



**US Army Corps  
of Engineers®**



# **SESPE CREEK LEVEE IMPROVEMENTS PROJECT**

## **DRAFT FINDING OF NO SIGNIFICANT IMPACT & ENVIRONMENTAL ASSESSMENT AND MITIGATED NEGATIVE DECLARATION**

*Prepared by:*

**VENTURA COUNTY  
WATERSHED PROTECTION DISTRICT  
FOR THE  
U.S. ARMY CORPS OF ENGINEERS  
LOS ANGELES DISTRICT**

PO Box 532711  
Los Angeles, CA 90053-2325

**April 2013**

# DRAFT FINDING OF NO SIGNIFICANT IMPACT

## Sespe Creek Levee Improvements Project Ventura County, California

I have reviewed the Environmental Assessment (EA) that has been prepared for the Sespe Creek Levee Improvements Project (Section 408 Proposal, or Project) located in Ventura County, California. The Ventura County Watershed Protection District (VCWPD), as the local lead agency, is proposing to construct improvements to the existing Sespe Creek (SC-2) Levee system. The EA has been prepared in compliance with applicable Federal laws, Executive Orders, and regulations and policies of the U.S. Army Corps of Engineers (Corps). The EA analyzes the impacts of the proposed alternatives on the environmental and human resources in and adjacent to the area of the Section 408 Proposal.

Under the No Action Alternative (Alternative 1), no upgrades to the existing Sespe Creek (SC-2) Levee system would occur. As a result of the No Action Alternative, the existing SC-2 Levee System would not provide a 100-year level of flood risk management (0.1 level of exceedance), as required by 44 CFR 65.10 and the structural and non-structural deficiencies identified in the Corps' 2010 Periodic Inspection Report for the SC-2 Levee would not be corrected. The Federal Emergency Management Agency (FEMA) would not accredit the levee system. Flood insurance would need to be purchased by owners within the Special Flood Hazard Areas. The No Action Alternative would not meet the purpose and need of the Section 408 Proposal, although it was carried forward in this EA analysis for comparison purposes.

The Preferred Alternative (Alternative 2 - Earthen Fill/Retaining Wall Hybrid Alternative) includes the following components: (1) raising the existing SC-2 Levee height by one to six feet along an approximately 1,543-foot segment between Old Telegraph Road and State Route (SR) 126 by adding earthen fill on the landward side of the existing levee with rock slope protection on the riverward side of the added fill slope; (2) adding a 321-foot-long retaining wall along the landward side of a portion of the levee by two residences located at the end of Robin Court in the City of Fillmore; (3) installing a soil cement protective pad, gravel toe drains, weighted filters, and vegetation root barrier to protect the integrity of the levee structure and address seepage issues; (4) adding two new access ramps to the levee (at Shiells Park and VCWPD stockpile property by SR 126); (5) adding a new (replacement) turnout, conforming to Corps specifications, at the top of the levee on the riverward side near the new pedestrian bike path off Mallard Street; and (6) correcting design deficiencies identified in the 2010 Periodic Inspection Report of the SC-2 Levee including: removal of vegetation from the 15-foot vegetation free zone, removal of three existing unpermitted turnouts, closure of illegal access points, and establishment of a formal pedestrian access to the Sespe Creek Bike Trail from Mallard Court. With the implementation of the environmental commitments identified in Chapter 4.0, during construction of the Section 408 Proposal, all potential impacts to environmental and human resources in and adjacent to the project area would be reduced to less than significant.

The Preferred Alternative (Alternative 2) would combine the simplicity of earthen fill construction with a relatively short section of retaining wall to avoid encroachment and

acquisition of residential properties. The Preferred Alternative (Alternative 2) would meet the purpose and need for the Section 408 Proposal by providing effective flood risk management, providing the most cost effective solution, correcting identified deficiencies, and resulting in the least environmental impacts.

I have determined that implementation of the Preferred Alternative with the incorporation of the environmental commitments identified in Chapter 4.0 of this EA is in compliance with Section 106 of the National Historic Preservation Act (36 CFR 800), the Endangered Species Act, the Migratory Bird Treaty Act, and other Federal laws, regulations, and Executive Orders as described in Chapter 5.0 of this EA.

I have considered the available information contained in this EA for the Section 408 Proposal, and it is my determination that there are no significant adverse impacts on the quality of human environment resulting from the approval of the Preferred Alternative. There are no unresolved environmental issues. Preparation of an Environmental Impact Statement (EIS), therefore, is not required.

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Date

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R. Mark Toy, P. E.  
Colonel, US Army  
Commander and District Engineer

## COVER SHEET

### Sespe Creek Levee Improvements Project Environmental Assessment

Ventura County, California

The responsible lead Federal agency for this study is the U.S. Army Corps of Engineers (Corps). This report is the Sespe Creek Levee Improvements Project Environmental Assessment (EA) complying with requirements of the Corps and the National Environmental Policy Act (NEPA), and is intended to reduce duplication and paperwork.

Abstract: The Ventura County Watershed Protection District (VCWPD) has submitted permit applications requesting the Corps' approval to raise the existing Sespe Creek (SC-2) Levee and correct deficiencies identified in the 2010 Periodic Inspection Report of the SC-2 Levee. This EA analyzes the potential environmental impacts of modifying the SC-2 Levee and provides sufficient information on effects of the Section 408 Proposal, as well as the No Action Alternative, which would result in no upgrades to the existing SC-2 Levee system.

The SC-2 Levee is a 1.1-mile section of the Sespe Creek Levee system located between Old Telegraph Road and State Route (SR) 126, near the City of Fillmore in Ventura County, California. The purpose of upgrading the SC-2 Levee is to facilitate Federal Emergency Management Agency (FEMA) certification by implementing structural improvements to ensure that the SC-2 Levee is capable of withstanding 100-year storm flows, and to achieve compliance with 44 CFR 65.10, as well as to eliminate deficiencies identified the 2010 Periodic Inspection Report of the SC-2 Levee.

The No Action Alternative (Alternative 1) is defined as no upgrades to the existing SC-2 Levee. As a result, the existing SC-2 Levee would not provide a 100-year level of flood risk management (0.1 level of exceedance), and the existing deficiencies would not be corrected. FEMA would not accredit the levee system and flood insurance would need to be purchased by owners within the Special Flood Hazard Areas. The action alternatives, including the Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2), Earthen Fill on Landward Side Alternative (Alternative 3), and Retaining Wall on Landward Side Alternative (Alternative 4) provide various design alternatives for improving the SC-2 Levee. All action alternatives meet the purpose and need for the Section 408 Proposal.

The Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 - Preferred Alternative) would combine the simplicity of earthen fill construction with a short section of retaining wall to avoid encroachment and acquisition of residential properties. This alternative would meet the purpose and need for the Section 408 Proposal by providing effective flood risk management, providing the most cost effective solution, and resulting in the least environmental impacts with implementation of the measures described in Chapter 4.0, Environmental Commitments.

This Draft EA will be provided for agency and public review to solicit input on the Section 408 Proposal and will be made available for 30 days. Comments received will be considered in determining whether an Environmental Impact Statement (EIS) will be required or whether a Finding of No Significant Impact (FONSI) can be issued.

**Comments should be received no later than close of business on May 31, 2013. Please send written comments to:**

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**DRAFT ENVIRONMENTAL ASSESSMENT  
AND MITIGATED NEGATIVE DECLARATION  
FOR THE  
SESPE CREEK LEVEE IMPROVEMENTS PROJECT**

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## 1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared by the United States Army Corps of Engineers (Corps) to comply with the National Environmental Policy Act (NEPA) (42 United States Code 4321 et seq.), Council on Environmental Quality regulations published at 42 Code of Federal Regulations (CFR) Part 1500, other environmental laws, Executive Orders, and Corps' regulations. The purpose of the EA is to provide sufficient information on the existing environmental conditions within the area of the Section 408 Proposal and the potential environmental effects of the No-Action Alternative and various alternative actions so decision makers can determine the need to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

For the purposes of this document and pursuant to guidelines for implementing NEPA, the baseline used for the impact analysis reflects conditions at the time of the preparation of this report. No other Federal agency has been designated as a cooperating agency (40 CFR §1501.6).

### 1.1 Section 408 Proposal

The Corps is in receipt of a permit application to modify/alter a Corps-built facility, the Sespe Creek Levee (Project), pursuant to 33 USC Section 408, Section 14 of the Rivers and Harbors Act of 1899. The permit application, hereinafter referred to as the Section 408 Proposal, is to alter/modify the Project in a manner that would provide 100-year level of flood risk management (0.1 level of exceedance) to approximately 1,000 properties that may be affected by the 100-year storm event on the land side of the levees, as shown on the Federal Emergency Management Agency's (FEMA) Digital Flood Insurance Rate Maps (DFIRMs).

### 1.2 Section 408 Proposal Area

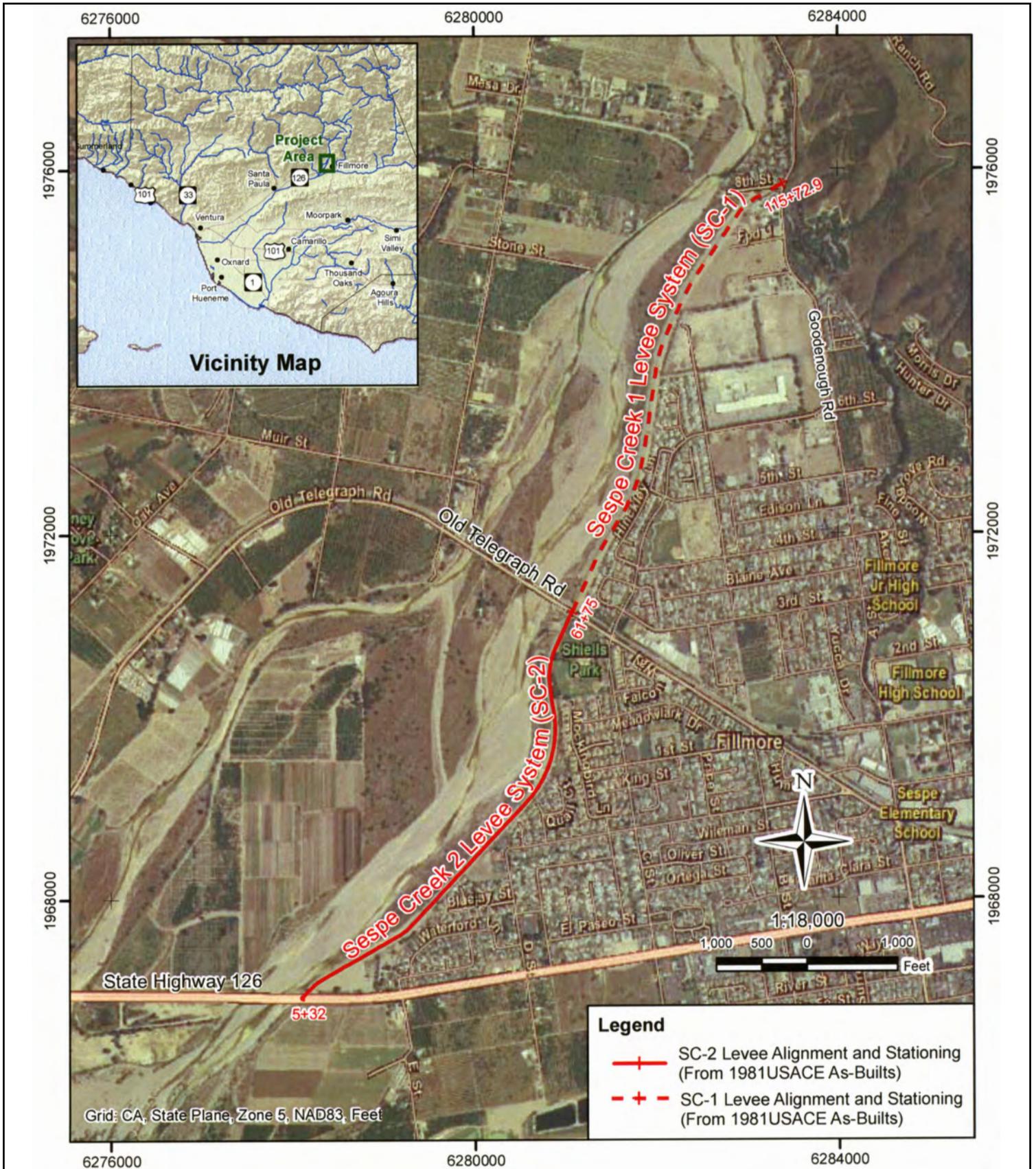
The Project and Section 408 Proposal are located along Sespe Creek near the City of Fillmore in Ventura County, California. Proposed activities would occur along the 1.1-mile section of the Sespe Creek Levee system, known as Sespe Creek 2 (SC-2), between Old Telegraph Road and State Route (SR) 126 (See Figure 1-1).

