.....	78
4.3.2	Proposed Action.....	78
4.3.3	Clay Street Route Alternative	78
4.4	Energy.....	79
4.4.1	No Action.....	79
4.4.2	Proposed Action.....	79
4.4.3	Clay Street Route Alternative	80
4.5	Environmental Justice.....	80
4.5.1	No Action.....	80
4.5.2	Proposed Action.....	80
4.5.3	Clay Street Route Alternative	80
4.6	Geology and Soils.....	80
4.6.1	No Action.....	80
4.6.2	Proposed Action.....	80
4.6.3	Clay Street Route Alternative	81
4.7	Hazards and Hazardous Materials	81
4.7.1	No Action Alternative.....	82
4.7.2	Proposed Action.....	82
4.7.3	Clay Street Route Alternative	82
4.8	Hydrology and Water Quality.....	82
4.8.1	No Action Alternative.....	82
4.8.2	Proposed Action.....	83
4.8.3	Clay Street Route Alternative	83
4.9	Indian Trust Assets	83
4.9.1	No Action Alternative.....	83
4.9.2	Proposed Action.....	84
4.9.3	Clay Street Route Alternative	84
4.10	Land Use.....	84
4.10.1	No Action Alternative.....	84
4.10.2	Proposed Action.....	84
4.10.3	Clay Street Route Alternative	84
4.11	Noise.....	84
4.11.1	No Action Alternative.....	84
4.11.2	Proposed Action.....	85
4.11.3	Clay Street Route Alternative	85
4.12	Public Utilities and Service Systems	86
4.12.1	No Action Alternative.....	86
4.12.2	Proposed Action.....	86
4.12.3	Clay Street Route Alternative	88
4.13	Socioeconomic Resources	89
4.13.1	No Action Alternative.....	89
4.13.2	Proposed Action.....	89
4.13.3	Clay Street Route Alternative	89
4.14	Traffic.....	89
4.14.1	Introduction.....	89

4.14.2	No Action Alternative.....	89
4.14.3	Proposed Action.....	89
4.14.4	Clay Street Route Alternative.....	90
4.15	Water Supply.....	91
4.15.1	No Action Alternative.....	91
4.15.2	Proposed Action.....	91
4.15.3	Clay Street Route Alternative.....	91
4.16	Cumulative Impacts.....	91
4.16.1	Air Quality.....	92
4.16.2	Biological Resources.....	92
4.16.3	Cultural Resources.....	92
4.16.4	Noise.....	93
4.16.5	Traffic.....	93
4.17	Irreversible and Irrecoverable Commitment of Resources.....	93
Section 5	Consultation and Coordination.....	95
5.1	Agencies and Persons Consulted.....	95
5.1.1	Native American Heritage Commission Record Search and Native American Contact.....	95
5.2	Field Reviews of the Sites.....	95
5.2.1	Biological Resources.....	95
5.2.2	Cultural Resources.....	95
5.3	Public Involvement.....	96
5.4	Fish and Wildlife Coordination Act (16 USC §651 et seq.).....	96
5.5	Endangered Species Act (16 USC §1531 et seq.).....	96
5.6	National Historic Preservation Act (16 USC §470 et seq.).....	96
5.7	Indian Trust Assets.....	97
5.8	Migratory Bird Treaty Act (16 USC §703 et seq.).....	97
Section 6	List of Environmental Commitments.....	99
6.1	Introduction.....	99
6.2	Air Quality.....	99
6.3	Biological Resources.....	100
6.4	Cultural Resources.....	101
6.5	Geology and Soils.....	102
6.6	Hazards and Hazardous Waste.....	103
6.7	Hydrology and Water Quality.....	103
6.8	Noise.....	104
6.9	Traffic.....	105
Section 7	List of Preparers and Reviewers.....	107
7.1	List of Preparers.....	107
7.1.1	RBF Consulting, EA Preparers.....	107
7.2	List of Reviewers.....	107
Section 8	References.....	107
Appendix A Native American Tribal Consultation		
Appendix B Responses to Comments		

List of Tables and Exhibits

Exhibit 1	Vicinity Map	5
Exhibit 2	Location Map	7
Exhibit 3	Proposed Action and Clay Street Route Alternative Alignments	9
Exhibit 4	Previously Studied Alternative Pipeline Route Locations	15
Exhibit 5	Current Alternative Pipeline Route Locations and APE	17
Table 3.3-1	Federal and State Ambient Air Quality Standards	24
Table 3.3-2	Exceedances of Ambient Air Quality Standards	25
Table 3.3-3	Current Attainment Status of Air Basin	26
Exhibit 6	Biological Resources Map	33
Table 3.4-1	Archaeological Studies within the Presidio of Monterey Study Area	44
Table 3.4-2	Previously Identified Cultural Resources Within Presidio of Monterey Study Area and APE	47
Table 3.4-3	Previously Identified Cultural Resources within ¼-Mile Record Search Radius	50
Table 3.7-1	Project Area Minority and Poverty Profile	60
Table 3.7-2	Study Area Census Tract Minority and Poverty Population	61
Table 3.12-1	Significance of Changes in Cumulative Noise Exposure	66
Table 3.14-1	Population Summary	70
Table 3.14-2	Characteristics of Study Area Housing	70
Table 3.14-3	Employment by Industry	71
Table 3.14-4	Median Household Income	71
Table 4.1-1	Construction Emissions	75
Table 4.1-2	GHG Emissions Associated with Project Construction Activities	76

List of Acronyms and Abbreviations

AAFES	Army and Air Force Exchange Service
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACHP	Advisory Council on Historic Preservation
ACOE	U.S. Army Corps of Engineers
ACP	Access Control Points
AFY	Acre-foot per year
AM	ante meridiem
AMBAG	Association of Monterey Bay Area Governments
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
AR	Army Regulation
ASR	Aquifer Storage and Recovery
BACT	Best Available Control Technology
BCC	Bird of Conservation Concern
BLM	Bureau of Land Management
BMP	Best Management Practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CAW	California American Water Company
CCAA	California Clean Air Act
CCD	Census County Division

CCRWQCB	Central Coast Regional Water Quality Control Board
CDFG	California Department of Fish and Game
CDO	Cease and Desist Order
Central Coast Basin Plan	Water Quality Control Plan for the Central Coast Region
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CHRIS	California Historical Resources Information System
CIWMB	California Integrated Waste Management Board
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CPCN	Certificate of Public Convenience and Necessity
CPUC	California Public Utilities Commission
CRHP	California Register of Historic Places
CRTP	Cultural Resources Treatment Plan
CSA	County Service Area
CSD	County Sanitation District
CSU	California State University
CSUMB	California State University at Monterey Bay

CWP	Coastal Water Project
dB	Decibel
dBA	A-weighted decibel scale
Dbh	Diameter at breast height
Decision	California American Water v. City of Seaside, et al., Case No. 66343 (Monterey County Superior Court, 2006)
DHS	Department of Health Services
DLIFLC	Defense Language Institute, Foreign Language Center
DoD	Department of Defense
DOF	Department of Finance
DPW-E	Directorate of Public Works Environmental Division
EA	Environmental Assessment
EIR	Environmental Impact Report
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCAA	Federal Clean Air Act
FEIR	Final Environmental Impact report
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gases
gpm	Gallons per minute
HAA	Halogenic Acetic Acids
HABS	Historic American Building Survey
HAER	Historic American Engineering Record

ICRMP	Integrated Cultural Resources Management Plan
IMCOM	Installation Management Command
INRMP	Integrated Natural Resource Management Plan
IPCC	Intergovernmental Panel on Climate Change
IPMC	Integrated Pest Management Coordinator
ITA	Indian Trust Asset
Ldn	Day/Night Average Sound Level
Leq	Equivalent Sound Level
LF	Lineal Feet
Lmax	Maximum Noise Level
Ln	Sound level exceeded over a specified timeframe, n
LOS	Level of Service
LUP	Linear Underground/Overhead Projects
MBTA	Migratory Bird Treaty Act
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MCC	Motor Control Center
MCWD	Marina Coast Water District
mgd	Million gallons per day
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPWMD	Monterey Peninsula Water Management District
MRF	Materials Recovery Facility
MRS	Munitions Response Sites
MRWMD	Monterey Regional Waste Management District

MRWPCA	Monterey Regional Water Pollution Control Agency
MSL	Mean Sea Level
MTBM	Microtunnel Boring Machine
MTCO ₂ eq/year	Metric Tons of CO ₂ equivalent per year
MW	Monitoring Well
NAAQS	National Ambient Air Quality Standards
NcC	Narlon loamy fine sand 2 to 9 percent slopes
NCCAB	North Central Coast Air Basin
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	Nitrogen Dioxide
NOI	Notice of Intent
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O ₃	Ozone
OHWM	Ordinary High Water Mark
OMC	Ord Military Community
PA	Programmatic Agreement
Pb	Lead
PEA	Proponent's Environmental Assessment

PG&E	Pacific Gas and Electric
PM	post meridiem
PM ₁₀	Particulate matter less than 10 microns in diameter
PM _{2.5}	Particulate matter less than 2.5 microns in diameter
POM	Presidio of Monterey
ppm	Parts per million by volume (or micromoles of pollutant per mole of gas)
PVC	Poly Vinyl Chloride
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Concern
ROG	Reactive Organic Gases
SAR	Species at Risk
SB	Senate Bill
SCS	Sustainable Community Strategy
SDR	Standard Dimension Ratio
Secretary	Secretary of the California Environmental Protection Agency
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMTIW	Santa Margarita Test Injection Well
SO ₂	Sulfur Dioxide
SO _x	Sulfur Oxides
sp.	An unspecified species of the genus listed before sp.
SR	State Route
SS	Stainless Steel
STC	Sound Transmission Class

SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
THM	Trihalomethanes
TMP	Traffic Management Plan
U.S.	United States
UNFCCC	United Nations Framework Convention on Climate Change
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
WDR	Waste Discharge Requirements
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter

Section 1 Purpose and Need for Action

1.1 Background

As a component of the Monterey Bay Regional Desalination Project, California American Water (CAW) has prepared this Environmental Assessment (EA) to analyze potential environmental impacts associated with the construction of the proposed Monterey Presidio Pipeline project (Proposed Action analyzed herein). As the Monterey Presidio Pipeline project would be constructed on Federally-owned property, this EA is being prepared consistent with the requirements of the National Environmental Policy Act (NEPA). Although the Monterey Presidio Pipeline project is being proposed by and will be implemented by CAW, the United States (U.S.) Army will serve as the Lead Agency for the portion of the pipeline crossing the Presidio of Monterey with regard to NEPA requirements.

The Monterey Bay Regional Desalination Project is a new water supply project for the Monterey Peninsula and surrounding communities. The Monterey Bay Regional Desalination Project will replace existing supplies that are constrained by recent legal decisions affecting the Carmel River and Seaside Groundwater Basin water resources: State Water Resources Control Board (SWRCB) Order No. WR 95-10 (Order 95-10) and the Monterey County Superior Court adjudication of water rights in the Seaside Groundwater Basin. Both rulings reduce CAW's use of its two primary sources of supply for the Monterey District and provide the most immediate impetus for the Monterey Bay Regional Desalination Project.

1.1.1 Proposed Action - Monterey Presidio Pipeline Component of the Monterey Bay Regional Desalination Project

As a component of the Monterey Bay Regional Desalination Project, the Monterey Presidio Pipeline would be used to convey water produced from the Monterey Bay Regional Desalination Project to the Monterey Peninsula and surrounding communities. The 36-inch-diameter pipeline would be able to be operated in either direction, connecting the Forest Lake Reservoir pressure zone in Monterey to Seaside. The Monterey Presidio Pipeline would also connect to the proposed Transfer Pipeline, conveying desalinated water from Marina to the Monterey Peninsula. From the Forest Lake Reservoir, desalinated water could also flow via gravity to the lower Carmel Valley and by pump to the upper Carmel Valley.

The construction and operation of the segment of the Monterey Presidio Pipeline within the Federally-owned property of the Presidio of Monterey is the Proposed Action in this EA, refer to Exhibit 1, *Vicinity Map*, and Exhibit 2, *Location Map*.

Under the Proposed Action, the preferred alignment for the pipeline is the Fitch Avenue Route which would consist of the pipe entering the Presidio of Monterey at the High Street entrance and following Stilwell Avenue northward, turning east onto Fitch Avenue and exiting the Presidio of Monterey at Spencer Street. The proposed pipeline alignment required for this component is shown in Exhibit 3, *Proposed Action and Clay Street Route Alternative Alignments*.

1.2 Purpose and Need

The purpose of the proposed project:

- Provide a new potable water transmission pipeline along the preferred route within and across the Presidio of Monterey.
- Replace existing water supplies that are being constrained by recent legal decisions.

The need of the proposed project is:

- Providing a supply of potable water to meet existing demands.

1.3 Related Monterey Bay Regional Desalination Project NEPA Documents

Several laws and policy requirements have directed, limited, or guided the decision-making process for this EA and include the following documents, which are incorporated by reference and summarized below.

CAW's (Proponent's) Environmental Assessment for the Coastal Water Project. July 14, 2005.

The Proponent's Environmental Assessment (PEA) was prepared by RBF Consulting for the Coastal Water Project. The PEA was prepared by California American Water Company for submission to the California Public Utilities Commission (CPUC) as part of CAW's application for a Certificate of Public Convenience and Necessity (CPCN) to build, own, and operate the Coastal Water Project. The PEA was intended to facilitate the CPUC's California Environmental Quality Act (CEQA) process and the CPUC's corresponding public involvement proceedings during preparation of an Environmental Impact Report (EIR), pursuant to CEQA. The PEA contains an evaluation of the environmental effects of the components of the Coastal Water Project.

Information from the PEA was incorporated herein in preparing the analysis of potential environmental effects resulting from construction of the Monterey Presidio Pipeline and associated infrastructure, as applicable. Background information and technical data included in the PEA is cited in several sections of this EA.

California American Water Company – Coastal Water Project. Final Environmental Impact Report – Volumes 1 through 5. Certified December 2009.

The Final Environmental Impact Report (FEIR) for the Coastal Water Project was prepared subsequent to the PEA to provide analysis of the potentially significant effects of the project and its alternatives (including the Monterey Bay Regional Desalination Project) on the human and natural environment that may occur with implementation. The implementation program for the FEIR includes incorporation of mitigation measures to reduce project impacts to less than significant.

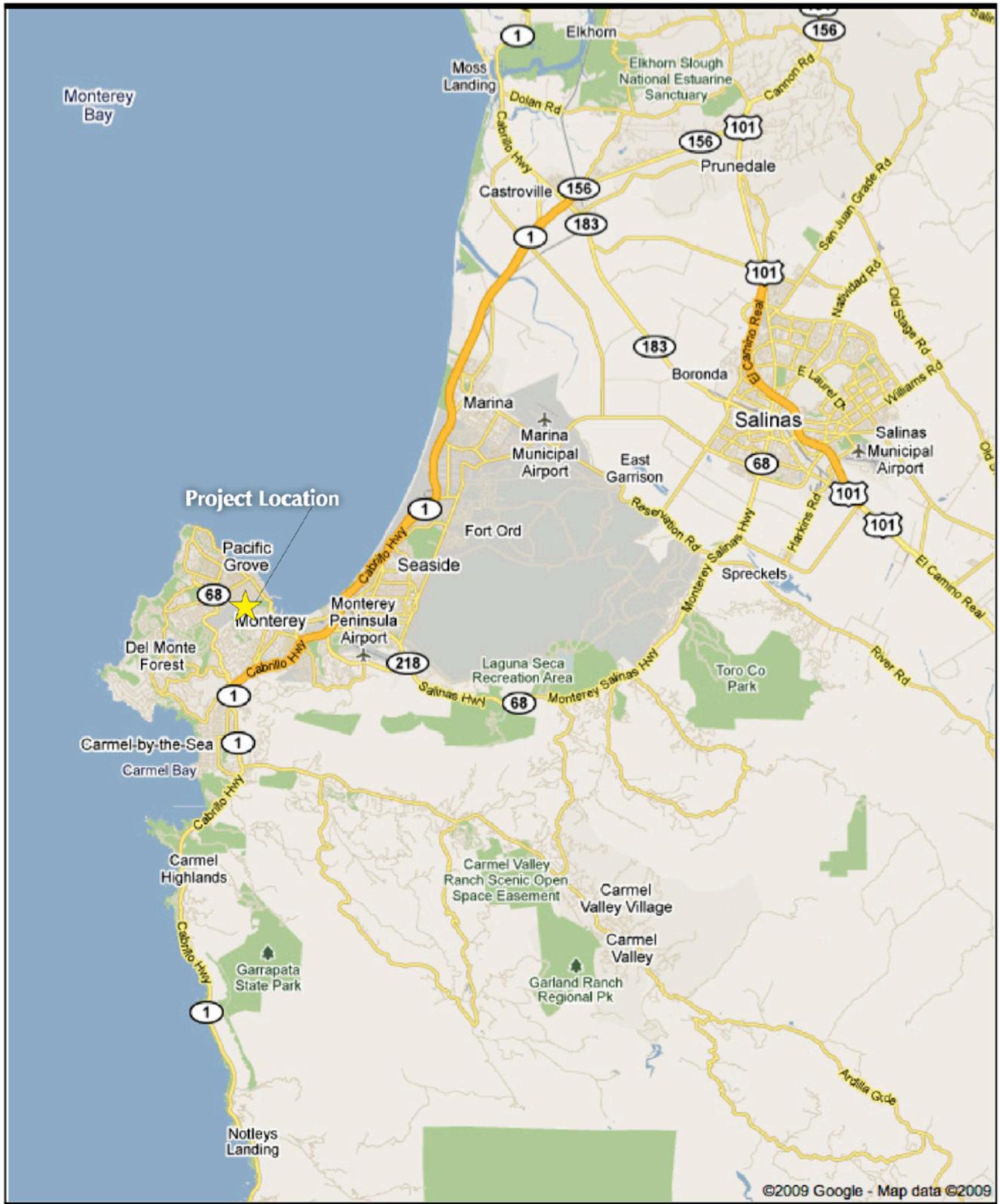
Technical reports prepared to support the analysis within the FEIR were utilized in preparation of this EA; however, as the FEIR addressed the Coastal Water Project and alternative the Monterey Bay Regional Desalination Project as a whole, data from the technical reports were excerpted as applicable to the Proposed Action considered herein (Monterey Presidio Pipeline and associated infrastructure) to allow for the technical analysis. Additional information pertaining to the technical reports prepared in support of the FEIR is provided in Section 8, *References*, of this document.

1.4 Potential Issues

The following key issues have been identified and are addressed in detail in Sections 3 and 4 of this EA:

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Environmental Justice
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Indian Trust Assets
- Land Use
- Noise
- Socioeconomic Resources
- Traffic
- Water Supply

THIS PAGE INTENTIONALLY LEFT BLANK



Not to Scale

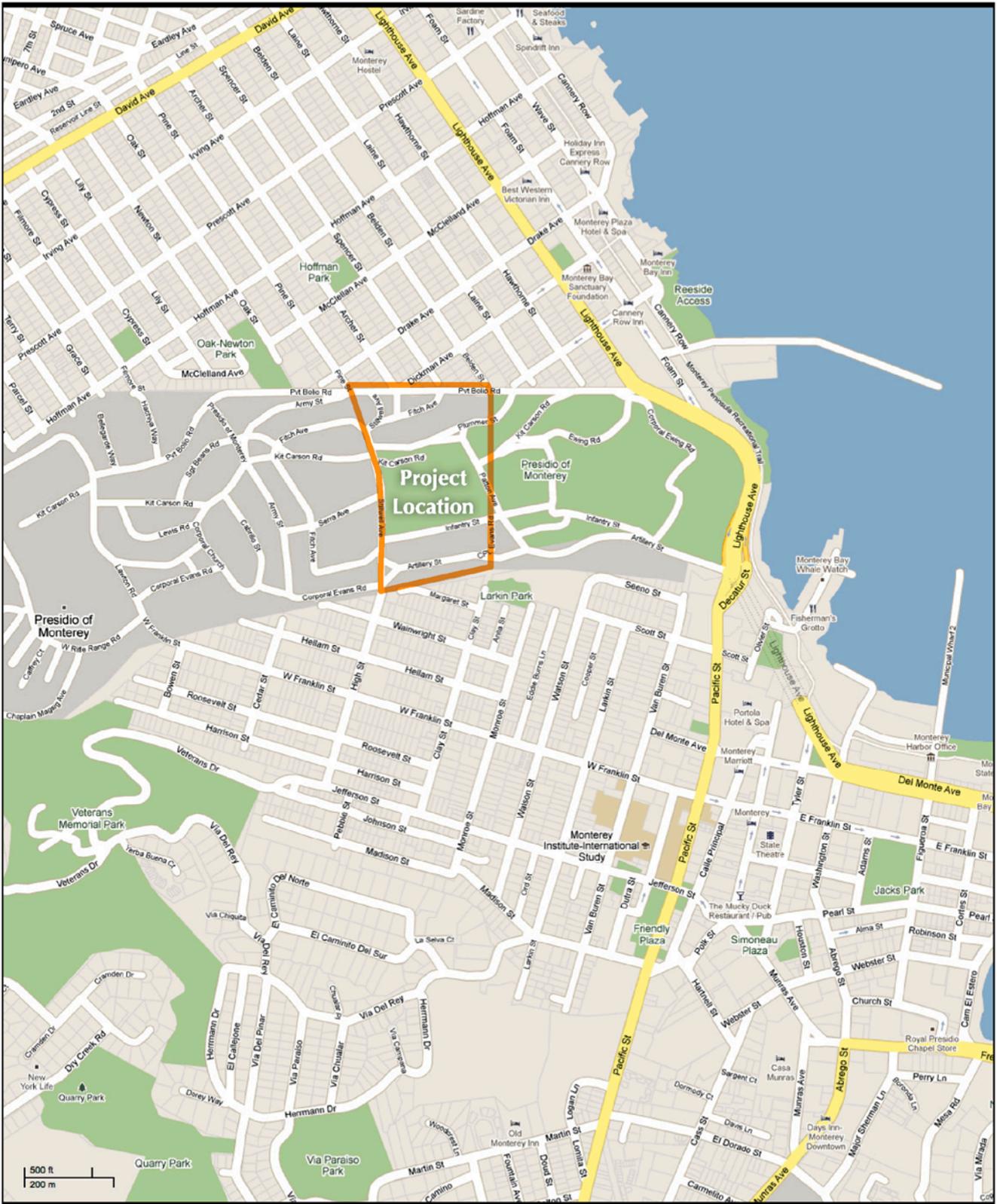
REGIONAL VICINITY MAP

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 1

SOM1.c: 70100045_010_exhibit_1etm_portrait.indd

THIS PAGE INTENTIONALLY LEFT BLANK



Not to Scale

SOM\c:\70100045\010_exhibit_letter_portrait.indd

LOCATION MAP

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 2

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

Section 2 Alternatives Including the Proposed Action

2.1 No Action Alternative

Under the No Action Alternative construction and operation of the new Monterey Presidio Pipeline across the Presidio of Monterey, would not take place. As a consequence, CAW would not construct the portion of the Monterey Presidio Pipeline located outside of the Presidio of Monterey property. CAW currently owns and operates three potable water pipelines that cross the Presidio of Monterey. CAW would continue to utilize its three existing pipelines to deliver water to its customers from Forest Lake to East Monterey. The hydraulic trough that currently prevents the flow of water from Seaside to New Monterey/Forest Lake would still exist.

It should be noted that the No Action Alternative does not preclude implementation of the desalination and remaining conveyance components of the Monterey Bay Regional Desalination Project; however, alternative delivery methods not covered under the Coastal Water Project (CWP) Final Environmental Impact Report (FEIR) and this EA would have to be developed and analyzed separately. This EA does not address the effects of actions that CAW may pursue as a consequence of the No Action Alternative because at this time they are speculative and would not require U.S Army approval.

2.2 Proposed Action

The Proposed Action of this EA consists of CAW constructing and operating a new potable water transmission pipeline, the Monterey Presidio Pipeline, of up to 36 inches in diameter across the Federally-owned Presidio of Monterey. The 36-inch-diameter pipeline would be able to be operated in either direction, connecting the Forest Lake Reservoir pressure zone in Monterey to Seaside. The Monterey Presidio Pipeline would also connect to the proposed Transfer Pipeline, conveying desalinated water from Marina to the Monterey Peninsula. From the Forest Lake Reservoir, desalinated water could also flow via gravity to the lower Carmel Valley and by pumping to the upper Carmel Valley. Under the Proposed Action, the preferred alignment for the pipeline is the Fitch Avenue Route which would consist of the pipe entering the Presidio of Monterey at the High Street entrance and following Stilwell Avenue northward, turn east onto Fitch Avenue and exit the Presidio of Monterey at Spencer Street. Proposed Action construction details for this route are provided in Section 2.5 Construction Activities.

The construction activities under the Proposed Action would avoid known historical and cultural resources located within the Presidio of Monterey that would not be avoided with the selection of the Clay Street Route Alternative. In addition, in contrast to the Clay Street Route Alternative, no sensitive biological or wetlands have been identified within the Proposed Action route.

Implementation of the Proposed Action would ensure that CAW would not violate the Cease and Desist Order (CDO) (Order WR 2009-0060). The CDO orders CAW to terminate its unlawful diversions from the Carmel River by December 31, 2016 and it would provide a key component for CAW to meet its schedule for reducing diversions from the Carmel River and extractions

from the Seaside Groundwater Basin. In addition, the proposed action would provide a conveyance system for new water supplies produced by the Monterey Bay Regional Desalination Project to be deliverable to customers in New Monterey and Carmel Valley. As previously stated, the new water supply to these areas would not occur under the No Action Alternative.

2.3 Clay Street Route Alternative

The Clay Street Route Alternative serves as an alternative crossing of the Presidio of Monterey. The Clay Street Route Alternative would turn north from Franklin Street onto Clay Street. A tunnel portal would be constructed near the playground of Larkin Park, just outside the Presidio of Monterey property. The pipeline would be constructed using trenchless technology underneath the drainage way and Presidio of Monterey fence line northwards towards Belden Street in the City of Monterey. A second portal would be located in a parking lot pocketed between Plummer Street and Private Bolio Road, located near and within the northern property boundary of the Presidio of Monterey. The length of pipeline installed underneath the Presidio of Monterey would be approximately 1,300 lineal feet (LF). Using conventional trenched construction, the pipeline would be constructed northward less than 100 LF to the property limits/fence line of the Presidio of Monterey and onto Belden Street.

Under this alternative, potential impacts to cultural, biological, and wetlands have been identified. Avoidance of these potential impacts would result from selection of the No Action Alternative or the Proposed Action.

2.4 Alternatives Considered but Rejected

2.4.1 High Street Alternative

The High Street Alternative followed a large portion of the Proposed Action route, except instead of turning on to Fitch Avenue, the High Street Route continued on Stilwell Avenue, and exited on to Pine Street. Prior to exiting the Presidio of Monterey to Pine Street, this alternative route would pass through two historical buildings onsite. Due to the proximity of the historic buildings, and the high potential for culturally significant artifacts located between the two buildings, this pipeline alternative was rejected from further analysis.

2.4.2 Segunda Pipeline Alternative

In developing the Proposed Action, CAW considered several other pipeline alternatives, some of which were discussed and analyzed in the Coastal Water Project FEIR.

The Segunda Pipeline Alternative would avoid construction of a new pipeline on Federally-owned property. The Segunda Pipeline Alternative was proposed by CAW in the Proponent's Environmental Assessment (PEA) and discussed as an alternative to the Monterey Presidio Pipeline in the Coastal Water Project FEIR. The Segunda Pipeline Alternative is a set of infrastructure components that could be implemented in place of the proposed Monterey Presidio Pipeline Alternative to convey water from Terminal Reservoir and the ASR system south to Carmel Valley and the Monterey Peninsula. These conveyance and storage facilities, some of which are existing facilities, are as follows:

- Tarpay Flats Pump Station (proposed);
- New Segunda Pipeline (proposed);
- Crest Tank (existing);
- Segunda Reservoir (existing); and,
- Segunda Reservoir Pump Station (existing).

Through further analysis, CAW found several reasons to look for a better alternative to convey water south to the Carmel Valley and Monterey Peninsula: 1) the proposed Tarpay Flats Pump Station would potentially have substantial significant impacts on biological resources, since it would be located in an area with wetland characteristics; 2) the proposed Tarpay Flats Pump Station would potentially have substantial significant impacts on visual resources, since it would be located in an undeveloped natural area adjacent to a busy intersection; and, 3) the construction of the Segunda Pipeline would potentially have significant impacts on traffic and transportation, since the pipeline would need to be installed in a narrow roadway in a canyon in a residential area served by few streets.

To eliminate some of the impacts associated with the Segunda Pipeline and to better serve the hydraulic challenges in the water system, CAW has proposed the Monterey Presidio Pipeline. In addition to alleviating the aforementioned environmental impacts, the Monterey Presidio Pipeline would have secondary utility within the CAW distribution system. The alternative would connect two parts of the CAW system that currently are separated by a hydraulic trough and solve high-pressure problems in the coastal zones of the system, thereby solving longstanding technical difficulties that have prevented efficient distribution of CAW water. The implementation of the Monterey Presidio Pipeline instead of the Segunda Pipeline Alternative as part of the CWP would, therefore, help reduce the total amount of construction needed in the CAW system in the foreseeable future.

2.4.3 Monterey Presidio Pipeline Alternative Routes

CAW also identified alternative routes to the Monterey Presidio Pipeline alignment, including a route that would avoid construction through the Federally-owned Presidio of Monterey. The route would follow Del Monte Avenue to Pacific Street, follow Pacific Street to Lighthouse Avenue, and follow Lighthouse Avenue northward towards New Monterey; however, because of high potential of significant and unavoidable impacts to traffic and existing utilities on the major thoroughfare connecting Old and New Monterey, CAW did not pursue this option.

