



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, US ARMY GARRISON, PRESIDIO OF MONTEREY
1759 LEWIS ROAD, SUITE 210
MONTEREY, CA 93944-3223

Office of the Garrison Commander

NOV 14 2011

Dear Interested Parties:

The Department of the Army invites all 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 U.S. Army proposes to provide California American Water Company (CAW) an easement to construct a new potable water transmission pipeline across the Presidio of Monterey 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 (NEPA: 42 U.S. CFR 4321 et seq.), Department of Defense (DoD) Directive 6050.1 and the U.S. Army Implementing Regulation, 32 CFR Part 651, dated March 29, 2002. The Draft EA analyzes potential environmental impacts of the proposed action.

Comments on the Draft EA are due no later than 5:00 p.m. on December 15, 2011.

The Draft EA is available for review at the locations as follows:

Monterey Public Library
625 Pacific Street
Monterey, CA 93940-2821
(831) 646-3932

Pacific Grove Library
550 Central Avenue
Pacific Grove, CA 93950-2789
Phone: (831) 648-5760

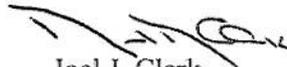
U.S. Army Garrison, Presidio of Monterey
Department of Public Works
4463 Gigling Road
Seaside, CA 93955

Presidio of Monterey website <http://www.monterey.army.mil/>

Please forward written comments to:

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



Joel J. Clark
Colonel, US Army
Commanding

Enclosure

**Administrative Draft Environmental Assessment
Monterey Bay Regional Desalination Project –
Monterey Presidio Pipeline Crossing**

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November 2011

Administrative Draft Environmental Assessment
Monterey Bay Regional Desalination Project –
Monterey Presidio Pipeline Crossing

November 2011

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RBF Consulting
Project Manager

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Reviewed and Approved by:

Joel J. Clark
Colonel, US Army
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Date

Richard Svindland
Director of Engineering
California American Water

Date

1 **Executive Summary**

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

10 **Background**

11 The Monterey Bay Regional Desalination Project is a new water supply project for the Monterey
12 Peninsula and surrounding communities; refer to Exhibit 1, *Regional Vicinity Map*, and Exhibit
13 2, *Location Map*.

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

23 **Project Description**

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

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

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

Issue Area	No Impact	Potential Adverse Impact	Minimization Measures	Mitigation Measures
Air Quality	✓		AQ-1, AQ-2	
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	✓			

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

3 **Cumulative Impacts**

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

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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
CNDDB	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 Stillwell 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 **1.2 Purpose and Need**

2 The purpose of the proposed project:

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

6 The need of the proposed project is:

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

8 **1.3 Related Monterey Bay Regional Desalination Project**
9 **NEPA Documents**

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

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

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

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

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

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

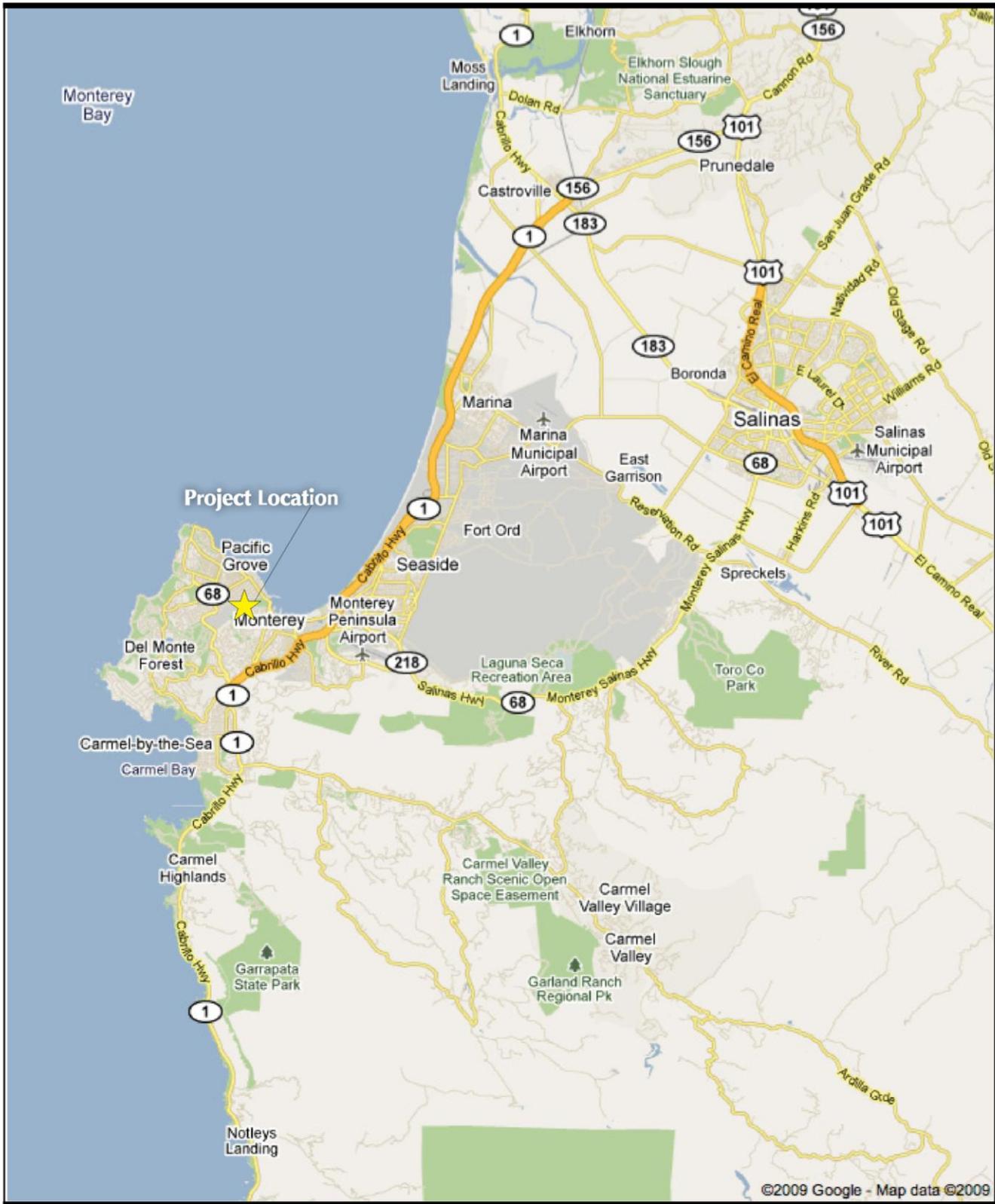
1 Technical reports prepared to support the analysis within the FEIR were utilized in preparation of
2 this EA; however, as the FEIR addressed the Coastal Water Project and alternative the Monterey
3 Bay Regional Desalination Project as a whole, data from the technical reports were excerpted as
4 applicable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

8 **1.4 Potential Issues**

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

- 11 • Air Quality
- 12 • Biological Resources
- 13 • Cultural Resources
- 14 • Energy
- 15 • Environmental Justice
- 16 • Geology and Soils
- 17 • Hazards and Hazardous Materials
- 18 • Hydrology and Water Quality
- 19 • Indian Trust Assets
- 20 • Land Use
- 21 • Noise
- 22 • Socioeconomic Resources
- 23 • Traffic
- 24 • Water Supply