Sespe Creek drains 260 square miles of the Santa Clara River Watershed and flows 60 miles from its headwaters at the western edge of Ventura County downstream to its confluence with Santa Clara River near the City of Fillmore. Upstream of Fillmore, the stream leaves the steep canyons and flows through the Section 408 Proposal area over a broad alluvial fan. A variety of factors contribute to intense, debris-laden floods in Sespe Creek, including: high-intensity rainfall during the winter and spring seasons, impervious soils, sparse vegetation, and steep gradient on some channels. The City of Fillmore has historically experienced numerous flooding events in Sespe Creek (1938, 1969, and 1978), resulting in millions of dollars in damage and loss of life. (RBF, 2010)

### 1.3 Authority

The Project is a Federally-funded project and was constructed under the guidelines of the Small Flood Control Projects Authority, Section 205 of the Flood Control Act of 1948 (Public Law 80-858), as amended (Fugro, 2011). The SC-2 Levee was constructed in two parts: the downstream section between SR 126 (Station 5+32) and just south of Old Telegraph Road (Station 60+50) was constructed by the Corps, and was completed in April 1983; the approximately 125-foot-long upstream section between Station 60+50 and Old Telegraph Road (Station 61+75) was constructed by the Ventura County Watershed Protection District (VCWPD), and was completed in 1984. The SC-2 Levee is operated and maintained by the VCWPD, which is a branch of the Ventura County Public Works Department.

Sespe Creek Levee Improvements Project



Source: Fugro (Fugro West, Inc.), 2011. U.S. Army Corps of Engineers  
 Periodic Levee Inspections: Sespe Creek 2 Levee (SC-2). Ventura County, California.  
 Periodic Inspection Report. Submitted April 2011. Date of Inspection: May 24, 2010.

**Figure 1-1**  
**Project Location**

Alterations/modifications to Corps' projects, such as the proposed raising of the SC-2 Levee, require approval from the Corps pursuant to 33 USC Section 408 (Taking possession of, use of, or injury to harbor or river improvements), which requires that any proposed modification to an existing Corps project is permitted by the Secretary of the Army for Civil Works (ASA (CW)). The ASA (CW) has delegated this approval authority to the Chief of Engineers. A detailed technical submittal to the Corps is required for this approval. This EA is prepared to comply with the Corps obligations under NEPA (42 USC Section 4321 et seq).

## 1.4 Background

Since the Project was completed in 1984, the largest flood recorded in this area occurred on January 10, 2005 and reached a peak flow rate of 85,300 cfs. Recent hydraulic analyses indicate that portions of the SC-2 Levee downstream of Old Telegraph Road would be overtopped during a storm event with flow in excess of approximately 100,000 cfs at the confluence of the east-west connector channel and the east branch (VCWPD, 2012a). Key contributing factors to VCWPD's request to modify/alter the Project include: peak flow rates have increased by 35 percent compared to the original levee design; dominant alluvial channel has shifted from the west fork to the east fork of the active streambed; the active channel is subject to resetting<sup>1</sup> after major storm events; and long-term sediment deposition and local erosion have occurred along the levee (VCWPD, 2012a). Additionally, in September of 2006, the sixth largest wildfire event in California history, known as the Day Fire, burned through the Sespe Creek Watershed, consuming vegetation across more than one third of the watershed. In combination with changing hydrology in the watershed over the past decades, the threat of debris flows associated with damage from the Day Fire introduced an urgent need to re-assess the level of flood risk management that the Project provides to the City of Fillmore (RBF, 2010).

### 1.4.1 FEMA Flood Hazard Mapping

FEMA has estimated the boundaries of 100-year floodplains, or Flood Hazard Areas, which are shown on Flood Insurance Rate Maps (FIRMs), produced under the National Flood Insurance Program (NFIP). Each FIRM identifies the predicted area of land anticipated to be inundated during a 100-year storm event, or the storm with a one percent chance of occurring each year. The NFIP, implemented by the Congress of the United States in 1968 through the National Flood Insurance Act of 1968, enables participating communities to purchase flood insurance (FEMA, 2011). As a condition of participation in the NFIP, communities must adopt regulations for floodplain development intended to reduce flood damage.

FEMA requires levee owners to certify that their levees meet the design criteria of the 44 CFR §65.10, which provides the minimum design necessary to "evidence that adequate design and operation and maintenance systems are in place to provide reasonable assurance that protection from the base flood exists." See 44 CFR 65.10 (1986). In order for this Project to be certified by FEMA, evidence must be submitted to demonstrate that the system meets current design, construction, maintenance, and operation standards to provide protection from the 100-year flood (VCWPD, 2012d). If a levee system cannot be certified as providing protection from the 100-year flood, FEMA will not accredit the levee system, and the landward areas of these levee systems will be re-mapped as high-risk areas referred to as Special Flood Hazard Areas (SFHA). Flood insurance would need to be purchased by owners within the SFHA.

The VCWPD submitted a Provisionally Accredited Levee (PAL) request for the entire Project in 2007; FEMA issued a PAL for the SC-1 Levee portion (Goodenough Road to Old Telegraph Road), but denied the PAL request for the SC-2 Levee portion (Old Telegraph Road to SR 126) in June of 2008 (VCWPD, 2012a). The Section 408 Proposal area has since been re-mapped by FEMA and is shown on FIRM number 06111C0643E, Panel 643 of 1275 (FEMA, 2010) (*See Figure 1-2*). This revised

<sup>1</sup> Resetting may involve significant bed aggradation during single floods, accompanied by abrupt changes in the river's course.

FEMA flood hazard mapping shows that the existing SC-2 Levee is not sufficient to prevent development on the landward side of the levee from being inundated during a 100-year flood event, and also shows that the SC-2 Levee is incapable of withstanding the 100-year storm flow in two locations between Old Telegraph Road to the north and SR 126 to the south; these areas would be improved to meet FEMA standards with approval and implementation of the Section 408 Proposal.

In order for the SC-2 Levee to be recognized by FEMA as compliant with the flooding regulations described above, following approval and implementation of the Section 408 Proposal, the VCWPD would be required to submit to FEMA a Letter of Map Revision (LOMR), which is a letter that reflects an official revision to an effective NFIP map. Evidence of adequate design and operation and maintenance systems must also be submitted to FEMA, in order for the improved SC-2 Levee to be recognized by FEMA as adequate to provide protection from the base flood (RBF, 2009).

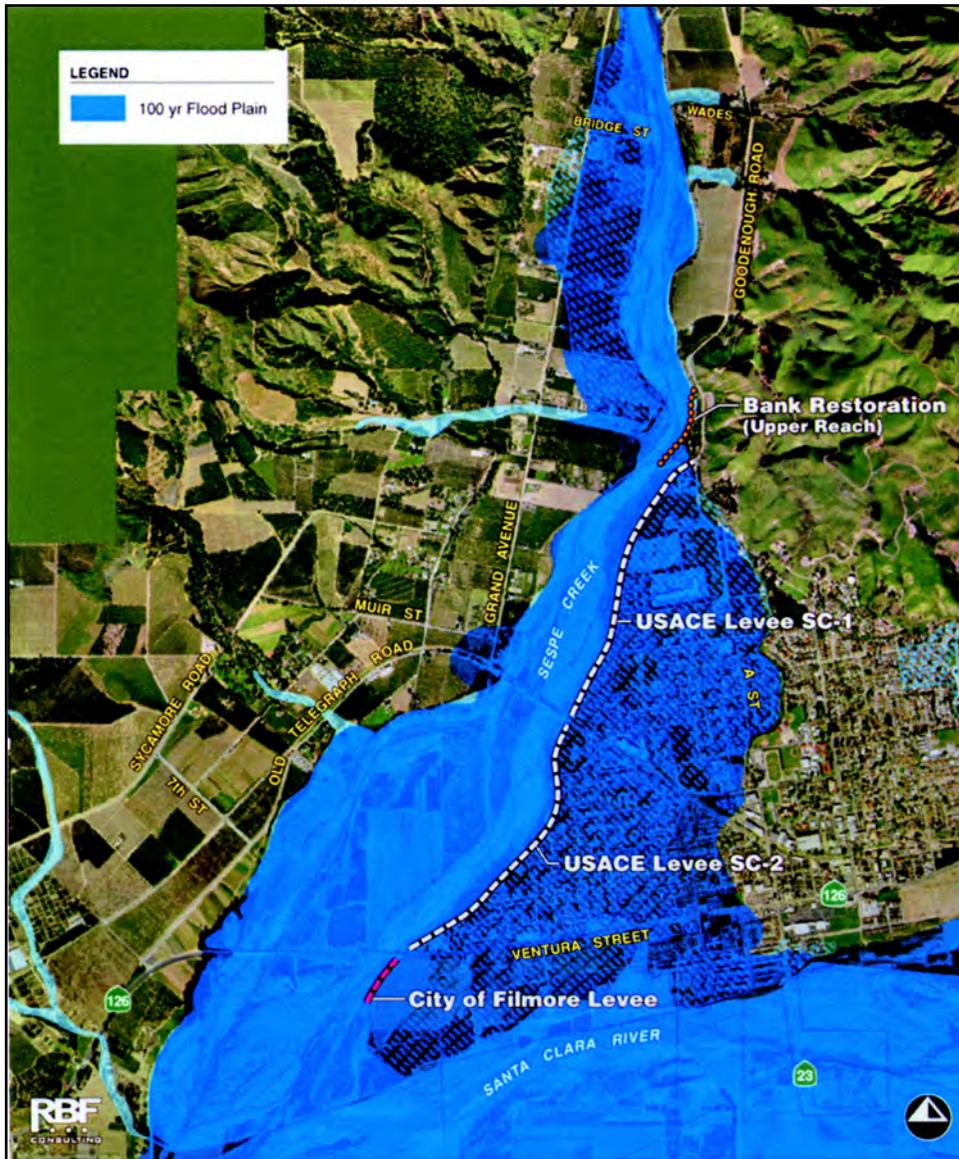
#### **1.4.2 Corps Deficiency Assessment**

In May of 2010, the Corps performed a Periodic Inspection of both the riverward and landward sides of the SC-2 Levee to verify proper operation and maintenance, structural stability, review design criteria, and identify features to monitor over time. This effort did not include levee certification by FEMA, but rather identified deficiencies in the current levee condition which need to be corrected. The Periodic Inspection Report included the rating of each identified deficiency as “Acceptable”, “Minimally Acceptable”, or “Unacceptable”. Detailed descriptions and photographs of all identified deficiencies are included in appendices to the Periodic Levee Inspections Report. Identified deficiencies that were rated either Minimally Acceptable or Unacceptable include: vegetative growth within the Corp’s standard vegetation-free zone (VFZ) of 15 feet from the toe of a levee, unpermitted encroachments within the levee easement, rock revetment displacements, unpermitted side drains and culverts, and obstructed pipe outlets. Each of these deficiencies may pose a threat to the integrity of the levee. (Fugro, 2011)