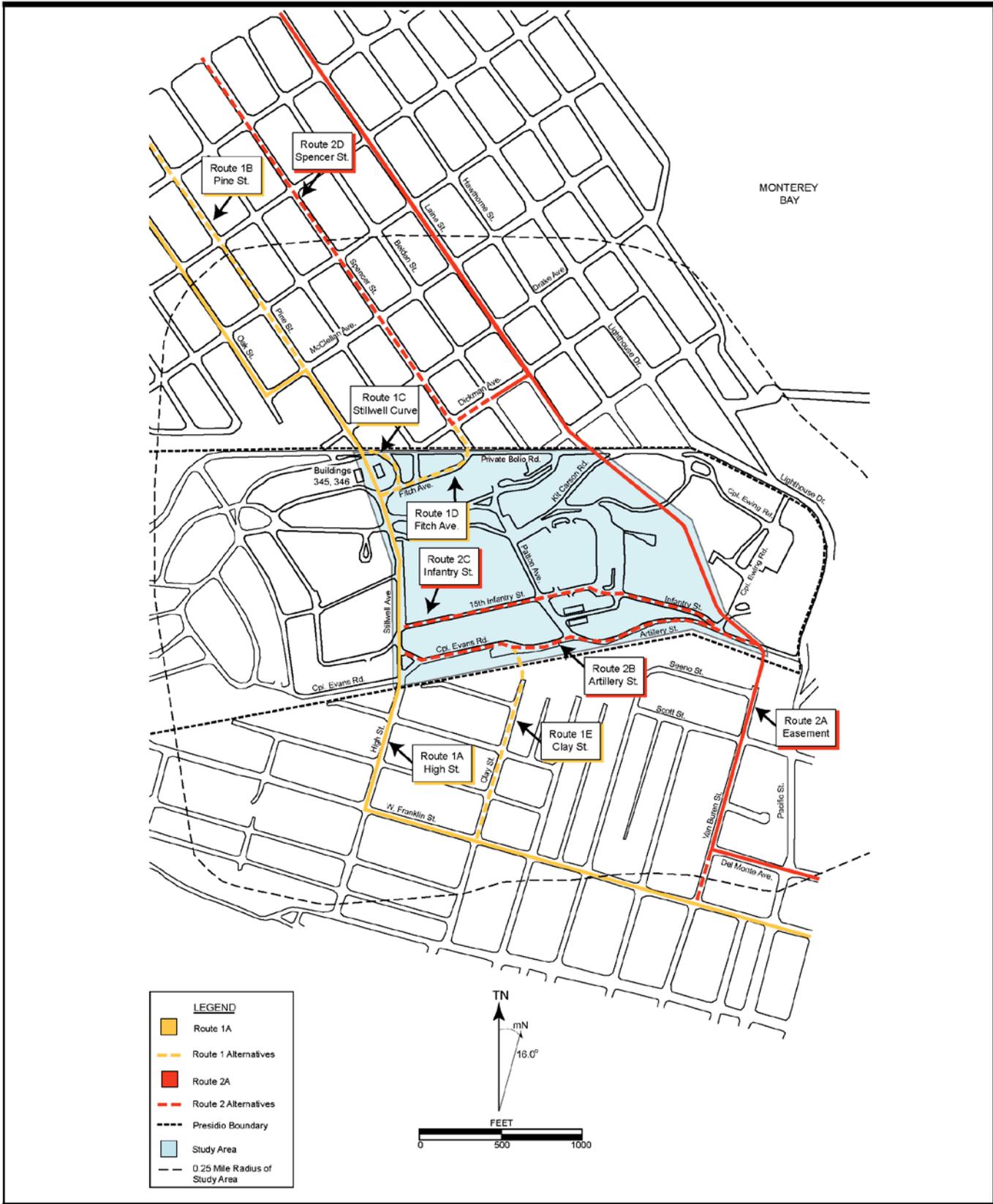
Monterey Presidio Pipeline routes within the Presidio of Monterey that were considered but rejected from further analysis in this EA include routes following Corporal Ewing Road, due its proximity to known and suspected cultural resources. A route paralleling CAW's existing pipeline from Van Buren Street in Old Monterey, through the Lower Presidio of Monterey to Laine Street in New Monterey, was rejected because of its proximity to known and suspected cultural resources and known human remains. Routes that follow Patton Avenue or Private Bolio also were rejected due to concerns with traffic and access. Routes further west of Stilwell

Avenue were rejected from further analysis because of rising topography exceeding CAW water system hydraulic requirements.

2.4.4 Previous Alternative Pipeline Routes through the Presidio of Monterey

A preliminary cultural assessment conducted in July 2010 analyzed nine alternative pipeline routes within the Presidio of Monterey, shown in Exhibit 4, *Previously Studied Alternative Pipeline Route Locations*. Of those routes, only the High Street Route (Route 1A and alternatives 1A and 1D) and Clay Street Route (Route 1E with modification) were determined to impact fewer cultural resources than the other routes analyzed and were, therefore, carried forward for further analysis in this EA. Refer to Exhibit 5, *Current Alternative Pipeline Route Locations and APE*. Monterey Presidio Pipeline routes within the Presidio of Monterey that were considered but rejected from further analysis in this EA include: routes following Corporal Ewing Road, due to the proximity of known and suspected cultural resources; and, routes entering the Presidio of Monterey from Van Buren Street, including a route paralleling CAW's existing pipeline through the Lower Presidio of Monterey to Laine Street in New Monterey, because of the proximity to known and suspected cultural resources and known human remains.

Routes that follow Patton Avenue or Private Bolio were rejected due to concerns with traffic and access. Routes further west of Stilwell Avenue were rejected from further analysis because of rising topography exceeding CAW water system hydraulic requirements.



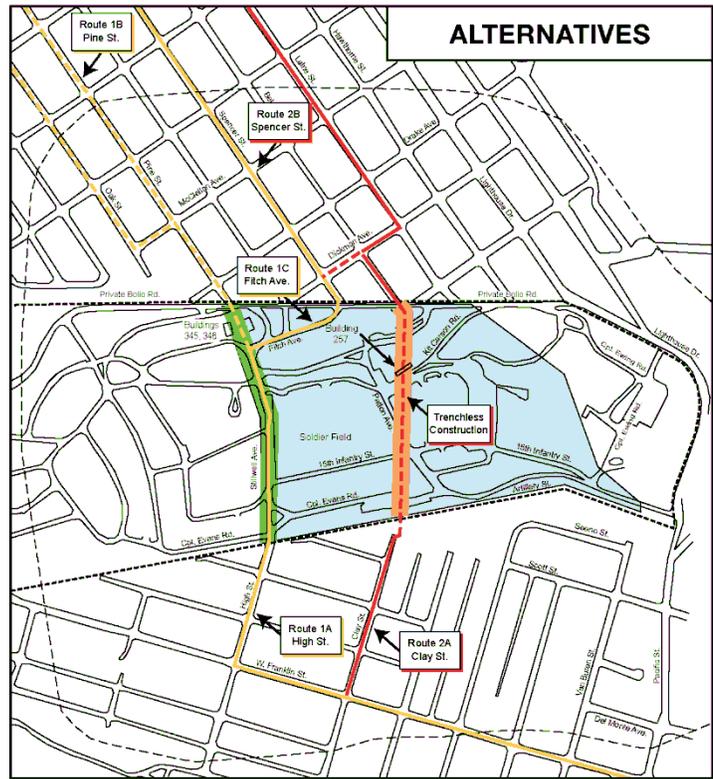
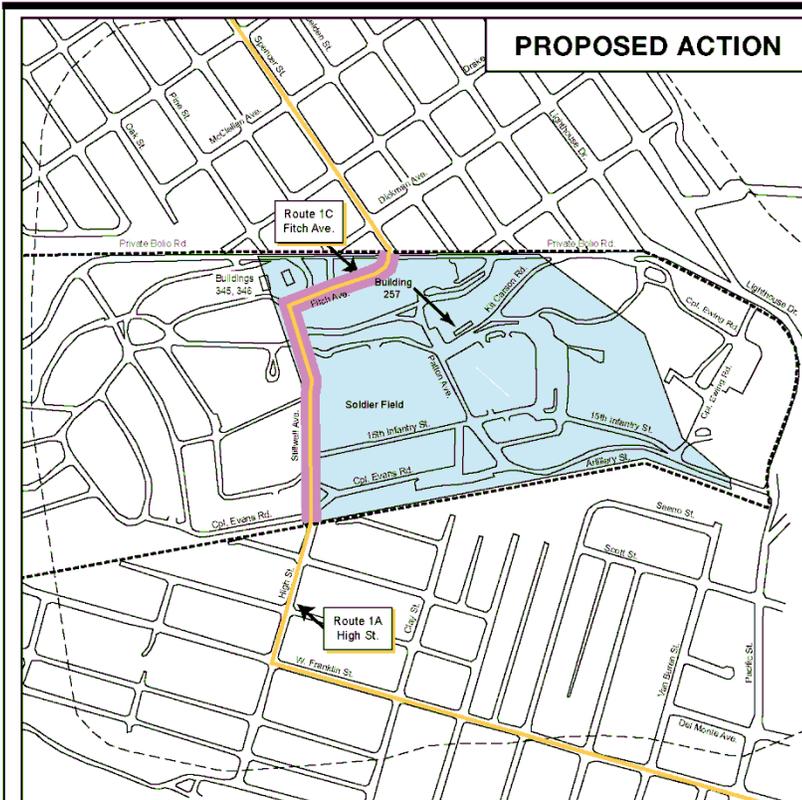
SDNac:70100045.010_exhibit_4letter_contrakt.indd

PREVIOUSLY STUDIED ALTERNATIVE PIPELINE ROUTE LOCATIONS

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 4

THIS PAGE INTENTIONALLY LEFT BLANK



LEGEND	
	Route 1A
	Route 1 Alternatives
	Route 2A
	Route 2 Alternatives
	Presidio Boundary
	Study Area
	0.25 Mile Radius of Study Area
	Area of Potential Effect (APE) (100 feet wide)
	APE for Proposed Action
	APE for High Street Alternative
	APE for Clay Street Alternative



CURRENT ALTERNATIVE PIPELINE ROUTE LOCATIONS AND APE

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 5



3DMac: 70100046.010_exhibit_5_label_portrait.indd

THIS PAGE INTENTIONALLY LEFT BLANK.

2.5 Construction Activities

2.5.1 Proposed Action

Construction activities for installation of the pipeline would occur within the Presidio of Monterey's Historic District which is eligible for inclusion in the National Register of Historic Places. Activities would include trenching in existing paved roadways along the approximate 1,600-LF alignment, installation of bedding, pipe and backfill materials, and resurfacing the roadway. Traffic control measures would be implemented as necessary. In unpaved areas, native soil would be replaced to cover the trench and the area re-vegetated if necessary. The pipelines would be constructed of reinforced concrete cylinder pipe, mortar-lined and coated steel pipe, steel cylinder concrete pipe, or ductile iron pipe, typically delivered and installed in 6- to 40-foot-long sections. Typically, the pipe would be brought to the site just ahead of construction and staged along the alignment ready for placement. Typically, earth cover over the pipe would be five feet. Variations in this depth would be required to accommodate the local topography, hydraulic grade, and utility congestion, among other factors (such as installation of the pipeline underneath the culvert at the High Street gate). The trench width would be generally 10 to 15 feet. The width of the disturbance corridor is the width of pavement (i.e., "curb to curb").

Work tasks are anticipated to proceed in the following order:

- Clearing, grubbing and grading the rights-of-way;
- Trenching and hauling of excess spoils;
- Relocating utilities, if required;
- Delivering pipe and pipe bedding material;
- Installing pipe bedding material;
- Installing pipe;
- Backfilling the trench;
- Hydrostatic testing; and,
- Restoring the right-of-way to original condition (pavement replacement, revegetation, etc.).

2.5.2 Alternative to the Proposed Action: Clay Street Route Alternative

The Clay Street Route Alternative proposes to cross through the Presidio of Monterey largely via subsurface construction. An access portal would be constructed within the paved parking lot located between Private Bolio Road and Plummer Street. A second access portal would be located outside of the Presidio of Monterey property near Larkin Park in Monterey. Of the

approximate 1,300 LF of pipeline that would be required to cross the Presidio of Monterey property, less than 100 LF would be constructed using conventional trenching methods.

2.5.3 Types of Construction Equipment

Standard construction equipment is anticipated to be used to prepare the project site for either the Proposed Action or the Clay Street Route Alternative, trenching activities, and to perform final site work. Typically, the following equipment is used for a project of this size and scope: trencher, backhoe, generators, flatbed trucks, excavator, dozer, off highway trucks, compactors, concrete truck, front end loaders, and paving equipment.

In addition, the Clay Street Route Alternative would require jacking equipment to perform subsurface pipeline installation. Powerful hydraulic jacks would push specially designed pipes through the ground behind a shield and at the same time, excavation would take place within the shield. The method provides a flexible, structural, watertight, finished pipeline as the tunnel is excavated. To install, pipeline thrust and reception portals are constructed, one of which will be installed on Presidio of Monterey property. A remotely controlled Microtunnel Boring Machine (MTBM), combined with the pipe jacking technique, would be used to directly install product pipelines underground in a single pass. Typical microtunnel equipment spread consists of an MTBM matched to the expected subsurface conditions and the pipe diameter to be installed, a hydraulic jacking system to pipejack the pipeline, a closed loop slurry system to remove the excavated tunnel spoil, a slurry cleaning system to remove the spoil from the slurry water, a lubrication system to lubricate the exterior of the pipeline during installation, a guidance system to provide installation accuracy, electrical generators, and crane, loader and dump truck. Paving equipment would be used to repave the parking lot after construction.

2.5.4 Area of Disturbance/Area of Potential Effect

The Area of Disturbance/Area of Potential Effect (APE), or Area of Disturbance for the purpose of the EA analysis consists of a corridor spanning “curb to curb” in paved areas and up to a 100-foot wide corridor spanning up to 50 feet from either side of the pipeline alignment in unpaved areas within the Presidio of Monterey property; refer to Exhibit 3, *Proposed Action and Clay Street Route Alternative Alignments*.

Staging areas for temporarily stockpiling soil and/or storing materials and equipment during construction would be within the APE described above. Staging areas would occur on hardscape wherever possible. In addition, areas used for staging would be restored to pre-construction conditions. As the staging areas within the Presidio of Monterey would occur within the APE, potential environmental effects are analyzed a part of each of the project alternatives.

2.5.5 Schedule / Phasing

For the Proposed Action, it is anticipated that construction of the described project components would commence in summer or fall 2012; however, such scheduling represents anticipated dates for commencement and completion of construction, and may therefore require adjustment over time. The anticipated schedule for the Proposed Action assumes that land acquisition arrangements have been completed in sufficient time to provide for a smooth transition from design to permitting to construction.

The construction for the Monterey Presidio Pipeline in its entirety from the City of Seaside to the City of Pacific Grove would be complete in approximately 11 months. The construction of the portion of pipeline crossing the Presidio of Monterey would occur within the 11 month window and would be completed in less than one month. Construction would be accomplished during normal working hours (Monday through Friday, 8:00 a.m. to 5:00 p.m.) during the week, except for construction in sensitive areas where the U.S. Army has indicated a preference for nighttime or weekend work.

A construction crew of five to ten workers would be onsite during the day. In the Proposed Action, crews would perform pipeline installation work from the High Street Gate, along Stilwell Avenue and onto Fitch Avenue, or as an option to the preferred alignment under the Proposed Action, continue on Stilwell Avenue to Pine Street. Alternatively in the Clay Street Route Alternative, crews would be located in the parking lot between Private Bolio Road and Plummer Street during the trenchless construction period, and open-cut trenched construction would occur across Private Bolio Road to Belden Street in the City of Monterey. During construction within the Presidio of Monterey, crews would maintain access per the traffic control plan.

It should be noted that CAW would be responsible for all maintenance, repair, and new construction on their facility. Any damages caused to U.S. Army facilities pre/during/post-construction would be the responsibility of the lessor.

THIS PAGE INTENTIONALLY LEFT BLANK

Section 3 Affected Environment

3.1 Factors Eliminated from Further Analysis

The following resource issues have been eliminated from further consideration because the Proposed Action would not result in impacts to the resources:

- Aesthetics – Both the Proposed Action and Clay Street Route Alternative would not result in impacts to aesthetic resources because the pipeline would be located underground.
- Agricultural Resources – Both the Proposed Action and Clay Street Route Alternative would not result in impacts to agricultural resources because they would not convert agricultural land to urban uses.
- Airspace Resources – Both the Proposed Action and Clay Street Route Alternative would not result in impacts to airspace resources because they would not involve flight-related activities. The nearest airfield facilities include Marina Municipal Airport (four miles to the northeast), which is the former Fritzsche Army Airfield, a military facility that was converted to a general aviation airport in 1995 following the closure of Fort Ord, and the Monterey Peninsula Airport (3.5 miles to the southwest), also a general aviation airport, which serves both commercial and private flights from its facility. No impacts to either of these facilities' airspace would occur.
- Biological Resources: Marine – Both the Proposed Action and Clay Street Route Alternative would not result in impacts to marine resources due to the lack of proximity to marine resources.
- Wetlands Resources – The Proposed Action would not result in impacts to wetland resources. The Clay Street Route Alternative, which proposes subsurface installation, would avoid construction activity in the drainage way that borders the southern property limit of the Presidio of Monterey.

3.2 Air Quality

The Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA) mandate the control and reduction of certain air pollutants. Under these Acts, the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for certain "criteria" pollutants. These pollutants are carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen oxides (NO_x), lead (Pb), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}). The ambient air quality standards are designed to protect public health and welfare. The Federal and State Ambient Air Quality Standards are stated below in Table 3.3-1, *Federal and State Ambient Air Quality Standards*.

Data utilized in preparing the following discussion for the Monterey Presidio Pipeline are provided in Appendix F, Air Quality Data, and Appendix G, Air Quality Health Risk Assessment, of the FEIR prepared for the Monterey Bay Regional Desalination Project. See also Section 8, *References*, of this EA for additional references.

**Table 3.3-1
Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standard ^{a,c}	Federal Standard ^b	
			Primary ^{c,d}	Secondary ^{c,e}
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	--	--
	8-Hour	0.07 ppm (137 µg/m ³)	0.075 ppm (147 µg/m ³)	0.075 ppm (147 µg/m ³)
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m ³)	35.0 ppm (40 µg/m ³)	--
	8-Hour	9.0 ppm (10 µg/m ³)	9.0 ppm (10 µg/m ³)	--
Nitrogen Dioxide (NO ₂)	1-Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	--
	Annual ^f	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	0.053 ppm (100 µg/m ³)
Sulfur Dioxide (SO ₂)	1-Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	--
	3-Hour	--	--	0.5 ppm (1,300 µg/m ³)
	24-Hour	0.04 ppm (105 µg/m ³)	--	--
PM ₁₀	24-Hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual ^f	20 µg/m ³	--	--
PM _{2.5}	24-Hour	no separate State standard	35 µg/m ³	35 µg/m ³
	Annual ^f	12 µg/m ³	15 µg/m ³	15 µg/m ³
Lead ^f	Calendar quarter	--	1.5 µg/m ³	1.5 µg/m ³
	30-day	1.5 µg/m ³	--	--
	3-Month ^h	--	0.15 µg/m ³	0.15 µg/m ³
Sulfate	24-Hour	25 µg/m ³	--	--
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	--	--
Vinyl Chloride ^g	24-Hour	0.010 ppm (26 µg/m ³)	--	--
Visibility Reducing Particles	8-hours (10 am - 6 pm)	In sufficient amounts to reduce prevailing visibility to < 10 miles when relative humidity is < 70% w/ equivalent instrument method	--	--

ppm = Parts per Million by volume (or micromoles of pollutant per mole of gas)
µg/m³ = Micrograms per Cubic Meter

- (a) Standards for ozone, carbon monoxide, sulfur dioxide (1 and 24-hour), nitrogen dioxide, suspended particulate matter – PM₁₀ and PM_{2.5}, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- (b) National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. Environmental Protection Agency for further clarification and

Table 3.3-1, continued

current federal policies.
(c) Concentrations expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to match reference temperature and pressure.
(d) National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
(e) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
(f) Annual Arithmetic Mean
(g) The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
(h) National lead standard, rolling 3-month average: final rule signed October 15, 2008.
Source: California Air Resources Board. 2008. Ambient Air Quality Standards. Nov. 11. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf .

The Proposed Action is located within the North Central Coast Air Basin (NCCAB) under the jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). The MBUAPCD monitors air quality at ten monitoring stations: Salinas, Hollister, Carmel Valley, Santa Cruz, Monterey, Moss Landing, King City, Scotts Valley, Davenport, and Watsonville. The National Park Service also operates a station at Pinnacles National Monument. The closest monitoring station to the Proposed Action is the Salinas station (#3), which monitors O₃, PM₁₀, CO, PM_{2.5}, and nitrogen dioxide (NO₂).

For the past three complete monitoring years (2007, 2008, and 2009), there were no exceedances of a State or National Ambient Air Quality Standard (NAAQS) for CO, PM_{2.5} and NO₂ at the Salinas station. The exceedances of the California PM₁₀ standard throughout the NCCAB and at the Salinas monitoring station are shown in Table 3.3-2, *Exceedances of Ambient Air Quality Standards*. Table 3.3-3, *Current Attainment Status of Air Basin*, provides the current attainment status of the NCCAB.

**Table 3.3-2
Exceedances of Ambient Air Quality Standards**

Year	Number of Days (Highest Concentration)	
	Air Basin	Monitoring Station
State PM₁₀ Standard		
2007	2 days (60.0 µg/m ³)	0 day (39.0 µg/m ³)
2008	5 day (79.0 µg/m ³)	2 days (52.0 µg/m ³)
2009	2 days (111.0 µg/m ³)	0 days (41.0 µg/m ³)
State Hourly Ozone Standard		
2007	1 (0.100 ppm)	0 (0.067 ppm)
2008	4 (0.102 ppm)	0 (0.078 ppm)
2009	0 (0.093 ppm)	0 (0.077 ppm)
State/Federal 8-Hour Ozone Standards		
2007	17 (0.084 ppm) / 3 (0.083 ppm)	0 (0.059 ppm) / 0 (0.058 ppm)
2008	26 (0.095 ppm) / 12 (0.094 ppm)	0 (0.068 ppm) / 0 (0.067 ppm)
2009	7 (0.082 ppm) / 1 (0.082 ppm)	0 (0.067 ppm) / 0 (0.067 ppm)
Notes: micrograms per cubic meter (µg/m ³); parts per million (ppm)		

**Table 3.3-3
Current Attainment Status of Air Basin**

Pollutant	Federal	State
Ozone (O ₃) - 8 hour	Attainment	Attainment
Ozone (O ₃) - 1 hour	N/A	Nonattainment
Inhalable Particulates (PM ₁₀)	Attainment	Nonattainment
Fine Particulates (PM _{2.5})	Attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment

Source: <http://www.mbuapcd.org/index.cfm?Doc=386> (January 2009)

3.2.1 Toxic Air Contaminants

Toxic air contaminants are another group of pollutants of concern in California. Sources of toxic air contaminants include industrial processes, such as petroleum refining and chrome plating operations; commercial operations, such as gasoline stations and dry cleaners; and, motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the California Health and Safety Code (Health and Safety Code Section 39660 et seq.) and Part 6 (Air Toxics “Hot Spots” Information and Assessment) (Health and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology (BACT) for toxics. Air quality control agencies, including the NCCAB, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.

3.2.2 Sensitive Receptors

Sensitive populations (sensitive receptors) are more susceptible to the effects of air pollution than are the general population. Sensitive receptors that are in proximity to localized sources of toxics and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, churches, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The majority of land uses in the project vicinity that are sensitive to air pollution include residential and recreational uses, including Fitch Park. With regard to air quality, the major pollutant source affecting sensitive receptors in the project vicinity is the result of emissions from vehicular travel along the proposed pipeline route.

3.2.3 Federal Clean Air Act

The EPA is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for “criteria” pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂) (which is a form of nitrogen oxides [NO_x]), sulfur dioxide (SO₂) (which is a form of sulfur oxides [SO_x]), particulate matter less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively), and lead (Pb); refer to Table 3.3-1, *Federal and State Ambient Air Quality Standards*. The 2007 Plan for maintaining the Federal O₃ standard in the NCCAB was adopted by the MBUAPCD Board on March 21, 2007, and by the Association of Monterey Bay Area Governments Board on May 9, 2007.

3.2.4 California Clean Air Act

The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 3.3-1, *Federal and State Ambient Air Quality Standards*, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act, which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the State Implementation Plan (SIP) for the State of California.

Similar to the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment.

CARB approves local air quality management plans that address attainment and maintenance of State Ambient Air Quality Standards as mandated by the California Clean Air Act. The MBUAPCD prepares a regional AQMP every three years to address attainment and maintenance of the State O₃ Ambient Air Quality Standard in accordance with the CCAA. The most recent AQMP is the 2008 Air Quality Management Plan adopted by the MBUAPCD in August 2008.

3.2.5 Climate Change/Greenhouse Gases

Global climate change refers to the changes in the average global weather patterns and in the concentration of greenhouse gases (GHGs) over periods of time. Atmospheric GHGs and clouds within the Earth’s atmosphere influence the Earth’s temperature by absorbing most of the infrared radiation rising from the Earth’s sun-warmed surface that would otherwise escape into

space. This process is commonly known as the Greenhouse Effect. The GHGs and clouds, in turn, radiate some heat back to the Earth's surface and some out to space. The balance between incoming solar radiation and outgoing radiation from both the Earth's surface and atmosphere keeps the planet habitable. Anthropogenic (i.e., caused by humans) emissions of GHGs enhance the Greenhouse Effect by absorbing the radiation from other atmospheric GHGs that would otherwise escape to space, thereby trapping more radiation in the atmosphere and causing the temperature to increase.

3.2.5.1 Regulatory Context

Federal Regulations

The Federal government is extensively engaged in international climate change activities in areas such as science, mitigation, and environmental monitoring. The EPA is moving forward with two key climate change regulatory proposals: 1) establish a mandatory GHG reporting system, and 2) address the 2007 Supreme Court decision in *Massachusetts v. EPA* (Supreme Court Case 05-1120) regarding the EPA's obligation to make an endangerment finding under Section 202(a) of the Clean Air Act (CAA) with respect to GHGs. *Massachusetts v. EPA* was argued before the U.S. Supreme Court on November 29, 2006. A coalition of 12 U.S. states and cities (including New York and California), in conjunction with several environmental organizations, challenged the EPA's refusal to regulate GHGs as a pollutant under the CAA. The plaintiffs contended that the CAA gives the EPA the necessary authority, and the mandate, to address GHGs in light of the scientific evidence on global climate change. The EPA had concluded that it had no authority under existing law to regulate GHGs, and that, for a variety of policy reasons, it would not use that authority even if it possessed it. The U.S. Supreme Court held that the EPA has statutory authority to regulate GHG emissions from new motor vehicles. Under the CAA, the EPA is now obligated to issue rules regulating global warming pollution from all major sources. In April 2009, the EPA concluded that GHGs are a danger to public health and welfare, establishing the basis for GHG regulation.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA: the Endangerment Finding and the Cause or Contribute Finding. The EPA finds that the current and projected concentrations of the six key well-mixed GHGs in the atmosphere threaten the public health and welfare of current and future generations. The EPA also finds that the combined emissions of these well-mixed GHGs from new motor vehicles and engines contribute to the GHG pollution which threatens public health and welfare. These findings do not in and of themselves impose any emissions reduction requirements, but rather allow the EPA to finalize the GHG standards proposed earlier in 2009 for new light-duty vehicles.

State of California

Governor Schwarzenegger established the California Environmental Protection Agency in 2005 as the lead for coordinating all State agency actions for reducing GHG emissions. A Climate Action Team was established with representatives from key State agencies responsible for implementing strategies and programs to reduce GHG emissions. The various climate change policies implemented by the State Legislature are described below.

Executive Order S-3-05. In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and, GHG emissions should be reduced to 80 percent below 1990 levels by 2050. The Secretary of the California EPA (the Secretary) is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. The Secretary is required to submit a biannual progress report to the Governor and State Legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, and the coastline and forestry, and reporting possible mitigation and adaptation plans to combat these impacts.

Executive Order S-1-07. On January 18, 2007, California further solidified its dedication to reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the State. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least ten percent by 2020. The Low Carbon Fuel Standard applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods. The Executive Order requires the Secretary of the California EPA to coordinate with actions of the California Energy Commission, CARB, the University of California, and other agencies to develop a protocol to measure the "life cycle carbon intensity" of transportation fuels.

Assembly Bill 1493. Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation in the State. The bill required that CARB set the GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. CARB adopted the standards in September 2004 which are intended to reduce emissions of carbon dioxide and other GHGs (e.g., nitrous oxide and methane).

Assembly Bill 32. The State Legislature enacted AB 32 (AB 32, Nuñez), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006, to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable Statewide program to limit GHG emissions from all major industries, with penalties for noncompliance. CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. The foremost objective of CARB is to adopt regulations that require the reporting and verification of statewide GHG emissions. The first GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted. In

order to advise CARB, it must convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee. In December 2008, CARB adopted a scoping plan to achieve reductions in GHG emissions in California. The plan indicates how reductions in significant GHG sources would be achieved through regulations, market mechanisms, and other actions.

Senate Bill 97. Senate Bill (SB) 97 of 2007 requires the California Office of Planning and Research to develop CEQA guidelines for analysis and, if necessary, for the mitigation or effects of GHG emissions, and provide them to the Resources Agency. These guidelines for analysis and mitigation must address, but are not limited to, GHG emissions effects associated with transportation or energy demand. Following receipt of these guidelines, the Resources Agency must certify and adopt the guidelines prepared by the Office of Planning and Research.

The Office of Planning and Research has begun the process of formulating the guidelines called for in SB 97. Part of that effort includes a survey of existing climate change analyses performed by various lead agencies under CEQA.

Senate Bill 375. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans. The purpose of SB 375 is to reduce GHG emissions from automobiles and light trucks, require CARB to provide GHG emission reduction targets from the automobile and light truck sector for 2020 and 2035, and update the regional targets until 2050. SB 375 requires certain transportation planning and programming activities to be consistent with the sustainable communities strategies contained in the regional transportation plan. SB 375 also requires affected regional agencies to prepare an alternative planning strategy to the sustainable community strategies if it is unable to achieve the GHG emissions reduction targets. Governor Schwarzenegger signed and approved SB 375 on September 30, 2008.

Current efforts to clean up SB 375 include CEQA streamlining changes for projects that are consistent with the Sustainable Community Strategy (SCS). Currently, SB 375 applies those streamlining provisions to residential and mixed-use projects. Many interest groups are also lobbying to extend those provisions to Proposition 1B Transportation projects, State highway projects, and infrastructure, retail, and commercial development. Discussions with CARB are ongoing to coordinate AB 32 local land use implementation strategies with SB 375, including a new proposed CARB CEQA threshold of significance proposal to determine which projects will be subject to AB 32 requirements.