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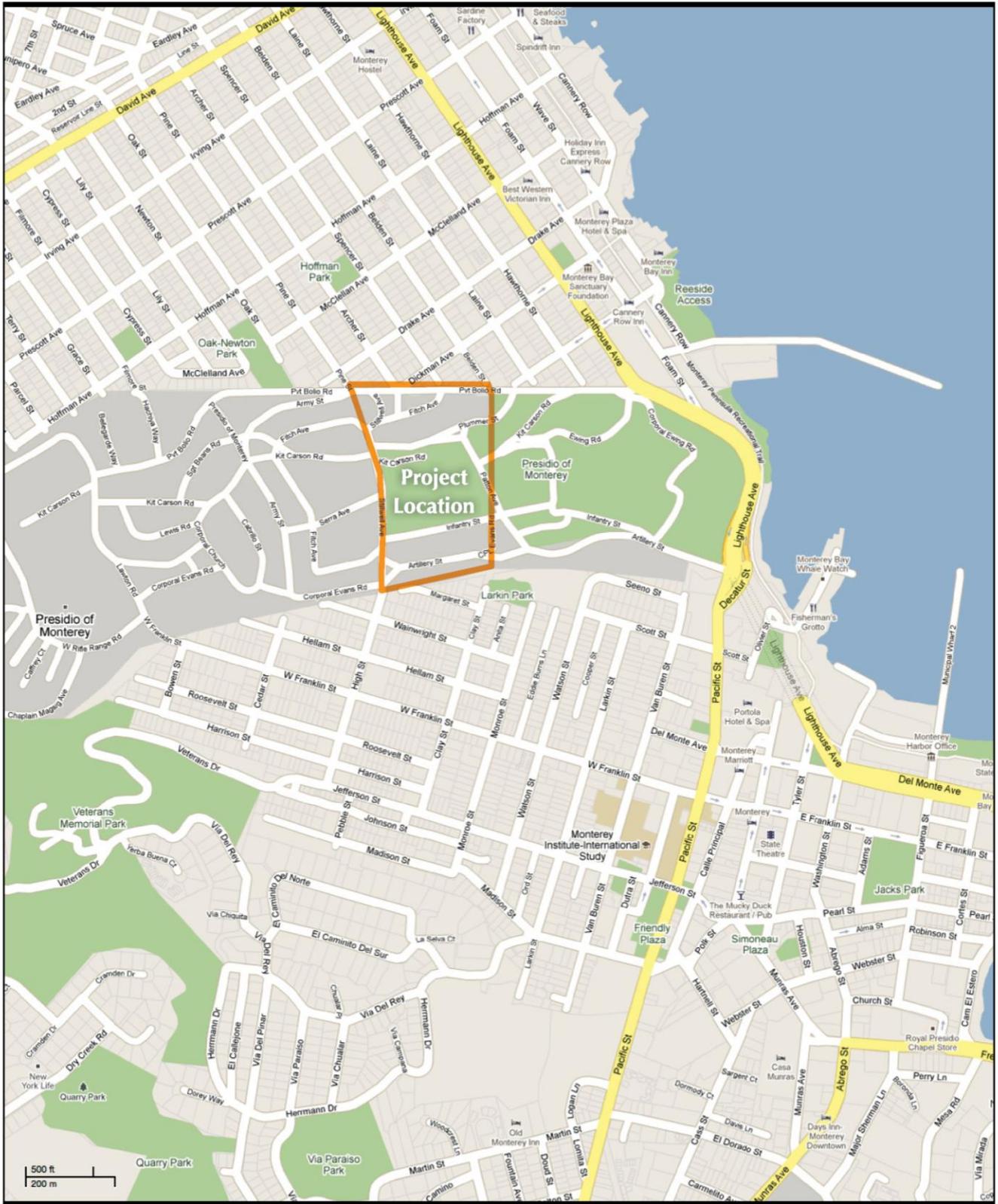
REGIONAL VICINITY MAP

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 1

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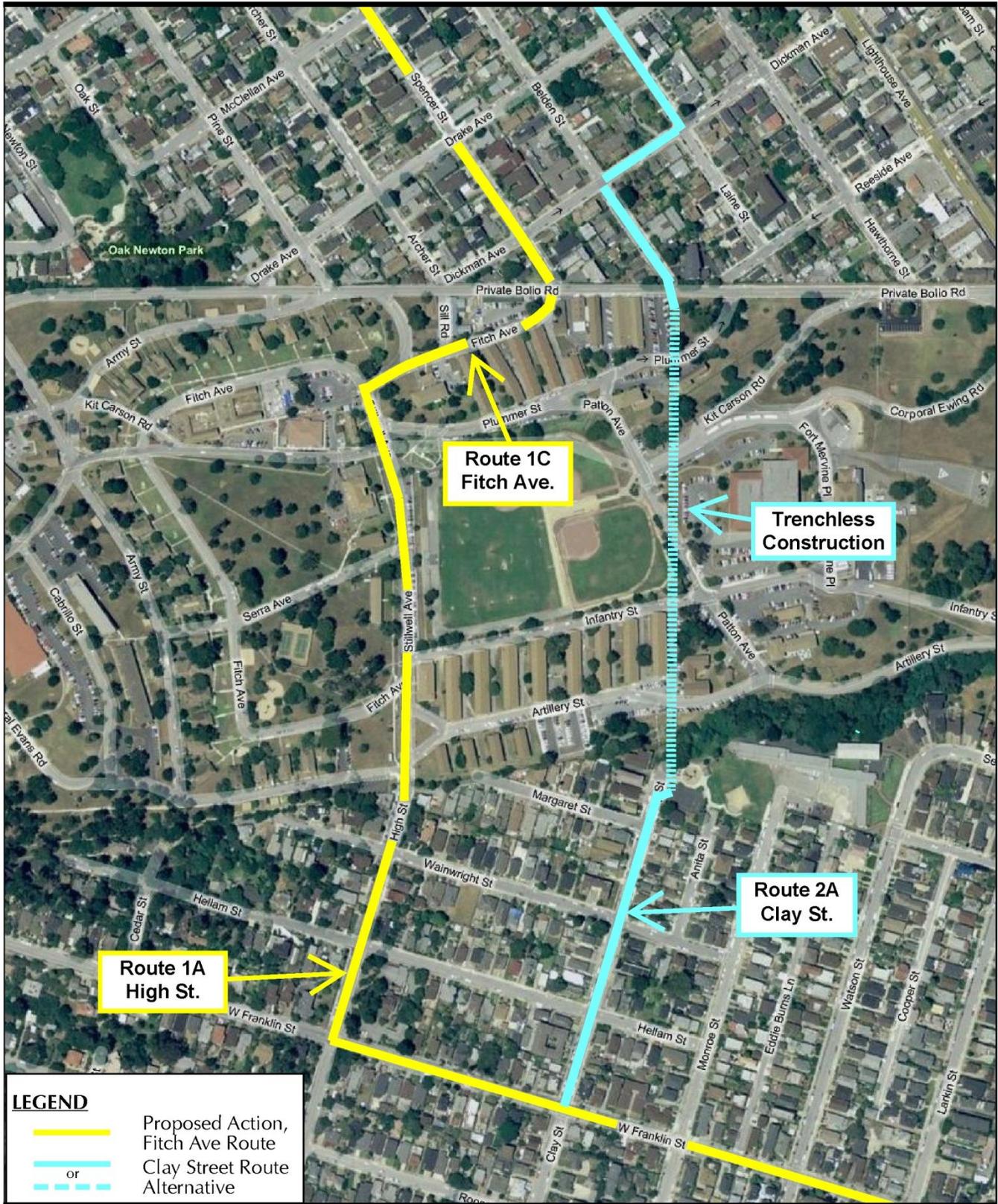
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LOCATION MAP

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 2

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PROPOSED ACTION AND CLAY STREET ROUTE ALTERNATIVE ALIGNMENTS

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

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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 Stillwell 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

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

5 **2.3 Clay Street Route Alternative**

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

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

20 **2.4 Alternatives Considered but Rejected**

21 **2.4.1 High Street Alternative**

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

28 **2.4.2 Segunda Pipeline Alternative**

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

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

- 1 • Tarpay Flats Pump Station (proposed);
- 2 • New Segunda Pipeline (proposed);
- 3 • Crest Tank (existing);
- 4 • Segunda Reservoir (existing); and,
- 5 • Segunda Reservoir Pump Station (existing).

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

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

25 **2.4.3 Monterey Presidio Pipeline Alternative Routes**

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

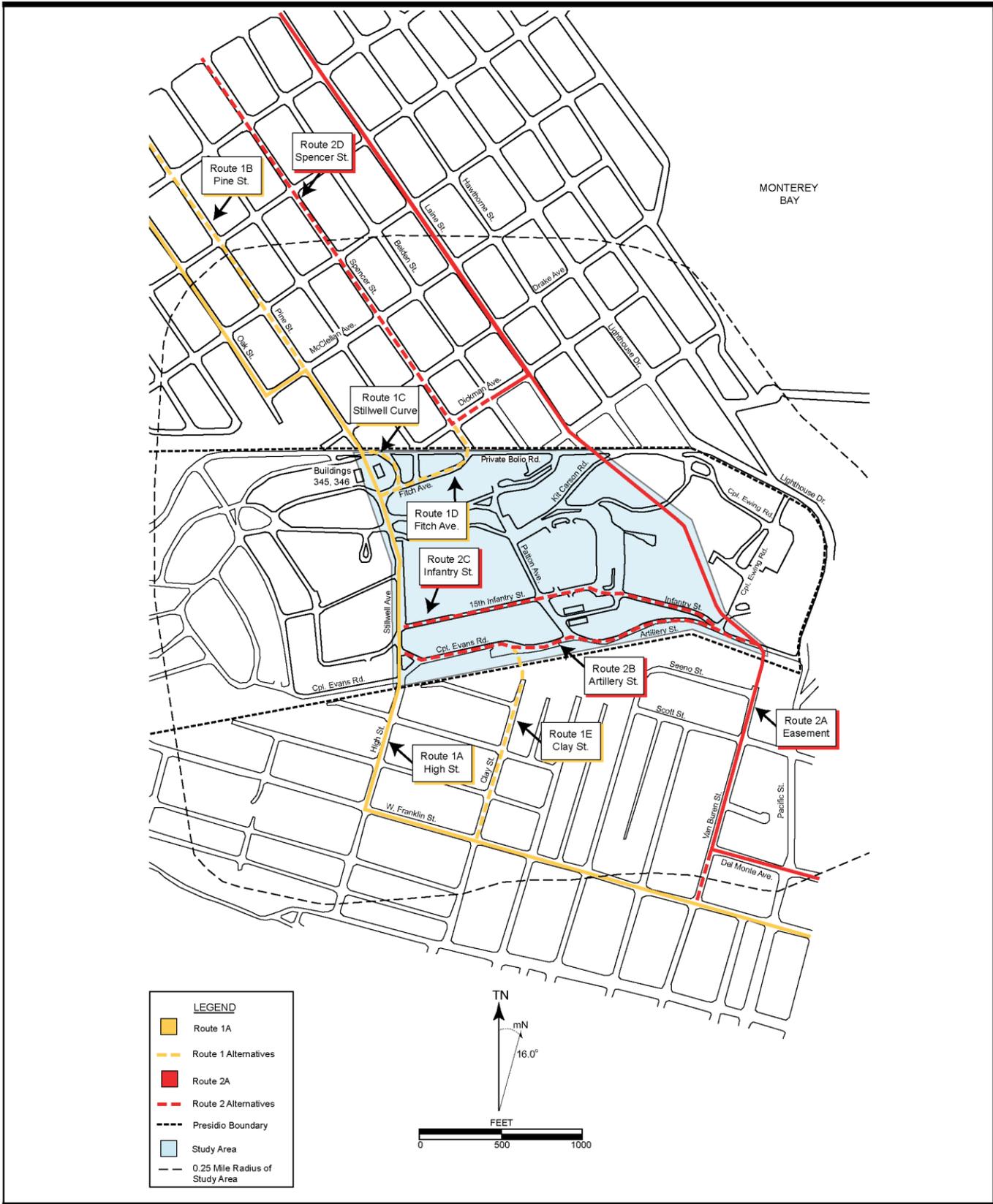
32 Monterey Presidio Pipeline routes within the Presidio of Monterey that were considered but
33 rejected from further analysis in this EA include routes following Corporal Ewing Road, due its
34 proximity to known and suspected cultural resources. A route paralleling CAW's existing
35 pipeline from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