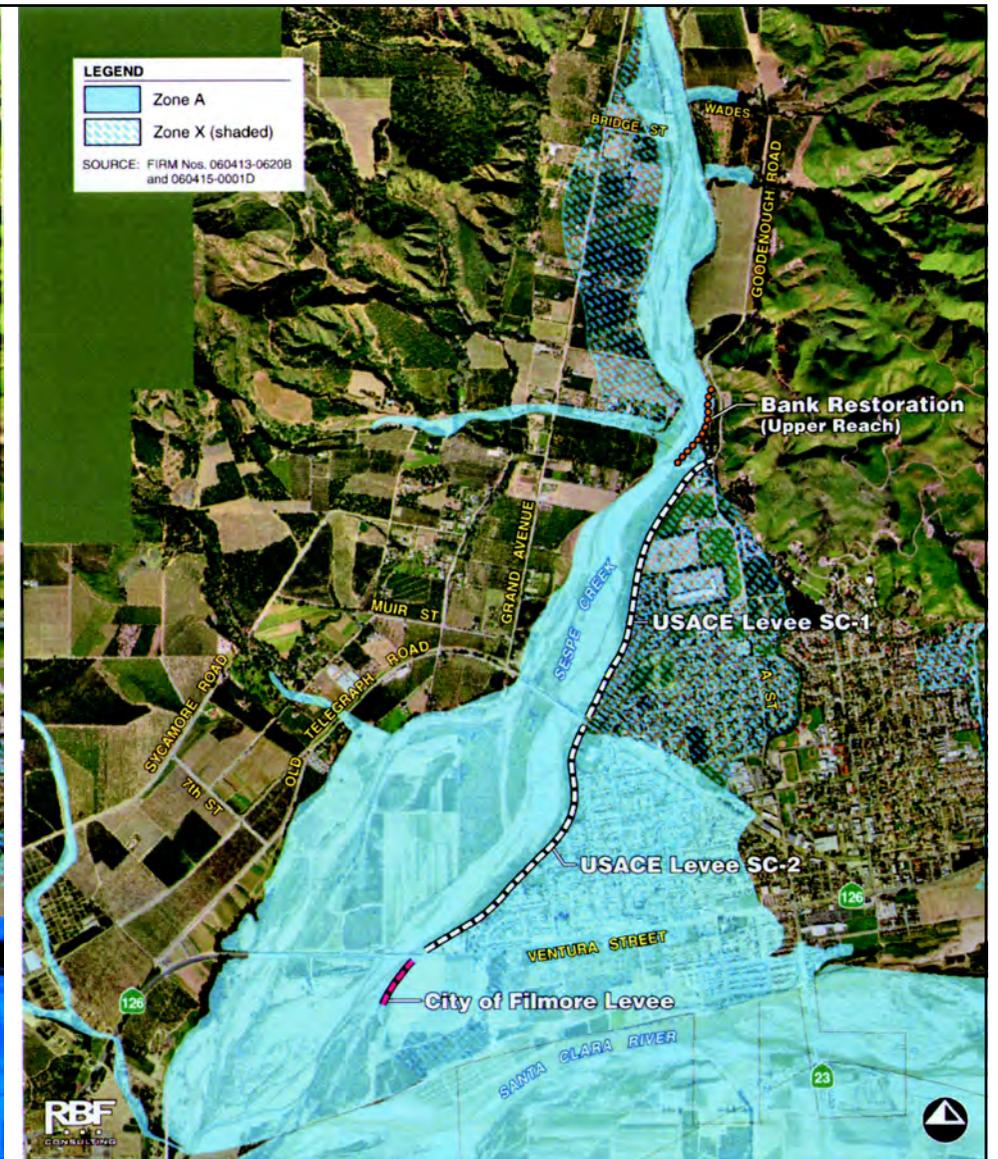
#### **1.5 Purpose and Need**

##### **Public Safety / FEMA Compliance**

The purpose of VCWPD’s Section 408 Proposal is to request approval to implement an alteration or modification that would eliminate structural and non-structural deficiencies as identified along the SC-2 Levee in the Periodic Inspection Report consistent with the design criteria described in 44 CFR 65.10. Specifically, an approved and implemented alteration/modification would need to withstand 0.1 exceedance storm flows and to facilitate FEMA certification to provide eligibility under the NFIP. In the absence of an alteration/ modification, approximately 6,583 people and property valued at approximately \$552,621,000 in the southwestern portion of the City of Fillmore would continue to be at a high risk of flood inundation during large storm events (Fugro, 2011).



2005 Flood Insurance Rate Map



2010 Flood Insurance Rate Map

Figure 1-2  
FEMA-designated Flood Hazard Area

## 2.0 DESCRIPTION OF ALTERNATIVES

In preparing an EA, Federal agencies explore and objectively evaluate a reasonable range of alternatives that could meet the purpose and need for the Proposal. This section describes each of the alternatives considered in detail, including the Corps' preferred alternative and the no action alternative. Alternatives eliminated from further consideration are described here with a brief discussion of the reasons for elimination.

### 2.1 Alternatives Eliminated From Further Consideration

The initial planning study Sespe Creek Hydrology, Hydraulics, and Sedimentation Analysis (RBF, 2010) developed a range of conceptual alternative approaches and solutions as part of the feasibility planning process. The goal of that study was to identify recommended improvements and/or maintenance activities to mitigate the identified problems resulting from flooding, erosion, and sedimentation along the lower reach of Sespe Creek. The objective of the planning process was to conceptually identify the range of potential alternatives that was then screened to the most feasible alternatives.

The initial alternative formulation process provided numerous conceptual approaches that covered a range of potential solutions. These options were developed through consideration of a variety of conventional tools and flood protection techniques. A hierarchy of design components were pieced together to develop alternatives that would provide the desired hydraulic/hydrologic function, considering both non-structural and structural solutions.

Non-structural alternatives that were considered but eliminated are summarized below (PACE, 2012).

- **Sediment Removal and Maintenance Activities.** This alternative includes regular maintenance in the east branch of Sespe Creek to remove sediment and debris for flood risk management, and repair existing flood risk management structures. This alternative would provide some increased flood management by increasing channel capacity and integrity; however, the solution would be temporary because sediment and debris would continue to build up, and more importantly, this solution would be insufficient to meet the required flood risk management goal of providing protection from the 0.1 exceedance level. This alternative also could impact endangered, threatened, and rare species in the vicinity of this Section 408 Proposal. Due to these issues, this alternative would not meet the purpose and need of this Section 408 Proposal.
- **Channel Grading at Upstream Junction.** This alternative includes grading at the initial upstream split flow junction to maintain a greater proportion of flow in the west branch of Sespe Creek. A reduced flow in the east branch would translate to lower water surface elevations and a potential reduction in flood damage along the east bank. However, this alternative would do little to maintain the flow distribution downstream of Old Telegraph Road, and would therefore be insufficient to meet the required flood risk management goal of providing protection from the 0.1 exceedance level. Therefore, this alternative would not meet the purpose and need of this Section 408 Proposal.
- **Island Excavation.** This alternative would lower the elevation of the island area between the east and west branches upstream of SR 126 to promote more communication of flow between the branches, and lower the flood elevation along the east bank levee. Due to the unpredictable nature of flow on an alluvial fan, this alternative would not be a permanent solution for flood risk management and would therefore not meet the purpose and need of this Section 408 Proposal.

- **Eliminate East-West Connection.** This alternative would seek to eliminate the conveyance of flow from the west branch to the east branch downstream of Old Telegraph Road, which would reduce the flow in the east branch. However, as described above, the unpredictable nature of flow on an alluvial fan would prevent this alternative from being a permanent solution for flood risk management and would therefore not meet the purpose and need of this Section 408 Proposal.
- **Flood Insurance.** Under this alternative, existing structures in the floodplain would rely on flood insurance for compensation associated with flood damage resulting from the inability of the existing levee system to withstand the 0.1 exceedance. This alternative would reduce the economic loss associated with a flood event, but would not reduce the level of risk or potential loss of life and therefore does not meet the purpose and need of this Section 408 Proposal.
- **Floodplain Retreat.** Existing structures in the floodplain would be purchased and removed from the floodplain. This would include the purchase of approximately 440 residential units, and 43,700 square feet of commercial properties. This alternative, while removing flood risk to persons and property, would result in unacceptable adverse impacts to the community from a social, economic, and stability standpoint. Therefore, this alternative is eliminated from further consideration as being impracticable and failing to meet the purpose of the Section 408 Proposal.

Structural alternatives that were considered but eliminated are summarized below (PACE, 2012).

- **Modification or Replacement of SR 126 Bridge.** This alternative would either widen or raise the existing bridge structure over the east branch of Sespe Creek to eliminate the backwater effect from the existing structure, reduce water surface elevations adjacent to the deficient levee reaches, and improve the sediment transport capacities. Neither widening nor raising the bridge would meet the flood risk management goals or the purpose and need of this Section 408 Proposal, as widening the bridge would have little impact on sediment transport through the east branch of Sespe Creek, and raising the bridge would not affect sediment transport adjacent to the upper reach of deficient levee.
- **In-Stream Split Flow Structures.** Under this alternative, in-stream structures would be installed to maintain a consistent flow distribution between the east and west branches of Sespe Creek. The structures would be located upstream of Old Telegraph Road at the creek split. These structures would initially balance flow between the branches to their respective capacities, but would do little to maintain the flow distribution downstream of Old Telegraph Road. This alternative would not meet the flood risk management goals of this Section 408 Proposal.
- **In-Stream Debris/Detention Basin.** This alternative would include construction of an in-stream dam structure to capture debris and reduce the peak flow rates during large storm events. The dam would be constructed at the location of the existing gaging station at the downstream end of the gorge. While this alternative would provide the required flood protection, it would not be economically feasible or environmentally acceptable.
- **Channelization.** This alternative would include the construction of a uniform channel section from Goodenough Road to downstream of SR 126. The channel would be 600 feet wide and configured as an earthen soft-bottom with drop structures or a concrete-lined section. Although this alternative could achieve flood risk management goals of the Section 408 Proposal, it would result in significant adverse impacts to the environment and could not be implemented by the Proponent (VCWPD).
- **West Bank Stabilization.** This alternative would include the construction of bank stabilization improvements to control stream migration along the west bank, and provide

flood risk management to existing structures in the 100-year floodplain. While this alternative may provide flood risk management to the limited structures along the west bank of the creek and prevent bank erosion, it would not resolve the flooding and levee deficiency issues along the east bank. This alternative does not meet the purpose and need of the Section 408 Proposal.

- **Modification of the Corps' Levee.** Various design options were considered to raise the levee height in areas of freeboard deficiencies to meet the minimum criteria of 44 CFR §65.10. Options considered include: adding a retaining wall on the top of the levee (riverward side); adding a retaining wall at the edge of the levee roadway (landward side); constructing two retaining walls, one on each side of the levee; and adding earthen fill (riverward side). These design options did not provide the level of flood risk management necessary to meet the purpose and need of this Section 408 Proposal.

## 2.2 Alternatives Considered

### 2.2.1 No Action Alternative (Alternative 1)

As the Federal action agency, the Corps is required to consider the option of “No Action” as one of the alternatives in order to comply with the requirements of the NEPA (*See* 42 CFR §1502.14). The No Action Alternative is the basis for comparison with all other alternatives, as it represents a condition, both current and future, under which nothing would be done to address the identified problems. By comparing the No Action Alternative to each alternative, the advantages and disadvantages of the alternatives may be assessed in relation to current and future “without-project” conditions.

For the purposes of this assessment, the No Action Alternative (Alternative 1) is defined as no upgrades to the existing SC-2 Levee. As a result of the No Action Alternative, the existing SC-2 Levee would not provide protection from the 0.1exceedance level as required by 44 CFR §65.10 and the structural and non-structural deficiencies identified in the 2010 Periodic Inspection Report of the SC-2 Levee would not be corrected. FEMA would not accredit the levee system. The levee systems that were previously shown as providing a sufficient level of flood risk management on a NFIP FIRM would be un-accredited and the landward areas of these levee systems would be re-mapped as high-risk areas referred to as SFHA and properties and persons would continue to be exposed to a high risk of inundation from large storm events (*See* Figure 1-2).

### 2.2.2 Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)

The Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative) consists of improvements along approximately 1.1 miles (5,808 feet) of the SC-2 Levee, between Old Telegraph Road and SR 126 near the City of Fillmore, California, as shown in Figure 2-1. Primary structural elements include raising the levee height by one to six feet along approximately 1,543 feet of the levee and adding a 321-foot-long retaining wall along the landward side of a portion of the levee (*See* Figure 2-1 and Appendix B: Initial Study Figures A-4 and A-5). Alternative 2 also includes correcting existing design deficiencies identified in the 2010 Periodic Inspection Report. Actions included under Alternative 2 are described below.

**Fill Slope** Fill slope would be used to raise the height of the levee to varying degrees along 1,543 feet of the existing levee, as follows: 0.76-foot raise for 205 feet, from just north of Mallard Street to the southern property line of Residence #3; 1.08- to 3.07-foot raise for 321 feet, from the southern property line of Residence #3 to the southern property line of Residence #1;

4.32-foot raise for 652 feet, from the southern property line of Residence #1 to the southern property line of Faith Community Church; and 2.5- to zero-foot raise for 365 feet, from the southern property line of Faith Community Church to Residence #6 at Bluejay Street. All improvements in this area would occur on the top and landward side of the levee.

**Soil Cement Protective Pad** An erosion protection barrier would be installed to protect the integrity of the levee structure in case water overtops the levee, which would only occur if a storm with a magnitude greater than the 100-year storm event were to occur. The soil cement protective pad would be located between the proposed landward retaining wall (see discussion of “Retaining Wall” below) and the existing garden walls. The protective pad would have a width of approximately 15 feet and extend the length of the retaining wall, or 320 feet. A total of 180 cubic yards of cement would be required for the protective pad.

**Gravel Toe Drain** Toe drains would be installed along landside levee toes to address seepage impacts in the vicinity of the levee toe and to ensure long-term steady seepage conditions. In addition, if design flood elevations are heightened in the future, toe drains would aid in seepage collection, or standing water. Toe drains would be installed in three locations (*See* Figure 2-1), situated five feet horizontally into the embankment at the toe, and 18 inches in height. Approximately 1,500 feet of toe drain is required, and an associated 550 cubic yards of gravel would be applied for this purpose. Drain pipe may also be needed to collect seepage from levee landside toe areas; the pipe diameter would be at least six inches.

**Weighted Filter** Weighted filters would be installed along detention basins and low-lying slope toe areas parallel to levee sections, in order to address potentially adverse effects associated with steady seepage conditions. Weighted filters would be installed at three locations (*See* Figure 2-1), and would consist of rock riprap overlying a non-woven textile. Riprap would be classified as “Light Class,” with thickness of two to three feet, and would extend beyond the levee toe to the detention basin slope, at least five feet. Approximately 550 cubic yards of rock would be required for the weighted filters.