3.3 Biological Resources

3.3.1 Introduction

This section provides the results of biological surveys conducted by Denise Duffy and Associates, Inc., in November 2010, the *Biological Assessment for the Monterey Bay Regional Desalination Project, Monterey Presidio Pipeline*. This report describes the existing biological resources on and surrounding the project site, identifies special-status plant and wildlife species and sensitive habitats within the project area, assesses potential impacts that may occur to biological resources, and recommends appropriate avoidance and minimization measures to

reduce those impacts in accordance with NEPA. The Integrated Natural Resource Management Plan (INRMP) for Presidio of Monterey and Ord Military Community, Monterey County, California, prepared in November 2008, was also reviewed for previous survey and assessment information to determine the potential for special status plants and wildlife to occur in the vicinity of the project site.

3.3.2 Survey Methodology

3.3.2.1 Biological Survey Area

Biological surveys were conducted between April and July 2010, in the areas of the two pipeline alignments discussed in the project description, and within a buffer of 50 feet on each side of the alignments. The purpose of the surveys was to assess the environmental conditions of the site and its surroundings, evaluate the general habitat features and environmental constraints at the site and within the local vicinity, locate and map special-status plants, and provide a basis for recommendations to minimize and avoid impacts to biological resources. No protocol-level wildlife surveys were conducted as part of this survey effort.

The primary literature and data sources reviewed to determine the occurrence or potential for occurrence of special-status species at the project site are as follows: current agency status information from the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) for species Listed, Proposed for Listing, or Candidates for listing as Threatened or Endangered under Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA), and those considered CDFG “species of special concern” (2009); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2010); and, Final Memorandum of Results for the Presidio of Monterey/Ord Military Community Planning Level Surveys (ICF Jones & Stokes, 2009). The Monterey quadrangle and the four surrounding quadrangles (Marine, Mt. Carmel, Seaside, and Soberanes Point) from the California Natural Diversity Database (CNDDDB) (2010) were also reviewed for documented special-status species occurrences within and in the vicinity of the project site. The CNDDDB report is appended to the Biological Assessment for the Monterey Bay Regional Desalination Project, Monterey Presidio Pipeline, conducted by Denise Duffy & Associates in November 2010.

From these resources, a list of special-status plant and wildlife species known or with the potential to occur in the vicinity of the project was created. This list can also be found as an appendix to the November 2010 Denise Duffy & Associates report. The list presents these species along with their legal status, habitat requirements, and a brief statement of the likelihood to occur.

In addition to the 2010 biological surveys, previous biological surveys conducted for the Presidio of Monterey and included in the *Integrated Natural Resource Management Plan (INRMP) Presidio of Monterey and Ord Military Community, Monterey County, California* (U.S. Army, Presidio of Monterey, November 2008) were reviewed for historical context. The results of these surveys relative to special species are discussed where appropriate in this section.

3.3.2.2 Habitat Types

The project site is located within a developed portion of the Presidio of Monterey. Three habitat types are present within the project site: ruderal/developed areas, central coast arroyo willow riparian forest, and aquatic; refer to Exhibit 6, *Biological Resources Map*. The High Street Route only contains ruderal/developed areas. The majority of the Clay Street Route Alternative is also ruderal/developed; however, riparian forest and aquatic habitat are also present where the alignment crosses a drainage. The following is a discussion of the habitat types present and the special-status species with the potential to occur within these habitats on the project site.

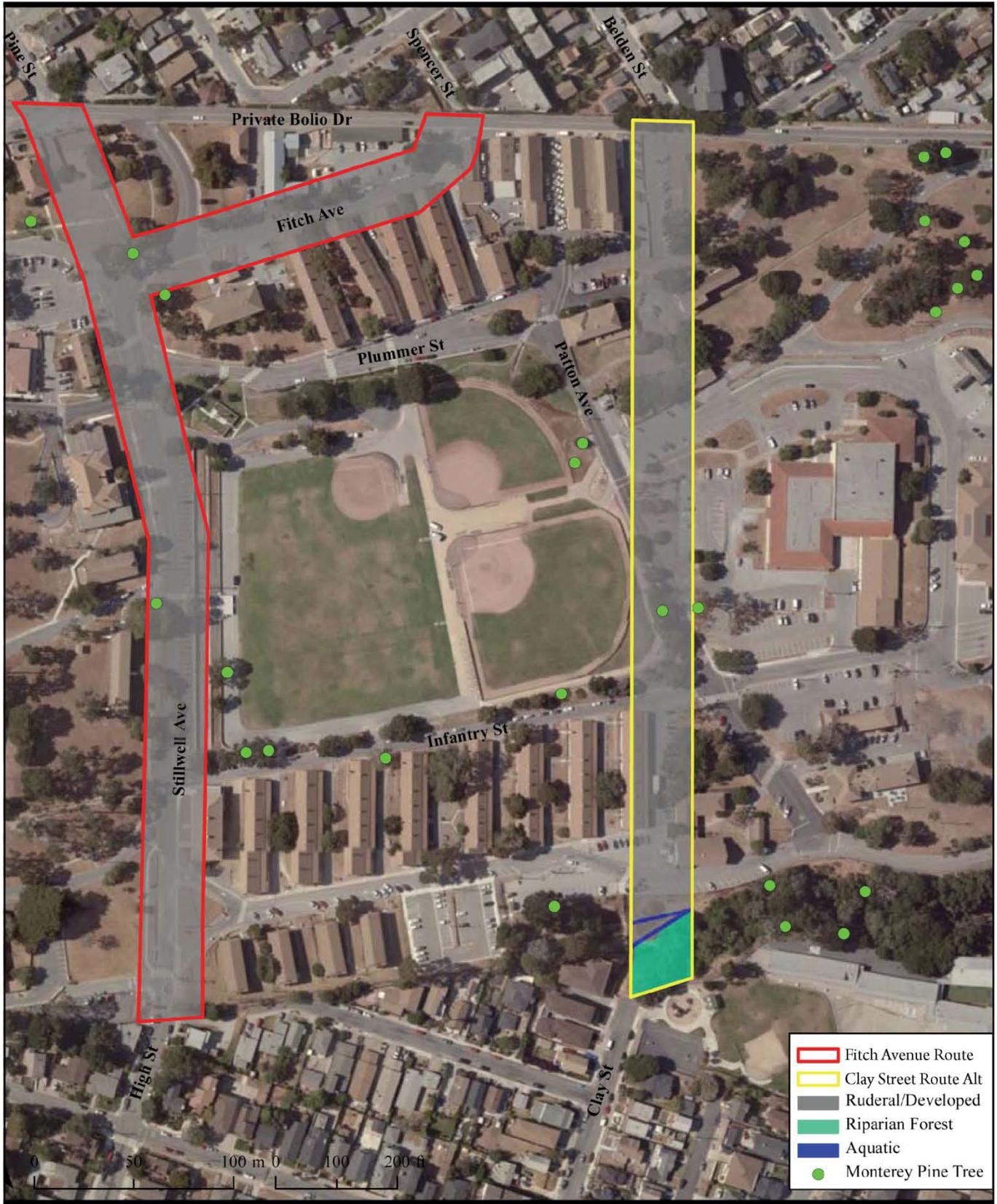
Ruderal/Developed Areas

Ruderal/developed areas cover approximately 4.92 acres of the High Street Route and 3.05 acres of the Clay Street Route. Ruderal areas are those areas that have been developed and disturbed by human activities (e.g., creating roads or structures) that are dominated by non-native annual grasses and other “weedy” species. Within the project site, this habitat includes roads and buildings and open non-native grassy areas that are regularly mowed and maintained. This habitat type is considered to have low biological value, as it is generally dominated by non-native plant species and consists of relatively low quality habitat from a wildlife perspective. Dominant species within the ruderal areas include ripgut brome (*Bromus diandrus*), slender oat (*Avena barbata*), fescue (*Vulpia* sp.), cut-leaved plantain (*Plantago coronopus*), English plantain (*P. lanceolata*), and telegraph weed (*Heterotheca grandiflora*). Common wildlife species that do well in urbanized and disturbed areas can utilize this habitat, such as the American crow (*Corvus brachyrhynchos*), California ground squirrel (*Spermophilus beecheyi*), Botta’s pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), western fence lizard (*Sceloporus occidentalis*), and rock dove (*Columba livia*). Black tailed deer (*Odocoileus hemionus*) are also common throughout the Presidio of Monterey.

No special-status wildlife species were observed or are expected to occur within the ruderal/developed areas of the project site. One special-status plant species, Monterey pine, was observed within this habitat type.

Riparian Forest

Within the project site, approximately 0.21 acre of riparian forest habitat occurs in association with the drainage located at the southern end of the Clay Street Route; refer to Exhibit 6, *Biological Resources Map*. The small area is dominated by coast live oak trees, which are not typically a riparian tree species; however, within this system, the trees provide the function of a riparian species, such as shading. Understory species include California blackberry (*Rubus ursinus*), periwinkle (*Vinca major*), and English ivy (*Hedera helix*). Riparian areas provide habitat for many wildlife species, particularly birds and herpetofauna. This area may provide habitat for the special-status Monterey dusky-footed woodrat. No special-status plant species were identified within this habitat type.



- Fitch Avenue Route
- Clay Street Route Alt
- Ruderal/Developed
- Riparian Forest
- Aquatic
- Monterey Pine Tree



BIOLOGICAL RESOURCES MAP

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 6

SCMac: 70100045.010_exhibit_letter_portrait.indd

THIS PAGE INTENTIONALLY LEFT BLANK.

Aquatic

Approximately 0.01 acre of aquatic habitat is present within the project site in association with the drainage located at the southern end of the Clay Street Route; refer to Exhibit 6, *Biological Resources Map*. Within the project site, the drainage is confined into two approximately three-foot-wide, three-foot-deep channels that merge near the eastern boundary of the project site. The hydrologic input for this drainage is runoff from the surrounding neighborhoods during storm events. The intermittent nature and the regular maintenance of the channel have resulted in a drainage that is unlikely to provide habitat for aquatic wildlife species. As such, this resource is unlikely to provide habitat for special-status wildlife species, and no special-status plant species were identified within the aquatic area of the project site.

3.3.2.3 Federal Regulatory Setting

National Environmental Policy Act (NEPA)

NEPA, signed into law in 1970, established an environmental review process that applies to Federal agencies. Under NEPA, Federal agencies are authorized and directed, to the fullest extent possible, to carry out their regulations, policies, and programs in accordance with NEPA's policies of environmental protection. NEPA applies to all Federal agencies and to most of the activities they manage, regulate, or fund that affect the environment.

Federal Endangered Species Act

Provisions of the Federal Endangered Species Act of 1973 (16 USC 1532 et seq., as amended) protect Federally-listed Threatened or Endangered species and their habitats from unlawful take. Listed species include those for which proposed and final rules have been published in the Federal Register. . The Federal ESA is administered by the USFWS and the National Marine Fisheries Service (NMFS). In general, the NMFS is responsible for the protection of Federal ESA-listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction.

Section 9 of the Federal ESA prohibits the take of any fish or wildlife species that are Federally-listed as endangered. Take, as defined by the Federal ESA, is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the species, including significant habitat modification." In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying Federally-listed plants on sites under Federal jurisdiction. Section 9 does not prohibit take of Federally-listed plants on sites not under Federal jurisdiction. If there is the potential for take of a Federally-listed species, consultation through Section 7 (if there is a Federal nexus) or obtaining a Section 10(a)(1)(B) Incidental Take Permit (if there is no Federal nexus) would be needed to authorize the "incidental take" of that species. Federal agency actions include activities that are on Federal land, conducted by a Federal agency, funded by a Federal agency, or authorized by a Federal agency (including issuance of Federal permits).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. The USFWS is responsible for overseeing compliance with the MBTA.

3.3.2.4 State Regulatory Setting

California Environmental Quality Act

The California Environmental Quality Act, enacted in 1970, was modeled after NEPA. CEQA encourages the protection of all aspects of the environment, requiring State and local agencies to prepare multi-disciplinary environmental impact analyses and make decisions based on those studies' findings regarding the environmental effects of the Proposed Action. CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies, including State, regional, county, and local agencies, unless an exemption applies. As previously stated, the CPUC certified the CWP FEIR (which described the Monterey Bay Regional Desalination Project) in December 2009 and subsequently issued its decision to issue a CPCN for the project.

California Endangered Species Act

The California Endangered Species Act was enacted in 1984. The California Code of Regulations (Title 14, Section 670.5) lists animal species considered Endangered or Threatened by the State. Section 2090 of the CESA requires State agencies to comply with endangered species protection and recovery, as well as to promote conservation of these species. Section 2080 of the California Fish and Game Code prohibits "take" of any species that the CDFG Commission determines to be an Endangered species or a Threatened species. "Take" is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." It does not include habitat destruction in the definition of take. A Section 2081 Incidental Take Permit from the CDFG is required to "take" any State-listed species.

California Fish and Game Code

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both Federal and State laws and regulations. Section 3503 of the California Fish and Game Code prohibits the killing, possession, or destruction of bird eggs or bird nests. Section 3503.5 and 3513 prohibit the killing, possession, or destruction of all nesting birds (including raptors and passerines). Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 prohibits the take or possession of any migratory nongame birds designated under the Federal MBTA. Section 3800 prohibits take of nongame birds.

The classification of Fully Protected was the State's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists

were created for fish (Section 5515), mammals (Section 4700), amphibians and reptiles (Section 5050), and birds (Section 3511). Most Fully Protected species have also been listed as Threatened or Endangered species under the more recent endangered species laws and regulations. Fully Protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

The CDFG also maintains a list of animal “Species of Special Concern,” most of which are species whose breeding populations in California may face extirpation if current population trends continue. Although these species have no legal status, the CDFG recommends considering these species during analysis of proposed project impacts to protect declining populations and avoid the need to list them as endangered in the future.

Other State Conservation Programs

The Natural Heritage Division of the CDFG administers the State Rare Species Program. The CDFG maintains lists of designated endangered, threatened, and rare plant and animal species. Listed species either were designated under the California Native Plant Protection Act or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFG can afford interim protection to Candidate species while they are being reviewed by the CDFG Commission.

Under provisions of Section 15380(d) of CEQA, the project lead agency and CDFG, in making a determination of significance, must treat non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFG considers plant species on List 1 or 2 of the CNPS Inventory of Rare and Endangered Vascular Plants of California (Tibor 2001) as qualifying for legal protection under this CEQA provision. Species on CNPS List 3 or 4 may, but generally do not, qualify for protection under this provision.

3.3.2.5 Local Regulatory Setting

The Proposed Action would be required to comply with policies of the General Plans for the City and County of Monterey, as well as other applicable codes or ordinances (i.e., tree ordinances).

3.3.2.6 Special-Status Species and Sensitive Habitat

Special-status species include those plants and animals that have been formally listed or proposed for listing as Endangered or Threatened, or are Candidates for such listing under the Federal ESA or the California ESA. Listed species are afforded protection under the Federal ESA and California ESA. Species of vascular plants, bryophytes, and lichens listed as having special status by DFG are considered special-status plant species (DFG, 2010). Plants listed as rare under the California Native Plant Protection Act or on the CNPS lists are also treated as special-status species, as well as CDFG State Species of Special Concern and Fully Protected animals. Although they have no special legal status, these species are given management consideration whenever possible.

Additionally, species identified by the U.S. Army as species at risk (SAR) are native, regularly occurring species that are not Federally-listed under the ESA but are either candidates for listing under ESA or are critically imperiled or imperiled across their range according to NatureServe conservation rank criteria (U.S. Army, Presidio of Monterey, 2008), are also typically provided management consideration through the NEPA process on Department of Defense (DOD) lands.

Special-Status Plants

The project site and adjacent areas were evaluated for the presence or potential presence of a variety of special-status plant species. A table of these species and identification of the potential of each species to occur within the project site based on habitat requirements is appended to the *Biological Assessment for the Monterey Bay Regional Desalination Project, Monterey Presidio Pipeline* conducted by Denise Duffy & Associates in November 2010. Species analyzed in the table are based on occurrence data from the CNDDDB and the *Integrated Natural Resource Management Plan for the Presidio of Monterey 2008 (INRMP)* (U.S. Army, Presidio of Monterey, 2008). It was determined that one special-status plant species, Monterey pine, is present within the project site. Field surveys were conducted during the appropriate blooming period for most species. Species that do not bloom during the time of the survey were determined “unlikely to occur” based on a lack of suitable habitat within the project site. All other wildlife species presented in the table are considered “not present” within the project site, based on the results of the survey.

Monterey Pine

Monterey pine is a CNPS List 1B species. This evergreen tree occurs in closed-cone coniferous forests at elevations from 82-607 feet (CNPS, 2010). Only five native stands of this species exist in the world. Two stands are found off of Baja California on Guadalupe Island and Cedros Island. The other three stands are all within California; at Año Nuevo, Cambria, and the Monterey area. Monterey pines are threatened by development, genetic contamination, pine pitch canker disease, and forest fragmentation, especially in the Del Monte Forest on the Monterey Peninsula.

The CNDDDB reports two occurrences of this species in the five quadrangles reviewed. These occurrences report the best estimate of the historic range of Monterey pine on the Monterey peninsula. The project site is included within these occurrences and several Monterey pine trees were identified within and adjacent to the project site; refer to Exhibit 6, *Biological Resources Map*. Although these individuals exist within a highly disturbed area of the Presidio of Monterey, it is assumed that these individuals are native Monterey pines based on the occurrence data, and as such, are considered special-status species.

Integrated Natural Resource Management Plan (INRMP) Presidio of Monterey and Ord Military Community, Monterey County, California (November 2008)

According to the INRMP, four special-status plant species occur at the Presidio of Monterey: Monterey pine (CNPS List 1B), Hooker’s Manzanita (*Arctostaphylos hookeri* ssp. *hookeri*) (CNPS List 1B and SAR), small-leaved lomatium (*Lomatium parvifolium*) (CNPS List 4), and Yadon’s piperia (aka Yadon’s rein orchid [*Piperia yadonii*] (Federally-endangered and CNPS 1B) (U.S. Army, 1995(d)). The INRMP also notes that the Monterey pine, historically, was the

dominant vegetation at the Presidio of Monterey. At present, Monterey pine forest dominates the natural vegetation cover of the Presidio of Monterey above the 450-foot elevation contour. Within the developed area of the Presidio of Monterey, over half of the original forest has been removed.

Special-Status Wildlife

The project site and adjacent areas were evaluated for the presence or potential presence of a variety of special-status wildlife species. A table of these species and identification of the potential of each species to occur within the project site based on habitat requirements is appended to the *Biological Assessment for the Monterey Bay Regional Desalination Project, Monterey Presidio Pipeline* conducted by Denise Duffy & Associates in November 2010. It was determined that one special-status wildlife species, the Monterey dusky-footed woodrat, has the potential to occur within the project site. Additionally, raptors and other protected avian species may nest in trees within and adjacent to the project site. All other wildlife species presented in the table are considered “unlikely to occur” within the project site based on a lack of suitable habitat.

Monterey Dusky-footed Woodrat

The Monterey dusky-footed woodrat is a CDFG species of special concern. This is a subspecies of the dusky-footed woodrat (*Neotoma macrotis*), which is common to oak woodlands throughout California. Dusky-footed woodrats are frequently found in forest habitats with moderate canopy cover and a moderate to dense understory; however, they may also be found in chaparral communities. Relatively large nests are constructed of grass, leaves, sticks, and feathers and are built in protected spots, such as rocky outcrops or dense brambles of blackberry (*Rubus* sp.) and/or poison oak. Typical food sources for this species include leaves, flowers, nuts, berries, and truffles. Dusky-footed woodrats may be a significant food source for small- to medium-sized predators. Populations of this species may be limited by the availability of nest material. Within suitable habitat, nests are often found in close proximity to each other.

Although the CNDDDB does not report any occurrences of this species within the five quadrangles analyzed, this species is known to occur throughout the Monterey Bay area in various forest habitats. No woodrat nests were observed within the project site during field surveys; however, suitable habitat is present within the riparian forest habitat and this species may occur within and adjacent to the Clay Street Route.

Nesting Raptors and Migratory Bird Species

Raptors and other migratory bird species and their nests are protected under California Fish and Game Code and the MBTA. While the life histories of these species vary, overlapping nesting and foraging similarities (approximately February through August) allow for their concurrent discussion. Many raptors and migratory birds are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest habitats, as well as open grasslands, are used most frequently for nesting. Breeding occurs February through August, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges.

Various species of raptors and migratory birds (such as red-tailed hawk [*Buteo jamaicensis*], red-shouldered hawk [*Buteo lineatus*], great horned owl [*Bubo virginianus*], American kestrel [*Falco sparverius*], and turkey vulture [*Cathartes aura*]) have a potential to nest in trees and the associated understory within and adjacent to the project site and may forage within the ruderal areas.

Integrated Natural Resource Management Plan (INRMP) Presidio of Monterey and Ord Military Community, Monterey County, California (November 2008)

According to the INRMP, during special-status wildlife species surveys conducted at the Presidio of Monterey in 1994 and 1995, a sharp-shinned hawk (*Accipiter striatus*) was observed at the Huckleberry Hill Preserve on December 1, 1994, and one was observed again on May 4, 1995, at the same location (U.S. Army, 1995d). The sharp-shinned hawk is considered a species of special concern by the CDFG. It is primarily found in riparian forests, conifer forests, and oak woodlands. The observed bird(s) likely used the Presidio of Monterey for foraging. Monterey pine forest at the Presidio of Monterey is considered potential nesting habitat; however, no nests, pellets, droppings, or other evidence of breeding or frequent use were observed (U.S. Army, 1995d).

On July 6 and 7, 2005, eight olive-sided flycatchers (*Contopus cooperi*) were observed during special-status species surveys in the Monterey pine forest at the Huckleberry Hill Preserve (U.S. Army, 2005; Appendix D). They were heard and seen perched in and flying among the Monterey pine trees. The olive-sided flycatcher is a federal species of concern designated as a Bird of Conservation Concern (BCC) (USFWS, 2002) a Pacific Coast Nongame Bird of Management Concern (USFWS 1995) by the USFWS, and is also a Watch List member, based upon its inclusion among species listed in the United States Bird Conservation Watch List (U.S. Army, 2005).

Other migratory birds known to occur on the Presidio of Monterey that are not on the BCC list, but are protected by the MBTA include the ash-throated flycatcher (*Myiarchus cinerascens*) and western flycatcher (*Empidonax difficilus*). While the flycatchers are summer migrants, winter migratory birds include the yellow-rumped warbler (*Dendroica coronata*) and Townsend's warbler (*Dendroica townsendi*) (Reid, 1987; USFWS, 2003).

The INRMP also notes that individual mountain lion cats, considered a specially-protected mammal under California law, are often drawn to the Presidio of Monterey because of the presence of black-tailed deer, a prey species. Although mountain lions have not been observed during wildlife surveys, various observations have been reported to Presidio of Monterey police throughout the years (Reese, 2007). Mountain lions likely use the Presidio of Monterey for hunting; however, no evidence of denning or long-term habitation has been documented.

Sensitive Habitat

Riparian Forest

Riparian habitat (0.21 acre), as identified above in the habitat descriptions, is present within the Clay Street Route. This habitat is considered a sensitive habitat and is regulated under Sections 1600-1616 of the California Fish and Game Code.

Jurisdictional Waters

The U.S. Army Corps of Engineers (ACOE) is the primary Federal agency responsible for regulating wetlands and waters of the U.S. (waters). “Other waters,” including lakes, ponds, and streams, are also subject to ACOE jurisdiction. “Other waters” are characterized by an ordinary high water mark (OHWM), which is defined as:

“that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (ACOE, 1982).

It should be noted that not all “other waters” are jurisdictional, just those with an OHWM. In addition, not all wetlands are jurisdictional. There are certain parameters that must be satisfied in order for a wetland to be classified as a wetland and also to be found under the jurisdiction of the ACOE.

3.4 Cultural Resources

3.4.1 Introduction

This section is based upon the *Cultural Resources Assessment* prepared in February 2011 for the proposed project and the *Phase I Record Search and Cultural Resource Assessment of Alternative Pipeline Routes* prepared in July 2010 by Pacific Legacy.

3.4.2 Environmental Setting

The Proposed Action would occur within the Presidio of Monterey Historic District which is eligible for inclusion in the NRHP. The current study area is located within the American Period Presidio of Monterey, west of NRHP listed site El Castillo (CA-MNT-101/H) and Fisherman’s Wharf. The Cultural Resources Assessment identifies cultural resources within a study area much larger than the APE and also includes known resources within .25 miles of the study area (refer to Table 3.4-1, *Archaeological Studies within the Presidio of Monterey Study Area*, Table 3.4-2, *Previously Identified Cultural Resources within Presidio of Monterey Study Area and APE*, Table 3.4-3, *Previously Identified Cultural Resources within ¼-Mile Record Search Radius*, Exhibit 3, *Proposed Action and Clay Street Route Alternative Alignments*, and Exhibit 5, *Current Alternative Pipeline Route Locations*).

3.4.3 Regional Cultural Setting/Ethnography

Archaeological evidence indicates that Native Americans have lived in the Monterey Bay area for nearly 10,000 years. The local environment afforded abundant resources for food, ornamentation, tools and, economic exchange. Native peoples subsisted on seasonal gathering of resources such as acorn, grass seeds, kelp, and shellfish; hunting of terrestrial and marine mammals (deer, elk, rabbit, bear, seal, and sea lion); and, fishing in freshwater streams and inshore marine habitats. Archaeological evidence indicates that trade and exchange took place with native groups as distant as the east side of the Sierra Nevada. Native Americans living in the

San Francisco and Monterey Bay areas were referred to by Spanish explorers of the 18th century as “Costaño” or “coast people.” Costaño groups were recognized as speaking seven closely related languages; this linguistic group is now often referred to as Ohlone. The establishment of missions in Santa Cruz and Monterey and the introduction of European diseases by settlers, for which the Ohlone had little natural resistance, resulted in a rapid and dramatic decline in their population. Subsequent persecution and suppression of Ohlone cultural expressions by Spanish, Mexican, and American ruling governments also contributed to the decline of traditional Ohlone culture. Today, Ohlone descendants are celebrating a revival of their native heritage and a growing appreciation of their place in the multicultural environment of California.

3.4.3.1 Study Area Background

There are a number of prehistoric and historic-era sites located within the Presidio of Monterey’s boundaries. The Lower Presidio of Monterey is comprised of two properties eligible for listing on the National Register of Historic Places (NRHP): the Presidio of Monterey Historic District and El Castillo. El Castillo is listed on the NRHP. Among the sites that have been recorded to date within the Presidio of Monterey are CA-MNT-101/H (a prehistoric site and the Spanish period “El Castillo” remains near Lighthouse Avenue), CA-MNT-697 (a prehistoric site near Private Bolio Road), CA-MNT-15 (a prehistoric midden and bedrock cupule rock site near the Sloat Monument), and CA-MNT-931 (a prehistoric site near Soldier Field). The Monterey Presidio itself constitutes a historic-era resource, both for its early 20th century military architecture and for the potentially undisturbed subsurface contexts that lay within its confines.

3.4.3.2 Archival Research

An archival record and information search for the Presidio of Monterey study area was conducted on July 14, 2010 by the Northwest Information Center (NWIC #10-0028) of the California Historical Resources Information System (CHRIS) at Sonoma State University. This included a review of the following:

- Historic Properties Directory (California Office of Historic Preservation 2010);
- California Inventory of Historic Resources (State of California 1976);
- California Points of Historical Interest listing May 1992 (State of California 1992); and,
- National Register of Historic Places (NRHP) (Directory of Determinations of Eligibility, California Office of Historic Preservation, Volumes I and II, 1990; Office of Historic Preservation Computer Listing 1990 and updates).

In addition, historic-era maps and documents concerning the general area and the Presidio of Monterey on file at the Bay Area Division of Pacific Legacy were inspected.

The NWIC record search revealed that 126 previous archaeological surveys or studies had been conducted within the Presidio of Monterey study area or within a ¼-mile radius of it. Nineteen of those studies were completed within the Presidio of Monterey, while an additional 107 studies were completed within the ¼-mile record search radius outside of the Presidio of Monterey. The

studies within the Presidio of Monterey study area are summarized in Table 3.4-1, *Archaeological Studies within the Presidio of Monterey Study Area*.

The record search also revealed that five previously recorded cultural resources had been identified within the Presidio of Monterey study area. An additional fourteen previously recorded cultural resources were identified within a ¼-mile record search radius. The resources included ten prehistoric sites, four historic-era sites, and five multi-component sites; all are summarized in Table 3.4-2, *Previously Identified Cultural Resources Within Presidio of Monterey Study Area and APE*, and Table 3.4-3, *Previously Identified Cultural Resources within ¼-Mile Record Search Radius*.

Historic-era structures and buildings outside the Presidio of Monterey study area were not included in the review conducted for the Proposed Action. The Proposed Action and Clay Street Route Alternative would remain within existing street right-of-ways and would not be located near historic-era structures. It should be noted however that under the Proposed Action, High Street Route exiting the Presidio of Monterey at Pine Street the route would cross between two historical buildings. Within the study area, the Historic Properties Directory and the Presidio of Monterey Historic District Map revealed 34 historic-era structures, buildings, and one parade ground adjacent to the alternative pipeline routes. Twenty-seven of these buildings or structures are listed as contributing elements to the Presidio of Monterey Historic District. In addition to record search data cited above, historic-era maps including the 1869 and 1890 “Plats of the City Lands of Monterey” and the 1913 and 1947 U.S. Geological Survey (USGS) Monterey quadrangles also were inspected (U.S. District Court 1869, 1890; U.S. Geological Survey 1913, 1947).