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

3 **2.4.4 Previous Alternative Pipeline Routes through the Presidio of Monterey**

4 A preliminary cultural assessment conducted in July 2010 analyzed nine alternative pipeline
5 routes within the Presidio of Monterey, shown in Exhibit 4, *Previously Studied Alternative*
6 *Pipeline Route Locations*. Of those routes, only the High Street Route (Route 1A and alternatives
7 1A and 1D) and Clay Street Route (Route 1E with modification) were determined to impact
8 fewer cultural resources than the other routes analyzed and were, therefore, carried forward for
9 further analysis in this EA. Refer to Exhibit 5, *Current Alternative Pipeline Route Locations and*
10 *APE*. Monterey Presidio Pipeline routes within the Presidio of Monterey that were considered
11 but rejected from further analysis in this EA include: routes following Corporal Ewing Road, due
12 to the proximity of known and suspected cultural resources; and, routes entering the Presidio of
13 Monterey from Van Buren Street, including a route paralleling CAW's existing pipeline through
14 the Lower Presidio of Monterey to Laine Street in New Monterey, because of the proximity to
15 known and suspected cultural resources and known human remains.

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



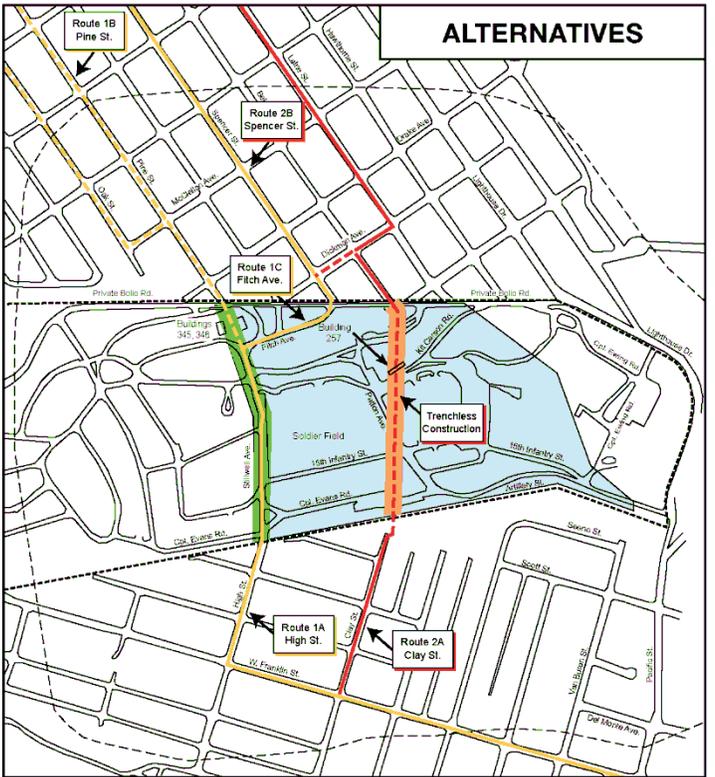
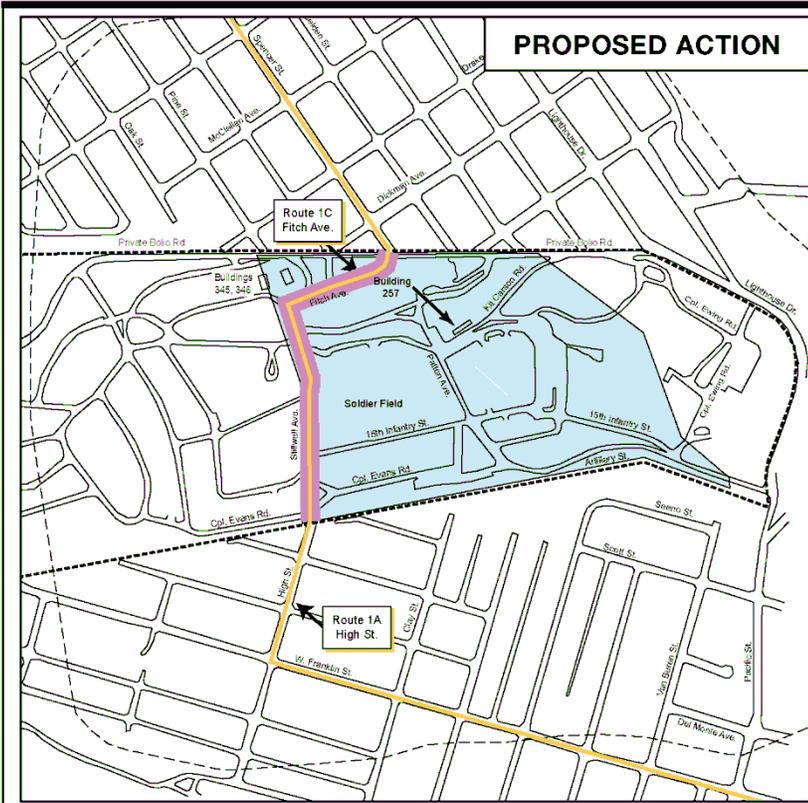
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PREVIOUSLY STUDIED ALTERNATIVE PIPELINE ROUTE LOCATIONS

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 4

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LEGEND	
	Route 1A
	Route 1 Alternatives
	Route 2A
	Route 2 Alternatives
	Presidio Boundary
	Study Area
	0.25 Mile Radius of Study Area
	Areas 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

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1 **2.5 Construction Activities**

2 **2.5.1 Proposed Action**

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

17 Work tasks are anticipated to proceed in the following order:

- 18 • Clearing, grubbing and grading the rights-of-way;
- 19 • Trenching and hauling of excess spoils;
- 20 • Relocating utilities, if required;
- 21 • Delivering pipe and pipe bedding material;
- 22 • Installing pipe bedding material;
- 23 • Installing pipe;
- 24 • Backfilling the trench;
- 25 • Hydrostatic testing; and,
- 26 • Restoring the right-of-way to original condition (pavement replacement, revegetation,
27 etc.).

28 **2.5.2 Alternative to the Proposed Action: Clay Street Route Alternative**

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

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

3 **2.5.3 Types of Construction Equipment**

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

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

23 **2.5.4 Area of Disturbance/Area of Potential Effect**

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

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

34 **2.5.5 Schedule / Phasing**

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

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

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

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

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1 Section 3 Affected Environment

2 3.1 Factors Eliminated from Further Analysis

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

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

26 3.2 Air Quality

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

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

5 **Table 3.3-1**
 6 **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)	--	--
	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)	--	--
	3-Hour	--	--	0.5 ppm (1,300 µg/m ³)
	24-Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	--
	Annual ^f	--	0.030 ppm (80 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 .

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

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

14 **Table 3.3-2**
 15 **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)		

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

Pollutant	Federal	State
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 **3.2.1 Toxic Air Contaminants**

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

11 California regulates toxic air contaminants through its air toxics program, mandated in Chapter
 12 3.5 (Toxic Air Contaminants) of the California Health and Safety Code (Health and Safety Code
 13 Section 39660 et seq.) and Part 6 (Air Toxics “Hot Spots” Information and Assessment) (Health
 14 and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of
 15 Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control
 16 measures may then be adopted to reduce ambient concentrations of the identified toxic air
 17 contaminant to below a specific threshold, based on its effects on health, or to the lowest
 18 concentration achievable through use of best available control technology (BACT) for toxics.
 19 Air quality control agencies, including the NCCAB, must incorporate air toxic control measures
 20 into their regulatory programs or adopt equally stringent control measures as rules within six
 21 months of adoption by CARB.