**Retaining Wall** A retaining wall made of concrete masonry unit (CMU) would be installed for 321 feet along the landward side of the levee, from the northern property line of Residence #2 to the southern property line of Residence #1. A 36-inch-tall cabled fence consisting of three smooth cables would be placed on top of the retaining wall as a safety feature. The height of the retaining wall would be lower than the existing garden walls along Residence #2 and Residence #1, although the cabled fence would be visible from both residences. Along Residence #2, the total height of the retaining wall would be 7.7 feet, the bottom portion of which would be below grade, and along Residence #1, the total height of the retaining wall would be 5.4 feet, the bottom portion of which would also be below grade. The retaining wall would extend above the levee top slope by one foot and it would taper in height down to the existing levee height at either end. Fencing would be installed at the top of the retaining wall to meet safety requirements.

**Vegetation Root Barrier** A vegetation root barrier would be installed adjacent to Shiells Park for the entire 950 feet that the levee runs along the park. This barrier would be 12 inches wide and four to five feet deep, comprised of either cement slurry, a buried concrete wall, or some other pre-manufactured geosynthetic product, such as interlocking panels made of Polyvinyl Chloride (PVC) or High Density Polyethylene (HDPE).

**Storm Drain Protection** Alternative 2 would not make any changes to an existing storm drain located on the levee-side of the garden wall along Residence #1. During construction of Alternative 2, the garden wall would remain in place, and disturbance of the storm drain feature

would be avoided. By protecting the storm drain in place, it would continue to function towards the purpose of flood risk management during operation of Alternative 2.

**Faith Community Church Easement** Alternative 2 would require an encroachment easement of 1,345 square feet, or 0.03 acre, within the Faith Community Church parcel (Assessor Parcel Number [APN] 046030036), in order to remove the church's garden wall, a portion of the parking lot, and trees on the western portion of the parking lot. In addition, the existing storage structure located between the parking lot and the vacant parcel would need to be moved. The existing garden wall would likely be replaced by a five-foot-tall decorative fence made of tubular steel poles, and situated inside the existing property line. The VCWPD would replace the existing landscaping trees along the property line on a 1:1 ratio with native trees in decorative pots. The VCWPD is coordinating with Faith Community Church regarding the possibility of installing a gate at either end of the church parking lot area in order to provide maintenance access to this portion of the levee. Formal access for maintenance is currently available via Old Telegraph Road to the north and SR 126 to the south. The church property would also provide access to the central portion of the levee.

**Groundwater Well** There is an existing groundwater monitoring well on the SC-2 Levee across from the Faith Community Church property (not within the church property). With implementation of Alternative 2, this monitoring well would be capped and abandoned in-place.

**Sespe Creek Bike Trail Access** Formal trail access in the Section 408 Proposal area is provided at Old Telegraph Road, and at E Street near SR 126. The unauthorized access point at the end of Robin Court would be closed as part of Alternative 2 and a new formal access ramp over the levee would be installed at the end of Mallard Street (*See Appendix B: Initial Study Figure A-6*).

**Vegetation Removal** All vegetation located within the 15-foot landward buffer from the toe of the levee would be removed, where the "toe" is the place where the levee slope meets the ground surface. Tree roots greater than one-half inch in diameter would be removed. Root removal excavations would be filled with compacted fill material. Vegetation to be removed includes 23 mature trees along Shiells Park (*See Appendix B: Initial Study Figure A-7*), ornamental trees outside the property line behind a residence at the end of Quail Court, mature trees along the west side of the Faith Community Church parking lot, and one mature tree at the new vehicle turnout area (see "Unpermitted Encroachments" below). All trees removed as part of Alternative 2, with the exception of those located behind the Quail Court residence, would be replaced with native trees on a 1:1 basis. The VCWPD may request a variance from the guidelines set forth in the Engineering Technical Letter 1110-2-571 (Corps, 2009) to leave encroaching vegetation in place in some instances.

**Unpermitted Encroachments** Unpermitted encroachments along the levee would be corrected as part of Alternative 2, including: a 24-inch diameter storm drain line that runs within 15 feet of the landward side of the levee toe along the downstream portion would be removed (Fugro, 2011); a pedestrian access point at the end of Robin Court would be closed and a new formal access ramp would be installed at the end of Mallard Street (*See Appendix B: Initial Study Figure A-6*). Three vehicle turnout areas along the levee would also be removed. This would include removal of rock and earthwork to expose underlying revetment. Placement of new material would not be required. One new replacement turnout would be constructed to Corps' specifications, located on the riverward side of the levee, where the new pedestrian/bike access path would be configured from the Mallard Street cul-de-sac. The new turnout would not encroach onto the pedestrian/bike path, and would be an area measuring approximately 70 feet by 25 feet beyond the width of the top of the levee. One existing, mature tree would be removed to provide this turnout area, and would be replaced with a native tree (1:1 replacement ratio).



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Figure 2-1  
Project Site Plan

**Access Ramps** Two new vehicle access ramps would be constructed on the landward side of the levee as part of the Alternative 2. One ramp would be located near the southern boundary of Shiells Park (*See* Figure 2-1, as well as Appendix B: Initial Study Figure A-7); this ramp would be 15 feet wide and 120 feet long (new impervious area of 1,800 square feet). The second vehicle access ramp would be located near the VCWPD stockpile property by SR 126 (*See* Figure 2-1); this ramp would be 15 feet wide and 180 feet long (new impervious area of 2,700 square feet).

### 2.2.2.1 Construction

**Schedule** Construction of Alternative 2 would occur over a five- to six-month period, from April 2014 through September 2014. Construction would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday, with no construction on weekends or holidays. No daytime or nighttime lighting would be required). Appendix B: Initial Study Table A-1 reflects an accelerated three-month construction period in order to characterize the worst-case scenario for potential impacts to air quality and traffic.

**Staging Areas** The existing VCWPD stockpile area located at the southeast intersection of the levee and SR 126 would be used for staging of construction vehicles, equipment, and materials. This area is already disturbed, and currently used as an interior drainage basin and stockpile area. Another potential staging area for the Section 408 Proposal is a 0.12-acre parcel (APN 046029078) owned by the City of Fillmore located along the formal bike trail entrance near SR 126 and E Street. This site is also previously disturbed and is currently vacant. The VCWPD is coordinating with the Faith Community Church to possibly use a portion of their parking lot for staging; the parking lot is completely paved.

**Materials and Waste** Construction of Alternative 2 would require approximately 18,181 cubic yards (CY) of compacted earthen fill, among other materials. Appendix B: Initial Study Table A-2 provides estimates of the other types and quantities of materials associated with this alternative. Earthen fill, stone, and rip-rap materials will likely be obtained from Santa Paula Rock, located approximately ten miles from the Section 408 Proposal site, in City of Santa Paula. Other materials such as concrete and fencing would be obtained from vendors within a 30-mile radius of the Section 408 Proposal area. Water for soil compaction and dust suppression during construction would be supplied by the City of Fillmore via a water meter placed on a local fire hydrant near SR 126 and E Street.

A water tank truck would be used to transport water to the Section 408 Proposal area. It is estimated that approximately 1/16 inch of water coverage per acre per day would be required to provide dust control on the entire length of the SC-2 Levee. Clear and grub green wastes generated during construction would be hauled to the nearest green waste recycling facility for appropriate disposal. The only soil spoils associated with Alternative 2 would be from tree removal (soil within tree root balls). An on-site raw material excavation and re-use/export plan will be implemented for each work task. Import of some materials would likely be required due to raising of the levee height. Solid waste would be disposed of in accordance with Ventura County Ordinances #4445 (solid waste disposal, waste reduction, waste diversion) and #4421 (requirements for the diversion of construction and demolition debris from landfills by recycling, reuse, salvage), to the extent practicable. The VCWPD will incorporate requirements of these ordinances into the Section 408 Proposal contract specifications. Portable toilets will be available on-site during construction.

**Vehicles and Equipment** The types and quantities of construction vehicles and equipment associated with Alternative 2 are described in Appendix B: Initial Study Table A-3. It is

anticipated that there would be an average of five construction workers on-site per day, with a peak of 15 workers per day. Additionally, there would be one construction inspector and one biological monitor on-site daily. Construction vehicles and equipment would be re-fueled on-site within the designated work area on the levee or on the landside of the levee. No on-site fuel storage would occur.

Construction would require a minimal amount of electricity for an electric saw and a grinder for work on the retaining wall; electricity would be obtained from a local source (possibly by arrangement from the Faith Community Church). A construction management trailer would not be required.

**Access and Parking** Construction access would be at both ends of the SC-2 Levee from Old Telegraph Road and SR 126, as well as from a new access ramp at the staging area. This would provide direct access to the levee for importing equipment and materials to the Section 408 Proposal area eliminating the need to travel along SR 126 between the staging area and the levee. The Sespe Creek Bike Trail formal entrance at E Street may also serve as an access point. An average of 40 truck trips per day and a peak of 60 truck trips per day would occur during construction. Parking during construction would occur along the length of the SC-2 Levee and off-site along surrounding streets. Parking may also occur at the construction staging areas and at the Faith Community Church property.

Public access to the active construction work area along the Sespe Creek Levee shall be prohibited in order to maintain public safety. Due to the close proximity of the Sespe Creek Bike Trail to the project work area, the Sespe Creek Bike Trail between SR 126 and Old Telegraph Road would be temporarily closed during the five- to six-month project construction period. Temporary exclusionary fencing and signage would be erected at the entrances to this section of the bike path notifying the public of the temporary closure. A temporary detour for bicyclists and recreationists would be available along neighboring residential streets. A suggested temporary detour route is from the E Street entrance along to Cottonwood Lane, east along Waterford Lane, north along D Street, east along Sespe Avenue, and north along C Street to the trail entrance north of Old Telegraph Road (*See Appendix B: Initial Study Figure A-8*).

#### **2.2.2.2 Operations and Maintenance**

Operation and maintenance of Alternative 2 would include routine inspections and repair as needed over the lifetime of the Section 408 Proposal (50 years). It is anticipated that the intensity of post-construction operations and maintenance activities would not differ from pre-construction (existing) conditions. No daytime or nighttime lighting would be required. Operational and maintenance activities include: facilities maintenance and reconstruction, resurfacing of access roads, maintenance of the VFZ, rodent control, storm-related emergency activities, scour surveys, flap gate inspections, and graffiti removal. Access and parking during operations and maintenance would be the same as during construction. The existing VCWPD stockpiling area located at the intersection of SR 126 and the SC-2 Levee would be used to store gravel and other materials that may be required during maintenance, representing no change from present conditions at that site.

#### **2.2.3 Earthen Fill on Landward Side Alternative (Alternative 3)**

Alternative 3 would utilize only earthen fill to raise the existing levee embankment along the same 1,543 feet of the SC-2 Levee as would be raised under Alternative 2; all other aspects of Alternative 3, such as but not limited to the tree removals and access ramps, would be the same as described for Alternative 2. Additional earthen fill would extend towards the landward side only, as shown in Appendix B: Initial Study Figure A-5.

The earthen fill prism would begin at the edge of the riverward side of the maintenance road along the top of the levee, and have 2:1 side slopes on both the landward and riverward side of the levee. There would be a 14.5-foot-wide maintenance road at the top of the earthen embankment. This footprint of the embankment would be at least 16 feet wider than existing conditions, with a 4-foot increase in height. Rock slope protection would be added on the riverward side of the added fill slope. The total horizontal width of the rock and earthen fill at the top of the levee would be 18.5 feet (14.5 feet roadway plus 4 feet rock).

The footprint of the earthen embankment would extend landward, where maintenance of the 15-foot VFZ would extend into existing private parcels identified as Residences #1, #2, #3 (*See Appendix B: Initial Study Figure A-4*). It is assumed that the three parcels would have to be purchased as the encroachment would render the sites unusable.

**Construction** This alternative would require approximately 21,700 CY of fill and rip-rap material, as opposed to Alternative 2 which would require approximately 18,959 CY (*See Appendix B: Initial Study Table A-2*). The vehicles and equipment to construct Alternative 3 would be similar to Alternative 2 except that the equipment associated with the retaining wall construction would not be needed. Construction would take less time than Alternative 2 because a retaining wall would not be required.

#### 2.2.4 Retaining Wall on Landward Side Alternative (Alternative 4)

Alternative 4 would install an approximately 963-foot-long retaining wall at the existing levee toe on the landward side, in order to limit the fill slope from extending beyond the existing footprint (*See Appendix B: Initial Study Figure A-5*). As with Alternatives 2 and 3, this alternative would also utilize earthen fill extending towards the landward side of the levee to raise the levee height along 1,543 feet between Old Telegraph Road and SR 126. Other than the retaining wall length, all other primary structural features of Alternative 4 would be the same as Alternative 2.