**Table 3.4-1
Archaeological Studies within the Presidio of Monterey Study Area**

Study Number	Author	Date	Study Type	Results
S-3513	Anonymous	1967	El Castillo Site, CA-MNT-101/H NRHP Evaluation/ Testing	Positive
S-5585	W.E. Pritchard	1967	El Castillo Site, CA-MNT-101/H Study	Positive
S-16892	W.E. Pritchard	1968	El Castillo Site, CA-MNT-101/H Study	Positive
S-5475	R. Edwards, et al.	1972	El Castillo Site, CA-MNT-101/H Study	Positive
S-3359	M. B. Adams	1977	El Castillo Site, CA-MNT-101/H Historic Study	Positive
S-5484	R. Edwards	1977	Study CA-MNT-15/H, CA-MNT-101/H	Positive
S-5536	M. Fazio	1977	Regional Study	Positive
S-3443	G. S. Breschini	1978	Study of CA-MNT-15/H	Positive
S-3633	J. L. Zahniser, et al.	1980	Archaeological Survey	Positive

Table 3.4-1, continued

Study Number	Author	Date	Study Type	Results
S-17788	W. T. Jackson, et al.	1985a	Historical overview, Presidio of Monterey site investigations	Positive
S-18370	W. T. Jackson, et al.	1985b	Regional overview, Presidio of Monterey site investigations	Positive
S-9661	S. A. Dietz, et al.	1987	Excavation of CA-MNT-101/H, CA-MNT298, CA-MNT-929H	Positive
S-15529	R. L. Gearhart II, et al.	1993	Geoarchaeology, Regional Study	Positive
S-32599	L. Holm	2006	Monitoring report	Negative
S-32601	E. Reese	2006a	Monitoring report	Negative
S-32602	E. Reese	2006b	Monitoring report	Negative
S-34432	E. Reese	2008a	Monitoring report	Positive
S-34954	E. Reese	2008b	Monitoring report	Positive
S-35571	E. Reese	2008c	Monitoring report	Positive

Table 3.4-1, continued

Study Number	Author	Date	Study Type	Results
S-36240	K. Jones and J. Holson	2009	Archaeological survey	Positive
S-36279	E. Reese	2009	Monitoring report	Negative

Table 3.4-2

Previously Identified Cultural Resources Within Presidio of Monterey Study Area and APE

Site Number	Recorded By	Date	Site Type	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
CA-MNT-15 P-27-000151	Pilling, A. R and J. Kenna	1948	Prehistoric shell midden and cupule feature.	Yes	No	No	No
	Gerbic, M.	2006	Part of El Castillo Historic District. Prehistoric shell midden and cupule feature,				
	Jones K., F. Arellano and K. Chao	2008	Prehistoric shell midden and cupule feature; within El Castillo Historic District				
CA-MNT-101/H P-27-000236	Pilling, A. R.	1949	Prehistoric shell midden, milling feature, burials, and trash scatter.	Adjacent	No	No	No

Table 3.4-2, continued

Site Number	Recorded By	Date	Site Type	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
	Gerbic, M.	2006	Spanish period “El Castillo” added to site record.				
	Gerbic, M.	2006	Part of El Castillo Historic District. Motor pool for Presidio of Monterey. Prehistoric coastal occupation site with burials.				
	Neal, A.	2009	Part of El Castillo Historic District. Motor pool for Presidio of Monterey. Prehistoric coastal occupation site with burials.				

Table 3.4-2, continued

Site Number	Recorded By	Date	Site Type	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
CA-MNT-697 P-27-000775	Fazio, M.	1977	Prehistoric shell midden.	Yes	No	No	No
CA-MNT-929H P-27-000986	Roberts, W. E.	1979	Historic-era adobe wall	Yes	No	No	No
CA-MNT-931 P-27-000988	Langer, B.	1978	Prehistoric midden deposit	Yes	No	No	No

**Table 3.4-3
Previously Identified Cultural Resources within ¼-Mile Record Search Radius**

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
CA-MNT-102 P-27-000237	Fisher, E., and A. R. Pilling	1935	Prehistoric site	No	No	No	No	No
CA-MNT-103/H P-27-000-238	Pilling, A.R.	1949	Occupation site with burials	No	No	No	No	No
	Loeffler, K., and N. Wilfong	1981	Occupation site with shell midden, bedrock mortar, possible petroglyphs, historic-era trash pit.		No	No	No	No
CA-MNT-108 P-27-	B.W.	1946	Burials #1 and #2	No	No	No	No	No

Table 3.4-3, continued

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
000243	Pilling, A. R.	1949	Prehistoric occupation		No	No	No	No
	Broadbent	1951	Burial #2		No	No	No	No
	Gerbic, M.	2006	Prehistoric occupation		No	No	No	No
	Gerbic, M.	2006	Prehistoric occupation		No	No	No	No
	Jones, K.	2009	Prehistoric occupation		No	No	No	No
CA-MNT-298/H P-	Pilling, A. R.	1948	“Sierra Cross”	Yes, Route 2A-Easement and	No	No	No	No

Table 3.4-3, continued

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
27-000401	Jones, K., and F. Arellano	2008	Prehistoric shell midden, historic-era foundation	alternatives ¹	No	No	No	No
CA-MNT-386 P-27-000480	Howard, D.	1973	Shell midden with possible historic-era artifacts	No	No	No	No	No
CA-MNT-662 P-27-001859	Roop	1976	Shell midden and lithic scatter	Yes, Routes Route 2A-Easement ² and 2A-Clay St. ³	Yes	No	No	No
	Whitlow, J., and P. Hampson	1980	Shell midden and lithic scatter		No	No	No	No

¹ Refer to Exhibit 4, *Previously Studied Alternative Pipeline Route Locations*

² Refer to Exhibit 4, *Previously Studied Alternative Pipeline Route Locations*

³ Refer to Exhibit 5, *Current Alternative Pipeline Route Locations*

Table 3.4-3, continued

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
	Wilfong, N.	1981	Shell midden and lithic scatter		No	No	No	No
	Jones, K., et al.	2008	Shell midden and lithic scatter		No	No	No	No
CA-MNT-932 P-27-000989	Ellison, J.	1979	Shell scatter	No	Yes	No	No	No
CA-MNT-938H P-27-000995	Cooper, J.	1975?	Historic-era adobe and wood shingle building	Yes, Route 2A-Easement ⁴	Yes	No	No	No
CA-MNT-1060 P-27-001116	Breschini, G. S., and T. Haversat	1980	Occupation site	No	No	No	No	No

⁴ Refer to Exhibit 4 *Previously Studied Alternative Pipeline Route Locations*

Table 3.4-3, continued

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
	Breschini, G. S.	1985	Occupation site		No	No	No	No
CA-MNT-1243H P-27-001830	Dismuke, E. G., L.L. Dwight, R. R. Empanan and H. F. Taggart	1960	“Soberanes Adobe” Historic-era building	Yes, Route 2A-Easement ⁵	No	No	No	No
	Nomellini, E.	1977	“Soberanes Adobe” Historic-era building		Yes	No	No	No
	Arbuckle, J.	1979	“Soberanes Adobe” Historic-era building		No	No	No	No

⁵ Refer to Exhibit 4, *Previously Studied Alternative Pipeline Route Locations*

Table 3.4-3, continued

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
	Breschini, G. S., and T. Haversat	1983	“Estrada Adobe”, “Soberanes Adobe” Historic-era building		No	No	No	No
	Jones, K., et al.	2008	“Estrada Adobe”, “Casa Soberanes” Historic-era building		No	No	No	No
CA-MNT-975 P-27-001031	Whitlow, J., and P. Hampson	1980	Shell midden	No	No	No	No	No
CA-MNT-976 P-27-001032	Hampson, P., and J. Whitlow	1980	Shell midden, historic-era residence	No	Yes	No	No	No

Table 3.4-3, continued

Site Number	Recorded By	Date	Site Type	Near Route Alternatives?	Within Presidio of Monterey Study Area?	Within Proposed Action APE	Within High Street Route Alternative APE	Within Clay Street Route Alternative APE
P-27-002800	Minor, W. C.	1991	“Motor Pool Oil House (Building 124)” Historic-era building	No	Unknown	No	No	No
P-27-001757	Hampson, P., and G. S. Breschini	1985	Shell midden	No	Unknown	No	No	No

3.4.4 Site Cultural Setting

Based on a review of previous studies, it appears that the Presidio of Monterey was intensively surveyed in 1980 (Study S-3633) in ten meter intervals, except for fenced back yards (Zahniser and Roberts 1980:13). The Presidio of Monterey study area appears to have been fully surveyed at that time, and sites CA-MNT-15, CA-MNT-101, CA-MNT-108, CA-MNT-697, CA-MNT-930, CA-MNT-931, and CA-MNT-932 were identified and recorded (Zahniser and Roberts 1980). The 2009 Cal-Am Coastal Water Project survey also included the intensive resurvey of the eastern portion of the study area (Jones and Holson 2009).

3.4.5 Proposed Pipeline Route Alternatives Analyzed

As discussed in Section 2.4.2, *Alternatives Rejected from Further Analysis*, two primary routes as shown in Exhibit 5, *Current Alternative Pipeline Route Locations*, were selected to be analyzed in this EA. The actions discussed in this EA include the Proposed Action- Route 1C-Fitch Avenue, the Route 1A-High Street (an optional route within the Proposed Action), and the Route 2A-Clay Street (Clay Street Route Alternative). Route 2A-Clay Street incorporates a “trenchless” bore segment across the Presidio of Monterey grounds.

3.4.5.1 Proposed Action

The Route 1A-High Street corridor within the Presidio of Monterey is almost entirely within the Stilwell Avenue alignment. Under the Proposed Action and preferred alignment for the project, the pipeline would enter the Presidio of Monterey at the High Street entrance, and following Stilwell Avenue northward, turn onto Fitch Avenue, exiting the Presidio of Monterey at Spencer Street. It should be noted that the corridor for this route is currently paved, refer to Exhibit 3, *Proposed Action and Clay Street Route Alternative Alignments*, and Exhibit 5, *Current Alternative Pipeline Route Locations and APE*.

3.4.5.2 Clay Street Route Alternative

Most of the Route 2A-Clay Street bore alignment within the Presidio of Monterey also lies under paved roadway. The two unpaved areas along the Route 2A-Clay Street alignment are the segment between Kit Carson Road and Plummer Street and an area southeast of the Kit Carson Road and Patton Avenue intersection adjacent to a parking lot. Archaeological monitoring by Pacific Legacy, Inc., staff of sewer repairs at the east end of Building 263 and between Buildings 254 and 257 suggest that the segment of the current Route 2A-Clay Street alignment between Kit Carson Road and Plummer Street does not contain intact prehistoric or historic-era deposits. A trench between Buildings 254 and 257 contained no cultural material to a depth of one foot. The 3 to 5-foot deep trench east of Building 263 exhibited isolated historic-era materials and a lens of redeposited prehistoric midden in a fill-dirt context, but did not reveal intact site deposits (Reese 2008c:2-3). The unpaved area southeast of the Kit Carson-Patton intersection was checked during the current metal-detection program and was found to consist of decomposing granite with little or no topsoil present. No surface cultural materials were observed at that location.

3.4.6 Regulatory Setting

3.4.6.1 National Historic Preservation Act

Section 106 of the NHPA (1966, amended 2000) requires Federal agencies to evaluate the effects of Federal undertakings on historic properties and on cultural resources that are included in or eligible for inclusion in the National Register (16 USC 470f and 36 Code of Federal Regulations (CFR) Part 800). Agencies are required to identify historic properties within a project's APE and evaluate impacts. If the Federal project would have an adverse effect on historic properties (36 CFR Part 800), the agency is required to consult with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation, Indian tribes, and interested parties to develop alternatives or mitigation measures that would allow the project to proceed. The term "cultural resource" is used to describe archaeological sites that illustrate evidence of past human use of the landscape; the built environment represented by structures, such as dams, roadways, and buildings; and, traditional resources, including but not limited to structures, objects, districts, and sites. A cultural resource that is greater than 50 years old qualifies for consideration as an historic property. The criteria used to determine whether a cultural resource is an historic property, and therefore eligible for inclusion on the National Register, are defined in 36 CFR Part 60, revised July 1, 2004.

Per a Programmatic Agreement (PA) between the U.S. Army, Presidio of Monterey, the Advisory Council on Historic Preservation (ACHP) and the CA State Historic Preservation Officer (SHPO), Section 106 for the Proposed Action will be complied with through an annual report to the SHPO & ACHP; however, the Clay Street Route Alternative does not comply with the terms outlined in the PA; therefore, a separate Section 106 consult must be completed for this action.

3.4.6.2 Historic Sites Act of 1935

Under this act, Congress established a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States. This act authorized the Historic American Building Survey (HABS), the Historic American Engineering Record (HAER), the National Survey of Historic Sites, the establishment of National Historic Sites, and the designation of National Historic Landmarks. The act also authorized interagency, intergovernmental, and interdisciplinary efforts for the preservation of cultural resources.⁶

3.4.6.3 Archaeological and Historic Preservation Act of 1974

This act, also called the Moss-Bennett Act, applies to most federal construction projects. It requires the federal agency to notify the Secretary of the Interior if a project threatens the loss or destruction of significant historic or archaeological data.⁷

⁶ http://www.dot.ca.gov/ser/vol2/exhibits/exhibit_1_4_laws_regs.htm

⁷ Ibid

3.4.6.4 Archaeological Resources Protection Act of 1979

In order to protect archaeological resources on public lands and Indian lands, this act requires permits in order to excavate or remove any archaeological resources. Unauthorized activities are punishable by fine, imprisonment, or both.⁸

3.5 Energy

Electrical service in Monterey County is provided by Pacific Gas and Electric (PG&E). PG&E is regulated by the CPUC and is required to supply electricity and extend infrastructure to all new developments. Power comes from a diverse mix of generating sources, both conventional and renewable, and both small and large. PG&E generates power from hydroelectric powerhouses, a nuclear power plant, and a few small fossil-fired power plants. PG&E also buys power from independent power producers. Their generation sources can range from large fossil power plants to smaller renewable and cogeneration plants. After the power is produced or bought, it is transferred to PG&E's electric transmission and distribution systems to be distributed to the homes and businesses of customers.

3.6 Environmental Justice

3.6.1 Introduction

All projects involving a Federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This EO directs Federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2009, this was \$22,050 for a family of four.⁹ All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project.

The *Final Guidance For Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (April 1998) states a minority or low-income population is considered substantial when more than 50 percent of the affected population are minority and/or low-income, or when the affected population has a minority or low-income percentage that is meaningfully greater than the percentage of minority or low-income people in the general population, or other appropriate unit of geographic analysis. The two basic steps in an environmental justice analysis include the assessment of: (1) whether the potentially affected community has a substantial minority population, low-income population, or Indian tribe; and (2) whether the environmental impacts are likely to fall disproportionately on an identified minority population, low-income population, and/or Indian tribe.

⁸ http://www.dot.ca.gov/ser/vol2/exhibits/exhibit_1_4_laws_regs.htm

⁹ <http://aspe.hhs.gov/POVERTY/09poverty.shtml>, Accessed 10-20-10.

3.6.2 Minority and Poverty Populations in the Project Area

Information for this environmental justice analysis was derived from the 2000 U.S. Census Bureau website. Research was conducted at the County, County subdivision, City, and census tract levels to obtain data relative to racial/ethnic composition and poverty status. The study area includes the following places: the County of Monterey, the Seaside-Monterey Census County Division (CCD), and the City of Monterey. Table 3.7-1, *Project Area Minority and Poverty Profile*, provides population percentages for the minority and poverty populations of the County of Monterey, the Seaside-Monterey CCD, and the City of Monterey. As shown in Table 3.7-1, *Project Area Minority and Poverty Profile*, the County of Monterey has a 40.0 percent minority population, and the Seaside-Monterey CCD and the City of Monterey have lower minority populations at 30.7 and 15.2 percent, respectively. None of the three places studied has a minority population higher than 50 percent. The County of Monterey’s percentage of population living in poverty is slightly higher than that of the Seaside-Monterey CCD and the City of Monterey, with the County of Monterey at 13.5 percent, the Seaside-Monterey CCD at 9.1 percent, and the City of Monterey at 7.8 percent. None of the three areas contain populations living in poverty in excess of 50 percent.

**Table 3.7-1
Project Area Minority and Poverty Profile**

Place	Population	# of Minority	% of Minority	# of Poverty	% of Poverty
County of Monterey	401,762	160,631	40.0	51,692	13.5
Seaside-Monterey CCD	113,464	34,859	30.7	10,332	9.1
City of Monterey	29,674	4,517	15.2	2,105	7.8

Source: U.S. Census 2000, <http://factfinder.census.gov> accessed October 20, 2010

The study area census tract analysis provides a more focused picture of the area affected by the project than the City and County demographics can provide. Census tracts were used because they are the most complete data set for the level of detail required for this analysis. Census tracts are also used to incorporate populations that may not be directly impacted by this project, but may be indirectly affected by project construction and operation. Data boundaries with finer level of detail such as census blocks were not selected due to incomplete data in some of the required demographic categories necessary for the environmental justice analysis.

There are three specific census tracts within or surrounding the Proposed Action area within the City of Monterey. As shown in Table 3.7-2, *Study Area Census Tract Minority and Poverty Population*, all three census tracts contain considerably low poverty percentages, and none of the three census tracts contain populations living in poverty in excess of 50 percent.

**Table 3.7-2
Study Area Census Tract Minority and Poverty Population**

Census Tract	Population	Minority %	Poverty %
125	5,315	13.4	7.2
126	2,510	13.8	0.0
127	3,538	16.1	10.4

Source: U.S. Census 2000, <http://factfinder.census.gov> accessed October 20, 2010

Note: According to the U.S. Census Bureau's website (<http://factfinder.census.gov/>), the population threshold on Summary File 4 is 100, and there must be at least 50 or more unweighted cases of the population group in order to obtain census tract data values. The fields marked "N/A" are not available for the corresponding geographic areas (census tracts) because the population of the selected race or ethnic group is less than the threshold.

3.7 Geology and Soils

3.7.1 Geology/Soils

The project area includes rolling hills extending inland from the coast comprised of windblown sand dunes. The project area consists of coastal dune deposits that form a zone of moderately elevated, rolling hills extending several miles inland from the coastline and south from the Salinas River channel to Canyon del Rey on the Monterey Peninsula.

The project site contains mostly soils from the Narlon series. The USDA Natural Resources Conservation Services defines the project site to contain, NcC – Narlon loamy fine sand 2 to 9 percent slopes. This soil type is somewhat poorly drained. In the area of the project site, the NcC soil is not classified as having properties or qualities of frequent flooding or frequent ponding.¹⁰ Fill materials within the project area may include various waste materials associated with historic military operations. Alluvial deposits are present within the project area along drainage courses and are anticipated to be comprised of predominately loose sand derived from the dune sand deposits.

Surface soils tend to erode under the wearing action of flowing water, waves, wind, and gravity. Factors influencing erosion include topography, soil type, precipitation, and other environmental conditions. The project would include earthwork for the construction of the Monterey Presidio Pipeline and Clay Street Route Alternative including grading, trenching, and miscellaneous excavations.

Varying depth of ground disturbance for the Proposed Action and Clay Street Route Alternative would be required to accommodate topography, hydraulic grade, and utility congestion, among other factors.

3.7.2 Seismicity

The project site is located in the Coast Ranges geomorphic province of California, an area considered seismically active, as are most areas of California. Several active and potentially active faults have been mapped by the California Geologic Survey (CGS) near the project site.

¹⁰ <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

Seismic hazards that could potentially affect the Monterey Presidio Pipeline include surface fault rupture, ground shaking, and soil liquefaction and dynamic settlement.

3.8 Hazards and Hazardous Materials

Hazards and hazardous materials are regulated to reduce the release of such materials to an extent that results in impacts to human health or the environment. The ACOE developed Engineering Regulation 1165-2-132 in response to the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). In addition to CERCLA, on the federal level hazards and hazardous materials are regulated through various laws including the following: Toxic Substances Control Act of 1976; the Resource Conservation and Recovery Act (RCRA), Clean Water Act, the Clean Air Act; the Federal Hazardous Materials Transportation Law of 1988; National Emissions Standards for Hazardous Air Pollutants (NESHAP). The laws regulating hazards and hazardous waste vary to include the defining and categorizing hazardous wastes, regulating the release of hazardous materials; implementing restrictions on chemical substances; regulating the interstate and intrastate transportation of hazardous materials and waste.

In addition, to federal regulations encompassing the global issue of hazardous materials, Petroleum Storage Tanks, commonly referred to as underground storage of hazardous substances or underground storage tanks (USTs), are also governed by federal and state requirements related to management, operations, removal, and remediation activities. Lead-based paints, additives, and hazardous associated with those are also governed by federal and state regulations, as well as specific policies from the Army.

Specific to the United States Department of Defense (DoD), the Installation Restoration Program (Program) facilitates the investigation and clean-up of contaminated sites associated with military installations. The Presidio of Monterey's Program was initiated in 1986, subsequent the discovery of a former 4-acre landfill. Following the discovery of the landfill, in 1992, the Presidio of Monterey was placed on the CERCLA National Priority List (NPL). This list contains sites within the United States and its territories that are considered a national priority among the known releases or threatened releases of hazardous substances, pollutants, or contaminants.

The discovered landfill was a site of concern as metals and pesticides were affecting soil and surface water quality. The landfill was closed, capped, and graded after the completion of remediation activities in 1995. In compliance with CERCLA regulations, the U.S. EPA removed the Presidio of Monterey from the NPL. Except for one compartmentalized tank at Building 230 Army, Army and Air Force Exchange Service (AAFES), the remaining known hazardous material sites or potential issues on the Presidio of Monterey have been resolved since 1988, including the removal of 25 USTs.

3.9 Hydrology and Water Quality

3.9.1 Local Hydrology

The project site is within the jurisdiction of the Central Coast Regional Water Quality Control Board (CCRWQCB). The CCRWQCB has jurisdiction over a 300-mile long by 40-mile wide section of California's central coast and encompasses Santa Cruz, Monterey, San Benito, San Luis Obispo, and Santa Barbara Counties, as well as portions of San Mateo, Santa Clara, Kern, and Ventura Counties.

The CCRWQCB publishes and implements the Water Quality Control Plan for the Central Coast Region (also known as the Central Coast Basin Plan) that identifies beneficial uses of surface waters, establishes numeric and narrative objectives for protection of beneficial uses, and sets forth policies to guide the implementation of programs to attain the objectives. The CCRWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose discharges to waters of the State can affect water quality. These requirements can be either State Waste Discharge Requirements (WDR) or Federally delegated National Pollutant Discharge Elimination System (NPDES) permits for discharges to Waters of the U.S. The CCRWQCB has adopted a separate NPDES General Permit for storm water discharge associated with construction activity on sites greater than one acre in size. NPDES permit conformance requires that a project applicant file a Notice of Intent (NOI) to comply with the terms of the General Permit to Discharge Storm Water Associated with Construction Activity and submit a Storm Water Pollution Prevention Plan (SWPPP) to the CCRWQCB. A SWPPP contains a listing and implementation plan for use of storm water Best Management Practices (BMPs) that would be implemented during construction of the project to minimize erosion and sedimentation. The SWPPP also requires the implementation of monitoring programs, post-development BMPs, and water quality management strategies.

3.10 Indian Trust Assets

The U.S. Government's trust responsibility for Indian resources requires Federal agencies to take measures to protect and maintain trust resources. These responsibilities include taking reasonable actions to preserve and restore tribal resources. Indian Trust Assets are legal interests in property and rights held in trust by the United States for Indian tribes or individuals. Indian reservations, rancherias, and allotments are common Indian Trust Assets.

There are no tribes possessing legal property interests held in trust by the United States in the land involved with the Proposed Action.

3.11 Land Use

The Proposed Action would involve installation of pipeline that would extend throughout various land uses and areas contained within the larger Monterey Bay Regional Desalination Project. The pipeline would be installed within the Presidio of Monterey facility grounds, owned by the U.S. Army. According to the City of Monterey General Plan Land Use map, the Presidio of Monterey is designated as public/semi-public use, with areas of parks, recreation and open space

designations, where parks are located. In addition, current land uses in the vicinity of the proposed project and Clay Street Route Alternative contain existing roadway uses.

3.12 Noise

Sound is technically described in terms of loudness (amplitude) and frequency (pitch). Noise is typically described as any unwanted or objectionable sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against sound frequencies in a manner approximating the sensitivity of the human ear.

The decibel scale is logarithmic. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range, similar to how the Richter scale measures earthquake magnitudes. In terms of human response to noise, a sound 10 dBA higher than another is perceived to be twice as loud; 20 dBA higher, four times as loud; and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud).

In most situations, a 3 dBA change in sound pressure level is considered a “just-detectable” difference. A 5 dBA change (either louder or quieter) is readily noticeable, and a 10 dBA change is a doubling (if louder) or a halving (if quieter) of the subjective loudness. Sound from a small localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates or drops off at a rate of 6 dBA for each doubling of the distance. This decrease, due to the geometric spreading of the energy over an ever-increasing area, is referred to as the inverse square law; however, highway traffic noise is not a single, stationary point source of sound. The movement of the vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. Since the change in surface area of a cylinder only increases by two times for each doubling of the radius instead of the four times associated with spheres, the change in sound level is 3 dBA per doubling of distance.

Numerous methods have been developed to measure sound over a period of time. These methods include (1) the community noise equivalent level (CNEL); (2) the equivalent sound level (Leq); and, (3) the day/night average sound level (Ldn). These methods are described below.

3.12.1 Community Noise Equivalent Level (CNEL)

The predominant community noise rating scale used in California for land use compatibility assessments is the community noise equivalent level (CNEL). The CNEL reading represents the average of 24 hourly readings of equivalent sound levels (Leq) based on an A-weighted decibel and adjusted upward to account for increased noise sensitivity in the evening and at night. These adjustments are +5 dBA for the evening (7:00 PM to 10:00 PM) and +10 dBA for the night (10:00 PM to 7:00 AM). CNEL may be indicated by “dBA CNEL” or just “CNEL.”

3.12.2 Average Noise Level (Leq)

The average noise level (Leq) is the sound level containing the same total energy over a given sampling time period. The Leq is the steady sound level that, in a stated period of time, would contain the same acoustic energy as the time-varying sound level during the same period. Leq is typically computed over sampling periods of 1, 8, and 24 hours.

3.12.3 Day Night Average (Ldn)

Another commonly used method is the day/night average level (Ldn). The Ldn measures the 24-hour average noise level at a given location, and it was adopted by the EPA for developing criteria for the evaluation of community noise exposure. It is based on a measure of the Leq (the average noise level over a given time period). The Ldn is calculated by averaging the Leqs for each hour of the day at a given location after penalizing the “sleeping hours” (defined as 10:00 PM to 7:00 AM), by adding 10 dBA to account for the increased sensitivity of people to noises that occur at night.

3.12.4 Other Noise Measures

The maximum noise level recorded during a noise event is expressed as Lmax. The sound level exceeded over a specified timeframe is expressed as Ln (i.e., L90, L50, L10, etc.). L50 is the level exceeded 50 percent of the time, L10 ten percent of the time, etc.

3.12.5 Sensitive Receptors

Certain land uses are considered particularly sensitive to noise. Schools, hospitals, rest homes, long-term medical and mental care facilities, parks, and recreation areas are all considered sensitive receptors. Residential areas are also considered noise-sensitive, especially during the nighttime hours. Wildlife in the project area are also considered noise-sensitive.

Both the Proposed Action and the Clay Street Route Alternative would be located near residential, educational, and recreational uses. Residential, educational facilities and recreational uses that are located within the Project area and represent sensitive resources that may be potentially affected by short-term (construction) activities associated with the project. Potential noise impacts resulting from project components on adjacent sensitive receptors are analyzed in Section 4, *Environmental Consequences*.

With regard to sensitive wildlife receptors, the Proposed Action only contains ruderal/developed areas; therefore, this route is not likely to contain any sensitive wildlife receptors. The majority of the Clay Street Route is also ruderal/developed; however, riparian forest and aquatic habitat are also present where the alignment crosses a drainage, and thus could contain birds and herpetofauna, which would be sensitive to construction noise, if present.

Although both the Proposed Action and Clay Street Route Alternative are located near sensitive receptors, they are also both located adjacent to major roadways within the Presidio of Monterey. Under the Proposed Action, the pipeline would be located within Stilwell Avenue and Fitch Avenue. In addition to the sensitive receptor uses, ambient noise along these routes is also generated by vehicular traffic, and uses associated with parking (slamming car doors, pedestrian

conversation etc.). Similar to the Proposed Action, noise generating uses near the two portal areas (underground trenching insertion points) adjacent to the Clay Street Route Alternative are typically associated with vehicular traffic, recreational activities on the ball fields, and parking.

3.12.6 Laws, Ordinances, Regulations, and Standards

It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions. All such studies, however, recognize that individual responses vary considerably. Standards usually address the needs of most of the general population.

This section describes the laws, ordinances, regulations, and standards that are applicable to the project. Regulatory requirements related to environmental noise are typically promulgated at the local level; however, Federal and State agencies provide standards and guidelines to the local jurisdictions.

3.12.7 Significance of Changes in Ambient Noise Levels

A project is considered to have a significant noise impact where it causes an adopted noise standard to be exceeded for the project site or for adjacent sensitive receptors. In addition to concerns regarding the absolute noise level that might occur when a new source is introduced into an area, it is also important to consider the existing ambient noise environment. If the ambient noise environment is quiet and the new noise source greatly increases the noise exposure, even though a criterion level might not be exceeded, an impact may occur. Lacking adopted standards for evaluating such impacts, a general standard for community noise environments is that a change of over 5 dBA, regardless of the ambient noise level without the project, is readily noticeable and is therefore considered a significant impact; refer to Table 3.12-1, *Significance of Changes in Cumulative Noise Exposure*.

**Table 3.12-1
Significance of Changes in Cumulative Noise Exposure**

Ambient Noise Level Without Project (Ldn or CNEL)	Significant Impact is Assumed to Occur if the Project Increases Ambient Noise Levels by:
<60 dBA	+ 5.0 dBA or more
60-65 dBA	+ 3.0 dBA or more
> 65 dBA	+ 1.5 dBA or more

Source: U.S. Environmental Protection Agency Office of Noise Abatement and Control, Noise Effects Handbook, A Desk Reference to Health and Welfare Effects of Noise, October 1979 (revised July 1981).
dBA = A-weighted decibel; CNEL = community noise equivalent level; Ldn = day/night average noise level.

In areas where the ambient noise level without the project is 60 to 65 dBA, some individuals may notice an increase in the ambient noise level of greater than 3 dBA. A change in community noise levels by 1 dBA or more in areas where the ambient noise level is greater than 60 dBA is considered a significant impact because the increase would contribute to an existing noise deficiency.

3.13 Public Utilities and Service Systems

3.13.1 Introduction

This section identifies existing public utility and service system locations and resource demand within and in the vicinity of the proposed project and proposed project alternatives and in relation to the proposed activities. Public utility and service systems locations and existing demands for these services were identified from a variety of resources including the City of Monterey and the Presidio of Monterey (POM).

3.13.2 Water

The majority of Monterey County relies upon groundwater aquifers for drinking water supply. Many of the County's aquifers have had more water pumped out of them than is replaced through natural recharge processes. This process of overdrafting the aquifers has reduced water levels in some areas and causing salt water intrusion from the ocean in other areas. Problems with the aquifers will continue for water users unless the groundwater supply is supplemented and the overdrafting halted.

As described in Section 1.0, *Purpose and Need*, CAW supplies water to most of the jurisdictions in the project area. CAW's service area and current water supply sources are discussed in detail in Section 3.16, *Water Supply*.