22 **3.2.2 Sensitive Receptors**

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

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

1 **3.2.3 Federal Clean Air Act**

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

14 **3.2.4 California Clean Air Act**

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

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

31 CARB approves local air quality management plans that address attainment and maintenance of
32 State Ambient Air Quality Standards as mandated by the California Clean Air Act. The
33 MBUAPCD prepares a regional AQMP every three years to address attainment and maintenance
34 of the State O₃ Ambient Air Quality Standard in accordance with the CCAA. The most recent
35 AQMP is the 2004 Air Quality Management Plan adopted by the MBUAPCD in October 2004.

36 **3.2.5 Climate Change/Greenhouse Gases**

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

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

8 **3.2.5.1 Regulatory Context**

9 **Federal Regulations**

10 The Federal government is extensively engaged in international climate change activities in areas
11 such as science, mitigation, and environmental monitoring. The EPA is moving forward with two
12 key climate change regulatory proposals: 1) establish a mandatory GHG reporting system, and
13 2) address the 2007 Supreme Court decision in *Massachusetts v. EPA* (Supreme Court Case 05-
14 1120) regarding the EPA's obligation to make an endangerment finding under Section 202(a) of
15 the Clean Air Act (CAA) with respect to GHGs. *Massachusetts v. EPA* was argued before the
16 U.S. Supreme Court on November 29, 2006. A coalition of 12 U.S. states and cities (including
17 New York and California), in conjunction with several environmental organizations, challenged
18 the EPA’s refusal to regulate GHGs as a pollutant under the CAA. The plaintiffs contended that
19 the CAA gives the EPA the necessary authority, and the mandate, to address GHGs in light of
20 the scientific evidence on global climate change. The EPA had concluded that it had no
21 authority under existing law to regulate GHGs, and that, for a variety of policy reasons, it would
22 not use that authority even if it possessed it. The U.S. Supreme Court held that the EPA has
23 statutory authority to regulate GHG emissions from new motor vehicles. Under the CAA, the
24 EPA is now obligated to issue rules regulating global warming pollution from all major sources.
25 In April 2009, the EPA concluded that GHGs are a danger to public health and welfare,
26 establishing the basis for GHG regulation.

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

36 **State of California**

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

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

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

24 Assembly Bill 1493. Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22,
25 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light
26 duty trucks, and other vehicles whose primary use is noncommercial personal transportation in
27 the State. The bill required that CARB set the GHG emission standards for motor vehicles
28 manufactured in 2009 and all subsequent model years. In setting these standards, CARB must
29 consider cost effectiveness, technological feasibility, economic impacts, and provide maximum
30 flexibility to manufacturers. CARB adopted the standards in September 2004 which are intended
31 to reduce emissions of carbon dioxide and other GHGs (e.g., nitrous oxide and methane).

32 Assembly Bill 32. The State Legislature enacted AB 32 (AB 32, Nuñez), the California Global
33 Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27,
34 2006, to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable
35 Statewide program to limit GHG emissions from all major industries, with penalties for
36 noncompliance. CARB has been assigned to carry out and develop the programs and
37 requirements necessary to achieve the goals of AB 32. The foremost objective of CARB is to
38 adopt regulations that require the reporting and verification of statewide GHG emissions. The
39 first GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020.
40 CARB is also required to adopt rules and regulations to achieve the maximum technologically
41 feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-
42 based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately
43 responsible for monitoring compliance and enforcing any rule, regulation, order, emission
44 limitation, emission reduction measure, or market-based compliance mechanism adopted. In

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

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

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

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

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

33 **3.3 Biological Resources**

34 **3.3.1 Introduction**

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

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

6 **3.3.2 Survey Methodology**

7 **3.3.2.1 Biological Survey Area**

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

15 The primary literature and data sources reviewed to determine the occurrence or potential for
16 occurrence of special-status species at the project site are as follows: current agency status
17 information from the U.S. Fish and Wildlife Service (USFWS) and the California Department of
18 Fish and Game (CDFG) for species Listed, Proposed for Listing, or Candidates for listing as
19 Threatened or Endangered under Federal Endangered Species Act (ESA) or California
20 Endangered Species Act (CESA), and those considered CDFG “species of special concern”
21 (2009); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular
22 Plants of California (CNPS, 2010); and, Final Memorandum of Results for the Presidio of
23 Monterey/Ord Military Community Planning Level Surveys (ICF Jones & Stokes, 2009). The
24 Monterey quadrangle and the four surrounding quadrangles (Marine, Mt. Carmel, Seaside, and
25 Soberanes Point) from the California Natural Diversity Database (CNDDDB) (2010) were also
26 reviewed for documented special-status species occurrences within and in the vicinity of the
27 project site. The CNDDDB report is appended to the Biological Assessment for the Monterey Bay
28 Regional Desalination Project, Monterey Presidio Pipeline, conducted by Denise Duffy &
29 Associates in November 2010.

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

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

1 **3.3.2.2 Habitat Types**

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

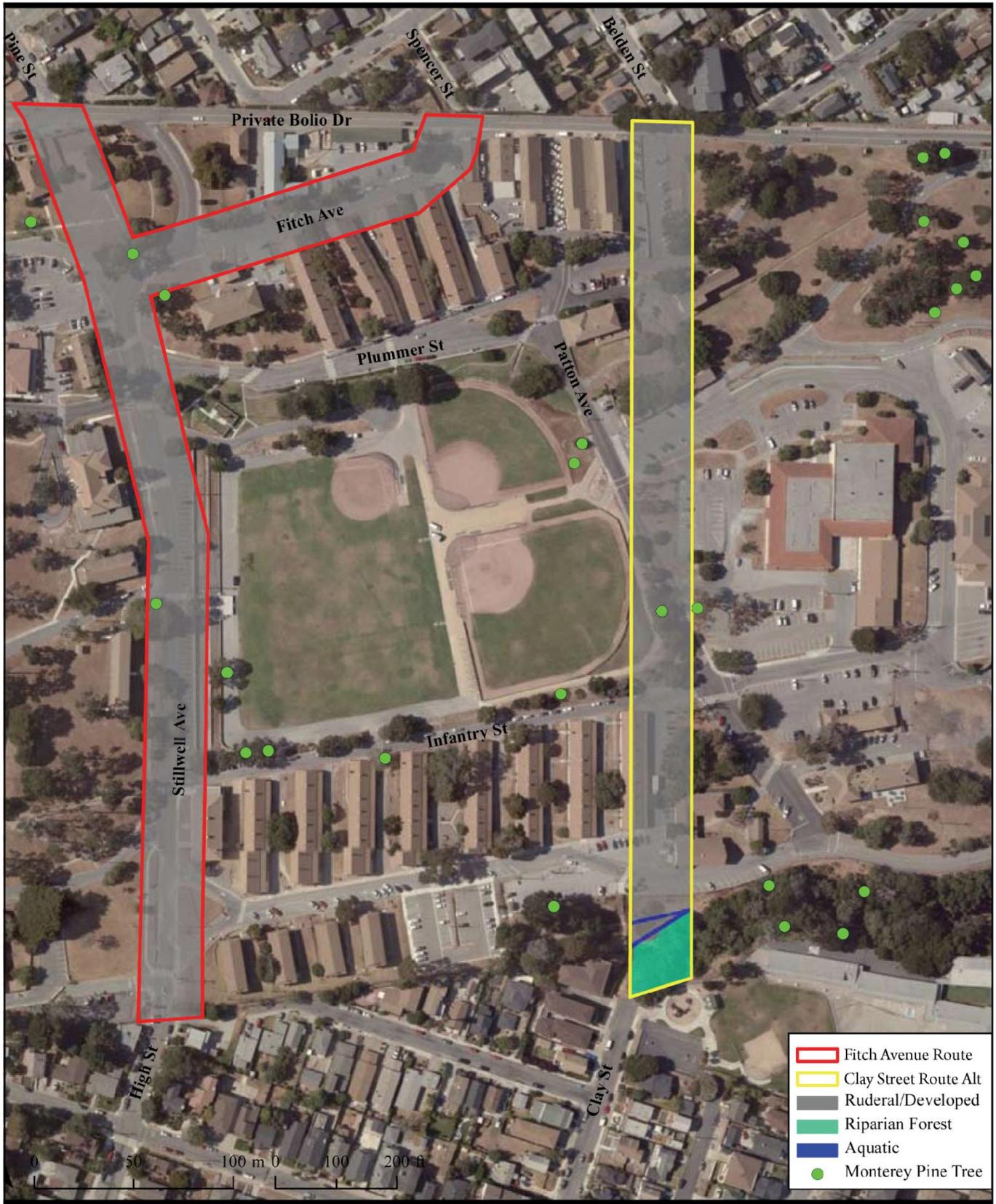
9 **Ruderal/Developed Areas**

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

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

29 **Riparian Forest**

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



BIOLOGICAL RESOURCES MAP

Monterey Bay Regional Water Project - Monterey Presidio Pipeline Crossing

Exhibit 6

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1 **Aquatic**

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

11 **3.3.2.3 Federal Regulatory Setting**

12 **National Environmental Policy Act (NEPA)**

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

18 **Federal Endangered Species Act**

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

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

1 **Migratory Bird Treaty Act**

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

7 **3.3.2.4 State Regulatory Setting**

8 **California Environmental Quality Act**

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

18 **California Endangered Species Act**

19 The California Endangered Species Act was enacted in 1984. The California Code of
20 Regulations (Title 14, Section 670.5) lists animal species considered Endangered or Threatened
21 by the State. Section 2090 of the CESA requires State agencies to comply with endangered
22 species protection and recovery, as well as to promote conservation of these species. Section
23 2080 of the California Fish and Game Code prohibits "take" of any species that the CDFG
24 Commission determines to be an Endangered species or a Threatened species. "Take" is defined
25 in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or
26 attempt to hunt, pursue, catch, capture, or kill." It does not include habitat destruction in the
27 definition of take. A Section 2081 Incidental Take Permit from the CDFG is required to "take"
28 any State-listed species.