The retaining wall installed under this alternative would limit the extent of the 2:1 slope on the landward side. The width of the levee embankment footprint would be the same as the existing width due to the retaining wall, which would be of varying height to coincide with changes in the levee height. As with Alternatives 2 and 3, rock slope protection would be added on the riverward side of the added fill slope and the total width of the rock and earthen fill at the top of the levee would be 18.5 feet. A concrete v-gutter would be installed behind the new retaining wall to collect surface runoff from the slope and prevent infiltration into the levee embankment. This alternative would not require acquisition of additional ROW.

**Construction** This alternative would require approximately 18,300 CY of fill and rip-rap material, which is less than both Alternatives 2 and 3, which would require 18,959 CY and 21,700 CY, respectively. However, the construction period for Alternative 4 would be longer than both Alternatives 2 and 3 due to the length of the retaining wall and the complexities associated with constructing a retaining wall versus placing earthen fill. Vehicles and equipment requirements would be essentially the same as those described for Alternative 2 (*See Appendix B: Initial Study Table A-3*).

### **3.0 ENVIRONMENTAL CONDITIONS AND ALTERNATIVE ANALYSIS**

As required by NEPA (Council on Environmental Quality [CEQ] Regulation Section 1500.4 – Reducing paperwork, Section 1502.21 – Incorporation by reference, 1506.2 – Elimination of duplication with State and local procedures), agencies shall reduce excessive paperwork by incorporating by reference the information presented in other environmental documents thereby eliminating duplication. As such, much of the analysis presented below summarizes the detailed information presented in the VCWPD’s Initial Study, which is provided as Appendix B to this Environmental Assessment. Please refer to Appendix B for additional details on environmental conditions, informational tables, and other supporting details.

#### **3.1 Land Use**

##### **3.1.1 Existing Conditions**

The Section 408 Proposal would occur in an unincorporated area of Ventura County adjacent to the City of Fillmore. On-site land uses include the existing SC-2 Levee located on the east side of Sespe Creek between Old Telegraph Road and SR 126, the Sespe Creek Bike Trail, vacant land, access roads, and riparian areas. Based on the Ventura County General Plan Land Use Map, the Section 408 Proposal area is entirely within the Open Space general plan; areas within the County’s Agricultural general plan are located to the west on the opposite side of Sespe Creek. The eastern boundary of the Section 408 Proposal area is adjacent to the City of Fillmore. This area is primarily characterized by single-family residential development, with a local park (Shiells Park) at the north end and a church (Faith Community Church) located towards the middle of the Section 408 Proposal area.

The County’s general plan outlines the overall context for planning decisions and also describes the planning areas that identify additional parameters for development used to implement the policies and land use map designations outlined in general plans. The following analysis describes existing and planned land uses, as well as the local land use and zoning regulations associated with the alternatives.

##### **3.1.2 Criteria for Evaluation**

Impacts would be considered significant if the action would:

- Change land use due to implementation of the Section 408 Proposal.
- Not comply with the land use classifications identified in Ventura County’s General Plan.

##### **3.1.3 Section 408 Proposal Alternatives**

###### **No Action Alternative (Alternative 1)**

Implementation of Alternative 1 would not result in land use impacts as no upgrades to the existing SC-2 Levee system would occur. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

###### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative) and Retaining Wall Landward Side Alternative (Alternative 4)**

Implementation of Alternatives 2 and 4 would not alter the existing land uses in the Section 408 Proposal area or in the surrounding areas. In addition, as stated in both the County’s General Plan, the purpose of the Open Space designations are to provide for public health and safety in areas that require special management or regulation because of hazardous condition, which

includes flood plains (VC, 2011b and 2011c). Therefore, the proposed levee improvements associated with Alternatives 2 and 4 would not result in conflicts with the County general plan.

### **Earthen Fill on Landward Side Alternative (Alternative 3)**

Implementation of Alternative 3 would require the footprint of the earthen embankment to extend landward, where maintenance of the Corps' VFZ would extend into existing private parcels. As such, this alternative would impact three private parcels, identified as Residences #1, #2, #3 (see Appendix B: Initial Study Figure A-4). It is assumed that the three parcels would have to be purchased in their entirety as the lost land from the encroachment would render the residential sites unusable. Therefore, Alternative 3 would not be compatible with the existing land uses.

#### **3.1.4 Future Operation and Maintenance (Action Alternatives)**

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions; therefore, no new land use impacts would occur.

#### **3.1.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee system under Alternatives 2 and 4, would not result in significant long-term impacts to existing and surrounding land uses; however, implementation of Alternative 3 would result in the loss of three residences, which is a significant and unavoidable land use impact.

### **3.2 Geology and Soils**

#### **3.2.1 Existing Conditions**

**Local Geology** The Section 408 Proposal area is entirely underlain by artificial fill consisting of engineered levee fill which overlies Quaternary alluvial deposits and Holocene and Pleistocene flood plain deposits.

**Slope Stability** The Section 408 Proposal area is relatively flat to gently sloping and would not be subject to landslide hazards such as rockfall, soil creep, soil failures, dry raveling, rotational and transitional slides, and slumps. As shown in Figure 2.7.1b of the Ventura County General Plan Hazards Appendix, the Section 408 Proposal area would not be located adjacent to any mapped landslides (VC, 2011d), nor is it located within or adjacent to an earthquake induced landslide hazard area on the CGS Landslide Evaluation maps (CGS, 2002). However, the Section 408 Proposal area is within the Sespe Creek flood plain which may be susceptible to mudslides or debris flows travelling down the Sespe Creek channel.

**Expansive Soils** Based on National Resources Conservation Service (NRCS) soil mapping for the Ventura area, the Section 408 Proposal area is primarily underlain by four soil units: the Anacapa gravelly sandy loam, the Corralitos loamy sand, Riverwash, and Sandy alluvial land (NRCS, 2008). The shrink-swell potential of all of these soils range from none to low (NRCS, 2012). Furthermore, the engineered fill of the Sespe Creek Levee would have low to no shrink-swell potential.

**Subsidence** The Section 408 Proposal area is included in its entirety in an area of lesser subsidence extending inland along the Santa Clara River to a point just east of Piru as shown on Figure 2.8 of the Ventura County General Plan Hazards Appendix, which shows the limits and severity of subsidence zones within the County (VC, 2011b).

**Fault Rupture** Two major, active reverse faults are located in the Section 408 Proposal area and dip in opposite directions on either side of the Santa Clara River, the Oak Ridge and the San Cayetano faults. The Late Quaternary to Holocene aged Oak Ridge fault (onshore segment) is located approximately 1.75 miles south of the southern end of the Section 408 Proposal area. The western section of the Holocene aged San Cayetano fault located approximately three miles northwest of the northern end of the Section 408 Proposal area. The western section of the San Cayetano fault is Alquist-Priolo (A-P) zoned (CGS, 1991).

**Ground Shaking** Earthquake induced ground shaking commonly causes greater damage to structures than fault rupture as it occurs over a larger area and can cause poorly engineered structures to fail. Estimated peak ground accelerations (g) for the Section 408 Proposal area from the United States Geological Survey (USGS) National Seismic Hazard Maps range from 0.8 to 1.2 g, which correspond to a potential for strong earthquake induced ground shaking (USGS, 2009).

**Liquefaction** A structure that is located within a liquefaction zone may lose support under its foundation, which could cause the structure to tilt or settle into the ground surface and potentially collapse (VC, 2011a). Groundwater levels are relatively shallow beneath the SC-2 Levee, ranging from about 25 to 38 feet below the top of levee (VCWPD, 2012b). The Section 408 Proposal area is located within a mapped liquefaction hazard zone, as determined by the California Geological Survey (CGS, 2002).

**Seiche And Tsunami** A seiche is a series of waves caused by an earthquake within an enclosed or semi-enclosed body of water. There is no record of a significant damaging seiche occurring in a lake, reservoir, or bay in Ventura County (VC, 2011a). The nearest source for a potential seiche hazard in the Section 408 Proposal area would be Lake Piru; a reservoir located approximately 10.5 miles to the northeast. A tsunami is a series of waves generated by an undersea disturbance, such as an earthquake or landslide. The Section 408 Proposal area is located at about 400 feet in elevation and is more than 20 miles from the coastline. According to Figure 2.6 (Tsunami Inundation Hazard Areas) of the Ventura County General Plan Hazards Appendix, the Section 408 Proposal area would not be located within a tsunami hazard area (VC, 2011d).

### 3.2.2 Criteria for Evaluation

Geologic conditions were evaluated with respect to the impacts the Section 408 Proposal may have on local geology, as well as the impact that specific geologic hazards may have upon the Section 408 Proposal. Threshold criteria from the Ventura County Initial Study Assessment Guidelines, as discussed under Significance Criteria in Initial Study Sections C.10 through C.16 (Appendix B), were used for determining whether the Section 408 Proposal will expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving the above listed geologic and seismic hazards.

### 3.2.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Implementation of Alternative 1 would not result in any construction or changes in the levee (no upgrades to the existing SC-2 Levee system) and the current geologic and seismic conditions and associated hazards would be unchanged. However, there would be an increase in the potential for damage due to mudflows or debris flows to surrounding properties in the event of a large flood. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)**

**Slope Stability** Although there is a potential for mudflows or debris flows within the Section 408 Proposal area due to burned off vegetation within more than one third of the Sespe Creek watershed resulting from the 2006 Day Fire and the shifting of the Sespe Creek main channel to the east closer to the levee (see Section 1.4, Background), the Alternative 2 components that consist of improvements to the levee would minimize potential damage to the levee and adjacent properties.

**Soils** Both the levee and the adjacent soils where levee improvements would occur have low to no shrink-swell potential. Therefore, no impacts would occur from expansive soils.

**Subsidence** Levee upgrades under Alternative 2 would be entirely located within an area of lesser subsidence hazard; however, Alternative 2 would not involve extraction of groundwater, oil, or gas to contribute to subsidence issues and would not be sensitive to slight changes in surface gradients. Any slight changes in the gradient or height of the levee would be reflected in the surrounding area, including the Sespe Creek drainage, and would therefore not affect the ability of the levee to function in its intended capacity. Additionally it would not be expected to experience differential subsidence or offset due to crossing the edge of a subsidence zone.

**Fault Rupture** Although Alternative 2 is located within close proximity to two major active reverse faults, it is not located within or crossing a State of California designated Alquist-Priolo Special Fault Study Zone or a County designated Fault Hazard Area, nor do any known active or potentially active faults cross or trend toward the SC-2 Levee. Therefore, there is no potential for surface fault rupture within the Alternative 2 site.

**Ground Shaking** Impacts associated with earthquake induced ground shaking primarily result from damage to, or collapse of, buildings or other structures. Construction activities for Alternative 2, with the exception of the installation of the retaining wall, would only require surficial grading activities and construction of a fence, and would not involve the construction or modification of any other buildings or structures. Project improvements, including placement of the new levee fill and modification of the turnouts, would follow Corps and Ventura County's Building Code requirements, and construction of the retaining wall would also follow the County's Building Code Requirements, thereby reducing the potential for seismically induced ground shaking damage to these Section 408 Proposal components.

**Liquefaction** Although groundwater levels are relatively shallow below the levee, the engineered levee fill would not be susceptible to liquefaction. Alternative 2 does not involve the construction or modification of any habitable structures, although it does include construction of a retaining wall that could be susceptible to damage from liquefaction of the underlying liquefiable alluvial and flood plain deposits. However, construction of the retaining wall would follow the County's Building Code Requirements, which would reduce the potential for liquefaction-related failure.

**Seiche and Tsunami** The nearest source for a potential seiche hazard would be Lake Piru, located approximately 10.5 miles northeast of the Section 408 Proposal area. Alternative 2 would not be located in the vicinity of a potential seiche hazard area, therefore no impacts would occur. The Section 408 Proposal area would not be located within a tsunami hazard area; therefore, Alternative 2 would have no impacts associated with tsunamis.

## **Earthen Fill on Landward Side Alternative (Alternative 3) and Retaining Wall Landward Side Alternative (Alternative 4)**

The underlying geologic and soils conditions and seismic setting would be the same for Alternatives 3 and 4 as those discussed for Alternative 2, despite the differing construction techniques; therefore, impacts from slope instability, soils, subsidence, fault rupture, and seiche and tsunami would be identical to Alternative 2. While Alternative 3 would require more fill to be placed and Alternative 4 would require a substantially longer retaining wall, all levee fill and retaining walls would be constructed per Ventura County and Corps building requirements, thus any potential impacts related to seismic shaking and liquefaction would be similar to Alternative 2.

### **3.2.4 Future Operation and Maintenance (Action Alternatives)**

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions; therefore, there would be no impacts to or from geologic, seismic, or soils conditions.