3.13.3 Wastewater

The majority of the wastewater systems in the project area are maintained and operated by the City of Monterey. The laterals are the exception, being owned and maintained by the POM. Wastewater is carried by the sanitary collection systems of the POM to two lift stations at the north end of the POM. It wastewater is then treated by at the Monterey Regional Water Pollution Control Agency (MRWPCA) wastewater treatment plant. The MRWPCA treats approximately 20 million gallons per day (mgd) of raw wastewater flow and currently produces approximately 13.6 mgd (15,000 AFY) of recycled water. The plant was constructed with a permitted capacity of 29.6 mgd. Several mgd of capacity are still available to meet future demand, and expansion of the treatment plant is not anticipated to be necessary in the near future.

Based on the City of Monterey As-Builts, two sewage lines crossing Stilwell Avenue have been identified within the proposed project area.

3.13.4 Natural Gas

Natural gas service for the County of Monterey is provided by Pacific Gas and Electric (PG&E). PG&E is regulated by the CPUC. PG&E's gas piping system delivers natural gas, to its residential, commercial, industrial and agricultural customers. Within the proposed project a two-inch gas pipeline has been identified running though the middle of Stilwell Avenue.

3.13.5 Electricity

Electrical service in Monterey County is provided by PG&E. PG&E is regulated by the CPUC and is required to supply electricity and extend infrastructure to all new developments.

Power comes from a diverse mix of generating sources, both conventional and renewable, and both small and large. PG&E generates power from hydroelectric powerhouses, a nuclear power plant, and a few small fossil-fired power plants. PG&E also buys power from independent power producers. Their generation sources can range from large fossil power plants to smaller renewable and cogeneration plants. After the power is produced or bought, it is transferred to PG&E's electric transmission and distribution systems to be distributed to the homes and businesses of customers.

3.13.6 Telephone/Communication

Telephone service for the project site is provided by the local provider. Telephone service will be extended to the site by CAW at the appropriate time during project implementation.

Fiber optic cables and copper cables, belong to the POM, AT&T, and the U.S. Army are located underground adjacent to the proposed project routes. Locations of these cables include areas:

- Three crossings of communication cables, both copper and fiber optics at High Street Gate 30, within the POM ;
- Three fiber optic cables Crossing over High Street, 10 feet into the POM from the High Street Gate;
- One pair of copper cable with three fiber optics crossing 30 feet inside the High Street Gate;
- One pair of copper cables and three fiber optic cables, running across Stilwell Avenue to Fitch Avenue, and then across Fitch Avenue near Building 277;
- Along High Street/Stilwell Avenue to Building 343;
- Underground communication cables including one fiber optic cable (belonging to the POM), one pair cable (belongs to AT&T) that run across the POM, and Army owned cable crossing Plummer Street near Buildings 261 and 263; and,
- Fiber optic cable along Kit Carson Road, crossing Patton Avenue and below the softball field to Building 212.

These cables are the major component of the POM Network and phone services system.

3.13.7 Solid Waste

The Monterey Regional Waste Management District (MRWMD) manages the Monterey coastal area's solid waste collection/disposal and recycling system. It also receives most of Monterey

County's sewage sludge and is currently in the pilot phase of a sludge composting program. The MRWMD covers a total of 853 square miles and currently serves a population of approximately 170,000 people (MRWMD, 2008). Any solid waste generated by project construction or operation would be deposited in the MRWMD landfill or diverted for recycling or reuse at the District's Materials Recovery Facility (MRF). The landfill, MRF, and a transfer station are located at a site in the City of Marina.

The landfill operates six days per week and is permitted to receive 3,500 tons of waste per day. It has a remaining capacity of approximately 48.6 million cubic yards and is expected to reach its permitted capacity in 2107 (California Integrated Waste Management Board (CIWMB), 2009a). Materials targeted for recycling and reuse at the District's MRF include materials in self-haul loads, commercial wastes, construction and demolition debris, wood waste, and yard waste, in addition to more typical materials such as paper, cardboard, bottles, and cans.

A four-acre landfill was discovered on the Presidio of Monterey in 1986. However remediation was completed in 1995 and the landfill was closed and capped. The landfill site is located in the northeastern area of the Presidio of Monterey and is not in the vicinity of the pipeline alternatives.

3.14 Socioeconomic Resources

3.14.1 Introduction

Social and economic effects must be included in NEPA analyses in compliance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994, which directs Federal agencies to identify and analyze the potential socioeconomic impacts of proposed actions in accordance with health and environmental laws. For the purposes of this analysis, socioeconomic data collected from the U.S. Census 2000 and the California Department of Finance (DOF) has been compiled for the County of Monterey, the Seaside-Monterey Census County Division (CCD), and the City of Monterey, in order to evaluate the socioeconomic conditions in the area of the Proposed Action.

3.14.2 Socioeconomic Demographics

Population figures for the study area are shown in Table 3.14-1, *Population Summary*. Based on DOF 2009 estimates, Monterey County has a population of approximately 431,041 people. The County's population has grown at an overall rate of 1.2 percent annually since 1990. The total residential units and housing characteristics for the study area are shown in Table 3.14-2, *Characteristics of Study Area Housing*.

**Table 3.14-1
Population Summary**

Place of Residence	Population
County of Monterey	431,041
Seaside-Monterey CCD ¹¹	113,464
City of Monterey	29,187

Source: California Department of Finance (DOF), <http://www.dof.ca.gov/> accessed October 20, 2010, and U.S. Census 2000, <http://factfinder.census.gov> accessed October 20, 2010

As shown in Table 3.14-2, *Characteristics of Study Area Housing*, below, home ownership rates vary from 38.5% in the City of Monterey, to a higher rate of 54.6% throughout the County of Monterey. According to the November 2009 Presidio of Monterey Real Property Master Plan, the total military population of the Presidio of Monterey including active duty, reserve, and National Guard is approximately 3,870 persons, with approximately 98 percent of that population currently enlisted. The civilian workforce is approximately 3,360. Approximately 6,100 family members of active duty personnel live on installation property, with approximately 28,000 military retirees and their families living in the area (Presidio of Monterey 2008). The majority of the land use activities on the Presidio of Monterey site are associated with educational activities of the Defense Language Institute, Foreign Language Center (DLIFLC).

**Table 3.14-2
Characteristics of Study Area Housing**

Housing Statistics	County of Monterey	Seaside-Monterey CCD	City of Monterey
Total Occupied Housing Units	121,236	41,337	12,600
Average Household Size	3.14	2.52	2.13
Owner Occupied	66,213 (54.6%)	19,044 (46.1%)	4,853 (38.5%)
Renter Occupied	55,023 (45.4%)	22,293 (53.9%)	7,747 (61.5%)

Source: U.S. Census 2000, <http://factfinder.census.gov> accessed October 20, 2010

Table 3.14-3, *Employment by Industry*, presents a breakdown of employment in different industry sectors in the County of Monterey, the Seaside-Monterey CCD, and the City of Monterey in 2000. The categories with the largest number of jobs in the Proposed Action study area include retail, professional, education, and arts.

¹¹ Population estimates for Census County Divisions (CCDs) are unavailable; therefore, the Census 2000 Seaside-Monterey CCD population figure was used for this table.

**Table 3.14-3
Employment by Industry**

Employment Sector	Year 2000		
	County of Monterey	Seaside-Monterey CCD	City of Monterey
Agriculture	20,298 (12.4%)	988 (2.0%)	178 (1.3%)
Construction	10,443 (6.4%)	3,076 (6.1%)	831 (6.0%)
Manufacturing	9,284 (5.7%)	2,002 (4.0%)	494 (3.5%)
Wholesale	9,781 (6.0%)	1,071 (2.1%)	340 (2.4%)
Retail	18,395 (11.2%)	6,181 (12.3%)	1,752 (12.6%)
Transportation	5,341 (3.3%)	1,306 (2.6%)	352 (2.5%)
Information	3,743 (2.3%)	1,898 (3.8%)	728 (5.2%)
Finance	8,116 (4.9%)	2,787 (5.5%)	821 (5.9%)
Professional	14,674 (8.9%)	5,510 (10.9%)	1,575 (11.3%)
Education	29,891 (18.2%)	11,166 (22.2%)	3,450 (24.8%)
Arts	16,965 (10.3%)	8,741 (17.4%)	2,194 (15.7%)
Public Admin	8,998 (5.5%)	2,746 (5.5%)	689 (4.9%)
Other Services	8,058 (4.9%)	2,878 (5.7%)	529 (3.8%)
TOTAL	163,987	50,350	13,933

Source: U.S. Census 2000, <http://factfinder.census.gov> accessed October 20, 2010

All three places in the study area had very similar, consistent median household incomes, as shown in Table 3.14-4, *Median Household Income*. Monterey County's median household income in 1999 was \$48,305. The Seaside-Monterey CCD's median household income in 1999 was nearly identical to the County median at \$48,039, while the City of Monterey had a slightly higher median household income at \$49,109.

**Table 3.14-4
Median Household Income**

Place of Residence	Median Household Income
County of Monterey	\$48,305
Seaside-Monterey CCD	\$48,039
City of Monterey	\$49,109

Source: U.S. Census 2000, <http://factfinder.census.gov> accessed October 20, 2010

3.15 Traffic

3.15.1 Introduction

This section provides details on the existing roadway and intersection network in the vicinity of the Proposed Action and Clay Street Route Alternative. The Presidio of Monterey is currently closed to public traffic with all intersections operating at an acceptable level of service (LOS). Within the Presidio of Monterey there are four operational access control points at Franklin Street, High Street, Private Bolio Road, and Taylor Street. The major roadways in the vicinity of the proposed action and Clay Street Route Alternative are Pine Street, High Street, and Franklin Street. The traffic and transportation section has been prepared utilizing the traffic data from the

Draft Environmental Impact Statement, Presidio of Monterey, Real Property Master Plan, dated February 2011.

3.15.2 Proposed Action

The Proposed Action would install approximately 1,600 lineal feet of pipeline underneath the roadway on High Street through the Presidio of Monterey. Under the Proposed Action, the preferred alignment for the pipeline is the Fitch Avenue Route which would consist of the pipe entering the Presidio of Monterey at the High Street entrance and following Stilwell Avenue northward, turn onto Fitch Avenue and exit the Presidio of Monterey at Spencer Street. South of the Presidio of Monterey's southern boundary, High Street is two lanes, and listed as a collector street in the Circulation Element of the *City of Monterey General Plan*. High Street turns into Stilwell Avenue once past the Presidio of Monterey entrance, and is two lanes through the remainder of the Presidio of Monterey. It crosses over Private Bolio Road, exiting the Presidio of Monterey at the northern boundary, then turns into Pine Street.

The only major intersection in the vicinity of the proposed action is the Kit Carson Road at Stilwell Road and Plummer Street. This intersection is currently operating at LOS A during both the AM Peak Hour and PM Peak Hour.

There are six Access Control Points (ACPs) on the Presidio of Monterey. One of the ACPs, High Street ACP, provides access to the Presidio of Monterey through the residential area to the west of the High Street ACP. This is the closest ACP to the Proposed Action and provides a secondary access point for emergency response vehicles to the Presidio of Monterey.

3.15.3 Clay Street Route Alternative

Alternatively, the Clay Street Route Alternative, located approximately 800 feet east of the Proposed Action route, would install approximately 1,300 LF of pipeline underneath the Presidio of Monterey using trenchless technology. Clay Street is a two-lane road that terminates just south of the Presidio of Monterey's southern boundary, immediately adjacent to Larkin Park; Clay Street is not identified in the City's General Plan Circulation Element in the functional street classifications. This alternative includes construction of a tunnel portal near the playground of Larkin Park. A second portal would be constructed in a parking lot between Plummer Street and Private Bolio Road near and within the Presidio of Monterey's northern property boundary, and conventional trenched construction would resume northward less than 100 LF to the property limits/fence line of the Presidio of Monterey and onto Belden Street. Belden Street is a two-lane road that extends from the Presidio of Monterey's northern boundary northward into the City of Monterey, and is not identified in the City's General Plan Circulation Element in the functional street classifications.

Private Bolio Road is a two-lane road that borders the northern boundary of the Presidio of Monterey for a distance of approximately 0.8 miles, beginning near the Presidio of Monterey's eastern boundary at Lighthouse Avenue in the City of Monterey, traversing west and terminating at Lawton Road.

As the proposed Clay Street Route Alternative would be tunneled under the Presidio of Monterey, is not adjacent to any major intersections. In addition, the insertion points or located near any ACPs.

3.16 Water Supply

CAW's Monterey District serves most of the Monterey Peninsula, including the cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside, and the unincorporated areas of Carmel Highlands, Carmel Valley, Pebble Beach, and the Del Monte Forest. This part of CAW's service area is supplied by surface water and groundwater from the Carmel River system and the coastal subarea of the Seaside Groundwater Basin (Seaside Basin). CAW's service area boundaries generally correspond to those of the Monterey Peninsula Water Management District (MPWMD), which manages surface water and groundwater resources in the Carmel Valley and groundwater in the Seaside coastal area. Besides its main distribution system (i.e., the areas served by the Carmel River and Coastal subarea of the Seaside Basin), CAW also operates three small independent waters systems along the Highway 68 corridor east of Monterey (Ryan Ranch, Bishop, and Hidden Hills) that are within MPWMD's boundaries and that draw water from the Laguna Seca subarea of the Seaside Basin.

The proposed Monterey Bay Regional Desalination Project is intended to provide replacement water supply to meet existing demands in light of State Water Resources Control Board (SWRCB) Order 95-10 and the Monterey County Superior Court adjudication of water rights in the Seaside Groundwater Basin. Both rulings reduce CAW's use of its two primary sources of supply for the Monterey District and provide the most immediate impetus for the Monterey Bay Regional Desalination Project. Information about these two decisions, with a brief overview of the water supply system for context, is presented in Section 1.1, *Background*.

The San Clemente Dam was constructed on the Carmel River in 1921 and continues to be the major point of surface water diversion from the river. Diversion from the San Clemente reservoir was the sole water supply for the Monterey Peninsula until the 1940s when customer demand exceeded that source of supply. CAW's predecessor installed wells at the upper end of the Carmel Valley to produce water to meet summer demand. The Los Padres Dam was constructed about six miles upstream of the San Clemente Dam in 1951. The Los Padres reservoir is operated in conjunction with the San Clemente reservoir and controls inflow into it. Both dams have been owned and operated by CAW since 1966. Over the years, sedimentation reduced the usable storage at both the San Clemente and Los Padres reservoirs. By 1995, the primary source of water supply for CAW was multiple wells located along the lower Carmel River, which supplied approximately 70 percent of CAW's customer demand. The balance of the water supply was provided by storage at the Los Padres reservoir and diversions from San Clemente reservoir and water pumped from the Seaside Basin.

Water resources in the Carmel Valley and the greater Monterey Peninsula are regulated by the MPWMD. MPWMD has historically restricted CAW's annual allocation of Carmel Valley surface and groundwater to 16,683 AFY (approximately 14.9 mgd). CAW's use of its Carmel Valley wells is also restricted by an annual Memorandum of Agreement (MOA) between CAW, MPWMD and the California Department of Fish and Game (CDFG). The MOA provides a guideline to minimize localized drawdown from the use of wells located along certain reaches of

the river, limits surface water diversions from April to October, and requires releases to the river from San Clemente Reservoir.

In addition to the Carmel River sources, CAW's main distribution system includes eight wells in the Coastal subarea of the Seaside Basin. The Seaside Basin encompasses a 24-square mile area and is generally bounded by the Pacific Ocean on the west, the Salinas Valley on the north, the Toro Park area on the east, and Highways 68 and 218 on the south.

CAW also operates nine wells in the Laguna Seca subarea. As noted above, wells from this subarea supply several small systems in the Highway 68 corridor east of CAW's main distribution system. CAW is able to provide Carmel River water for fire and emergencies to its Ryan Ranch system in the Laguna Seca subarea via an emergency connection from the Crest Tank. CAW currently has a combined operating yield allocation for its Seaside Basin wells of 3,849 AFY from the Seaside Watermaster.

Section 4 Environmental Consequences

4.1 Air Quality

4.1.1 No Action

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on air quality would occur.

4.1.2 Proposed Action

4.1.2.1 Construction

Construction-related fugitive dust emissions associated with the proposed project would be generated from project site grading, and excavation and trenching for pipeline construction. Fugitive dust resulting from construction activities are anticipated to be temporary and would cease upon completion of project construction. In addition to construction-related fugitive dust, exhaust emissions associated with construction vehicles and equipment would also be generated. Fugitive dust and exhaust emissions have the potential to result in short-term impacts to existing air quality. Construction equipment is the primary source of short-term emissions of pollutants such as particulate matter, reactive organic gases (ROG), and Nitrous Oxide (NO_x).

The Proposed Action is a portion of the overall Desalinated Water Conveyance Pipeline System included in the analysis provided in the CAW Monterey Bay Regional Desalination Project FEIR. Table 4.1-1 *Construction Emissions*, provides the projected criteria pollutant emissions for the construction of the conveyance pipeline system. As indicated in Table 4.1-1, *Construction Emissions*, criteria pollutant emissions would not exceed the thresholds established by the MBUAPCD, and therefore, the Proposed Action portion of those emissions would not exceed the thresholds.

**Table 4.1-1
Construction Emissions**

OPERATIONAL SCENARIOS	Emissions in Pounds / Day				
	CO	NO _x	PM _{2.5}	PM ₁₀	ROG
Project Action:	175.50	3.24	8.90	9.62	78.84
Significance Threshold (MBUAPCD):	550	137	--	82	137
Project Action Emissions Source: CAW Coastal Water Project FEIR, October 2009, Appendix F Significance Threshold Source: Monterey Bay Unified Air Pollution Control District (MBUAPCD), 2008					

In order to reduce potential adverse impacts associated with the fugitive dust and exhaust emissions associated with the proposed project, implementation of Minimization Measures AQ-1 and AQ-2 would be required; refer to Section 6, *List of Environmental Commitments*. It should be noted that a conformity determination is not required, as the project area is in attainment for National Ambient Air Quality Standards (NAAQS); however, implementation of these measures would ensure that the proposed project does not result in emissions that would exceed or violate the applicable air quality standards.

Older underground piping may contain asbestos. If underground piping were encountered during construction activities, the accidental release of asbestos could occur. However, with implementation of Mitigation Measure AQ-3, potential impacts would be reduced to less than significant.

4.1.2.2 Operation

The operation of the Monterey Presidio Pipeline would not result in a substantial increase of long-term operational emissions. Operational activities would consist of maintenance personnel driving pickup trucks to access and inspect the pipeline integrity and perform repairs as necessary.

4.1.2.3 Climate Change and Greenhouse Gas Emissions

As discussed in Section 3.2.5, *Climate Change/Greenhouse Gases*, global climate change refers to the changes in the average global weather patterns and in the concentration of GHGs over periods of time. This section identifies the project’s cumulative contribution to the global inventory greenhouse gas emissions, as well as the effects of climate change on the project site.

As mentioned above in Sections 4.1.2.1, *Construction* and 4.1.2.2, *Operation*, the main contributor of air contaminants would occur during the construction phase of the project and would not result in a substantial increase of long-term operational emissions. Operational activities would consist of a slight increase in electricity consumption to operate the pumps. Based on the activities associated with the operations of the proposed project, adverse impacts are not anticipated.

GHG emissions associated with construction activities have been summarized in Table 4.1-2, *GHG Emissions Associated with Project Construction Activities*. As indicated in Table 4.1-2, *GHG Emissions Associated with Project Construction Activities*, the total estimated GHG emission amounts that would be associated with the operations of the entire Desalinated Water Conveyance Pipeline System would not exceed the amount of CARB’s preliminary draft significance threshold. As the Proposed Action would contribute to a portion of the GHG emissions, no adverse impacts related to GHGs would result.

**Table 4.1-2
GHG Emissions Associated with Project Construction Activities**

Source	CO ₂	CH ₄	Total
	Metric tons	Metric tons	Metric tons of CO ₂ eq ³
Construction Emissions ^{1, 2}	1,039.19	0.139	1042.10
Total Construction Emissions ³	521.1 MTCO₂eq/year		
Significance Threshold	7,000 MTCO₂eq/year		
CO ₂ = Carbon Dioxide; N ₂ O = Nitrous Oxide; CH ₄ = Methane; MTCO ₂ eq/year = metric tons of CO ₂ equivalent per year			

Notes:

1. Emissions calculated using the California Air Resources Board's Construction Equipment Emissions Table.
2. CO₂ Equivalent values calculated using the U.S. Environmental Protection Agency Website, Greenhouse Gas Equivalences Calculator, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>, accessed April 2009.
3. Per the CWP FEIR, this is the total emissions over a 2 year period. The total annual emissions is half. The calculation in the FEIR also assumes that all of the project pipelines are built at the same time. The contribution from the Monterey Presidio Pipeline would be even less; however, since the CWP FEIR only provides the combined total emissions for the pipelines, the combined total emissions number is used in this analysis.

4.1.3 Clay Street Route Alternative

Potential impacts related to air quality associated with the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.1.2, *Proposed Action*.

4.2 Biological Resources

4.2.1 No Action

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on biological species or habitat would occur.

4.2.2 Proposed Action

The Proposed Action contains only ruderal/developed habitat; however, several Monterey pine trees, a CNPS List 1B special-status species, are also present within and adjacent to the alignment; specifically, there are four (4) individual Monterey pine trees located on Stilwell Avenue, that could require removal during construction. Additionally, this area supports many trees which may provide nesting habitat for raptors and other migratory bird species, which are protected by the Migratory Bird Treaty Act (MBTA) and by Sections 3503 and 3513 of the California Fish and Game Code. Various species of raptors and migratory birds such as red-tailed hawk [*Buteo jamaicensis*], red-shouldered hawk [*Buteo lineatus*], great horned owl [*Bubo virginianus*], American kestrel [*Falco sparverius*], and turkey vulture [*Cathartes aura*] have a potential to nest in trees within and adjacent to the project site and may forage within the ruderal trees. If the Proposed Action is constructed, it may result in impacts to Monterey pine trees and nesting raptors and other migratory bird species as a result of construction activities. Impacts may include direct mortality of individuals, destruction or disturbance of nests, and loss of habitat as a result of vegetation removal and grading. In addition, there is a potential for infestation of bark beetles, specifically, red turpentine beetles, as a result of Monterey pine tree removal because unseasoned lumber or newly cut pine tissue emits a scent which attracts bark beetles to the site.

Mitigation measures for potential impacts to biological resources have been proposed and are discussed in Section 6, *List of Environmental Commitments*. Measure BIO-1 in Section 6 of this document would ensure that environmental effects on nesting raptors and other migratory bird species are adequately mitigated.

4.2.3 Clay Street Route Alternative

Potential impacts related to Biological Resources associated with the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.2.2, *Proposed Action.*; however, aquatic habitat (0.01 acre) is present within the Clay Street Route Alternative and may be considered “other waters.” As such, these waters may be protected under Sections 401 and 404 of the Clean Water Act (CWA) and under the jurisdiction of the ACOE. In order to determine if the waters along the Clay Street Route Alternative are wetlands and if the wetlands are under the jurisdiction of the ACOE, a jurisdictional determination would need to be completed and approved through the ACOE.

Due to the trenchless technology that will be employed with this alternative, no removal of vegetation or trees will occur, and thus, no Monterey pine trees will be impacted.

4.3 Cultural Resources

4.3.1 No Action

The No Action Alternative would not result in any physical changes to the project site; therefore, cultural resources would not be affected.

4.3.2 Proposed Action

The Proposed Action will have no adverse effect on known cultural resources. Although no known cultural resources are within the APE, construction activities associated with the Proposed Action have the potential to expose unknown subsurface cultural resources; therefore, all ground disturbing activities will be monitored by a qualified archaeologist (per 36 CFR Part 61). The archaeological monitor will ensure construction activities and associated equipment remain within the APE.

If cultural resources are inadvertently discovered, work shall be halted within 30-meters of the find until it can be evaluated by a qualified professional archaeologist and the U.S. Army Cultural Resource Manager. Further discussion of mitigation measures are outlined in Section 6, *List of Environmental Commitments.* Measures CULT-1, CULT-2 and CULT-3 in Section 6 would ensure that effects on inadvertent discoveries are adequately mitigated.

4.3.3 Clay Street Route Alternative

This alternative route includes trenchless boring below the Presidio of Monterey with a surface portal located in the parking lot between Plummer Street & Private Bolio Road. Conventional trenching techniques would be employed from the portal northward (approximately 100 feet) to Belton Street outside the Presidio of Monterey boundary. The trenchless route would bore below the southeast corner of Soldier Field and under Building 257, both of which are contributing elements to the NRHP eligible Presidio of Monterey Historic District. This route avoids direct impact to the Historic District and recorded archaeological site deposits.

Although no known cultural resources are within the APE of the alternative route, associated construction activities have the potential to expose unknown subsurface cultural resources and/or

affect known historic properties in an unanticipated manner; therefore, all ground disturbing activities will be monitored by a qualified archaeologist (per 36 CFR Part 61). Further discussion of mitigation measures are outlined in Section 6, *List of Environmental Commitments*. Measure CULT-1, CULT-2 and CULT-3 in Section 6 would ensure that effects on inadvertent discoveries are adequately mitigated.

4.4 Energy

4.4.1 No Action

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on energy resources or changes in energy consumption would occur.

4.4.2 Proposed Action

4.4.2.1 Short Term Construction Impacts

Energy would be consumed during the construction period and such activities would represent the irreversible consumption of finite, non-renewable natural energy resources. Both fuel and energy would be consumed directly and indirectly during project construction activities. Indirect energy use would occur through the extraction of raw materials, manufacturing, and transportation to make materials used in construction of the project. Direct energy consumption for the project would include the consumption of petroleum for operation of construction vehicles and the use of electricity for the operation of construction equipment, such as power tools; however, the energy required for operation of construction power equipment would be minimal, as would the amount of energy required for the provision of interior utilities (lighting, heating, etc.) for construction trailers and the operation of electrical equipment.

Due to the nature of the required construction activities, it is difficult to predict the exact quantity of energy that would be consumed by project construction-related activities; however, energy consumption for construction-related activities is considered to be less than significant, as such consumption would not create a depletion of non-renewable energy resources over the long-term and would not permanently cause an increased reliance on non-renewable energy resources. It is not anticipated that project-related construction activities would significantly reduce or disrupt the provision of existing electrical and/or natural gas services as the result of insufficient supplies. In addition, existing power lines in the project area are aboveground. Proper clearance would be maintained during construction activities to minimize the potential for temporary service interruptions or transmission line relocation. As project construction is not anticipated to interrupt PG&E operations, and project-related construction energy demands would be unlikely to have a significant effect on PG&E's energy resources, energy consumption required for construction activities is anticipated to result in less than significant impacts.

4.4.2.2 Long Term Operational Impacts

The Proposed Action does not require electricity to operate. Therefore, no adverse impacts have been identified.

4.4.3 Clay Street Route Alternative

Potential impacts related to energy associated with the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.4.2, *Proposed Action*.

4.5 Environmental Justice

4.5.1 No Action

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on minority or low-income populations would occur.

4.5.2 Proposed Action

4.5.2.1 Low Income

None of the census tracts included in the environmental justice analysis contained a low-income population over 50 percent. Therefore, the Proposed Action would not disproportionately affect a low-income population.

4.5.2.2 Minority

None of the census tracts included in the environmental justice analysis contained a minority population over 50 percent. Therefore, the Proposed Action would not disproportionately affect a minority population.

4.5.3 Clay Street Route Alternative

The study area for the Clay Street Route Alternative is the same as that of the Proposed Action; therefore, the low-income and minority impacts would be similar to those of the Proposed Action. Refer to Section 4.5.2, Proposed Action, above.

4.6 Geology and Soils

4.6.1 No Action

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects relative to geology or soils would occur.

4.6.2 Proposed Action

4.6.2.1 Geology

Construction of the Monterey Presidio Pipeline may be subject to seismic hazards, such as high ground accelerations, ground shaking, and liquefaction. In addition, the Proposed Action could be exposed to intense ground shaking associated with potential earthquakes from nearby faults. In addition to implementation of Minimization Measures GEO-1, GEO 2, and GEO-3 (refer to Section 6, *List of Environmental Commitments*), the Monterey Presidio Pipeline would be

engineered, designed, and constructed utilizing methods that provide the least susceptibility to effects of seismic hazards, and no adverse impacts have been identified.

4.6.2.2 Soils

The Narlon series soils are typically saturated within between 3 to 10-inches from the surface during the months of January through March. During this time the potential for soil erosion is less. The soils typically dry out around May, June, or July and remain dry until November or early December¹². During this time, the top layers of the soil are more susceptible to soil erosion. Trenching activities associated with the Proposed Action would result in the removal of topsoil and existing vegetation. The removal of topsoil and vegetation may increase the susceptibility of the Proposed Action site to soil erosion. Standard construction practices to mitigate erosion include the preparation of a SWPPP; however, prior to construction, the Proposed Action would prepare erosion control plans and/or incorporate typical BMPs to minimize potential erosion. The use of the BMPs such as those described below would result in less than significant impacts from soil erosion.

Typical BMPs

- Regularly water the construction site.
- Apply erosion control measures, such as mulch and fiber rolls for erosion prevention, if necessary.
- Use grading and landscaping methods that lower the potential for downstream sedimentation.
- Ensure that structural erosion and sediment transport control measures are ready for implementation prior to the onset of the first major storm of the season.
- Trap sediment before it leaves the site with such techniques as sediment ponds, straw bales, gravel bags, or silt fences.

4.6.3 Clay Street Route Alternative

Potential geology and soils impacts related to the Clay Street Route Alternative would be similar to the Proposed Action, as discussed in Section 4.6.2, *Proposed Action*, and would be minimized with the incorporation of the same BMPs provided for the Proposed Action, also listed in Section 4.6.2, *Proposed Action*.

4.7 Hazards and Hazardous Materials

This section has been prepared to address potential impacts associated with the release of hazardous materials that could affect human health or the environment. This section analyzes both potential hazardous material impacts generated and/or uncovered by the No Action Alternative, the Proposed Action, and the Clay Street Route Alternative.

¹² <http://www2.ftw.nrcs.usda.gov/osd/dat/N/NARLON.html>

4.7.1 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects with regard to hazards or hazardous materials would occur.

4.7.2 Proposed Action

The Proposed Action may involve the temporary storage, handling, and use of hazardous materials as a result of activities associated with the construction of the Monterey Presidio Pipeline. Activities associated with operations of the Proposed Action would not introduce the transport of new hazardous materials through the site.