29 **California Fish and Game Code**

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

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

1 were created for fish (Section 5515), mammals (Section 4700), amphibians and reptiles (Section
2 5050), and birds (Section 3511). Most Fully Protected species have also been listed as
3 Threatened or Endangered species under the more recent endangered species laws and
4 regulations. Fully Protected species may not be taken or possessed at any time, and no licenses or
5 permits may be issued for their take except for collecting these species for necessary scientific
6 research and relocation of the bird species for the protection of livestock.

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

12 **Other State Conservation Programs**

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

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

26 **3.3.2.5 Local Regulatory Setting**

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

29 **3.3.2.6 Special-Status Species and Sensitive Habitat**

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

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

6 **Special-Status Plants**

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

20 **Monterey Pine**

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

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

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

37 According to the INRMP, four special-status plant species occur at the Presidio of Monterey:
38 Monterey pine (CNPS List 1B), Hooker’s Manzanita (*Arctostaphylos hookeri* ssp. *hookeri*)
39 (CNPS List 1B and SAR), small-leaved lomatium (*Lomatium parvifolium*) (CNPS List 4), and
40 Yadon’s piperia (aka Yadon’s rein orchid [*Piperia yadonii*] (Federally-endangered and CNPS
41 1B) (U.S. Army, 1995(d)). The INRMP also notes that the Monterey pine, historically, was the

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

5 **Special-Status Wildlife**

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

16 ***Monterey Dusky-footed Woodrat***

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

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

32 ***Nesting Raptors and Migratory Bird Species***

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

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

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

8 According to the INRMP, during special-status wildlife species surveys conducted at the
9 Presidio of Monterey in 1994 and 1995, a sharp-shinned hawk (*Accipiter striatus*) was observed
10 at the Huckleberry Hill Preserve on December 1, 1994, and one was observed again on May 4,
11 1995, at the same location (U.S. Army, 1995d). The sharp-shinned hawk is considered a species
12 of special concern by the CDFG. It is primarily found in riparian forests, conifer forests, and oak
13 woodlands. The observed bird(s) likely used the Presidio of Monterey for foraging. Monterey
14 pine forest at the Presidio of Monterey is considered potential nesting habitat; however, no nests,
15 pellets, droppings, or other evidence of breeding or frequent use were observed (U.S. Army,
16 1995d).

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

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

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

36 **Sensitive Habitat**

37 ***Riparian Forest***

38 Riparian habitat (0.21 acre), as identified above in the habitat descriptions, is present within the
39 Clay Street Route. This habitat is considered a sensitive habitat and is regulated under Sections
40 1600-1616 of the California Fish and Game Code.

1 **Jurisdictional Waters**

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

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

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

15 **3.4 Cultural Resources**

16 **3.4.1 Introduction**

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

20 **3.4.2 Environmental Setting**

21 The Proposed Action would occur within the Presidio of Monterey Historic District which is
22 eligible for inclusion in the NRHP. The current study area is located within the American Period
23 Presidio of Monterey, west of NRHP listed site El Castillo (CA-MNT-101/H) and Fisherman’s
24 Wharf. The Cultural Resources Assessment identifies cultural resources within a study area
25 much larger than the APE and also includes known resources within .25 miles of the study area
26 (refer to Table 3.4-1, *Archaeological Studies within the Presidio of Monterey Study Area*, Table
27 3.4-2, *Previously Identified Cultural Resources within Presidio of Monterey Study Area and*
28 *APE*, Table 3.4-3, *Previously Identified Cultural Resources within ¼-Mile Record Search*
29 *Radius*, Exhibit 3, *Proposed Action and Clay Street Route Alternative Alignments*, and Exhibit 5,
30 *Current Alternative Pipeline Route Locations*).

31 **3.4.3 Regional Cultural Setting/Ethnography**

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

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

10 **3.4.3.1 Study Area Background**

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

21 **3.4.3.2 Archival Research**

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

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

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

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

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

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

10 Historic-era structures and buildings outside the Presidio of Monterey study area were not
11 included in the review conducted for the Proposed Action. The Proposed Action and Clay Street
12 Route Alternative would remain within existing street right-of-ways and would not be located
13 near historic-era structures. It should be noted however that under the Proposed Action, High
14 Street Route exiting the Presidio of Monterey at Pine Street the route would cross between two
15 historical buildings. Within the study area, the Historic Properties Directory and the Presidio of
16 Monterey Historic District Map revealed 34 historic-era structures, buildings, and one parade
17 ground adjacent to the alternative pipeline routes. Twenty-seven of these buildings or structures
18 are listed as contributing elements to the Presidio of Monterey Historic District. In addition to
19 record search data cited above, historic-era maps including the 1869 and 1890 “Plats of the City
20 Lands of Monterey” and the 1913 and 1947 U.S. Geological Survey (USGS) Monterey
21 quadrangles also were inspected (U.S. District Court 1869, 1890; U.S. Geological Survey 1913,
22 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

1 **3.4.4 Site Cultural Setting**

2 Based on a review of previous studies, it appears that the Presidio of Monterey was intensively
3 surveyed in 1980 (Study S-3633) in ten meter intervals, except for fenced back yards (Zahniser
4 and Roberts 1980:13). The Presidio of Monterey study area appears to have been fully surveyed
5 at that time, and sites CA-MNT-15, CA-MNT-101, CA-MNT-108, CA-MNT-697, CA-MNT-
6 930, CA-MNT-931, and CA-MNT-932 were identified and recorded (Zahniser and Roberts
7 1980). The 2009 Cal-Am Coastal Water Project survey also included the intensive resurvey of
8 the eastern portion of the study area (Jones and Holson 2009).

9 **3.4.5 Proposed Pipeline Route Alternatives Analyzed**

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

16 **3.4.5.1 Proposed Action**

17 The Route 1A-High Street corridor within the Presidio of Monterey is almost entirely within the
18 Stillwell Avenue alignment. Under the Proposed Action and preferred alignment along High
19 Street and then turning onto Fitch Avenue, the corridor is also paved, refer to Exhibit 3,
20 *Proposed Action and Clay Street Route Alternative Alignments*, and Exhibit 5, *Current*
21 *Alternative Pipeline Route Locations and APE*.

22 **3.4.5.2 Clay Street Route Alternative**

23 Most of the Route 2A-Clay Street bore alignment within the Presidio of Monterey also lies under
24 paved roadway. The two unpaved areas along the Route 2A-Clay Street alignment are the
25 segment between Kit Carson Road and Plummer Street and an area southeast of the Kit Carson
26 Road and Patton Avenue intersection adjacent to a parking lot. Archaeological monitoring by
27 Pacific Legacy, Inc., staff of sewer repairs at the east end of Building 263 and between Buildings
28 254 and 257 suggest that the segment of the current Route 2A-Clay Street alignment between Kit
29 Carson Road and Plummer Street does not contain intact prehistoric or historic-era deposits. A
30 trench between Buildings 254 and 257 contained no cultural material to a depth of one foot. The
31 3 to 5-foot deep trench east of Building 263 exhibited isolated historic-era materials and a lens of
32 redeposited prehistoric midden in a fill-dirt context, but did not reveal intact site deposits (Reese
33 2008c:2-3). The unpaved area southeast of the Kit Carson-Patton intersection was checked
34 during the current metal-detection program and was found to consist of decomposing granite
35 with little or no topsoil present. No surface cultural materials were observed at that location.

1 **3.4.6 Regulatory Setting**

2 **3.4.6.1 National Historic Preservation Act**

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

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

24 **3.4.6.2 Historic Sites Act of 1935**

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

32 **3.4.6.3 Archaeological and Historic Preservation Act of 1974**

33 This act, also called the Moss-Bennett Act, applies to most federal construction projects. It
34 requires the federal agency to notify the Secretary of the Interior if a project threatens the loss or
35 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

1 **3.4.6.4 Archaeological Resources Protection Act of 1979**

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

5 **3.5 Energy**

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

15 **3.6 Environmental Justice**

16 **3.6.1 Introduction**

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

26 The *Final Guidance For Incorporating Environmental Justice Concerns in EPA's NEPA*
27 *Compliance Analyses* (April 1998) states a minority or low-income population is considered
28 substantial when more than 50 percent of the affected population are minority and/or low-
29 income, or when the affected population has a minority or low-income percentage that is
30 meaningfully greater than the percentage of minority or low-income people in the general
31 population, or other appropriate unit of geographic analysis. The two basic steps in an
32 environmental justice analysis include the assessment of: (1) whether the potentially affected
33 community has a substantial minority population, low-income population, or Indian tribe; and (2)
34 whether the environmental impacts are likely to fall disproportionately on an identified minority
35 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.