### **3.2.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee system under Alternatives 2, 3, and 4, would not result in any significant geologic or seismic impacts. Impacts to or from geologic, seismic, and/or soils conditions would be less than significant.

## **3.3 Water Resources**

### **3.3.1 Existing Conditions**

Existing conditions relevant to water resources are characterized by surface water and groundwater quality and quantity, as discussed in Initial Study Section C.2. The Section 408 Proposal area is located in the Sespe Creek Watershed in the western portion of the Santa Clara River Watershed. This area is within the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB), and is subject to the management direction of the Water Quality Control Plan (Basin Plan) for the Los Angeles Region, and specifically to the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

### **3.3.2 Criteria for Evaluation**

Impacts would be considered significant if the action would:

- Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would: (1) result in substantial increase in erosion or siltation on or off site, (2) result in a substantial reduction in the quantity of surface water, or (3) substantially increase the rate or amount of surface runoff resulting in flooding on or off site or provide substantial additional sources of polluted runoff.
- Increase substantial erosion or sedimentation in relation to existing conditions.

Water quality effects would be addressed through compliance of the Section 408 Proposal with requirements of the federal Clean Water Act, including through the County of Ventura's implementation of the Ventura Countywide Stormwater Quality Management Program and Ventura Countywide Post Construction Stormwater Management Plan (PCSMP) for the VCWPD, the County of Ventura, and the Cities of Ventura County, thereby satisfying requirements of the applicable National Pollutant Discharge Elimination Permit (NPDES), or NPDES Municipal Separate Storm Sewer System (MS4) Order (NPDES Permit CAS004002).

NPDES permit requirements and water quality criteria are further discussed in Initial Study Section C.2D.

### **3.3.3 Section 408 Proposal Alternatives**

None of the Section 408 Proposal area alternatives evaluated in this EA would alter the course of a stream or river. Any drainage pattern alterations that would occur would be site-specific, meaning that changes to drainage patterns would be isolated to the flood control facilities, and would not occur to the overall watershed area as a result of the Section 408 Proposal.

#### **No Action Alternative (Alternative 1)**

Under Alternative 1, no upgrades to the existing SC-2 Levee system would occur, and drainage patterns would not be altered. As such, developed areas would remain subject to inundation during a 100-year storm event, and FEMA would not accredit the levee system. The No Action Alternative would not increase the potential for flooding to occur, and it would not remove existing flooding hazards. Flood insurance would need to be purchased by owners within the SFHA (see Appendix B: Initial Study Figure A-2). The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

#### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)**

**Drainage Patterns** Drainage pattern alterations that could occur as a result of Alternative 2 would be limited to site-specific effects, such as the removal of vegetation from the Corps' VFZ, and staging equipment and materials in a presently vacant area. Best management practices (BMPs) that would be implemented as part of the Section 408 Proposal area's Stormwater Pollution Prevention Plan (SWPPP) would avoid or minimize any potentially adverse effects associated with site-specific drainage pattern alterations.

**Erosion and Siltation** The potential for activities associated with construction, operation, and maintenance of Alternative 2 to result in impacts related to erosion and siltation is addressed in Initial Study Section C.17. As discussed, BMPs would be implemented during construction and ground-disturbing activities to stabilize soils and prevent erosion and associated sedimentation from occurring. These BMPs include, but are not limited to, general site design control measures and site-specific source control measures. Alternative 2 would not result in substantial increase in erosion or siltation on- or off-site.

**Surface Water Quantity** As described in Initial Study Section C.2C, water supply requirements for construction of Alternative 2 would be met using groundwater pumped from the Fillmore Basin and metered by the City of Fillmore; the Alternative 2 would not result in a substantial reduction in the quantity of surface water.

**Surface Runoff** In general, the rate or amount of surface runoff could be increased by application of water to the ground surface, by increasing the area of impermeable surfaces, and/or by increasing soil compaction. As described in Section 2.2.2.1, and discussed in Initial Study Sections C.2A and C.28C, construction of the Alternative 2 would include the application of water to the ground surface for dust abatement; however, only the amount of water needed to achieve dust abatement goals would be used, and surface runoff would not be increased. Alternative 2 would not substantially increase areas of impermeable surfaces or soil compaction, and the rate or amount of surface runoff would not change from existing conditions.

**Flooding** Construction activities are scheduled for the months of April through September, which is generally the dry season. Although precipitation events may occur during this period,

they would be intermittent and would not introduce impacts associated with flooding. No volume would be added by Alternative 2 to flows in the river, and no risk of floating debris would be introduced by Alternative 2. During the operation period, the SC-2 Levee system would provide flood risk management and would remove existing flood-related hazards from the area. As such, no activities associated with construction or operation and maintenance of Alternative 2 would result in flooding on- or off-site.

**Water Quality** Potential effects associated with water quality are addressed in Initial Study Section C.2D, which describes that BMPs to reduce or avoid water quality degradation would be implemented in compliance with the Ventura Countywide Post-Construction Stormwater Management Plan (PCSMP). As noted above, these BMPs include, but are not limited to, general site design control measures and site-specific source control measures. Alternative 2 would not provide substantial additional polluted runoff.

### **Earthen Fill on Landward Side Alternative (Alternative 3)**

Alternative 3 would have a larger permanent footprint than Alternative 2, and would therefore result in a greater extent of site-specific drainage pattern alterations. The larger footprint associated with Alternative 3 would push the Corps' VFZ into existing residential parcels, further increasing site-specific drainage pattern alterations. Alternative 3 would also require the greatest amount of fill and rip-rap material, which could possibly increase the potential for erosion and siltation to occur, should a storm event happen during the construction period and before material is secured in place. Water resources impacts of Alternative 3 would not be substantially different than those described for Alternative 2, although incrementally greater effects could occur in associated with drainage pattern alterations, and the potential for erosion.

### **Retaining Wall Landward Side Alternative (Alternative 4)**

Alternative 4 would have a permanent footprint with generally the same dimensions as Alternative 2, but due to construction of a longer retaining wall under this alternative, it would require the least amount of earthen fill material. The use of less fill material could incrementally decrease the potential for erosion and siltation to occur during the construction period, such as if a precipitation event happens while unsecured material is exposed. However, Alternative 4 also requires the longest construction period, which incrementally increases the potential for construction-related erosion impacts to occur. Overall, the same types of water resources impacts would occur under Alternative 4 as described for Alternative 2; such impacts would be of the same magnitude and intensity under both alternatives.

### **3.3.4 Future Operation and Maintenance (Action Alternatives)**

Operation and maintenance of the improved SC-2 Levee would include routine inspections and repair, comparable to pre-construction (existing) conditions; therefore, no new water resources impacts would occur.

### **3.3.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee under Alternatives 2, 3, and 4, would not result in significant long-term adverse impacts to water resources. Potential impacts would be short-term and temporary. BMPs would be implemented for compliance with laws and regulations, thereby minimizing or avoiding the potential for adverse water resources impacts to occur.

### 3.4 Air Quality/Climate Change

This section includes an analysis of the air quality and climate change impacts of the Section 408 Proposal. This section has been completed using the existing conditions data and emissions estimates provided in the VCWPD's Initial Study (see Appendix B). The air quality and climate change analysis is provided in Section C.1 of Appendix B, and the climate change analysis is provided in Section C.24 of Appendix B.

#### 3.4.1 Existing Conditions

**Air Quality** The Section 408 Proposal area is located within Ventura County in the South Central Coast Air Basin (SCCAB). As shown in Initial Study Table C.1-2, this area within the SCCAB is in serious nonattainment of the ozone (O<sub>3</sub>) National Ambient Air Quality Standards (NAAQS), and is in attainment of suspended particulate (PM<sub>10</sub>), fine particulate (PM<sub>2.5</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>) NAAQS. Other details of the existing air quality conditions and meteorological conditions of the Section 408 Proposal area, and applicable air quality regulations and standards are provided in Initial Study Section C.1.

**Climate Change** Greenhouse gas (GHG) emissions and climate change are globally cumulative issues. When sunlight strikes the Earth's surface, some light reflects back to space as infrared radiation (heat). GHGs, however, absorb this infrared radiation and trap the heat in the atmosphere. Many chemical compounds found in the Earth's atmosphere are GHGs. Some naturally occurring GHGs include: water (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O); and while these GHGs are also emitted by man-made processes, there are several other GHGs that are exclusively man-made. The increase in GHGs in the atmosphere caused by man-made emissions can cause rising average global temperatures. Rising temperatures may, in turn, produce changes in weather, sea levels and land use patterns, commonly referred to as "climate change" (EIA, 2010). The general scientific consensus is that climate change is occurring and that human activity contributes in some measure to that change. Man-made emissions of GHGs, if not sufficiently curtailed, could contribute to increases in global temperatures. Other details of existing climate change conditions and applicable climate change/GHG regulations and standards are provided in Initial Study Section C.24.

#### 3.4.2 Criteria for Evaluation

**Air Quality** Impacts would be considered significant if the action would:

- Violate State and/or Federal air quality standards.
- Create significant localized impacts to health and welfare.

The Corps must also make a determination of whether the Section 408 Proposal "conforms" to the State Implementation Plan (SIP). The General Conformity regulations are provided in 40 CFR Part 93 Subpart B, and this regulation only applies to areas with pollutants that are in nonattainment of the NAAQS. If the total direct and indirect emissions from the Section 408 Proposal are below the General Conformity Rule *de minimis* emission thresholds, the Section 408 Proposal is exempt from performing a comprehensive Air Quality Conformity Analysis, and would be considered to be in conformity with the SIP. For the Section 408 Proposal area the only nonattainment pollutant is ozone, which is in serious nonattainment, as noted above. The General Conformity Rule *de minimis* emission thresholds for NO<sub>2</sub> and Volatile Organic Compounds (VOC), the precursors to ozone, are 50 tons per year each.

**Climate Change** Impacts would be considered significant if the action would:

- Cause large long-term increases in greenhouse gas emissions.
- Conflict with GHG emission reduction regulations, plans or goals.

### 3.4.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

**Air Quality** Under Alternative 1, air quality would continue to be influenced by climatic conditions and the local and regional emissions from mobile, stationary, and natural sources. No additional air pollutant emissions would be directly produced. Because the levee would not be upgraded, the potential for destruction resulting from flooding events would be higher. In the event of a destructive flood, the air pollutant emissions from the demolition and construction requirements to cleanup and replace the structures lost are uncertain. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

**Climate Change** Under Alternative 1, climate change would continue to be influenced by the total worldwide anthropogenic and natural emissions of GHGs. No additional GHG emissions would be directly produced. Because the levee would not be upgraded, the potential for destruction resulting from flooding events would be higher. In the event of a destructive flood, the GHG emissions from the demolition and construction requirements to cleanup and replace the structures lost could be greater than those directly produced by the Section 408 Proposal.

#### Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)

**Air Quality** Alternative 2 would include the construction of levee improvements over a five- to six-month period beginning in April 2014. Alternative 2 would not affect ongoing operation/maintenance activities, so there would be no long-term air pollutant emissions resulting from implementation of Alternative 2. The air pollutant emissions estimates for construction of Alternative 2 are presented in Initial Study Table C.1-3 with detailed calculations provided in Initial Study Appendix 2. Incorporating mitigation measures listed in Sections 7.4.1 and 7.4.3 of the Ventura County Air Pollution Control District's (VCAPCD) Air Quality Assessment Guidelines for NO<sub>x</sub> and fugitive dust emissions, as they relate to the construction equipment activities conducted for this Section 408 Proposal, would ensure compliance with the VCAPCD Air Quality Management Plan (AQMP) and the State Implementation Plan (SIP). Therefore, to conform to the VCAPCD Air Quality Assessment Guidelines and to minimize the potential for short-term localized impacts to area residents during construction, environmental commitments AQ-1 through AQ-5, as presented in Chapter 4.0, would be implemented. These environmental commitments would reduce the off-road equipment emissions and fugitive dust emissions from construction, and would ensure compliance with Ventura County's AQMP and the SIP. The construction emissions are not regionally significant and would not cause new or substantially worsen existing air quality standard exceedances.

Additionally, the annual emissions from construction of Alternative 2, as shown in Initial Study Appendix 2, compared with the General Conformity applicability thresholds, are provided below in Table 3.4-1. Table 3.4-1 shows that a General Conformity Analysis is not required for Alternative 2.

**Table 3.4-1. General Conformity Applicability Summary – Alternative 2 (Tons Per Year)**

	VOC/ROG	NOx
Alternative 2 Construction Emissions	0.08	1.11
General Conformity Thresholds	50	50

Source: Initial Study Appendix 2 (Air Quality Calculations) – see EA Appendix B.

**Climate Change** Alternative 2 would temporarily create GHG emissions from the off-road and on-road equipment used during construction. The GHG emissions from Alternative 2, which are shown in Initial Study Table 3.24-1, are negligible in the context of local, regional, and worldwide GHG emissions. Furthermore, Alternative 2 would not conflict with any GHG emission reduction rules, policies or goals.