Included in the Presidio of Monterey Installation Restoration Program, the former landfill site as described in Section 3.8, *Hazards and Hazardous Materials* is not located near the Proposed Action Site. There are no other known hazardous waste sites, closed or open, on the Presidio of Monterey. As such, no impacts related to the release of hazardous materials from the former landfill would result from project implementation.

Construction activities have a short-term potential to release hazardous substances related to materials such as paints, adhesives and petroleum products. As such, contractors are held responsible to insure that they manage and dispose of the hazardous waste related to construction activities consistent with applicable regulations. In addition, some hazardous materials may be exposed with the removal of roadway during the construction of the pipeline. However, as with construction materials, the contractor is responsible for the identification of such materials, the management, and the disposal of these materials. Following compliance with the local, State, and Federal regulatory framework, implementation of the Proposed Action is not anticipated to result in adverse impacts related to hazards and hazardous materials. In addition, construction activities will adhere to standard safety and hazard regulations. Potential adverse impacts related to hazards and hazardous materials would be reduced with the implementation of Mitigation Measures HAZ-1; refer to Section 6, *List of Environmental Commitments*.

4.7.3 Clay Street Route Alternative

Potential hazards and hazardous materials impacts associated with the Clay Street Route Alternative would be similar to the potential impacts associated with the Proposed Action, refer to discussion provided in Section 4.7.2. In addition, the same mitigation measures related to hazards and hazardous materials identified for the proposed action in Section 4.7.2 would also reduce potential impacts under the Clay Street Route Alternative as well.

4.8 Hydrology and Water Quality¹³

4.8.1 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on hydrology or water quality resources would occur.

¹³ CPUC, Proponent's Environmental Assessment for the Monterey Bay Regional Water Project, Proceeding A.04-09-019, 07/14/05

4.8.2 Proposed Action

4.8.2.1 Water Quality and Stormwater Drainage

The proposed project would have limited potential to result in substantial adverse water quality effects. Application of BMPs and approval of a SWPPP would ensure that construction and operations of the Monterey Presidio Pipeline would not result in substantial adverse water quality or storm water drainage effects.

The CCRWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose discharges to waters of the State can affect water quality. These requirements can be either State Waste Discharge Requirements (WDR) or Federally-delegated NPDES permits for discharges to Waters of the U.S. The CCRWQCB has adopted a separate NPDES General Permit for storm water discharge associated with construction activity on sites greater than one acre in size.

Project trenching activities could encounter subsurface water, for which dewatering operations would be necessary. Dewatering non-stormwater cannot be discharged without notifying and receiving approval from the CCRWQCB. Appropriate BMPs, which may include replacing ground cover in disturbed areas quickly; covering stock piles with tarps, installing fiber rolls; protecting storm drain inlets, vehicle and equipment maintenance; and, construction waste management shall be implemented to ensure that discharge complies with all permit requirements and regional and watershed specific requirements.

Mitigation measures are proposed to reduce potential project impacts with regard to water quality and potential dewatering activities. NPDES permit conformance requires that a project applicant file a NOI to comply with the terms of the General Permit to Discharge Storm Water Associated with Construction Activity and submit a SWPPP to the CCRWQCB. A SWPPP contains a listing and implementation plan for use of storm water BMPs that would be implemented during construction of the project to minimize erosion and sedimentation. The SWPPP also requires the implementation of monitoring programs, post-development BMPs, and water quality management strategies; refer to Section 6, *List of Environmental Commitments*. Mitigation Measure HWQ-1 would be implemented to reduce potential adverse impacts.

4.8.3 Clay Street Route Alternative

Potential impacts related to Hydrology and Water Quality associated with the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.7.2, *Proposed Action*.

4.9 Indian Trust Assets

4.9.1 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on Indian Trust Assets would occur.

4.9.2 Proposed Action

There are no tribes possessing legal property interests held in trust by the United States in the land involved with the Proposed Action; therefore, the Proposed Action would not result in impacts to any Indian Trust Assets.

4.9.3 Clay Street Route Alternative

There are no tribes possessing legal property interests held in trust by the United States in the land involved with the Clay Street Route Alternative; therefore, the Clay Street Route Alternative would not result in impacts to any Indian Trust Assets.

4.10 Land Use

4.10.1 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on land use would occur.

4.10.2 Proposed Action

The Proposed Action would not physically divide an established community, nor would it conflict with any applicable land use plans, policies, or regulations, including local coastal plans or habitat conservation plans. The objective of the Proposed Action, as a component of the larger Monterey Bay Regional Desalination Project, is to provide water to replace existing water supplied by the Project Proponent to comply with SWRCB Order 95-10 and the Seaside Groundwater Basin Adjudication. Analysis of these issues in Section 4.7, *Hydrology and Water Quality*, indicates that the Proposed Action would not result in significant water quality impacts with implementation of environmental commitments, and, in fact, would result in beneficial impacts to water supply. No land use changes would result from implementation of the Proposed Action.

4.10.3 Clay Street Route Alternative

The study area for the Clay Street Route Alternative is the same as that of the Proposed Action; therefore, the land use impacts would be similar to those of the Proposed Action. Refer to the above discussion.

4.11 Noise

4.11.1 No Action Alternative

The No Action Alternative would not result in changes to the project site, and therefore, no adverse impacts from noise would occur with this alternative.

4.11.2 Proposed Action

4.11.2.1 Construction Noise

Construction activities for the installation of the pipeline would include trenching in existing paved roadways along the approximate 1,600-LF alignment, installation of bedding, pipe and backfill materials, and resurfacing the roadway.

Standard construction equipment is anticipated to be used to prepare the project site for the Proposed Action, trenching activities, and to perform final site work. Typically, the following equipment is used for a project of this size and scope: trencher, backhoe, generators, flatbed trucks, excavator, dozer, off highway trucks, compactors, hauling, concrete truck, front end loaders, and paving equipment.

Staging areas for stockpiling soil and/or storing materials and equipment temporarily during construction would be within the APE, or in staging areas outside the Presidio of Monterey property.

The construction of the portion of pipeline crossing the Presidio of Monterey would be completed in less than one month. Construction would be accomplished during normal working hours (Monday through Friday 8:00 a.m. to 5:00 p.m.) during the week, except for construction in sensitive areas where the U.S. Army has indicated a preference for nighttime or weekend work. A construction crew of five to ten workers would be onsite during the day.

Noise levels resulting from the construction activities associated with the Proposed Action would be typical of a pipeline project. In addition, construction activities associated with the Proposed Action would be temporary and would cease upon the completion of construction. Existing noise levels would increase during construction activities, however, given the existing noise levels associated with vehicular traffic on Stilwell Avenue and Fitch Avenue, parking along Stilwell, and outdoor activities (including those associated with sensitive receptors) adjacent to the Proposed Action the increase in noise from the Proposed Action would be muffled. In addition, as previously noted, construction activities would occur during norm working hours. The combination of existing noise levels, the short duration and limited hours of construction activities, and the implementation of Mitigation Measures NOI-1 through NOI-2, potential adverse impacts would be reduced to less than significant.

4.11.2.2 Operational Noise

No mechanical equipment would be operated with the proposed project. Therefore no adverse impacts related to Proposed Action operational noise would result.

4.11.3 Clay Street Route Alternative

4.11.3.1 Construction Noise

The Clay Street Route Alternative would require drilling, which employs stationary equipment. The boring equipment would be located on a parking lot located between Plummer Street and Private Bolio Road. Sound wall and noise attenuation may be necessary if nighttime construction

occurs or if disruption to nearby receptors would be significant during daylight hours. Potential impacts would be reduced to less than significant with the implementation of Minimization Measures NOI-1 through NOI-4. In addition, under the Clay Street Route Alternative, a Noise Control Plan would be developed. The Plan shall identify all feasible noise control procedures that would be implemented during nighttime construction activities. At a minimum, the Plan shall require implementation of Minimization Measures NOI-1 through NOI-4 (refer to Section 6, *List of Environmental Commitments*), and the construction contractor shall ensure that noise blankets, or equivalent sound attenuation devices, are used to attenuate stationary drill equipment noise during the Proposed Action development activities that take place during nighttime hours. The Plan shall specify that only development construction equipment that is absolutely required shall be allowed to operate during the nighttime hours.

4.11.3.2 Operational Noise

Potential impacts related to operational noise associated with the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.11.2.2, *Operational Noise*.

4.12 Public Utilities and Service Systems

4.12.1 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on public utilities or service systems would occur.

4.12.2 Proposed Action

During the construction period, disruption to any existing utilities service would be coordinated with U.S. Army no less than 10 working days in advance of such activities. If required, CAW would attempt to schedule the disruption of utility service during non-peak times (e.g. early a.m.) as feasible. It is not anticipated that such disruption would exceed 4 hours in duration.

4.12.2.1 Water

Existing water supplies are adequate to provide water to the project for short-term water demand during construction; however, as discussed in Section 1.0, *Purpose and Need*, new water supplies are needed to relieve CAW's long term obligation to meet the SWRCB's Cease and Desist Order rampdown schedule on Carmel River supply and the Seaside Watermaster's adjudication schedule on Seaside groundwater supply. Operation of the Proposed Action would allow CAW to deliver new water supplies to the Monterey Peninsula and would help relieve CAW of its water supply deficits. In addition, the Proposed Action would help relieve demand on existing CAW-owned aging pipelines that cross the Presidio of Monterey. Construction of the Proposed Action would be designed to avoid existing water lines owned by CAW and the Presidio of Monterey. No adverse effects have been identified, and impacts would be less than significant.

4.12.2.2 Wastewater

Due to the nature of the project, no connection to the sewer system would be required. As such, the project would not adversely affect the existing public sewer system or the provision of such services. Impacts would be less than significant.

As a common occurrence in pipeline projects, there are stormwater and sewer crossings that would occur with construction of the proposed project. Each crossing would be addressed in detail during the design phase. These crossings would be designed so that they comply with all the separation requirements that are defined by code. Specifically, the project designer should note that the proposed project pipeline will parallel an existing sewer line along Fitch Avenue. Construction in this area will be required to adhere to separation requirements associated with the construction method selected. Providing the required separation between the proposed project pipeline and existing sewer lines impacts would be less than significant. In addition, all required clearances and separations per Department of Health and Monterey County codes and regulations would be maintained, as applicable during project construction.

4.12.2.3 Natural Gas

Each crossing presents unique conditions and construction methods may vary depending on physical conditions such as the available construction area, utility interference, and contractor's preferred method of construction. The two-inch gas pipeline in the middle of Stilwell Avenue will require special attention during design and construction. However, placement of the proposed project pipeline adjacent to the existing gas line is not anticipated present a design or construction issue as the road is wide enough to contain both the gas pipeline along with the proposed project pipeline allowing for the required separation. In addition, the project design and construction team will work closely with PG&E to ensure that the gas system is identified to ensure that the proposed project pipeline provides the appropriate separation. Lastly, adherence to construction codes in combination with proper coordination of the project team and construction methodology, would ensure that no impacts would occur.

Existing pipelines would only be impacted during trenching activities, which would be avoided by following standard practices such as contacting Dig-Alert Underground Location Service or local sewer district representatives for diagrams of underground pipeline placement. With the proper awareness of the locations and depths of existing pipelines and coordination with PG&E planners, no significant impacts would occur. Additionally, the short-term nature of these impacts and the proposed alternative construction techniques would further reduce the significance of impacts.

4.12.2.4 Electricity

Temporary electrical service for the project, if needed, would be provided by PG&E. PG&E is regulated by the CPUC and is required to supply electricity and extend infrastructure to all new developments.

4.12.2.5 Telephone/Communication Lines

Telephone service (data/voice) for the project site would be provided by the local provider. Existing telephone service facilities are presently located within the project area and could be extended to the pipeline construction sites by CAW with project implementation. Adequate local service is available to serve the project, and therefore, no adverse effects would occur with regard to new or increased demand for such services. Impacts would be less than significant.

To ensure that existing telephone and network communication lines identified in Section 3.13. will be avoided the design and construction engineers will work closely with the Public Utilities Department of the POM to ensure crossings of the communication lines and proposed project pipeline have the required separation distance.

4.12.2.6 Solid Waste

The MRWMD manages the Monterey coastal area's solid waste collection/disposal and recycling system. Any solid waste generated by project construction or operation would be deposited in the MRWMD landfill or diverted for recycling or reuse at the District's MRF.

Project construction activities would generate solid waste during the construction period. Such waste would be delivered to the MRWMD MRF in Marina for recycling. It is expected that most of the generated construction waste would be diverted for recycling and reuse, with only a small portion of the construction waste being disposed of at the landfill. In addition, in unpaved areas, native soil would be replaced over the trench. As such, construction of the Proposed Action is not anticipated to result in generation of substantial spoils; however, if needed, CAW has indicated that trench spoils would be reused by CAW at another site, sold, or taken to the MRWMD for recycling or disposal as a last resort. MRWMD accepts recycled soil that meets specified criteria for "clean soil." Soil not meeting the clean soil criteria may, if approved, be used for cover material at the landfill. Otherwise, the soil not meeting the clean soil criteria or used as cover would be disposed. The facility's rate structure provides an incentive for customers to deliver clean soils for recycling: acceptance of clean soils costs \$1 per ton, soil used for cover costs \$10 per ton, and soil that would be disposed at the landfill costs \$45 per ton.

The MRWMD landfill is permitted to accept 3,500 tons per day and has an expected site life of approximately 100 years. According to facility information posted at the CIWMB website (CIWMB, 2009c), for the years 2005 through 2007, the MRWMD landfill accepted an average of approximately 231,880 tons per year. Assuming the landfill operates 306 days per year, this is about 760 tons per day. Based on these estimates, the landfill could accept substantial loads for disposal without exceeding its permitted daily tonnage or depleting substantial long-term capacity. As such, solid waste generated by the construction of the Proposed Action would not adversely affect operations at the landfill. Impacts would be less than significant.

4.12.3 Clay Street Route Alternative

Potential impacts related to Public Utilities and Service Systems associated with the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.12.2, *Proposed Action*.

4.13 Socioeconomic Resources

4.13.1 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on socioeconomics would occur.

4.13.2 Proposed Action

The Proposed Action would have minimal operational impacts on the economies of the communities within which the pipeline alignment is proposed, although temporary economic benefits may be experienced when demand for local supplies and services are required during construction. The Proposed Project would contribute to the augmentation of water supplies in the area, as a component of the larger Monterey Bay Regional Desalination Project. As such, potential growth-inducing impacts are possible.

The Monterey Bay Regional Desalination Project was proposed to comply with SWRCB Order 95-10 and the Seaside Groundwater Basin Adjudication, which are specifically directed at reducing diversion of all supplies along the Carmel River, thereby increasing existing water supplies and, thus, helping to alleviate the water supply challenges that face the Monterey Peninsula. Because the Proposed Action would serve to replace the constrained existing supply, it is not anticipated to attribute to growth inducement in the area.

4.13.3 Clay Street Route Alternative

The socioeconomic study area for the Clay Street Route Alternative is the same as that of the Proposed Action; therefore, socioeconomic impacts would be similar to those of the Proposed Action. Refer to the above discussion.

4.14 Traffic

4.14.1 Introduction

This section utilized the traffic data provided in the *Draft Environmental Impact Statement, Presidio of Monterey Real Property Master Plan*, dated February 2011. This section analyzes potential impacts related to construction and operational impacts associated with the No Action, Proposed Action and Clay Street Route Alternative.

4.14.2 No Action Alternative

The No Action Alternative would not result in any physical changes to the project site; therefore, no effects on traffic or circulation would occur.

4.14.3 Proposed Action

The Proposed Action would involve installation of the pipeline, within the Presidio of Monterey, beneath High Street, which becomes Stilwell Avenue with the installation turning onto and continuing along Fitch Avenue. It should be noted that the entire length of the pipeline will not

be construction simultaneously. Construction activities will move continuously along the pipeline route as each different section of the pipeline is constructed in sections. As such, construction related traffic will be concentrated to one area of the route.

As stated in Section 3.15.3, the major intersections within the Presidio of Monterey and in the vicinity of the proposed action are currently operating at an acceptable LOS. Since construction activities for installation of the pipeline would include trenching in existing paved roadways, installation of bedding, pipe and backfill materials, and resurfacing the roadway, temporary construction impacts such as decreased levels of service and traffic delays would affect these roadways while the pipeline is being installed. Although the temporary detours and construction activities would alter existing traffic conditions, the affected areas would be small and activities would cease at the completion of the pipeline section. Furthermore, potential effects could be avoided and minimized with implementation of Minimization Measure TRA-1 which requires preparation of a Traffic Management Plan (TMP). The TMP would identify temporary detours needed to construct the proposed improvements, and evaluate traffic circulation patterns associated with these detours. The TMP would also, if required, evaluate the need for pedestrian and bicycle detours during construction, and include measures to reduce adverse impacts related to emergency access and parking.

Due to the location of the Proposed Action near major intersections on the Presidio of Monterey, potential traffic impacts under the Proposed Action would be greater than compared to the Clay Street Route Alternative; however, the length of construction under the Proposed Action would be 1.5 to 2 times faster than the Clay Street Route Alternative. In addition, open trenching is typically much cheaper to construct than compare to the trenchless technology under the Clay Street Route Alternative.

As the operational activities associated with the Proposed Action would not result in an increase in vehicular traffic. Therefore, no adverse effects are anticipated in this regard.

4.14.4 Clay Street Route Alternative

Implementation of the Clay Street Route Alternative would also result in temporary construction-related impacts to roadways in the project area; however, since trenchless construction would occur on the portion of the alignment traversing underneath the Presidio of Monterey, traffic impacts to roadways on the Presidio of Monterey would be significantly less than the trenched construction that would occur on the roadway with the Proposed Action. Of the approximate 1,300 LF of pipeline that would be required to cross the Presidio of Monterey property, less than 100 LF would be constructed using conventional trenching methods. Traffic impacts would be confined mainly to the areas where portals would be constructed, in Larkin Park at the terminus of Clay Street (outside the Presidio of Monterey's southern boundary), and in the parking lot between Plummer Street and Private Bolio Road near and within the Presidio of Monterey's northern property boundary.

Although the trenchless construction utilized for this alternative would reduce construction-related traffic impacts as compared to the Proposed Action, a TMP would still be necessary, as with the Proposed Action, to reduce any potential impacts. As mentioned above, the TMP would identify temporary detours needed to construct the proposed improvements and evaluate traffic

circulation patterns associated with these detours, as well as evaluate the need for pedestrian and bicycle detours during construction, and include measures to reduce adverse impacts related to emergency access and parking. Although the traffic impacts under the Clay Street Route Alternative would be less than the Proposed Action, the length of construction time would be 1.5 to 2 times greater and construction costs typically much greater as well.

As with the Proposed Action, operational activities associated with the Clay Street Route Alternative would not result in an increase in vehicular traffic. Therefore, no adverse effects are anticipated in this regard.

4.15 Water Supply

4.15.1 No Action Alternative

The No Action Alternative would not develop an additional water source for CAW. Under this alternative, no adverse impacts to water supply would occur, nor would any of the beneficial impacts associated with the Proposed Action or Clay Street Route Alternative. Water supplies to the Monterey Peninsula would continue and would further increase the potential for wells to be impacted by seawater intrusion.

4.15.2 Proposed Action

As discussed in Section 1.0, *Purpose and Need*, the Monterey Presidio Pipeline would convey water from Seaside to the Monterey Peninsula cities. As the Monterey Presidio Pipeline is an essential component of the overall Monterey Bay Regional Desalination Project, the Proposed Action would ultimately allow a new drinking water supply to be delivered to the service area. This would reduce demands on existing constrained Carmel River and Seaside Groundwater Basin supplies and reduce potential impacts to wells by seawater intrusion. As such, no adverse impacts to water supply were identified under the Proposed Action.

4.15.3 Clay Street Route Alternative

Potential impacts and benefits of implementation of the Clay Street Route Alternative would be similar to those associated with the Proposed Action; refer to Section 4.15.2, *Proposed Action*. As such, no adverse impacts to water supply were identified under the Clay Street Route Alternative.

4.16 Cumulative Impacts

Cumulative impacts refer to two or more individual effects that, when combined, are considerable, or result in an increase in environmental impacts. No projects within the immediate vicinity of the project site have been identified. In addition, the analysis included in this EA has determined that no adverse operational impacts would result from the Proposed Action; therefore, the cumulative analysis is limited to construction-related activities. The Proposed Action would not result in a contribution to population growth as it is designed to convey a replacement water supply to meet CAW's existing demand.

4.16.1 Air Quality

4.16.1.1 Regional Air Quality

Sources of potential cumulative air quality impacts would be related to construction activities, including construction equipment exhaust and fugitive dust from ground-disturbing activities. Emissions associated with the project would conflict with or obstruct implementation of the 2008 AQMP if the emissions are not accounted for in the 2008 AQMP. Pursuant to MBUAPCD policy, construction projects in the Basin that use typical construction equipment, such as dump trucks, scrapers, bulldozers, compactors and front-end loaders, that temporarily emit precursors of ozone (i.e., ROG and NO_x) are accounted for in the emission inventories of State and Federally required air plans. As such, the Proposed Action is consistent with the Air Quality Management Plan and would, therefore, not contribute adverse effects on regional air quality and would not contribute to a cumulative air quality affect. It should be noted that a conformity determination is not required, as the project area is in attainment for National Ambient Air Quality Standards (NAAQS).

4.16.1.2 Localized Air Quality

MBUAPCD has identified a threshold of 82 pounds per day (or disturbance of more than 2.2 acres per day) for PM₁₀ emissions. The Proposed Action would not have a substantial cumulative contribution to localized concentrations of PM₁₀ because standard dust control measures to control fugitive dust from ground-disturbing activities would be incorporated, and no other cumulative construction projects in the vicinity of the Proposed Action were identified.

4.16.2 Biological Resources

Although there are no concurrent construction of other planned projects in the region, if prior to construction projects develop, on the Presidio of Monterey or in the vicinity of the Proposed Action, those projects could result in cumulative impacts to biological resources. However, those projects would be required to adopt avoidance measures to minimize any impacts to biological resources and would also be subject to regulatory permits to either protect or provide compensatory mitigation for any loss of sensitive habitat and resources. Therefore, cumulative impacts to biological resources would not be cumulatively considerable.

4.16.3 Cultural Resources

Although there is no concurrent construction of other planned projects in the region, if prior to construction projects are initiated on the Presidio of Monterey or in the vicinity of the Proposed Action, those projects could involve ground-disturbing activities, which could result in the inadvertent discovery of cultural resources. Other ground disturbing projects in the Presidio of Monterey Historic District would be required to have a qualified archaeologist on site in order to mitigate potential impacts to inadvertent discoveries. Inadvertent discoveries require implementation of procedures set forth in the Presidio of Monterey's ICRMP and Army Regulation (AR 200-1), which includes consultation procedures and planning requirements in Section 106 of the National Historic Preservation Act (16 USC 470f; 36 CFR Part 800) and Section 3 and Section 5 of the Native American Graves Protection and Repatriation Act (25 USC

3001 et seq.; 43 CFR 10). With the implementation of these procedures, cumulative impacts to cultural resources would not be cumulatively considerable.

4.16.4 Noise

As no other cumulative construction projects were identified on the Presidio of Monterey or in the vicinity of the Proposed Action. In addition, if unforeseen projects were to initiate in the vicinity of the Proposed Action, standard noise abatement measures would be required by the proposed project, no adverse cumulative noise impacts would result from implementation of the proposed project.

4.16.5 Traffic

As construction activities would be temporary and no other cumulative construction projects were identified on the Presidio of Monterey that would affect the same roadway network as the Proposed Action, cumulative traffic-related impacts associated with construction activities have not been identified. In addition, the increase in vehicular traffic resulting from construction activities associated with the proposed project would be minimal. Therefore, no adverse cumulative traffic impacts would result from project implementation.

4.17 Irreversible and Irretrievable Commitment of Resources

Although the Proposed Action would utilize natural resources during project construction, the Proposed Action would not result in an increase in the overall rate of consumption or substantial depletion of these resources. Some direct (construction equipment exhaust) and indirect (use of maintenance vehicles) emissions of greenhouse gases would occur with the proposed project; however, the effects are not considered substantial. Lastly, no irreversible damages associated with hazards or hazardous wastes would result from implementation of the Proposed Action.

THIS PAGE INTENTIONALLY LEFT BLANK.

Section 5 Consultation and Coordination

5.1 Agencies and Persons Consulted

5.1.1 Native American Heritage Commission Record Search and Native American Contact

On December 6, 2010, Pacific Legacy staff requested a review of the Sacred Lands Inventory at the Native American Heritage Commission (NAHC) specifically for the Presidio of Monterey study area. The review was performed to determine if there were any areas of concern to interested stakeholders, including local Native American groups and individuals within the Presidio of Monterey study area. A response was received from the NAHC on December 9, 2010, stating that no Native American ethnographic or cultural resources had been identified within the study area and no federally recognized Native American Tribes are affiliated with the Presidio of Monterey. The NAHC provided Pacific Legacy with a list of Native American individuals and organizations that might have knowledge of unreported resources or areas of concern (Appendix A: *Native American Tribal Consultation*). On November 15, 2011, the Environmental Division of the U.S. Army Directorate of Public Works at the Presidio of Monterey provided a copy of the DEA to the Native American individuals listed in the NAHC's letter and requested review comments and recommendations (Appendix A). No responses were received from these Native American individuals and organizations.

5.2 Field Reviews of the Sites

5.2.1 Biological Resources

Biological surveys were conducted by Denise Duffy and Associates Senior Environmental Scientist, Josh Harwayne, and Assistant Environmental Scientist Jami Davis, between April and July 2010. Several proposed pipeline options were surveyed throughout the Presidio of Monterey during this timeframe. Field surveys were conducted along the pipeline alignment and within a buffer of 50 feet to each side of the alignment. The purpose of the survey was to assess the environmental conditions of the site and its surroundings, evaluate the general habitat features and environmental constraints at the site and within the local vicinity, locate and map special-status plants, and provide a basis for recommendations to minimize and avoid impacts to biological resources. No protocol-level wildlife surveys were conducted as a part of the survey effort.

5.2.2 Cultural Resources

Based on a review of previous studies, it appears that the Presidio of Monterey was intensively surveyed in 1980 (Study S-3633) in ten meter intervals, except for fenced back yards (Zahniser and Roberts 1980:13). The Presidio of Monterey study area appears to have been fully surveyed at that time, and sites CA-MNT-15, CA-MNT-101/H, CA-MNT-108, CA-MNT-697, CA-MNT-930H, CA-MNT-931, and CA-MNT-932 were identified and recorded (Zahniser and Roberts

1980). The 2009 Cal-Am Coastal Water Project survey also included the intensive resurvey of the eastern portion of the study area (Jones and Holson 2009).

On November 17 and 18, 2010, Pacific Legacy staff Elena Reese, M.A., and Dan Trout, B.A. completed a metal detection survey program using a Garrett GTI 2500 metal detector to identify any concentrations of subsurface metal that might indicate a buried refuse feature.

5.3 Public Involvement

The Draft EA was circulated for public review from November 16, 2011 to December 15, 2011 (a 30-day public review period). The Draft EA was available for review at the Monterey Public Library, Pacific Grove Library, the US Army Garrison Presidio of Monterey, and online at <http://www.monterey.army.mil/>.

5.4 Fish and Wildlife Coordination Act (16 USC §651 et seq.)

The Fish and Wildlife Coordination Act requires consultation with fish and wildlife agencies (Federal and State) on all Federal water development projects that could affect biological resources. The Proposed Action is not a Federal water development project, and therefore, the Fish and Wildlife Coordination Act does not apply.

5.5 Endangered Species Act (16 USC §1531 et seq.)

Section 7 of the Federal Endangered Species Act (ESA) requires Federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of these species.

There is no critical habitat or endangered species that would be affected by the Proposed Action. As such, no consultation was required.

5.6 National Historic Preservation Act (16 USC §470 et seq.)

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to evaluate the effects of Federal undertakings on historical, archaeological, and cultural resources. Construction activities associated with the Proposed Action will not affect any known cultural resource and the APE is in an area determined to be previously disturbed. Per the Presidio of Monterey's Programmatic Agreement with the Advisory Council on Historic Preservation (ACHP) and the California State Historic Preservation Officer (SHPO), the Proposed Action does not require a separate Section 106 consultation, but the action will be included in an annual report to the ACHP and the SHPO.

5.7 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Federally-recognized Indian tribes or individual Indians. An Indian trust has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITAs can include land, minerals, Federally-reserved hunting and fishing rights, Federally-reserved water rights, and in-stream flows associated with trust land. Beneficiaries of the Indian trust relationship are federally-recognized Indian tribes with trust land; the United States is the trustee. By definition, ITAs cannot be sold, leased, or otherwise encumbered without approval of the United States. The characterization and application of the United States trust relationship have been defined by case law that interprets Congressional acts, executive orders, and historic treaty provisions.

There are no tribes possessing legal property interests held in trust by the United States in the lands involved with the Proposed Action. Therefore, there would be no adverse affect to ITAs.

5.8 Migratory Bird Treaty Act (16 USC §703 et seq.)

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; or possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the MBTA, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting, or exporting of any migratory bird, part, nest or egg would be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits, and migratory flight patterns.

Special-status species include those plants and animals that have been formally listed or proposed for listing as Endangered or Threatened, or are Candidates for such listing under the Federal ESA or the California ESA. With appropriate surveys, timing and avoidance measures, no potential impacts to raptors and other special-status avian species protected under the MBTA would result from the Proposed Action, and therefore, no mitigation is required.

THIS PAGE INTENTIONALLY LEFT BLANK.

Section 6 List of Environmental Commitments

6.1 Introduction

The following topical environmental commitments have been adopted by CAW to reduce potential adverse impacts. Mitigation Measures are applicable to both the Proposed Action and Clay Street Route Alternative unless noted otherwise.

6.2 Air Quality

AQ-1 The contractors shall adhere to the following, as required to ensure that projected particulate matter emissions remain below the MBUAPCD threshold:

- water all active construction areas at least twice daily, unless determined that during a rain event, precipitation provides sufficient soil saturation to ensure that dust particles are not being released into the air.
- cover all trucks hauling soil, sand, and other loose materials and require all trucks to maintain at least two feet of freeboard,
- pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites,
- sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites,
- sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets,
- hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more),
- enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.),
- limit traffic speeds on unpaved roads to 15 mph,
- install appropriate best management practices or other erosion control measures to prevent silt runoff to public roadways,
- replant vegetation in disturbed areas as quickly as possible,
- install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site,

- limit the area subject to excavation, grading and other construction activity at any one time, and,
- post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints (the person shall respond to complaints and take corrective action within 48 hours), and ensure that the phone number of MBUAPCD is visible to ensure compliance with Rule 402 (Nuisance).