1 **3.6.2 Minority and Poverty Populations in the Project Area**

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

17 **Table 3.7-1**
18 **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

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

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

1 **Table 3.7-2**
 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

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

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

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

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

21 3.7.2 Seismicity

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

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

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

3 **3.8 Hazards and Hazardous Materials**

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

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

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

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

1 **3.9 Hydrology and Water Quality**

2 **3.9.1 Local Hydrology**

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

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

25 **3.10 Indian Trust Assets**

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

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

33 **3.11 Land Use**

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

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

3 **3.12 Noise**

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

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

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

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

31 **3.12.1 Community Noise Equivalent Level (CNEL)**

32 The predominant community noise rating scale used in California for land use compatibility
33 assessments is the community noise equivalent level (CNEL). The CNEL reading represents the
34 average of 24 hourly readings of equivalent sound levels (Leq) based on an A-weighted decibel
35 and adjusted upward to account for increased noise sensitivity in the evening and at night. These
36 adjustments are +5 dBA for the evening (7:00 PM to 10:00 PM) and +10 dBA for the night
37 (10:00 PM to 7:00 AM). CNEL may be indicated by “dBA CNEL” or just “CNEL.”

1 **3.12.2 Average Noise Level (Leq)**

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

6 **3.12.3 Day Night Average (Ldn)**

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

14 **3.12.4 Other Noise Measures**

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

18 **3.12.5 Sensitive Receptors**

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

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

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

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

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

4 **3.12.6 Laws, Ordinances, Regulations, and Standards**

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

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

15 **3.12.7 Significance of Changes in Ambient Noise Levels**

16 A project is considered to have a significant noise impact where it causes an adopted noise
 17 standard to be exceeded for the project site or for adjacent sensitive receptors. In addition to
 18 concerns regarding the absolute noise level that might occur when a new source is introduced
 19 into an area, it is also important to consider the existing ambient noise environment. If the
 20 ambient noise environment is quiet and the new noise source greatly increases the noise
 21 exposure, even though a criterion level might not be exceeded, an impact may occur. Lacking
 22 adopted standards for evaluating such impacts, a general standard for community noise
 23 environments is that a change of over 5 dBA, regardless of the ambient noise level without the
 24 project, is readily noticeable and is therefore considered a significant impact; refer to Table 3.12-
 25 1, *Significance of Changes in Cumulative Noise Exposure*.

26 **Table 3.12-1**
 27 **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.

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

1 **3.13 Public Utilities and Service Systems**

2 **3.13.1 Introduction**

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

8 **3.13.2 Water**

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

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

18 **3.13.3 Wastewater**

19 The majority of the wastewater systems in the project area are maintained and operated by the
20 City of Monterey. The laterals are the exception, being owned and maintained by the POM.
21 Wastewater is carried by the sanitary collection systems of the POM to two lift stations at the
22 north end of the POM. It wastewater is then treated by at the Monterey Regional Water Pollution
23 Control Agency (MRWPCA) wastewater treatment plant. The MRWPCA treats approximately
24 20 million gallons per day (mgd) of raw wastewater flow and currently produces approximately
25 13.6 mgd (15,000 AFY) of recycled water. The plant was constructed with a permitted capacity
26 of 29.6 mgd. Several mgd of capacity are still available to meet future demand, and expansion of
27 the treatment plant is not anticipated to be necessary in the near future.

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

30 **3.13.4 Natural Gas**

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

1 **3.13.5 Electricity**

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

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

11 **3.13.6 Telephone/Communication**

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

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

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

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

31 **3.13.7 Solid Waste**

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

1 County's sewage sludge and is currently in the pilot phase of a sludge composting program. The
2 MRWMD covers a total of 853 square miles and currently serves a population of approximately
3 170,000 people (MRWMD, 2008). Any solid waste generated by project construction or
4 operation would be deposited in the MRWMD landfill or diverted for recycling or reuse at the
5 District's Materials Recovery Facility (MRF). The landfill, MRF, and a transfer station are
6 located at a site in the City of Marina.

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

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

17 **3.14 Socioeconomic Resources**

18 **3.14.1 Introduction**

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

28 **3.14.2 Socioeconomic Demographics**

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

1 **Table 3.14-1**
 2 **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

3 As shown in Table 3.14-2, *Characteristics of Study Area Housing*, below, home ownership rates
 4 vary from 38.5% in the City of Monterey, to a higher rate of 54.6% throughout the County of
 5 Monterey. According to the November 2009 Presidio of Monterey Real Property Master Plan,
 6 the total military population of the Presidio of Monterey including active duty, reserve, and
 7 National Guard is approximately 3,870 persons, with approximately 98 percent of that
 8 population currently enlisted. The civilian workforce is approximately 3,360. Approximately
 9 6,100 family members of active duty personnel live on installation property, with approximately
 10 28,000 military retirees and their families living in the area (Presidio of Monterey 2008). The
 11 majority of the land use activities on the Presidio of Monterey site are associated with
 12 educational activities of the Defense Language Institute, Foreign Language Center (DLIFLC).

13 **Table 3.14-2**
 14 **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

15 Table 3.14-3, *Employment by Industry*, presents a breakdown of employment in different
 16 industry sectors in the County of Monterey, the Seaside-Monterey CCD, and the City of
 17 Monterey in 2000. The categories with the largest number of jobs in the Proposed Action study
 18 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.

1 **Table 3.14-3**
 2 **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

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

8 **Table 3.14-4**
 9 **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

10 **3.15 Traffic**

11 **3.15.1 Introduction**

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

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

3 **3.15.2 Proposed Action**

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

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

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

21 **3.15.3 Clay Street Route Alternative**

22 Alternatively, the Clay Street Route Alternative, located approximately 800 feet east of the
23 Proposed Action route, would install approximately 1,300 LF of pipeline underneath the Presidio
24 of Monterey using trenchless technology. Clay Street is a two-lane road that terminates just
25 south of the Presidio of Monterey's southern boundary, immediately adjacent to Larkin Park;
26 Clay Street is not identified in the City's General Plan Circulation Element in the functional
27 street classifications. This alternative includes construction of a tunnel portal near the
28 playground of Larkin Park. A second portal would be constructed in a parking lot between
29 Plummer Street and Private Bolio Road near and within the Presidio of Monterey's northern
30 property boundary, and conventional trenched construction would resume northward less than
31 100 LF to the property limits/fence line of the Presidio of Monterey and onto Belden Street.
32 Belden Street is a two-lane road that extends from the Presidio of Monterey's northern boundary
33 northward into the City of Monterey, and is not identified in the City's General Plan Circulation
34 Element in the functional street classifications.

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

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

4 **3.16 Water Supply**

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

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

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

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

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

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

7 CAW also operates nine wells in the Laguna Seca subarea. As noted above, wells from this
8 subarea supply several small systems in the Highway 68 corridor east of CAW's main
9 distribution system. CAW is able to provide Carmel River water for fire and emergencies to its
10 Ryan Ranch system in the Laguna Seca subarea via an emergency connection from the Crest
11 Tank. CAW currently has a combined operating yield allocation for its Seaside Basin wells of
12 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.

1 **4.1.2.2 Operation**

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

6 **4.1.2.3 Climate Change and Greenhouse Gas Emissions**

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

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

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

24 **Table 4.1-2**
 25 **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. CO ₂ 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.			

1 **4.1.3 Clay Street Route Alternative**

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

4 **4.2 Biological Resources**

5 **4.2.1 No Action**

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

8 **4.2.2 Proposed Action**

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

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

30 **4.2.3 Clay Street Route Alternative**

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

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

3 **4.3 Cultural Resources**

4 **4.3.1 No Action**

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

7 **4.3.2 Proposed Action**

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

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

19 **4.3.3 Clay Street Route Alternative**

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

27 Although no known cultural resources are within the APE of the alternative route, associated
28 construction activities have the potential to expose unknown subsurface cultural resources and/or
29 affect known historic properties in an unanticipated manner; therefore, all ground disturbing
30 activities will be monitored by a qualified archaeologist (per 36 CFR Part 61). Further
31 discussion of mitigation measures are outlined in Section 6, *List of Environmental Commitments*.
32 Measure CULT-1, CULT-2 and CULT-3 in Section 6 would ensure that effects on inadvertent
33 discoveries are adequately mitigated.