### **Earthen Fill on Landward Side Alternative (Alternative 3)**

**Air Quality** The construction activities and the air pollutant emissions from Alternative 3 would not be substantially different from those described for Alternative 2. The total amount of fill import, and associated compaction work, is approximately 15 percent greater than Alternative 2, but that would be offset by the fact that this alternative requires no retaining wall construction. Additionally, this alternative has a slightly longer construction schedule than Alternative 2. However, the maximum daily construction activity and associated air pollutant emissions would not be substantially different than those calculated for Alternative 2. Therefore, the total air pollutant emissions from construction of Alternative 3 would not be regionally substantial and the localized emission impacts would be substantially reduced with implementation of the environmental commitments identified in Chapter 4.0 (AQ-1 through AQ-5). As is the case for Alternative 2, implementation of the environmental commitments would also ensure compliance with Ventura County’s AQMP and the SIP.

**Climate Change** The construction activities and the GHG emissions from Alternative 3 would not be substantially different from those described for Alternative 2, as construction would result in similar levels of activity (refer to the discussion above under “Air Quality”). The total GHG emissions from construction would not be substantial and there would be no long term increase in operating emissions.

### **Retaining Wall Landward Side Alternative (Alternative 4)**

**Air Quality** The construction activities and the air pollutant emissions from Alternative 4 would not be substantially different from those described for Alternative 2. The total amount of fill import, and associated compaction work, would be slightly less than Alternative 2, but Alternative 4 requires approximately four times more square footage of retaining wall construction. This alternative has a slightly longer construction schedule, and the maximum daily construction activity and associated air pollutant emissions would not be substantially different than those calculated for Alternative 2. Therefore, the total air pollutant emissions from construction of Alternative 4 would not be regionally substantial and the localized emission impacts would be substantially reduced with implementation of the environmental commitments identified in Chapter 4.0 (AQ-1 through AQ-5). As is the case for Alternative 2, implementation of the environmental commitments would also ensure compliance with Ventura County’s AQMP and the SIP.

**Climate Change** The construction activities and the GHG emissions for Alternative 4 would not be substantially different from those described for Alternative 2, as construction would result in similar levels of activity (refer to the discussion above under “Air Quality”). The total GHG

emissions from construction would not be substantial and there would be no long term increase in operating emissions.

### **3.4.4 Future Operation and Maintenance (Action Alternatives)**

As noted in the Initial Study (Section C.1A, Regional), the Sespe Creek maintenance requirements would not change as a result of the Section 408 Proposal; therefore, no new operation emissions or air quality impacts would result.

### **3.4.5 Determination of Impacts**

Alternative 1, and upgrading the existing SC-2 Levee system under Alternatives 2, 3, and 4, would not result in long-term impacts to air quality or GHG emissions and with the implementation of the environmental commitments for air quality identified in Chapter 4.0, short-term impacts would be less than significant.

## **3.5 Noise**

Noise is defined as any unwanted sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise is annoying (VC, 2011a). The objectionable characteristic of noise often refers to its loudness. Loudness represents the intensity of the sound wave, or the amplitude of the sound wave height measured in decibels (dB). Decibels are calculated on a logarithmic scale; thus, a 10 dB increase represents a 10-fold increase in acoustic energy or intensity, while a 20 dB increase represents a 100-fold increase in intensity. The A-weighted decibel system (dBA) is a convenient sound measurement technique that weights selected frequencies based on how well humans can perceive them. Figure C.21-1 of the Initial Study (see Appendix B) provides typical ranges of common sounds heard in the environment.

The range of human hearing spans from the minimal threshold of hearing (approximately 3 dBA) to that level of noise that is past the threshold of pain (approximately 120 dBA). In general, human sound perception is such that a change in sound level of three (3) dB is just noticeable, while a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as a doubling (or halving) of sound level. Example noise sources and individual or community response are shown in Appendix B: Initial Study Figure C.21-2.

### **3.5.1 Existing Conditions**

The dominant noise sources in the Section 408 Proposal area are street traffic along SR 126, Old Telegraph Road, and residential streets (e.g., Sespe Avenue), as well as general residential noises, such as dogs barking and household maintenance activities. As shown in Initial Study Table C.21-1, the existing average ambient noise levels in the Section 408 Proposal area range between 48 and 51 dBA Leq (average noise level over a 20 minute period). Noise-sensitive receptors in the Section 408 Proposal area include residential homes, which are located immediately adjacent to and along the SC-2 Levee alignment; and local churches, including the Faith Community Church (355 D Street) which is located adjacent to the SC-2 Levee.

### **3.5.2 Criteria for Evaluation**

Noise impacts for the Section 408 Proposal are evaluated based on the Ventura County's *Construction Noise Threshold Criteria and Control Plan* (see Initial Study Tables C.21-3 and C.21-4), and local ordinances of the City of Fillmore. Impacts would be considered significant if the action would:

- Result in Federal, State, or local noise standard levels being exceeded.
- Result in noise levels noticeably above the ambient noise levels of the Section 408 Proposal area at noise-sensitive receptors during typically sensitive time period(s) (Initial Study Table C.21-2).

### **3.5.3 Section 408 Proposal Alternatives**

#### **No Action Alternative (Alternative 1)**

Implementation of Alternative 1 would not result in any construction or additional operational noise as no upgrades to the existing SC-2 Levee would occur. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

#### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)**

Construction of the Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative) would involve the use of various types of construction equipment including excavators, cement trucks, fork lift, bulldozer, grader (blade), and generator to construct the flood wall and raise the levee, over a five- to six-month timeframe, and would occur in close proximity to noise-sensitive receptors. As shown in the noise modeling provided in the Initial Study (Appendix 6), construction of the levee upgrades would result in peak unmitigated noise levels ranging from 77 to 92 dBA Leq (1-hour) at the closest noise-sensitive receptors.

Construction activities would occur between 7:00 a.m. and 7:00 p.m. Monday through Friday (daytime hours). As such, construction noise would be exempt per the City of Fillmore's noise regulations. Per the County's *Construction Noise Threshold Criteria and Control Plan* (see Initial Study Table C.12-2), the only "typically noise-sensitive use" during daytime hours located in the Section 408 Proposal vicinity would be the local churches; residences located along the alignment are not considered to typically be sensitive during daytime hours. Based on Faith Community Church's website, services are held on Sunday mornings. Implementation of the environmental commitments identified in Chapter 4.0 (N-1 through N-7) would ensure that the construction noise thresholds of Ventura County would not be exceeded and construction activities would occur during daytime hours when the closest local church services are not in session.

As part of Alternative 2, the existing informal entrance from Mallard Street to the Sespe Creek Bike Trail would be formalized, and the existing informal access from Robin Court would be closed. As a result, pedestrian access to the bike trail would shift, which may result in some increase in noise at Mallard Street. Noise generated by pedestrian use is considered to be minimal and would not result in a noticeable increase over existing ambient noise conditions.

#### **Earthen Fill on Landward Side Alternative (Alternative 3) and Retaining Wall Landward Side Alternative (Alternative 4)**

Noise levels generated during construction of Alternatives 3 and 4 would be the same as those estimated for the Alternative 2 (Preferred Alternative) (i.e., 77 to 92 dBA Leq (1-hour)), as the same equipment would be utilized; although, the duration and intensity may differ along the alignment. Alternative 3 would require more fill material than Alternative 2 resulting in additional truck trips, require a slightly longer construction schedule which would impact sensitive receptors for a longer period of time, and would encroach on existing residences such that construction noise would be generated in closer proximity to residences. Alternative 4 would require less fill material than Alternative 2 resulting in fewer truck trips, but would have the longest construction schedule increasing the duration of construction activities and associated

noise. With implementation of the environmental commitments identified in Chapter 4.0 (N-1 through N-7), noise impacts of Alternatives 3 and 4 would be minimized. Overall, noise impacts associated with Alternatives 3 and 4 would be similar to Alternative 2.

### 3.5.4 Future Operation and Maintenance (Action Alternatives)

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions; therefore, no new noise impacts would occur. As noted above, formalizing the entrance from Mallard Street to the Sespe Creek Bike Trail would shift pedestrian access, which may result in some increase in noise at Mallard Street. Noise generated by pedestrian use is considered to be minimal and would not result in a noticeable increase over existing ambient noise conditions.

### 3.5.5 Determination of Impacts

Alternative 1, and upgrading the SC-2 Levee under Alternatives 2, 3, and 4, would not result in significant long-term impacts to noise, and with the implementation of the environmental commitments identified in Chapter 4.0 (N-1 through N-7), impacts would be less than significant.

## 3.6 Biological Resources

### 3.6.1 Existing Conditions

#### Vegetation

There are three mapped cover or vegetation types on the Section 408 Proposal area, including ornamental trees, ruderal, and developed, as shown in Appendix B: Initial Study Figure C.4-2 and detailed in Table C.4-1. Most of the area, 2.41 acres (96 percent), has been developed and lacks vegetation due to the levee access road, armoring, and maintenance activities, on the SC-2 Levee. Roughly 0.09 acres (3.6 percent) of the Section 408 Proposal area is dominated by ruderal vegetation composed of native and non-native plants that readily colonize open disturbed soil. Ruderal species observed include short-pod mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*), tocalote (*Centaurea melitensis*), bristly ox-tongue (*Picris echioides*), and rabbitfoot grass (*Polypogon monspeliensis*). The remainder of the Section 408 Proposal area is covered by ornamental trees covering 0.01 acres (0.4 percent). These trees, which may provide habitat for special-status birds and raptors, include two native species, Fremont cottonwood (*Populus fremontii*) and western sycamore (*Platanus racemosa*), and non-natives such as pines (*Pinus* spp.), and crepe myrtle (*Lagerstroemia indica*). Most of the trees (23) are within Shiells Park. Immediately west of the Section 408 Proposal site there is a large area of intact native vegetation that was surveyed for biological resources (i.e., Vegetation Study Area) but is outside of the Section 408 Proposal area and would not be impacted. For further information about the adjacent habitat and impacts to special-status birds and raptors, refer to the Initial Study (Section C.4).

#### Special-Status Plant and Wildlife Species

Focused special-status plant and wildlife surveys were conducted throughout the Section 408 Proposal area and the adjacent native habitat to the west (see Appendix B: Initial Study Figure C.4-2). No special-status wildlife or plants were observed within the Section 408 Proposal area but the following special-status species were observed, detected, or previously reported in the larger survey area: southern California black walnut (*Juglans californica*), western mastiff bat (*Eumops perotis californicus*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler

(*Dendroica petechia brewsteri*), Cooper's hawk (*Accipiter cooperii*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), arroyo chub (*Gila orcuttii*), partially-armored three-spine stickleback (*Gasterosteus aculeatus microcephalus*), Santa Ana sucker (*Catostomus santaanae*), Owens sucker (*Catostomus fumeiventris*), and southern steelhead (*Oncorhynchus mykiss irideus*). Further detail on these surveys and the special-status species can be found in the Initial Study (Section C.4, Tables C.4-2 and C.4-3).

There is no potential for the fish (noted above) to occur within the Section 408 Proposal area due to absence of aquatic habitat and no southern California black walnut trees are located within the Section 408 Proposal area. However, western mastiff bat, loggerhead shrike, yellow warbler, and Cooper's hawk could be found within the Section 408 Proposal area. Activities within the Section 408 Proposal area would not prohibit the movement of nor block a movement corridor for wildlife. Further detail on wildlife movement and corridors can be found in the Initial Study (Section C.4).

### 3.6.2 Criteria for Evaluation

Impacts would be considered significant if the action would:

- Have a substantial adverse effect on any riparian habitat.
- Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means.
- Create substantial loss of species diversity in natural vegetation and wildlife habitats.

### 3.6.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Under Alternative 1 there would be no construction or upgrades to the SC-2 Levee and no impacts to biological resources would occur. The non-native trees at Shiells Park would remain in place and operation and maintenance activities would continue.

#### Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative), Earthen Fill on Landward Side Alternative (Alternative 3), and Retaining Wall Landward Side Alternative (Alternative 4)

Alternatives 2, 3, and 4 would result in the same impacts to biological resources, all of which would be below a level of significance with implementation of the environmental commitments identified in Chapter 4.0 (B-1 through B-9.3). Under the Preferred Alternative (Alternative 2) and Alternatives 3 and 4, 23 native and non-native trees at Shiells Park would be removed, as well as one native tree at the new turnout, and trees located along the western side of the Faith Community Church parking lot. To reduce this impact, VCWPD has committed to replacing all of these trees with native trees at a 1:1 ratio (ornamental trees located outside of the Quail Court residence would be removed but would not be replaced). None of the alternatives would have a substantial adverse effect on any special-status species.

### 3.6.4 Future Operation and Maintenance (Action Alternatives)

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions; therefore, no biological resources impacts would occur.