AQ-2 Subject to approval by the MBUAPCD prior to and, as needed, during project construction, CAW and the contractor shall implement measures to reduce or eliminate diesel exhaust emissions to meet identified thresholds of significance, such as reduction in hours of operation of equipment contributing to such emissions or by utilizing oxidation catalysts or catalytic particulate matter filters on all diesel-powered equipment above 50 horsepower that require CARB-certified low-sulfur diesel fuel (less than or equal to 15 parts per million by weight). Site-specific risk assessment may be required to determine the appropriate measures to implement.

AQ-3 If older piping is encountered during trenching, the requirements of the MBUAPCD Rule 424 *National Emissions Standards for Hazardous Air Pollutants* could be triggered. If applicability of Rule 424 is triggered, the project would be subject to the investigation and reporting requirements for asbestos.

6.3 Biological Resources

BIO-1 To avoid and reduce impacts to nesting raptors and other migratory bird species, construction activities shall be timed to avoid the nesting season period. Specifically, construction activities can be scheduled after September 1 and before January 31 to avoid impacts to these species. Alternatively, if avoidance of the nesting period is not feasible, pre-construction surveys shall be conducted for nesting raptors and other migratory bird species within 300 feet of proposed construction activities if construction is to be initiated between February 1 and August 31. Preconstruction surveys shall be conducted no more than 30 days prior to the start of construction. If nesting raptors or other migratory bird species are identified during the pre-construction surveys, the CDFG shall be contacted and an appropriate no-disturbance buffer imposed within which no construction activities or disturbance shall take place (generally 250 feet in all directions for raptors) until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist and the CDFG.

BIO-2 A qualified biologist shall monitor during initial construction activities (vegetation removal and other ground disturbing activities) to see that individuals are avoided to the maximum extent possible. Trees and vegetation not planned for removal shall be protected during construction to the maximum extent feasible. This shall include the use of exclusionary fencing such as hay bales, orange

cyclone fencing, and/or protective wood barriers. Only certified weed-free straw shall be used to avoid the introduction of non-native, invasive species. Protective fencing shall be placed so as to keep construction vehicles and personnel from impacting trees and vegetation adjacent to the Project site outside of work limits. Protective fencing shall be installed outside of the drip-line perimeter or five times the diameter at breast height (dbh), whichever is furthest. At no time shall fencing be installed closer than six feet away from the trunk.

BIO-3 Impacts to Monterey pine trees shall be mitigated at a 2:1 ratio for trees removed. Only nursery stock from local Monterey pine genetic stock shall be used for replanting at the Project site. Seedlings will be planted contiguous with other individuals of the same species in areas that have been determined to have suitable site conditions. Protective fencing shall be installed around the seedlings to protect against disturbance.

BIO-4 Construction shall not occur within 100 feet of Monterey pine trees during the height of the bark beetle season (March-September). Alternatively, if construction must occur within 100 feet of Monterey pine trees during this period, bark beetle treatments shall be applied as follows:

- Prior to ground disturbance, all Monterey pine trees within 100 feet of construction activities that could potentially impact Monterey pines, including root systems, shall have the lower eight feet sprayed with a pesticide in a manner approved by the Installation's Integrated Pest Management Coordinator (IPMC) and the Directorate of Public Works Environmental Division (DPW-E).
- Pines identified for treatment shall be reviewed and approved by DPW-E.
- Applications shall occur twice per year throughout the extent of the project. The applications shall occur once in the spring and once in the late summer as determined by the IPMC.

BIO-5 Any native trees removed or severely damaged during construction shall be replaced with the same species at a ratio of 2:1. Tree roots greater than two inches in diameter that need to be cut shall be cut cleanly with a saw at an angle that minimizes surface exposure (refer to Page 49 of the INRMP).

6.4 Cultural Resources

CULT-1 Construction activities associated with the Proposed Action and Alternative have the potential to expose unknown subsurface cultural resources and/or affect known historic properties in an unanticipated manner; therefore, all ground disturbing activities will be monitored by a qualified archaeologist (per 36 CFR Part 61). The archaeological monitor will ensure construction activities and associated equipment remain within the APE, especially in the vicinity of the newly discovered sparse scattered surface midden.

- CULT-2 If cultural resources are inadvertently discovered, work shall be halted within 30-meters of the find until it can be evaluated by a qualified professional archaeologist and the U.S. Army Cultural Resource Manager. Inadvertent discoveries will require implementation of procedures set forth in the Presidio of Monterey's Integrated Cultural Resource Management Plan (ICRMP) and Army Regulation (AR 200-1), which includes consultation procedures and planning requirements in Section 106 of the National Historic Preservation Act (16 USC. 470f; 36 CFR Part 800).
- CULT-3 If an inadvertent discovery of human remains occurs, work shall cease within 30-meters of the find and immediate notification must be made to the U.S. Army Cultural Resource Manager. The Cultural Resource Manager will preliminarily determine if the remains are from a recent crime scene (50 years old or less) or are of Native American descent and will immediately notify the Installation Commander. If the remains appear recent, a 30-meter radius will be declared off limits to everyone except authorized personnel and the Army's Criminal Investigation Command will assume control of the crime scene. If the remains appear to be of Native American descent, the Monterey County Coroner's Office will make the final determination that the remains are not of recent origin and the California Native American Heritage Commission (NAHC) will be notified.
- An Inadvertent discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony will require implementation of procedures set forth in the Presidio of Monterey's Integrated Cultural Resource Management Plan (ICRMP) and Army Regulation (AR 200-1), which includes consultation procedures and planning requirements in Section 106 of the National Historic Preservation Act (16 USC. 470f; 36 CFR Part 800) and Section 3 and Section 5 of the Native American Graves Protection and Repatriation Act (25 USC. 3001 et seq.; 43 CFR 10).

6.5 Geology and Soils

- GEO-1 To minimize the potential effects from strong seismic ground shaking on project components, a project-specific geotechnical analysis shall be performed by a registered professional engineer with geotechnical expertise prior to the development of project level plans. The recommendations of the geotechnical analysis shall be incorporated into project plans and implemented during construction, as appropriate.
- GEO-2 The engineer shall develop project level plans based upon and in response to the observations and recommendations made in the project-specific geotechnical analysis.
- GEO-3 To minimize potential soil erosion impacts, the project will implement the following typical BMPs:
- Regularly water the construction site.

- Apply erosion control measures, such as mulch and fiber rolls for erosion prevention, if necessary.
- Use grading and landscaping methods that lower the potential for downstream sedimentation.
- Ensure that structural erosion and sediment transport control measures are ready for implementation prior to the onset of the first major storm of the season.
- Trap sediment before it leaves the site with such techniques as sediment ponds, straw bales, gravel bags, or silt fences.

6.6 Hazards and Hazardous Waste

HW-1 Include in the SWPPP, which is required as part of Mitigation Measures HWQ-1 below, BMPs for the potential handling and disposal of hazardous materials in accordance with RCRA to ensure that implementation of those measures would reduce potential water quality impacts associated with stormwater runoff.

6.7 Hydrology and Water Quality

HWQ-1 In order to ensure the project will not result in adverse impacts to water quality the following mitigation measure will be implemented as part of the project.

The project applicant will file a NOI to comply with the terms of the General Permit to Discharge Storm Water Associated with Construction Activity and submit a SWPPP, prepared by a Qualified SWPPP Developer (QSD) to the CCRWQCB. A SWPPP contains a listing and implementation plan for use of storm water BMPs that would be implemented during construction of the project to minimize erosion and sedimentation. The SWPPP also requires the implementation of monitoring programs, post-development BMPs, and water quality management strategies.

As required by the Construction Stormwater General Permit, at a minimum, the BMPs related to construction materials shall include the following:

- Identify the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).
- Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

- Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).
- Minimize exposure of construction materials to precipitation (not applicable to materials designed to be outdoors and exposed to the environment).
- Implement BMPs to control the offsite tracking of loose construction and landscape materials.
- As required by the Construction Stormwater General Permit, at a minimum, the BMPs related to vehicle storage and maintenance, which, at a minimum, shall consist of the following:
 - Prevent oil, grease, or fuel from leaking into the ground, storm drains or surface waters.
 - Implement appropriate BMPs whenever equipment or vehicles are fueled, maintained, or stored.
 - Clean leaks immediately and dispose of leaked materials properly.
- Linear Underground/Overhead Project (LUP) dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:
 - Contain stockpiled materials such as mulches and topsoil when they are not actively being used.
 - Contain fertilizers and other landscape materials when they are not actively being used.
 - Discontinue the application of any erodible landscape material at least two days before a forecasted rain event or during periods of precipitation.
 - Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.
 - Stack erodible landscape material on pallets and cover or store such materials when not being used or applied.

6.8 Noise

NOI-1 The contractor shall assure that construction equipment powered by gasoline or diesel engines have sound control devices at least as effective as those provided

by the original equipment manufacturer. No equipment shall be permitted to have an unmuffled exhaust.

- NOI-2 The contractor shall assure that noise-generating mobile equipment and machinery are turned off when not in use.

Clay Street Route Alternative

- NOI-3 The contractor shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Where possible, noise-generating equipment shall be shielded from nearby noise-sensitive receptors by noise-attenuating devices (e.g. sound walls). Contractor specifications shall include a requirement that drill rigs located within 500 feet of noise-sensitive receptors shall be equipped with noise-reducing engine housings or other noise-reducing technology such that drill rig noise levels are no more 85 dBA at 50 feet, and the line of sight between such sources the drill rig and nearby sensitive receptors shall be blocked by portable acoustic attenuators and/or shields (i.e. sound walls) to reduce noise levels by at least an additional 10 dBA. For nighttime drilling activities within 500 feet of residences, the drill rig sites shall be equipped with noise control blankets designed to achieve a Sound Transmission Class (STC) rating of 25 or more so that noise levels 50 feet from the drilling site would be no more 60 dBA.

Portable acoustic attenuators (sound walls) shall be placed around noise-generating equipment located less than 200 feet from noise-sensitive receptors.

- NOI-4 Temporary hotel accommodations shall be provided by CAW to all residents located within 50 feet of a designated construction area where construction activities would occur on a 24-hour continuous basis. The accommodations shall be provided for the duration of the 24-hour construction activities.

6.9 Traffic

- TRA-1 A Traffic Management Plan (TMP) shall be implemented to reduce potential temporary construction-related impacts to traffic and local roadway circulation. The TMP would identify temporary detours needed to construct the proposed improvements, and evaluate traffic circulation patterns associated with these detours. The TMP would also evaluate the need for pedestrian and bicycle detours during construction, and include measures to reduce adverse impacts related to emergency access and parking.

THIS PAGE INTENTIONALLY LEFT BLANK.

Section 7 List of Preparers and Reviewers

7.1 List of Preparers

7.1.1 RBF Consulting, EA Preparers

Paul Findley, P.E., Project Manager, Water Resources
Lorraine Ahlquist, Project Manager, Environmental Services
Monica Kling, Environmental Analyst
Renee Randolph, Environmental Planner
Sarp Sekeroglu, P.E., Design Engineer
Hilary Potter, Administrative Assistant

7.2 List of Reviewers

Lenore Grover-Bullington, U.S. Army Presidio of Monterey
Public Works, Environmental Division Chief
Lorrie Madison, U.S. Army Presidio of Monterey, DPW Natural Resources Manager
Laura Prishmont Quimby, U.S. Army Presidio of Monterey, DPW Cultural Resource Manager
Bob Guidi, U.S. Army Presidio of Monterey, DPW Community Planner
Jeffrey DeMayo, U.S. Army Presidio of Monterey
Telecommunications Manager
Christina Spang, U.S. Army Presidio of Monterey
Public Utilities Specialist

Section 8 References

- 2000 U. S. Custom House. Report S-003579 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Adams, M. B. 1977 Outline of History of the Presidio of Monterey (in the Fort Ord Military Complex). Report S-003359 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Anonymous 1967 Monterey Monuments, El Castillo (4-Mnt-101) (National Register of Historic Places – Nomination Form). Report S-003513 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Arbuckle, J., 1979 Survey of California Registered Historical Landmarks Form. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Consulting and Research Service, 1976 Archaeological Test Excavation at 4-Mnt-298: Evaluation of Significance for Mitigation of Impacts. Report S-003305 on file

- at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Consulting and Research Service, 1977 Report of Archaeological Reconnaissance for the Proposed State 1 Pacific Grove- Monterey Consolidation Project of the Regional Sewerage System. Report S-003356 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Consulting, 2000 Prehistoric Property Survey Report, 05-MNT-1, PM 78.48-79.00, Building of the New Ocean Side Retaining Walls. Report S-022405 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Resource Management, 1990 Cultural Resource Evaluation for Two Parcels Located at 398 and 380 Foam Street in the County of Monterey. Report S-012555 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Resource Management, 1991a Archaeological Testing and Mitigation of 299 and 285 Foam Street Project in the County of Monterey. Report S-013360 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Resource Management, 1991b Cultural Resource Evaluation for One Parcel Located at 499 Wave Avenue and 141 McClelland Avenue in the County of Monterey. Report S-013378 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Resource Management, 1991c Cultural Resource Evaluation for Two Parcels Located at 299 and 285 Foam Street in the County of Monterey. Report S-012554 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Resource Management, 1991d Cultural Resource Evaluation of a Parcel Located off Lighthouse Avenue in the City of Monterey. Report S-013333 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Archaeological Resource Management, 1991e Phase II Archaeological Testing of 398 Foam Street in the County of Monterey. Report S-012553 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- B. W., 1946 Site Record for CA-MNT-108. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Beck, W. A., and Y. D. Haase, 1980 Historical Atlas of California. University of Oklahoma Press, Norman, Oklahoma. Berry, D. W., J. O. Dunn, R. Marquez, K. Mellon, R. Cartier, 1978 Memorandum of Agreement, Mitigation/Preservation Program, Ca-Mnt-298.

- Report S-005556 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Bingham, G. E., 1978 Archaeological Excavations at the Custom House, Monterey State Historic Park. Report S-005583 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Brandt, S. A., 1980 Cultural Resources Investigations of Operating Projects, Monterey Harbor. Report S- 003589 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., 1978 MNT-15: the "Rain Rock" on the Monterey Peninsula, Notes and Speculation. Report S- 003443 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., 1985 Site Record Update for CA-MNT-1060. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., 1988 Preliminary Cultural Resources Reconnaissance of APN 001-032-16 and 001-033-04, at 298 and 304 Foam Street, Monterey, Monterey County, California. Report S-010312 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., 1993 Background research for the Monterey Circulation Element Environmental Impact Report (letter report). Report S-015654 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., 1997 Archaeological Monitoring for the Lighthouse Curve Widening Project (letter report). Report S-019616 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., 2000 Project Area for Sewer Improvements on Scott Street between Van Buren and Pacific Streets (letter report). Report S-022760 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., and M. Doane, 1999 Historic Property Survey Report for Proposed Lighthouse Corridor Improvements, Monterey, Monterey County, California. Report S-021957 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., and T. Haversat, 1979 Preliminary Archaeological Reconnaissance at the SE Corner of Del Monte and Van Buren Avenues, Monterey, Monterey County, California. Report S-003515 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California 1980 Site Record for CA-MNT-1060. On file at the Northwest Information Center of the

- California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., and T. Haversat, 1983a Preliminary Archaeological Reconnaissance for the Pacific Street Hotel Project at Jackson and Pacific Streets, Monterey, Monterey County, California. Report S-006269 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., and T. Haversat, 1983b Site Record for CA-MNT-1243H. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., M. Doane, and T. Haversat, 1984 Preliminary Archaeological Reconnaissance of a Parcel Bounded by Foam, Reeside, and Cannery Row, Monterey, Monterey County, California. Report S-006332 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., M. Doane, and T. Haversat, 1985 Secondary (Subsurface) Archaeological Excavation for the San Carlos Beach Park on Cannery Row, Monterey, Monterey County, California. Report S-007772 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., M. Doane, and T. Haversat, 1988 Cultural Resources Overview of the Camp Roberts Area. San Luis Obispo and Monterey Counties, California. Archaeological Consulting, Salinas. Submitted to United States Department of the Army Corps of Engineers, Sacramento, California.
- Breschini, G. S., M. Doane, and T. Haversat, 1996 Secondary Archaeological Testing for the Proposed Lighthouse Curve Widening, Monterey, Monterey County, California. Report S-018822 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., M. Doane, and T. Haversat, 2000 Archaeological Radiocarbon Dating of a Portion of CA-MNT-103, Monterey, Monterey County, California. Report S-003579 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., M. Doane, and T. Haversat, 2004 Radiocarbon Dating and Cultural Models on the Monterey Peninsula, California. *Pacific Coast Archaeological Society Quarterly* 38(1) Winter 2002. Report S-030789 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Breschini, G. S., M. Doane, and T. Haversat, 2009 Second Archaeological Testing and Archaeological Mitigation for Assessor's Parcels 001- 032-010 and 001-032-011, Monterey, Monterey County, California. Report S-035890 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Breschini, G. S., T. Haversat, B. Bowser, R. O. Gibson, R. W. Huddleston, T. L. Jackson, P. E. Langenwalter, T. M. Origer, R. L. Reynolds, M. F. Rondeau, V. L. Rondeau, A. L. Runnings. 1989 Archaeological Excavations at CA-MNT-108, at Fisherman's Wharf, Monterey, Monterey County, California. Report S-012362 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Broadbent, S. M., 1951 Site Record Update for CA-MNT-108. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Broadbent, S. M., 1953 Notes on Monterey Peninsula Sites. Report S-003456 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- California American Water, Coastal Water Project Final Environmental Impact Report – Volumes 1 through 5, Certified December 2009.
- California American Water, Monterey County Coastal Water Project Terrestrial Biological Resources Phase II Report, April 2005.
- California Department of Parks & Recreation, 1973 Monterey State Historic Park: A Unit of the California State Park System. Report S- 003582 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- California Historical Resources Information System (CHRIS) at Sonoma State University, accessed July 14, 2010.
- California Public Utilities Commission, California American Water Application 04-09-019 for a Certificate of Public Convenience and Necessity (and Amendment).
- Cartier, R., 1981a Cultural Resource Evaluation of the Arthur Jones Condominium Project on Drake Avenue in the City of Monterey. Report S-003718 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., 1981b Cultural Resource Evaluation for a Parcel of Land at Foam and Reeside Streets in the City of Monterey, County of Monterey. Report S-003661 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., 1981c Secondary Subsurface Archaeological Evaluation of a Parcel of Land at Foam Street and Reeside Avenue in the City of Monterey, County of Monterey. Report S-008289 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., 1982 Secondary, Subsurface Archaeological Evaluation of the Monterey Plaza Hotel Parking Garage Site on Cannery Row. Report S-005759 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Cartier, R., 1983 Subsurface Archaeological Testing of the Building 5 Site, Monterey Plaza Hotel Project at Cannery Row and Drake Avenue in the City of Monterey, California. Report S-006307 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., 1984 Cultural Resource Evaluation of Lots B and D of the Cannery Row Hotel on Cannery Row in the City of Monterey. Report S-006947 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., 1985 Addendum to the Secondary Subsurface Archaeological Evaluation of the Monterey Plaza Hotel parking Garage Site on Cannery Row in the City of Monterey, County of Monterey. Report S-007200 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., and G. A. Laffey, 1986 Cultural Resource Evaluation of the Plaza Convention Center on Cannery Row in the City of Monterey. Report S-008215 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., and G. A. Laffey, 1987 Cultural Resource Evaluation for the Lighthouse Curve Road Widening Project in the City of Monterey. Report S-009719 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Cartier, R., E. Reese and J. C. Wizorek, 1994 Archaeological Testing Program and National Register Evaluation of the U.S. Coast Guard, Group Monterey Project in Monterey, California. Report S-016720 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Chavez, D., 1980 Archaeological Resources Evaluation of the Pacific Plaza Hotel and Parking Lot Project Location in Monterey, Monterey County, California (letter report). Report S-003647 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Chavez, D., 1981 Preliminary Archaeological Resources Evaluation for the Cannery Row Redevelopment Project, Monterey, California. Report S-003660 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- City of Monterey General Plan, adopted January 2005, amended June 2006, June 2009, and July 2009.
- Cooper, J., 1975 Site Record for CA-MNT-938H. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Department of Finance, State of California. <http://www.dof.ca.gov/>. Accessed 10/20/10
- Dietz, S. A., 1977 Records search to determine any archaeological resources within Wastewater Reuse Alternative No. 11 A (letter report). Report S-003400 on file at the Northwest

Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Dietz, S. A., W. Hildebrandt, and T. L. Jones, 1988 Archaeological Investigations at Elkhorn Slough: CA-MNT-229, a Middle Period Site on the Central California Coast. Papers in Northern Californian Anthropology 3. Northern California Archaeology Group, Berkeley, California.

Dietz, S., K. Gobalet, L. Hagar, T. L. Jackson, R. Jackson, R. Milliken, M. E. Ryan, and D. Simons, 1987 Final Report, Archaeological Test Excavations, CA-MNT-101, CA-MNT-298, CA-MNT- 929 and El Castillo, at the Presidio of Monterey and City of Monterey, Monterey County, California. Report S-009661 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Dismuke, E., R. Dwight, R. Empanan, and H. Taggart, 1960 California Historical Landmark Form for CA-MNT-1243. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Doane, M., 2001 AC Project 2613B; Centennial Gardens (APNS 001-051-04, -05, -06, -07 & -09) (letter report). Report S-023 619 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Doane, M., and G. S. Breschini, 1997 Supplemental Archaeological Survey Report for Sidewalk Improvements in the Cannery Row Area, Monterey, Monterey County, California. Report S-019486 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Doane, M., and G. S. Breschini, 2003 Preliminary Archaeological Reconnaissance for Assessor's Parcel 001-032-005, in Monterey, Monterey County, California. Report S-026967 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Doane, M., and G. S. Breschini, 2007 Supplementary Archaeological Reconnaissance for the Cole House/Triples Project on Assessor's Parcel 001-567-020, in Monterey, Monterey County, California. Report S- 034032 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Doane, M., and G. S. Breschini, 2009a Preliminary Archaeological Reconnaissance for Assessor's Parcels 001-032-010 and 001- 032-011, in Monterey, Monterey County, California. Report S-036394 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Doane, M., and G. S. Breschini, 2009b Preliminary Archaeological Reconnaissance for Assessor's Parcel 001-031-003, in Monterey, Monterey County, California. Report S-036395 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Doane, M., and T. Haversat 1998 Preliminary Archaeological Reconnaissance of Assessor's Parcel Numbers 001-051-04, - 05, -06, -07, and -09, Monterey, Monterey County, California. Report S-020974 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Edwards, R., 1976 Check for the presence of known sites next to the Coast Guard Pier in Monterey. Report S-005555 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Edwards, R., 1977a Evaluation of the Cultural Resources to be Impacted by the Proposed Hawthorne-Van Buren Connection Across the Presidio of Monterey, California. Report S-005484 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Edwards, R., 1977b Hawthorne Van Buren Connection, Environmental Impact Report, Monterey, California. Report S-008275 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Edwards, R., 1979 Archaeological Reconnaissance of the Parcel at 414 Foam Street, Monterey, California. Report S-005464 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Edwards, R., M. Frincke, M. Moratto, F. A. Ridell, L. W. McIntyre, W. E. Pritchard, R. M. Utley, 1972 The El Castillo Site, or "Dialects of Bureaucracy." Report S-005475 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Ellison, J., 1979 Site Record for CA-MNT-932. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Environmental Science Associates Cultural Resources Group (ESA), 2009 CalAm Coastal Water Project Final Environmental Impact Report. On file at RBF Consulting, San Diego, California.
- Farnsworth, P., R. Rechtman, and D. V. Armstrong, 1984 A Re-evaluation of the Cultural Resources Located Within the Boundaries of the Pacific Street Hotel Project, Monterey, Monterey County, California. Report S-006437 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Fazio, M., 1977a Prehistoric Resources, City of Monterey: General Plan Technical Study. Report S-005536 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Fazio, M., 1977b Site Record for CA-MNT-697. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Fisher, E., and A. Pilling, 1935 Site Record for CA-MNT-102. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California Flynn, K., and W. Roop 1977 Further Archaeological Testing at 4-Mnt-298, the Custom House Redevelopment Project, City of Monterey. Report S-003303 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Gearhart II, R., C. Bond, S. Hoyt, J. Cleland, J. Anderson, P. Snethcamp, G. Wesson, J. Neville, K. Marcus, A. York, and J. Wilson, 1993 California, Oregon, and Washington: Archaeological Resource Study. Report S-015529 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Gerbic, M., 2006 National Register of Historic Places Registration Form for El Castillo, CA-MNT-101, CAMNT- 15, CA-MNT-108, and Monterey Monuments. National Register Form 71000167 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Governor of the State of California, Executive Order S-1-07, January 18, 2007.
- Governor of the State of California, Executive Order S-3-05, June 1, 2005.
- Hampson, R. P., and G. S. Breschini, 1985a Preliminary Cultural Resources Reconnaissance for the New Monterey/Cannery Row Traffic Improvements EIR, Monterey, Monterey County, California. Report S-007412 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Hampson, R. P., and G. S. Breschini, 1985b Preliminary Cultural Resources Reconnaissance of a Parcel at Cannery Row and Reeside Avenue, in Monterey, Monterey County, California. Report S-007415 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Hampson, R. P., and G. S. Breschini, 1985c Primary Form for P-27-001757. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Haversat, T., and G. S. Breschini, 1979 Preliminary Archaeological Reconnaissance at the SE Corner of Del Monte and Van Buren Avenues, Monterey, Monterey County, California. Report S-003515 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Haversat, T., and G. S. Breschini, 1981 Preliminary Archaeological Reconnaissance of a Parcel at Foam, Wave, and Drake, New Monterey, Monterey County, California. Report S-003716 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Haversat, T., M. E. Ryan, and G. S. Breschini, 1982 Preliminary Archaeological Reconnaissance of a Parcel at the Corner of Jackson and Pacific Streets, Monterey, Monterey County, California. Report S-005709 on file at the Northwest Information Center of the California

- Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Hildebrand, K., E. Kimbro, M. Zuccaro and E. Moore, 2002 Limited Historic Structure Report for California's First Theatre, Monterey State Historic Park, Corner of Pacific and Scott Street, Monterey, California. Report S-027899 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Hildebrandt, W., K. McGuire, J. Tordoff, and M. Hylkema, 1985 Archeological Investigations of Five Sites Located at the Presidio of Monterey, Monterey County, California. Part of Report S-17788 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Historic Sites Act of 1935 and Archaeological Resources Protection Act of 1979, http://www.dot.ca.gov/ser/vol2/exhibits/exhibit_1_4_laws_regs.htm
- Holm, L., 2006 Archaeological Monitoring of the Lower Presidio of Monterey Trail Project, City of Monterey, California (letter report). Report S-032599 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Holson, J., 2005 Monitoring of Monterey Presidio Landscaping (PL#1539-02) (letter report). Report S-030292 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Holson, J., and C. Sutch, 2001 Archaeological Literature Search and Survey for the Lower Presidio of Monterey Trail Project, City of Monterey, Monterey County. Report S-025076 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Holson, J., H. Ballard, and C. Sutch, 2002 Historic Property Survey Report for the Foam and Drake Project, City of Monterey, Monterey County, Caltrans District V. Report S-025235 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Hoover, M. B., H. E. Rensch, E. G. Rensch, and D. E. Kyle., 1990 Historic Spots in California. Fourth edition. Stanford University Press, Stanford, California.
- Howard, D. M., 1968 Archaeological Investigations of the Monterey/Big Sur Area. Report S-005550 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Howard, D. M., 1973 Site Record for CA-MNT-386. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Howard, D. M., 1979 The Francis Doud Site – MNT-298. Report S-008294 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson Research Projects, 1985 Draft Overview, Cultural Resources Overview and Historic Buildings Management Guide to the Presidio of Monterey, Monterey, California.