1 **4.4 Energy**

2 **4.4.1 No Action**

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

5 **4.4.2 Proposed Action**

6 **4.4.2.1 Short Term Construction Impacts**

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

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

30 **4.4.2.2 Long Term Operational Impacts**

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

33 **4.4.3 Clay Street Route Alternative**

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

1 **4.5 Environmental Justice**

2 **4.5.1 No Action**

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

5 **4.5.2 Proposed Action**

6 **4.5.2.1 Low Income**

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

10 **4.5.2.2 Minority**

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

14 **4.5.3 Clay Street Route Alternative**

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

18 **4.6 Geology and Soils**

19 **4.6.1 No Action**

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

22 **4.6.2 Proposed Action**

23 **4.6.2.1 Geology**

24 Construction of the Monterey Presidio Pipeline may be subject to seismic hazards, such as high
25 ground accelerations, ground shaking, and liquefaction. In addition, the Proposed Action could
26 be exposed to intense ground shaking associated with potential earthquakes from nearby faults.
27 In addition to implementation of Minimization Measures GEO-1, GEO 2, and GEO-3 (refer to
28 Section 6, *List of Environmental Commitments*), the Monterey Presidio Pipeline would be
29 engineered, designed, and constructed utilizing methods that provide the least susceptibility to
30 effects of seismic hazards, and no adverse impacts have been identified.

1 **4.6.2.2 Soils**

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

13 **Typical BMPs**

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

23 **4.6.3 Clay Street Route Alternative**

24 Potential geology and soils impacts related to the Clay Street Route Alternative would be similar
25 to the Proposed Action, as discussed in Section 4.6.2, *Proposed Action*, and would be minimized
26 with the incorporation of the same BMPs provided for the Proposed Action, also listed in Section
27 4.6.2, *Proposed Action*.

28 **4.7 Hazards and Hazardous Materials**

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

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

1 **4.7.1 No Action Alternative**

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

4 **4.7.2 Proposed Action**

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

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

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

26 **4.7.3 Clay Street Route Alternative**

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

32 **4.8 Hydrology and Water Quality¹³**

33 **4.8.1 No Action Alternative**

34 The No Action Alternative would not result in any physical changes to the project site; therefore,
35 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

1 **4.8.2 Proposed Action**

2 **4.8.2.1 Water Quality and Stormwater Drainage**

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

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

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

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

29 **4.8.3 Clay Street Route Alternative**

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

33 **4.9 Indian Trust Assets**

34 **4.9.1 No Action Alternative**

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

1 **4.9.2 Proposed Action**

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

5 **4.9.3 Clay Street Route Alternative**

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

9 **4.10 Land Use**

10 **4.10.1 No Action Alternative**

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

13 **4.10.2 Proposed Action**

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

24 **4.10.3 Clay Street Route Alternative**

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

28 **4.11 Noise**

29 **4.11.1 No Action Alternative**

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

1 **4.11.2 Proposed Action**

2 **4.11.2.1 Construction Noise**

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

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

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

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

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

30 **4.11.2.2 Operational Noise**

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

33 **4.11.3 Clay Street Route Alternative**

34 **4.11.3.1 Construction Noise**

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

1 occurs or if disruption to nearby receptors would be significant during daylight hours. Potential
2 impacts would be reduced to less than significant with the implementation of Minimization
3 Measures NOI-1 through NOI-4. In addition, under the Clay Street Route Alternative, a Noise
4 Control Plan would be developed. The Plan shall identify all feasible noise control procedures
5 that would be implemented during nighttime construction activities. At a minimum, the Plan
6 shall require implementation of Minimization Measures NOI-1 through NOI-4 (refer to Section
7 6, *List of Environmental Commitments*), and the construction contractor shall ensure that noise
8 blankets, or equivalent sound attenuation devices, are used to attenuate stationary drill equipment
9 noise during the Proposed Action development activities that take place during nighttime hours.
10 The Plan shall specify that only development construction equipment that is absolutely required
11 shall be allowed to operate during the nighttime hours.

12 **4.11.3.2 Operational Noise**

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

16 **4.12 Public Utilities and Service Systems**

17 **4.12.1 No Action Alternative**

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

20 **4.12.2 Proposed Action**

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

25 **4.12.2.1 Water**

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

1 **4.12.2.2 Wastewater**

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

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

15 **4.12.2.3 Natural Gas**

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

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

34 **4.12.2.4 Electricity**

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

1 **4.12.2.5 Telephone/Communication Lines**

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

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

11 **4.12.2.6 Solid Waste**

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

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

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

36 **4.12.3 Clay Street Route Alternative**

37 Potential impacts related to Public Utilities and Service Systems associated with the Clay Street
38 Route Alternative would be similar to those associated with the Proposed Action; refer to Section
39 4.12.2, *Proposed Action*.

1 **4.13 Socioeconomic Resources**

2 **4.13.1 No Action Alternative**

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

5 **4.13.2 Proposed Action**

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

12 The Monterey Bay Regional Desalination Project was proposed to comply with SWRCB Order
13 95-10 and the Seaside Groundwater Basin Adjudication, which are specifically directed at
14 reducing diversion of all supplies along the Carmel River, thereby increasing existing water
15 supplies and, thus, helping to alleviate the water supply challenges that face the Monterey
16 Peninsula. Because the Proposed Action would serve to replace the constrained existing supply,
17 it is not anticipated to attribute to growth inducement in the area.

18 **4.13.3 Clay Street Route Alternative**

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

22 **4.14 Traffic**

23 **4.14.1 Introduction**

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

28 **4.14.2 No Action Alternative**

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

31 **4.14.3 Proposed Action**

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

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

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

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

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

26 **4.14.4 Clay Street Route Alternative**

27 Implementation of the Clay Street Route Alternative would also result in temporary construction-
28 related impacts to roadways in the project area; however, since trenchless construction would
29 occur on the portion of the alignment traversing underneath the Presidio of Monterey, traffic
30 impacts to roadways on the Presidio of Monterey would be significantly less than the trenched
31 construction that would occur on the roadway with the Proposed Action. Of the approximate
32 1,300 LF of pipeline that would be required to cross the Presidio of Monterey property, less than
33 100 LF would be constructed using conventional trenching methods. Traffic impacts would be
34 confined mainly to the areas where portals would be constructed, in Larkin Park at the terminus
35 of Clay Street (outside the Presidio of Monterey's southern boundary), and in the parking lot
36 between Plummer Street and Private Bolio Road near and within the Presidio of Monterey's
37 northern property boundary.

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

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

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

9 **4.15 Water Supply**

10 **4.15.1 No Action Alternative**

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

16 **4.15.2 Proposed Action**

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

24 **4.15.3 Clay Street Route Alternative**

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

29 **4.16 Cumulative Impacts**

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

1 **4.16.1 Air Quality**

2 **4.16.1.1 Regional Air Quality**

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

15 **4.16.1.2 Localized Air Quality**

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

21 **4.16.2 Biological Resources**

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

29 **4.16.3 Cultural Resources**

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

1 3001 et seq.; 43 CFR 10). With the implementation of these procedures, cumulative impacts to
2 cultural resources would not be cumulatively considerable.

3 **4.16.4 Noise**

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

9 **4.16.5 Traffic**

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

16 **4.17 Irreversible and Irretrievable Commitment of Resources**

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

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1 Section 5 Consultation and Coordination

2 5.1 Agencies and Persons Consulted

3 5.1.1 Native American Heritage Commission Record Search and Native 4 American Contact

5 On December 6, 2010, Pacific Legacy staff requested a review of the Sacred Lands Inventory at
6 the NAHC specifically for the Presidio of Monterey study area. The review was completed to
7 determine if there were any areas of concern to interested stakeholders, including local Native
8 American groups and individuals, within the Presidio of Monterey study area. A response was
9 received from the NAHC on December 9, 2010, stating that no Native American ethnographic or
10 cultural resources had been identified within the study area. The NAHC provided Pacific Legacy
11 with a list of Native American individuals and organizations that might have knowledge of
12 unreported resources or areas of concern (see Appendix A of the Cultural Resource Assessment).
13 The Environmental Division of the U.S. Army Directorate of Public Works at the Presidio of
14 Monterey intends to consult with the Native American community regarding the Presidio of
15 Monterey portion of the project and if time allows, the Army intends to include responses from
16 Native Americans in the final EA. Appendix A, *Native American Heritage Commission Contact*
17 *List*, includes the NAHC contact list of potential Native American stakeholders who may have
18 knowledge of cultural resources in the project area.

19 5.2 Field Reviews of the Sites

20 5.2.1 Biological Resources

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

31 5.2.2 Cultural Resources

32 Based on a review of previous studies, it appears that the Presidio of Monterey was intensively
33 surveyed in 1980 (Study S-3633) in ten meter intervals, except for fenced back yards (Zahniser
34 and Roberts 1980:13). The Presidio of Monterey study area appears to have been fully surveyed
35 at that time, and sites CA-MNT-15, CA-MNT-101/H, CA-MNT-108, CA-MNT-697, CA-MNT-
36 930H, CA-MNT-931, and CA-MNT-932 were identified and recorded (Zahniser and Roberts

1 1980). The 2009 Cal-Am Coastal Water Project survey also included the intensive resurvey of
2 the eastern portion of the study area (Jones and Holson 2009).

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

6 **5.3 Public Involvement**

7 The Draft EA was circulated for public review from, INSERT DATE to INSERT DATE (a 30-
8 day public review period. The Draft EA was available for review at INSERT LOCATION.