- Prepared for Department of the Army, Corps of Engineers, Sacramento District. On file at the Pacific Legacy Coastal Division Office, Santa Cruz, California.
- Jackson, T. L., 1974 Archaeological Reconnaissance, The Custom House Redevelopment Project (letter report). Report S-006274 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, T. L., 1976a A preliminary archaeological reconnaissance of the San Carlos Cannery Site, Monterey, California (letter report). Report S-017496 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, T. L., 1976b Preliminary archaeological reconnaissance of the San Carlos Cannery Site, Monterey, California (letter report). Report S-008278 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, T. L., 1997 Assessment of Potential Impacts to Cultural Resources, Presidio of Monterey Former Motor Pool, Potential Soil Contamination Investigation. Report S-029341 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, T. L., 2007 Archaeological Survey for Proposed Construction of a Security Fence near Pvt. Bolio Gate, Lower Presidio of Monterey, Monterey, California (USAD71119A) (letter report). Report S-035201 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, T. L., and S. A. Dietz, 1980 Report of Archaeological Excavations at Nineteen Archaeological Sites for the Stage 1 Pacific Grove-Monterey Consolidation Project of the Regional Sewerage System. Report S-003617 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, W. T., W. Hildebrandt, R. Herbert, S. Wee, S. Mikesell, K. McGuire, J. Tordoff, and M. Hylkema, 1985 Presidio of Monterey Cultural Resources Report: Historical Resources Overview, Presidio of Monterey, California; Archaeological Investigations of Five Sites Located at the Presidio of Monterey, Monterey County, California. Report S-17788 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jackson, W.T., R. Herbert, S. Wee, S. Mikesell, E. McKee, S. Schuler, R. Mackensen, W. Hildebrandt, K. McGuire, J. Tordoff, and M. Hylkema, 1985 Cultural Resources Overview Presidio of Monterey, Monterey, California. Report S-18370 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jones, K., 2009 Site Record Update for CA-MNT-108. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Jones, K., and F. Arellano, 2008a Site Record Update for CA-MNT-15. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jones, K., and F. Arellano, 2008b Site Record Update for CA-MNT-298. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jones, K., and F. Arellano, 2008c Site Record Update for CA-MNT-1243. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jones, K., and J. Holson, 2009 Archaeological Survey for the Cal-Am Coastal Water Project, Monterey County, California. Report S-036240 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jones, K., and K. Chao, 2008 Site Record Update for CA-MNT-662. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Jones, T. L., 1991 Marine–Resource Value and the Priority of Coastal Settlement: A California Perspective. *American Antiquity* 56:419–443. Kimbro, E., E. Moore, and A. Crosby 2003 Limited Historic Structure Report for the Casa Soberanes, Monterey State Historic Park, 336 Pacific Street, Monterey, California. Report S-028913 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Knight, J. H., 1974 Monterey State Historic Park, Interpretive Prospectus. Report S-003499 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Koenig, H., and B. Brewster, 2010 Draft Monterey Bay Regional Desalination Project, Monterey, Seaside, and Marina, Monterey County, Cultural Resources Survey Report. Prepared by Environmental Science Associates, San Francisco. Prepared for U. S. Department of Interior, Bureau of Reclamation. Kroeber, A. L. 1915 Notes on Monterey Shell Mounds, January 3, 1915. Report S-003455 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Laffey, G. A., V. Bente, R. Cartier, E. Kimbro, and C. Detlefs., 1985 The Archaeological Investigations at CA-MNT-1243H, the Estrada Adobe in Monterey, California. Report S-007570 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Langer, B., 1978 Site Record for CA-MNT-931. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Lantis, D. L., R. Steiner, and A. Karinen, 1963 California Land of Contrast. Kendall/Hunt Publishing Company, Iowa. Larson, T. R., AIA & Associates, Inc. 1988 Feasibility Study for the Rehabilitation of the Historic Black Cavalry Barracks on the Presidio of Monterey

- for Conversion for Youth Hostel Purposes. Report S-018374 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Loeffler, K., and N. Wilfong, 1981 Site Record Update for CA-MNT-103. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Marina Coast Water District, Finding of No Significant Impact / Environmental Assessment for the Regional Urban Recycled Water Project (FONSI-06-23), December 2009.
- May, R. V., 1974 Mexican Majolica at the Presidio of Monterey, a Tool for Dating Certain Stratigraphy. Report S-005616 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Minor, W. C., 1991 Historic Resources Inventory Form for P-27-002800. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Monterey Bay Unified Air Pollution Control District, Air Quality Management Plan, August 2008.
- Monterey Bay Unified Air Pollution Control District,
NCCAB Area Designations and Attainment Status,
http://www.mbuapcd.org/mbuapcd/pdf/Attainment_Status_January_20091.pdf,
January 2009.
- Monterey County Superior Court, California American Water v. City of Seaside, et al., Case No. 66343, 2006.
- Moratto, M. J., 1984 California Archaeology. Academic Press, Orlando, Florida. Motz, L. 1980 Results of the Archaeological Monitoring of the Courtyard of the Whaling Station and First Brick Building, Monterey, S.H.P. Report S-004878 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- MPWMD Technical Memorandum 2006-2 (MPWMD, 2006a).
- National Groundwater Association. http://www.ngwa.org/public/gw_issues/iaaquifer.aspx.
Accessed 12/17/09.
- Naval Postgraduate School, 2006 Excerpts from the Proceedings of the Third Annual Acquisition Research Symposium. Published on the Defense Technical Information Center website: www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA498246&Location=U2&Doc=GetTRDoc.pdf. Neal, A. 2009 Site Record Update for CA-MNT-101. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Nomelli, E., 1977 Historic Resources Inventory Form for CA-MNT-1243, Casa Soberanes. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Pacific Legacy, Cultural Resource Assessment of Alternative Pipeline Routes through the Presidio of Monterey, and a Limited Metal Detection Survey for a portion of Alternative Route 1A-High Street Completed for the Monterey Bay Regional Desalination Project and California American Water's Monterey Pipeline Project in the City of Monterey, California, February 16, 2011.
- Pacific Legacy, Phase I Record Search and Cultural Resource Assessment of Alternative Pipeline Routes, July 2010.
- Page & Turnbull, 1948 Site Record for CA-MNT-15. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Page & Turnbull, 1994 Presidio of Monterey, Historic Preservation Plan and Maintenance Manual. On file at the Bay Area Division Office of Pacific Legacy, Inc. Berkeley, California. Document also online at the Presidio of Monterey website: www.monterey.army.mil/dpw/inc/historic_preservation_plan.pdf. Pilling, A. R. n.d. Site Record Update for CA-MNT-298. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Pilling, A. R., 1949a Site Record for CA-MNT-101. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Pilling, A. R., 1949b Site Record for CA-MNT-103. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Pilling, A. R., 1949c Site Record for CA-MNT-108. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- President of the United States, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994.
- Presidio of Monterey, Real Property Master Plan, November 2009.
- Pritchard. W. E., 1967 Progress Report on the Archaeological Study of the El Castillo, Presidio of Monterey, California. Report S-016892 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Pritchard. W. E., 1968 Preliminary Archaeological Investigations at El Castillo, Presidio of Monterey, Monterey, California. Report S-05585 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E. 2008j Archaeological Monitoring for the Lower Presidio of Monterey Pvt. Bolio Fence Installation Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-35573 on file at the Northwest Information Center of the California

Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Reese, E., 2006a Archaeological Monitoring of Sewer Rehabilitation Construction at the Presidio of Monterey and Cannery Row, Monterey, California (letter report). Report S-032601 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2006b Archaeological Monitoring of Sewer Line Repairs at the Presidio of Monterey, California (letter report). Report S-032602 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2006c Archaeological Monitoring of the Eisenhower Cottage Sewer Repair at the Presidio of Monterey, Monterey, California (letter report). Report S-032604 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2007 Archaeological Monitoring of Solar Streetlight Excavations at the Presidio of Monterey, California (letter report). Report S-034430 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008a Archaeological Monitoring for the Presidio of Monterey Museum and Artillery Street Sewer Repair Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-034432 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008b Archaeological Monitoring for the Fitch Avenue and Lower Presidio of Monterey Sewer Repairs in the Lower Presidio of Monterey, California (letter report). Report S-34953 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008c Archaeological Monitoring for the Presidio of Monterey Building 263 Sewer Repairs Project Excavations in the Lower Presidio of Monterey, California. Report S-34954 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008d Archaeological Monitoring for the Lower Presidio of Monterey Sewer Spot Repairs Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-35563 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008e Archaeological Monitoring for the 429 Col. Holland Road Sewer Repair Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-35565 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008f Archaeological Monitoring for the Presidio of Monterey Building 453 Sewer Repair Project Excavations in the Lower Presidio of Monterey, California (letter report).

- Report S-35566 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008g Archaeological Monitoring for the Building 358 French Drain Excavations in the Lower Presidio of Monterey, California (letter report). Report S-35567 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008h Report of Inadvertent Discovery of Human Remains During Project Excavations for the Lower Presidio of Monterey Pedestrian Trail Project at the Corner of Seeno and Van Buren Streets in the City of Monterey, California. Report S-35570 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008i Archaeological Monitoring for the Monterey Presidio Building 220 Utility Line Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-35571 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2008k Archaeological Monitoring for the Lower Presidio of Monterey Pvt. Bolio Road Repairs Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-35574 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2009a Archaeological Monitoring for the Lower Presidio of Monterey Pvt. Bolio Road Security Barrier Project Excavations in the Lower Presidio of Monterey, California (letter report). Report S-36276 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2009b Archaeological Monitoring for the Presidio of Monterey Building 220 Sewer Repairs Project Excavation in the Lower Presidio of Monterey, California (letter report). Report S-36279 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2010a Phase I Record Search and Cultural Resource Assessment of Alternative Pipeline Routes through the Presidio of Monterey for the Monterey Bay Regional Water Supply Project and California American Water's Monterey Pipeline Project in the City of Monterey, California 2010b Archaeological Monitoring for the Construct Sidewalk to Access DLI Classrooms, Health and Safety: Replace Walkway between High Street Gate and Building 207 Project Excavations in the Lower Presidio of Monterey, California. Report on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Reese, E., 2010c Archaeological Monitoring for the Remove Inactive Communication Lines, Base-wide, American Recovery and Reinvestment Act (ARRA) Project Excavations in the Lower Presidio of Monterey, California. June 2010 report draft on file at the Pacific Legacy's Bay Area Division Office, Berkeley, California.

- Reese, E., 2010d Archaeological Monitoring for the Install Turnstile Gate at High Street Gate Project Excavations in the Lower Presidio of Monterey, California. November 2010 report on file at the Pacific Legacy's Bay Area Division Office, Berkeley, California.
- Reese, R. W., 1968 The History of El Castillo de Monterey and the 1967 Archaeological Survey. Report S-003577 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Roberts, W. E., 1979 Site Record for CA-MNT-929H. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Roop, W., 1976a Preliminary Archaeological Reconnaissance of the proposed 'Arthur Jones Apartments', Monterey, California. Report S-005463 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Roop, W., 1976b Site record for CA-MNT-662. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Roop, W., K. Flynn, S. Craig, E. Kimbro, and J. Whitlow, 1978 Heritage on the Half-Shell: Excavation at Mnt-298. Report S-005457 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Runnings, A., and G. S. Breschini, 1991 Preliminary Cultural Resources Reconnaissance of Assessor's Parcel Number 001-034-01, Monterey, Monterey County, California. Report S-012596 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Runnings, A., and G. S. Breschini, 1995 Archaeological Survey Report for Sidewalk Improvements in the Cannery Row Area, Monterey, Monterey County, California. Report S-017425 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Runnings, A., and G. S. Breschini, 1996 Preliminary Cultural Resources Reconnaissance for Assessor's Parcel Number 001-053- 06 and -07, Monterey, Monterey County, California. Report S-018092 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Runnings, A., and T. Haversat, 1990a Preliminary Cultural Resources Reconnaissance of Assessor's Parcel Number 001-026-01, Monterey, Monterey County, California. Report S-012358 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Runnings, A., and T. Haversat, 1990b Preliminary Cultural Resources Reconnaissance of Assessor's Parcel Numbers 001-567- 10 and -11, Monterey, Monterey County, California. Report S-012324 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

- Runnings, A., and T. Haversat, 1998 Preliminary Archaeological Reconnaissance of assessor's Parcel Number 001-567-20, Monterey, Monterey County, California. Report S-020280 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Shipley, W. F., 1978 Native Languages of California. In, Handbook of North American Indians, edited by W. Sturtevant, Volume 8 (California), pp. 80–90. Smithsonian Institution, Washington, D.C. U. S. Army 2004 United States Army Presidio of Monterey Integrated Cultural Resources Management Plan. Document online at the Presidio of Monterey website: www.monterey.army.mil/dpw/inc/cultural_resources_mgt_pln.pdf. U. S. Army Corps of Engineers 1968 Analytical Report, Proposed State Historic Park on a Portion of the Presidio of Monterey, California. Report S-005587 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Significance Threshold Source: Monterey Bay Unified Air Pollution Control District (MBUAPCD), 2008.
- State of California, Assembly Bill 1182, 1998.
- State of California, Assembly Bill 1493 (AB 1493, Pavley), 2002.
- State of California, Assembly Bill 32 (AB 32, Nuñez), 2006.
- State of California, California Air Resources Board, Ambient Air Quality Standards, November 11, 2008. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.
- State of California, California Public Utilities Commission, Plan B Report: Water Supply Alternatives for the Monterey Peninsula, 2002.
- State of California, California Public Utilities Commission, Proponent's Environmental Assessment for the Coastal Water Project (Proceeding A.04-09-019). July 14, 2005.
- State of California, Senate Bill 375, 2008.
- State of California, Senate Bill 97, 2007.
- State of California, State Water Resources Control Board, Order No. WR 95-10, Order on Four Complaints Filed Against The California-American Water Company, Carmel River, Monterey County, July 6, 1995.
- State of California, State Water Resources Control Board, Water Quality Control Plan for the Central Coast Region, 2006.
- U. S. District Court, 1869 Plat of the City Lands of Monterey finally confirmed to the City of Monterey. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California. 1890 Plat of the City Lands of Monterey finally confirmed to the City of Monterey. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.
- U. S. Geological Survey, 1913 Monterey 15' Quadrangle Map. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.
- U. S. Geological Survey, 1947 Monterey 15' Quadrangle Map. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

- U.S. Army Corps of Engineers and Harding Lawson Associates, 1999 Environmental Assessment for the Investigation of the Former Motor Pool, Presidio of Monterey, Monterey, California. Report S-029340 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- U.S. Army, Base Realignment and Closure Fort Ord (EPA Superfund Record of Decision; EPA ID CA7210020676), dated April 4, 2005.
- U.S. Census Bureau, U.S. Census 2000, <http://factfinder.census.gov> accessed January 19, 2010.
- U.S. Environmental Protection Agency Office of Noise Abatement and Control, Noise Effects Handbook, A Desk Reference to Health and Welfare Effects of Noise, October 1979 (revised July 1981).
- U.S. Environmental Protection Agency, Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses, April 1998.
- Van Dyke, S., 1973 An archaeological sites reconnaissance of parcels F-1C and C-1 (letter report). Report S-006275 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Wells, A. W., 1970 Monterey State Historical Monuments, California's First Theater (National Register of Historical Places- Nomination Form). Report S-005500 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Welts, A., 1970 National Register of Historic Places Nomination Form for California's First Theater. California Department of Parks and Recreation. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Whitlow, J., and G. S. Breschini, 1983 Preliminary Archaeological Reconnaissance of the Southern Pacific Right-of-Way, Monterey and Pacific Grove, Monterey County, California. Report S-005929 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Whitlow, J., and P. Hampson, 1980a CA-MNT-622 Site Record Update. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Whitlow, J., and P. Hampson, 1980b CA-MNT-975 Site Record Update. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Whitlow, J., and P. Hampson, 1980c CA-MNT-976 Site Record Update. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.
- Whitlow, J., and T. Haversat, 1982 Preliminary Archaeological Reconnaissance of Two Parcels on Cannery Row, Monterey, Monterey County, California. Report S-004978 on file at the

Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Wilfong, N., 1981 CA-MNT-622 Site Record Update. On file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Winter, J. C., 1976 Archaeological Resources and Impact of the Proposed Arthur Jones Apartment, Monterey, California. Report S-003346 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Woodward, J., and N. H. Evans, 1992 Summaries of Burial Collections. Report S-014343 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Zahniser, J. L., and L. J. Roberts, 1980 Intensive Cultural Resources Survey Report, Presidio of Monterey. Report S-03633 on file at the Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California.

Appendix A

Native American Tribal Consultation



Bay Area Division
900 Modoc St
Berkeley, California 94707

Phone: 510.524.3991
Fax: 510.524.4419
www.pacificlegacy.com

December 6, 2010

Larry Myers
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Re: California American Water Company's Monterey Pipeline Project, Presidio of Monterey, Monterey County, PL 2422-03

Dear Mr. Myers:

We have been retained by RBF Consulting to conduct an archaeological assessment of alternative pipeline routes for a project area located within the lower Presidio of Monterey, City of Monterey, Monterey County, California. RBF Consulting and California American Water Company intend to expand the Monterey water distribution system as part of the Monterey Bay Regional Desalination Project, which requires a pipeline crossing the Presidio of Monterey.

Please review the Sacred Lands Inventory to determine if there are any areas of concern to local Native American Groups within the project area. The attached map provides the area of potential impact on the Monterey, Calif. 7.5' USGS Quadrangle. This project is located in Township 15 South, Range 1 East, Unsectioned.

Please send us a list of interested Native American groups for Monterey County. We will be contacting those groups for consultation. Should you need further information, I can be reached at (510) 524-3991, ext. 3. Thank you for your kind attention to this matter.

Sincerely,

Elena Reese
Staff Archaeologist
Bay Area Division

Attachment: Project Area on the Monterey, Calif. 7.5' USGS Quadrangle

Business Office
2641 Hwy 4
PO Box 6050
Arnold, CA 95223
209.795-4481 Ph.
209.795-1967 Fax

Sierra-Central
4919 Windplay Dr., Ste 4
El Dorado Hills, CA 95762
530.677-9713 Ph.
530.677-9762 Fax

**North Coast
to Cascades**
3760 Morrow Ln., #E
Chico, CA 95928
530.899-8314 Ph.
530.899-8333 Fax

Pacific Basin Hawaii
30 Aulike St., Ste. 301
Kailua, HI 96734
808.263-4800 Ph.
808-263-4800 Fax

Lancaster
44702 10th St. West
Lancaster, CA 93534
661.729-9395 Ph.
661-729-9417 Fax

STATE OF CALIFORNIAArnold Schwarzenegger, Governor**NATIVE AMERICAN HERITAGE
COMMISSION**915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390

December 9, 2010

Elena Reese
Pacific Legacy
900 Modoc Street
Berkeley, CA 94707Sent by Fax: 510-524-4419
Number of Pages: 2

RE: Monterey Pipeline Project, Presidio of Monterey County

Dear Ms. Reese:

A record search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

A handwritten signature in black ink, appearing to read "Katy Sanchez".
Katy Sanchez
Program Analyst

Native American Contact List
Monterey County
December 7, 2010

Indian Canyon Mutsun Band of Costanoan
 Ann Marie Sayers, Chairperson
 P.O. Box 28
 Hollister , CA 95024
ams@indlancanyon.org
 831-637-4238

Ohlone/Costanoan

Trina Marine Ruano Family
 Ramona Garibay, Representative
 30940 Watkins Street
 Union City , CA 94587
 soaprootmo@msn.com
 510-972-0645-home
 209-688-4753-cell

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Jakki Kehl
 720 North 2nd Street
 Patterson , CA 95363
 jakki@bigvalley.net
 (209) 892-1060

Ohlone/Costanoan

Amah Mutsun Tribal Band
 Valentin Lopez, Chairperson
 3015 Eastern Ave, #40
 Sacramento , CA 95821
 vlopez@amahmutsun.org
 (916) 481-5785

Ohlone/Costanoan

Coastanoan Rumsen Carmel Tribe
 Tony Cerda, Chairperson
 3929 Riverside Drive
 Chino , CA 91710
 rumsen@aol.com
 (909) 464-2074
 (909) 524-8041 Cell
 rumsen@aol.com

Ohlone/Costanoan

Amah/Mutsun Tribal Band
 Irene Zwierlein, Chairperson
 789 Canada Road
 Woodside , CA 94062
 amah_mutsun@yahoo.com
 (650) 851-7747 - Home
 (650) 851-7489 - Fax

Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
 Louise Miranda-Ramirez, Chairperson
 PO Box 1301
 Monterey , CA 93942
 ramirez.louise@yahoo.com
 408-629-5189
 408-205-7579 - cell

Esselen
Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
 Christianne Arias, Vice Chairperson
 PO Box 552
 Soledad , CA 93960
 831-235-4590

Esselen
Ohlone/Costanoan

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed PL 2422-03, California American Water Company's Monterey Pipeline Project, Presidio of Monterey; Monterey County.

Native American Contact List
 Monterey County
 December 7, 2010

Amah Mutsun Tribal Band
 Edward Ketchum
 35867 Yosemite Ave
 Davis , CA 95616
 aerieways@aol.com

Ohlone/Costanoan
 Northern Valley Yokuts

Amah/Mutsun Tribal Band
 Jean-Marie Feyling
 19350 Hunter Court
 Redding , CA 96003
 jmfmgc@sbcglobal.net
 530-243-1633

Ohlone/Costanoan

Amah/Mutsun Tribal Band
 Joseph Mondragon, Tribal Administrator
 882 Bay view Avenue
 Pacific Grove, CA 94062
 831-372-9015
 831-372-7078 - fax

Ohlone/Costanoan

Amah/Mutsun Tribal Band
 Melvin Ketchum III, Environmental Coordinator
 7273 Rosanna Street
 Gilroy , CA 95020
 408-842-3220

Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
 Pauline Martinez-Arias, Tribal Council woman
 1116 Merlot Way
 Gonzales , CA 93926
 maklici0-us@gmail
 831-596-9897

Esselen
 Ohlone/Costanoan

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed PL 2422-03, California American Water Company's Monterey Pipeline Project, Presidio of Monterey; Monterey County.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
UNITED STATES ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, PRESIDIO OF MONTEREY
DIRECTORATE OF PUBLIC WORKS
BLDG 4463 GIGLING RD - P.O. BOX 5004
MONTEREY, CA 93944-5004

Directorate of Public Works

NOV 15 2011

Dear Interested Parties:

The U.S. Army Garrison, Presidio of Monterey (Presidio), invites interested parties to review and comment on the Draft Environmental Assessment (EA) for the proposed Monterey Presidio Pipeline Crossing for the Monterey Bay Regional Desalination Project. The Native American Heritage Commission identified your Native American organization as an interested party that may have knowledge of cultural resources on the Presidio.

The U.S. Army proposes to provide California American Water Company (CAW) an easement to construct a new potable water transmission pipeline across the Presidio property. The proposed Monterey Presidio Pipeline Crossing will convey water produced from the Monterey Bay Regional Desalination Project from Marina to the Monterey Peninsula cities. The project would provide a new supply of potable water to meet existing demands of the CAW service area.

The attached Draft EA was prepared in accordance with the National Environmental Policy Act of 1969 and other Department of Defense directives and Army regulations. The Draft EA analyzes potential environmental impacts of this undertaking that is proposed to occur within the Presidio of Monterey Historic District, which is significant under National Register Eligibility Criteria A and C, in the areas of military and architectural history.

Initially, CAW proposed several easement locales that would have impacted known prehistoric and historic cultural resources (Enclosure 1: Section 2.4), but the Army chose to locate the easement well outside the known boundaries of these resources. The Proposed Action analyzed in the EA locates the easement within paved road corridors which are known to contain existing utilities and highly disturbed deposits (Enclosure 1: Section 3.4.5.1). The Clay Street Alternative Action employs trenchless boring technology below the Presidio which could impact historic-era properties in an unanticipated manner (Enclosure 1: Section 3.4.5.1). Although there are no known cultural resources within the Area of Potential Effect for the undertaking, construction activities associated with this project have the potential to expose unknown subsurface cultural resources and/or affect known historic-era properties in an unanticipated manner; therefore, the Army will require CAW to adhere to the following (Enclosure 1: Section 6.4):

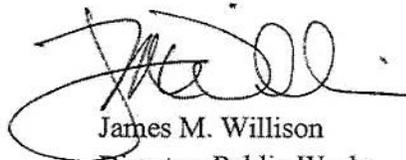
- (1) Construction activities associated with the Proposed Action and Alternative have the potential to expose unknown subsurface cultural resources and/or affect known historic properties in an unanticipated manner; therefore, all ground disturbing activities will be monitored by a qualified archaeologist per 36 CFR Part 61.
- (2) If cultural resources are inadvertently discovered, work shall be halted within 30-meters of the find until it can be evaluated by a qualified professional archaeologist and the U.S. Army Cultural Resource Manager. Inadvertent discoveries will require implementation of

procedures set forth in the Presidio of Monterey's Integrated Cultural Resource Management Plan (ICRMP) and Army Regulation (AR 200-1), which includes consultation procedures and planning requirements in Section 106 of the National Historic Preservation Act (16 U.S.C. 470f; 36 CFR Part 800).

- (3) If an inadvertent discovery of human remains occurs, work shall cease within 30-meters of the find and immediate notification must be made to the U.S. Army Cultural Resource Manager. The Cultural Resource Manager will preliminarily determine if the remains are from a recent crime scene (50 years old or less) or are of Native American descent and will immediately notify the Garrison Commander. If the remains appear recent, a 30-meter radius will be declared off limits to everyone except authorized personnel and the Army's Criminal Investigation Command will assume control of the crime scene. If the remains appear to be of Native American descent, the Monterey County Coroner's Office will make determination final and the California Native American Heritage Commission will be notified. An inadvertent discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony will require implementation of procedures set forth in the Presidio's ICRMP and Army Regulation (AR 200-1), which includes consultation procedures and planning requirements in Section 106 of the National Historic Preservation Act (16 U.S.C. 470f; 36 CFR Part 800) and Section 3 and Section 5 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 et seq.; 43 CFR 10).

The U.S. Army Garrison, Presidio of Monterey requests your comments and recommendations with regard to this Draft EA. Your input will be useful for the purpose of project planning and can remain confidential if requested. Please note that you may submit your comments by mail, e-mail or phone. Laura Prishmont Quimby, Cultural Resources Manager for the Presidio, will be contacting you by phone to ensure that you and/or your organization have received this letter and to answer any questions you may have regarding this project. If you wish to contact Ms. Prishmont Quimby directly, you may do so at (831) 242-7926 or laura.a.prishmontquimby@us.army.mil. Thank you for your kind attention to this matter.

Respectfully,



James M. Willison
Director, Public Works
Presidio of Monterey

Enclosure

Appendix B

Responses to Comments

Comment Letter A – Alliance of Monterey Area Preservationists,
December 8, 2011

From: mike.dawson.67@gmail.com [mailto:mike.dawson.67@gmail.com] On Behalf
Of Michael Dawson
Sent: Thursday, December 08, 2011 11:01 AM
To: Grover-Bullington, Lenore R CIV USA IMCOM
Subject: POM Pipeline crossing

Ms G-8: At the November meeting of the Board of the Alliance of Monterey
Area Preservationists (AMAP), the matter of the above was discussed.

It was agreed and voted that: AMAP prefers the High Street 1A crossing
because the Clay Street 1C crossing is closer to the known archeological
sites on the POM, and its construction would possibly tunnel through buried
historic sites without knowing.

The High Street 1A Crossing would have an archeologist standing by to
identify any cultural resources that would show up during the trenching, and
therefore is preferable.

Thanks again to the Army for allowing AMAP to consult in this matter.

Mike Dawson, President of AMAP

Classification: UNCLASSIFIED
Caveats: NONE

A-1 Comment noted. The High Street 1A crossing is the preferred route.
Therefore, no changes were required.

A-1



24580 Silver Cloud Court
Monterey, CA 93940
PHONE: (831) 647-9411 • FAX: (831) 647-8501

December 14, 2011

Lenore Grover-Bullington
U.S. Army Garrison, Presidio of Monterey
Directorate of Public Works
P.O. Box 5004
Monterey, CA 93944

Submitted Electronically to:
pomea@rbf.com

Original sent First Class Mail

SUBJECT: Administrative Draft Environmental Assessment for the Monterey Presidio Crossing
Monterey Bay Regional Desalinization Project

Dear Ms. Grover-Bullington:

Thank you for providing the Monterey Bay Unified Air Pollution Control District (Air District)
the opportunity to comment on the above-referenced document.

The Air District has the following comments.

- B-1 Section 2.5 Construction Activities on Page 19.
The Air District wants to ensure that the Presidio of Monterey is aware that if older underground piping is encountered during trenching, the requirements of Air District Rule 424 National Emissions Standards for Hazardous Air Pollutants could be triggered. Rule 424 contains the investigation and reporting requirements for asbestos. If you have any questions about District Rule 424, please contact Mike Sheehan, District Compliance Inspector III, at (831)647-9411 x 217.
- B-2 Table 3.3-1 Federal and State Ambient Air Quality Standards on Page 24.
Please note the primary National Ambient Air Quality Standards (NAAQS) for nitrogen dioxide and sulfur dioxide have been updated. The NAAQS for nitrogen dioxide now include a 1-hour standard of 100 ppb. The 24-hour and annual sulfur dioxide NAAQS has been revoked and a new 1-hour sulfur dioxide standard of 75 ppb has been established. For reference, a table of the current NAAQS can be accessed at: <http://www.epa.gov/air/criteria.html>.
- B-3 Table 3.3-3 Current Attainment Status of Air Basin on Page 26.
Please add the federal and state attainment status for the 8-hour ozone to the table. For reference, the North Central Coast Air Basin is an attainment area for the federal 8-hour standard.
- B-4 Section 3.2.4 California Clean Air Act on Page 27.
Please update text to reference the most current AQMP. The most recent Air Quality Management Plan (AQMP) is the 2008 AQMP.

Comment Letter B – Monterey Bay Unified Air Pollution Control District, December 14, 2011

- B-1 Comment noted. Mitigation Measure AQ-3 was added to the EA to ensure that, if triggered, the project would be consistent with the investigation and reporting requirements for asbestos if older underground piping was encountered.
- B-2 Comment noted. Table 3-3.1 *Federal and State Ambient Air Quality Standards* has been updated as requested.
- B-3 Comment noted. Table 3-3.3 *Current Attainment Status of Air Basin*, has been updated to include the federal and state attainment status for 8-hour ozone.
- B-4 Comment noted. The text has been revised to reference the most current (2008) AQMP.

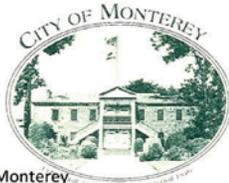
Comment Letter B – Monterey Bay Unified Air Pollution Control
District, December 14, 2011

Please contact me at (831) 647-9418 ext. 226 or bnunes@mbuapcd.org if you have questions regarding these comments.

Best regards,

Robert Nunes
Air Quality Planner

Cc: Amy Clymo, MBUAPCD Air Quality Planner
Mike Sheehan, MBUAPCD Compliance Inspector III



December 15, 2011

U.S. Army Garrison, Presidio of Monterey
Directorate of Public Works (Attn. Lenore Grover Bullington)
P.O. Box 5004
Monterey, CA 93944
pomea@rbf.com

RE: Monterey Presidio Pipeline Crossing

Dear Ms. Grover Bullington,

The City of Monterey requests two issues are addressed as part of the larger project:

C-1

1. The preferred alternative routes a pipeline along Spencer Street and Franklin Avenue. The City has recently repaved sections of these streets. The City requests that if a street has been repaved in the last ten years that the project repave the entire street instead of a patch.

C-2

2. The construction traffic control plans will need to be prepared. The City requests the opportunity to peer review the control plans as they are developed.

Overall, the City staff is supportive of this project if the construction details are addressed.

Sincerely,


Kimberly Cole, AICP
Principal Planner


Tom Reeves
City Engineer

Comment Letter C – City of Monterey, December 15, 2011

- C-1 Comment noted. However, the pipeline route outside the POM, along Spencer Street and Franklin Avenue is outside the jurisdiction of the POM and will be analyzed under a separate document. Construction of section of the pipeline crossing the POM of pipeline will not affect Spencer Street or Franklin Avenue and, therefore, these streets will not require repaving.
- C-2 Comment noted. The City will be sent the traffic control plans for peer review as requested.

Comment Letter D – California Coastal Commission, February 2, 2012

D-1 Comment noted. No change required.

From: "Tom Luster" <tluster@coastal.ca.gov>
To: <MKLING@rbf.com>
Date: 2/2/2012 11:28 AM
Subject: FW: EA for Monterey Presidio Pipeline Crossing

Hi Monica,

D-1 [Thanks once again for the additional review opportunity. At this time, we have no comments, but please keep me on your mailing list. I'd also appreciate hearing of any changes in the plans or design for the pipeline crossing due to the likely changes now being considered in the Regional Desal Project.

Tom L.

Tom Luster

California Coastal Commission

45 Fremont Street #2000

San Francisco, CA 94105

415-904-5248