9 **5.4 Fish and Wildlife Coordination Act** 10 **(16 USC §651 et seq.)**

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

15 **5.5 Endangered Species Act (16 USC §1531 et seq.)**

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

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

22 **5.6 National Historic Preservation Act (16 USC §470 et seq.)**

23 Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to
24 evaluate the effects of Federal undertakings on historical, archaeological, and cultural resources.
25 Construction activities associated with the Proposed Action will not affect any known cultural
26 resource and the APE is in an area determined to be previously disturbed; therefore, under the
27 Presidio of Monterey's Programmatic Agreement with the Advisory Council on Historic
28 Preservation (ACHP) and the California State Historic Preservation Officer (SHPO), the
29 Proposed Action will be included in an annual report to the ACHP and the SHPO.

30 **5.7 Indian Trust Assets**

31 Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for
32 Federally-recognized Indian tribes or individual Indians. An Indian trust has three components:
33 (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITAs can include land, minerals,
34 Federally-reserved hunting and fishing rights, Federally-reserved water rights, and in-stream

1 flows associated with trust land. Beneficiaries of the Indian trust relationship are federally-
2 recognized Indian tribes with trust land; the United States is the trustee. By definition, ITAs
3 cannot be sold, leased, or otherwise encumbered without approval of the United States. The
4 characterization and application of the United States trust relationship have been defined by case
5 law that interprets Congressional acts, executive orders, and historic treaty provisions.

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

8 **5.8 Migratory Bird Treaty Act (16 USC §703 et seq.)**

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

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

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1 Section 6 List of Environmental Commitments

2 6.1 Introduction

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

6 6.2 Air Quality

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

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

- 1 • limit the area subject to excavation, grading and other construction activity
2 at any one time, and,
- 3 • post a publicly visible sign which specifies the telephone number and
4 person to contact regarding dust complaints (the person shall respond to
5 complaints and take corrective action within 48 hours), and ensure that the
6 phone number of MBUAPCD is visible to ensure compliance with Rule
7 402 (Nuisance).

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

17 **6.3 Biological Resources**

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

33 BIO-2 A qualified biologist shall monitor during initial construction activities
34 (vegetation removal and other ground disturbing activities) to see that individuals
35 are avoided to the maximum extent possible. Trees and vegetation not planned for
36 removal shall be protected during construction to the maximum extent feasible.
37 This shall include the use of exclusionary fencing such as hay bales, orange
38 cyclone fencing, and/or protective wood barriers. Only certified weed-free straw
39 shall be used to avoid the introduction of non-native, invasive species. Protective
40 fencing shall be placed so as to keep construction vehicles and personnel from
41 impacting trees and vegetation adjacent to the Project site outside of work limits.
42 Protective fencing shall be installed outside of the drip-line perimeter or five

1 times the diameter at breast height (dbh), whichever is furthest. At no time shall
2 fencing be installed closer than six feet away from the trunk.

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

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

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

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

27 6.4 Cultural Resources

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

35 CULT-2 If cultural resources are inadvertently discovered, work shall be halted within 30-
36 meters of the find until it can be evaluated by a qualified professional
37 archaeologist and the U.S. Army Cultural Resource Manager. Inadvertent
38 discoveries will require implementation of procedures set forth in the Presidio of

1 Monterey's Integrated Cultural Resource Management Plan (ICRMP) and Army
2 Regulation (AR 200-1), which includes consultation procedures and planning
3 requirements in Section 106 of the National Historic Preservation Act (16 USC.
4 470f; 36 CFR Part 800).

5 CULT-3 If an inadvertent discovery of human remains occurs, work shall cease within 30-
6 meters of the find and immediate notification must be made to the U.S. Army
7 Cultural Resource Manager. The Cultural Resource Manager will preliminarily
8 determine if the remains are from a recent crime scene (50 years old or less) or are
9 of Native American descent and will immediately notify the Installation
10 Commander. If the remains appear recent, a 30-meter radius will be declared off
11 limits to everyone except authorized personnel and the Army's Criminal
12 Investigation Command will assume control of the crime scene. If the remains
13 appear to be of Native American descent, the Monterey County Coroner's Office
14 will make the final determination that the remains are not of recent origin and the
15 California Native American Heritage Commission (NAHC) will be notified.

16 An Inadvertent discovery of human remains, funerary objects, sacred objects, or
17 objects of cultural patrimony will require implementation of procedures set forth
18 in the Presidio of Monterey's Integrated Cultural Resource Management Plan
19 (ICRMP) and Army Regulation (AR 200-1), which includes consultation
20 procedures and planning requirements in Section 106 of the National Historic
21 Preservation Act (16 USC. 470f; 36 CFR Part 800) and Section 3 and Section 5 of
22 the Native American Graves Protection and Repatriation Act (25 USC. 3001 et
23 seq.; 43 CFR 10).

24 **6.5 Geology and Soils**

25 GEO-1 To minimize the potential effects from strong seismic ground shaking on project
26 components, a project-specific geotechnical analysis shall be performed by a
27 registered professional engineer with geotechnical expertise prior to the
28 development of project level plans. The recommendations of the geotechnical
29 analysis shall be incorporated into project plans and implemented during
30 construction, as appropriate.

31 GEO-2 The engineer shall develop project level plans based upon and in response to the
32 observations and recommendations made in the project-specific geotechnical
33 analysis.

34 GEO-3 To minimize potential soil erosion impacts, the project will implement the
35 following typical BMPs:

- 36 • Regularly water the construction site.
- 37 • Apply erosion control measures, such as mulch and fiber rolls for erosion
38 prevention, if necessary.

- 1 • Use grading and landscaping methods that lower the potential for
2 downstream sedimentation.
- 3 • Ensure that structural erosion and sediment transport control measures are
4 ready for implementation prior to the onset of the first major storm of the
5 season.
- 6 • Trap sediment before it leaves the site with such techniques as sediment
7 ponds, straw bales, gravel bags, or silt fences.

8 **6.6 Hazards and Hazardous Waste**

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

13 **6.7 Hydrology and Water Quality**

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

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

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

- 26 • Identify the products used and/or expected to be used and the end products
27 that are produced and/or expected to be produced. This does not include
28 materials and equipment that are designed to be outdoors and exposed to
29 environmental conditions (i.e. poles, equipment pads, cabinets,
30 conductors, insulators, bricks, etc.).
- 31 • Cover and berm loose stockpiled construction materials that are not
32 actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated
33 lime, etc.).
- 34 • Store chemicals in watertight containers (with appropriate secondary
35 containment to prevent any spillage or leakage) or in a storage shed
36 (completely enclosed).

- 1 • Minimize exposure of construction materials to precipitation (not
2 applicable to materials designed to be outdoors and exposed to the
3 environment).
- 4 • Implement BMPs to control the offsite tracking of loose construction and
5 landscape materials.
- 6 • As required by the Construction Stormwater General Permit, at a
7 minimum, the BMPs related to vehicle storage and maintenance, which, at
8 a minimum, shall consist of the following:
 - 9 - Prevent oil, grease, or fuel from leaking into the ground, storm drains
10 or surface waters.
 - 11 - Implement appropriate BMPs whenever equipment or vehicles are
12 fueled, maintained, or stored.
 - 13 - Clean leaks immediately and dispose of leaked materials properly.
- 14 • Linear Underground/Overhead Project (LUP) dischargers shall implement
15 good housekeeping for landscape materials, which, at a minimum, shall
16 consist of the following:
 - 17 - Contain stockpiled materials such as mulches and topsoil when they
18 are not actively being used.
 - 19 - Contain fertilizers and other landscape materials when they are not
20 actively being used.
 - 21 - Discontinue the application of any erodible landscape material at least
22 two days before a forecasted rain event or during periods of
23 precipitation.
 - 24 - Apply erodible landscape material at quantities and application rates
25 according to manufacture recommendations or based on written
26 specifications by knowledgeable and experienced field personnel.
 - 27 - Stack erodible landscape material on pallets and cover or store such
28 materials when not being used or applied.

29 **6.8 Noise**

- 30 NOI-1 The contractor shall assure that construction equipment powered by gasoline or
31 diesel engines have sound control devices at least as effective as those provided
32 by the original equipment manufacturer. No equipment shall be permitted to have
33 an unmuffled exhaust.

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

3 **Clay Street Route Alternative**

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

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

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

24 **6.9 Traffic**

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

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1 Section 7 List of Preparers and Reviewers

2 7.1 List of Preparers

3 7.1.1 RBF Consulting, EA Preparers

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5 Lorraine Ahlquist, Project Manager, Environmental Services
6 Monica Kling, Environmental Analyst
7 Renee Randolph, Environmental Planner
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9 Hilary Potter, Administrative Assistant

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13 Lorrie Madison, U.S. Army Presidio of Monterey, DPW Natural Resources Manager
14 Laura Prishmont Quimby, U.S. Army Presidio of Monterey, DPW Cultural Resource Manager
15 Bob Guidi, U.S. Army Presidio of Monterey, DPW Community Planner
16 Jeffrey DeMayo, U.S. Army Presidio of Monterey
17 Telecommunications Manager
18 Christina Spang, U.S. Army Presidio of Monterey
19 Public Utilities Specialist
20 (List of Reviewers to be completed after review)

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1 **Appendix A**

2 **Native American Heritage Commission Contact List**