### 3.6.5 Determination of Impacts

Alternative 1, and upgrading the SC-2 Levee under Alternatives 2, 3, and 4, would not result in significant effects, either directly or through habitat modifications, to any species identified as endangered, threatened, candidate, sensitive, or special-status by California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). With implementation of environmental commitments identified in Chapter 4.0 (B-1 through B-9.3), impacts to biological resources would be reduced to a less-than-significant level.

## 3.7 Cultural Resources

Cultural resources, including archaeological and historical resources, are considered as part of this evaluation.

### 3.7.1 Existing Conditions

A Phase 1 Archaeological Study (see Appendix B: Initial Study Appendix 4 – Cultural Resources Report) was performed for the Section 408 Proposal, including a records search and on-foot field inspection. The study indicated that no previously recorded prehistoric or historic archaeological resources or historic properties that meet eligibility or significance criteria under the National Register of Historic Places, or appear eligible as State, county or local landmarks, exist within the boundaries of the Section 408 Proposal area.

The SC-2 Levee is entirely underlain by artificial fill consisting of engineered levee fill which overlies geologic units. Artificial fill has zero paleontological or archaeological significance due to its young age and disturbed nature (engineered placement).

### 3.7.2 Criteria for Evaluation

Impacts would be considered significant if the action would:

- Alter or change the significance of an archaeological resource.
- Introduce visual, audible, or atmospheric elements that are out of character with the property or alters its setting.

### 3.7.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Implementation of Alternative 1 would not result in any construction as no upgrades to the existing SC-2 Levee would occur; therefore, no impacts to cultural resources would occur. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

#### Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative), Earthen Fill on Landward Side Alternative (Alternative 3), and Retaining Wall Landward Side Alternative (Alternative 4)

Construction of Alternatives 2, 3, and 4 would occur in the same area along the SC-2 Levee. As discussed in the Initial Study (Section C.8), any proposed improvements or modifications within the Section 408 Proposal area would have no known adverse physical or visual impacts on known historical or archaeological resources.

As detailed in the Phase 1 Archaeological Study, a records search performed on February 1, 2012 indicated that no previously recorded prehistoric or historic archaeological resources have been recorded within the boundaries of the Project site. In addition, the following applies to a 0.5 mile radius of the SC-2 Levee area:

- No prehistoric archaeological sites have been recorded.
- No historic archaeological sites are documented.
- No significant historic properties are noted.
- No National Register of Historic Places properties are identified.
- No California Points of Historical Interest are listed.
- No California State Historic Landmarks are recorded.

A pedestrian survey of the project site was performed on February 12, 2012. Details from field observations indicate that all original topography within the project area has been substantially altered by man-made and natural forces including the Sespe Creek Floodplain and protective levee on the east side of the creek.

As part of the Phase 1 Archaeological Study, the Native American Heritage Commission was contacted with regard to potential sacred lands issues. As shown in the Cultural Resources Report (see Appendix B: Initial Study, Appendix 4 – Cultural Resources Report), a letter dated February 3, 2012 was sent to the Native American Heritage Commission (NAHC), Sacramento, California, requesting a search of their files for sensitive or sacred cultural resources that may have relevance to the SC-2 Levee area. A letter response was received from the NAHC on February 12, 2012 indicating that no known Native American resources will be affected by the Project.

The results of the records search, pedestrian survey, and Native American consultation yielded no evidence of prehistoric or historic archaeological resources within the Project boundaries or surrounding area. Any proposed improvements or modifications within the SC-2 Levee area would have no adverse physical or visual impacts on known prehistoric and historic archaeological resources. However, in the event that archaeological resources are discovered during Section 408 Proposal-related activities, environmental commitments identified in Chapter 4.0 (C-1 and C-2) would be implemented to ensure subsurface cultural resources are protected.

#### **3.7.4 Future Operation and Maintenance (Action Alternatives)**

Operation and maintenance of the improved levee would include routine inspections and repair, as needed over the lifetime of the Section 408 Proposal (50 years), and would not differ from pre-construction (existing) conditions; therefore, no impacts to cultural resources would occur.

#### **3.7.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee under Alternatives 2, 3, and 4, would not result in significant long-term impacts to cultural resources, and with the implementation of the environmental commitments impacts would be less than significant.

### **3.8 Hazardous Waste and Materials**

Hazardous materials means any material that, because of its quantity, concentration, physical or chemical characteristics poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that the administering certified unified program agency determines to be potentially injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment (VC, 2011a).

### 3.8.1 Existing Conditions

As described in Initial Study Appendix 5, the nearest underground storage tanks are two identified State and tribal registered underground storage tanks within approximately 0.13 mile (700 feet) of the SC-2 Levee. Additionally, two historical underground storage tanks are located within approximately 0.13 mile (700 feet) of the SC-2 Levee.

### 3.8.2 Criteria for Evaluation

Impacts would be considered significant if the action would:

- Cause soil contamination, including flammable or toxic gases, at levels exceeding Federal, State, and local hazardous waste limits established by 40 CFR Part 261.
- Expose the general public to hazardous situations through the transport, use, storage, or disposal of hazardous materials.
- Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

### 3.8.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Implementation of Alternative 1 would not result in any construction, such that no hazardous materials or on-site re-fueling would occur at the site; therefore, no impacts from hazardous waste and materials would occur. Operations and maintenance activities would continue to utilize herbicides for occasional vegetation removal, as specified in the VCWPD's Routine Maintenance Program EIR; however, these activities would not differ from pre-construction (existing) conditions. No new impacts related to hazardous waste and materials would occur.

#### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative), Earthen Fill on Landward Side Alternative (Alternative 3), Retaining Wall Landward Side Alternative (Alternative 4)**

As discussed in Section 2.2.2.1 (Construction – Vehicles and Equipment), construction vehicles and equipment would be re-fueled onsite within the designated work areas on the levee or on the landward side of the levee. No on-site fuel storage would occur. Therefore, implementation of the Section 408 Proposal (Alternatives 2, 3, or 4) would have the potential to cause small-scale hazardous materials spills related to fuels and other automotive and equipment fluids such as oils, lubricants, and hydraulic fluids. Should any hazardous material(s) be spilled or encountered during Section 408 Proposal implementation, the material(s) would be contained, removed and treated in accordance with standard VCWPD contract specifications and requirements, as well as Federal, State and local laws, regulations and ordinances. In addition, implementation of the environmental commitments identified in Chapter 4.0 (PS-6 and PS-7) would limit re-fueling near flowing water, implement BMPs, and require immediate containment and clean-up of spills. Herbicides would be used for occasional vegetation removal, as specified in the VCWPD's Routine Maintenance Program EIR, and BMPs would be followed (VCWPD, 2012c). Additionally, as noted in Initial Study Section A.7 (Other Agencies Whose Approval May Be Required), prior to implementation of the Section 408 Proposal the VCWPD would consult with the Ventura County Environmental Health Division to ensure that concerns related to hazardous materials are fully addressed. No significant impacts related to hazardous materials are anticipated to occur.

The Section 408 Proposal (Alternatives 2, 3, or 4) would generate used motor oil, which is considered a hazardous waste, during construction activities. The Section 408 Proposal would be subject to compliance with State regulations governing hazardous waste generation, including those defined by the Department of Toxic Substances Control (DTSC), which require the safe disposal of all hazardous waste. Based on the list of equipment that would be used for construction, no other hazardous wastes would be generated due to implementation of the Section 408 Proposal. The only soil spoils would be from tree removal (soil within tree root balls), and all vegetative material would be disposed of at the nearest green waste recycling facility (VCWPD, 2012c). Prior to implementation of the Section 408 Proposal, the VCWPD would consult with the Ventura County Environmental Health Division to ensure that concerns related to hazardous waste are fully addressed. No significant impacts related to hazardous waste are anticipated to occur.

Based on information provided in Initial Study Appendix 5, the locations of the nearest existing and historic underground storage tanks would not be collocated with or impeded upon by the Section 408 Proposal; consequently, the likelihood of encountering such facilities would be extremely low. Furthermore, as these four existing and historic underground storage tanks are not located within the proposed project area, the proposed project would have no bearing on their closure status. Therefore, less than significant impacts related to the disruption of an existing hazardous materials site are anticipated to occur.

### **3.8.4 Future Operation and Maintenance (Action Alternatives)**

Operation and maintenance of the improved levee would include routine inspections and repair, as needed over the lifetime of the Section 408 Proposal (50 years), and would not differ from pre-construction (existing) conditions. No new impacts related to hazardous waste and materials would occur.

### **3.8.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee under Alternatives 2, 3, and 4, would not result in significant impacts to hazardous waste and materials.

## **3.9 Aesthetic Resources**

### **3.9.1 Existing Conditions**

The overall scenic character of the Section 408 Proposal area is typified as being semi-rural to rural. Vehicle access to the Section 408 Proposal area is currently available from either end of the SC-2 Levee, using Old Telegraph Road from the north and SR 126 from the south. SR 126 is considered a scenic resource since it is an Eligible Scenic Highway as designated by Caltrans. Nearby foothills, ridgelines, rugged and steep terrain, as well as Sespe Creek, are major visual elements and are considered significant visual resources in the City of Fillmore. Sespe Creek and the Santa Clara River provide a stretch of open space along the western and southern borders of the City of Fillmore.

### **3.9.2 Criteria for Evaluation**

Impacts would be considered significant if the action would:

- Create direct, permanent changes to important existing scenic characteristics of a landscape that is viewed by a large number of viewers.
- Impair or obstructs views of major visual elements.

### 3.9.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Implementation of Alternative 1 would not result in aesthetic impacts as no upgrades to the existing SC-2 Levee system would occur. There would be no change in the existing conditions of the site; although, conditions may change over time, which are not part of this analysis. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

#### Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative) and Retaining Wall Landward Side Alternative (Alternative 4)

As noted in the Initial Study construction activities would be visible from SR 126 over the five- to six-month period of construction, which would cease upon completion of construction. After construction, the improvements to the levee would not substantially alter the current view from SR 126. Also as part of construction, all vegetation located within the Corps' VFZ, or the 15-foot landward buffer from the toe of the levee, would be removed. Trees removed from the VFZ along Shiells Park and the tree at the new turnout would be replaced at a 1:1 ratio, although the replacement trees at Shiells Park would take several years to mature and restore the park's landscaping. Nonetheless, these activities would not present a permanent significant impact to the scenic vistas of the Sespe Creek or distant mountains.

Upon completion of construction, the existing levee height would be one to six feet higher along 1,521 feet of the levee and include a retaining wall along portions of the landward side of the levee (approximately 321-foot long retaining wall for Alternative 2; approximately 963-foot long retaining wall for Alternative 4). The increase in the levee height would be visible to recreation users of the bike trail, residents along the east side of the SC-2 Levee, and parishioners of the Faith Community Church; however, this increase in height would not preclude the scenic views to Sespe Creek or distant mountains (see Appendix B: Initial Study Figure C.6-1). The retaining wall included in Alternatives 2 and 4 would be lower than the existing garden walls along Residences #1 and #2; however, the retaining wall would include a cabled fence that would be visible from both residences (see Appendix B: Initial Study Figure C.6-2). The cabled fence does not present an opaque feature in the viewshed, and therefore would not block the scenic vista from these residences. The cabled fence represents a minor safety feature to the retaining wall and would not substantially block views. Therefore, residents to the east and recreation users of the Sespe Creek Bike Trail would have altered views due to the raised levee and the levee improvements; however, these improvements would not affect scenic views to Sespe Creek or distant mountains.

During the public meeting held on January 19, 2012, the public voiced concern regarding the potential for graffiti on the proposed retaining wall. As discussed above, the height of the retaining wall associated with Alternatives 2 and 4 would be lower than the existing garden walls. Graffiti on the proposed retaining wall would not be visible from the bottom floor of these residences, but might be visible from the second floor; however, during the operation and maintenance period, graffiti would be removed as a part of regular maintenance. In addition, the length of the proposed retaining wall (i.e., 321 linear feet under Alternative 2 and 963 linear feet under Alternative 4) accounts for a small portion of the entire SC-2 Levee, and therefore, would not present a visual impact to the majority of residences and recreation users in the immediate vicinity of the proposed levee improvements.

### **Earthen Fill on Landward Side Alternative (Alternative 3)**

In comparison to Alternative 2, the impacts discussed above would be the same except that a retaining wall would not be constructed under Alternative 3 such that the footprint of the earthen embankment would extend landward along the entire 1,521-foot length of levee improvements and the Corps' 15-foot VFZ would extend into existing private parcels (identified as Residences #1, #2, #3 in Appendix B: Initial Study Figure A-4). As such, the aesthetic impacts discussed above regarding graffiti on the retaining wall would not be applicable to Alternative 3; however, this alternative would instead result in encroachment impacts to three private parcels. These parcels would have to be purchased as the lost land from the encroachment would render the residential sites unusable. Activities associated with demolition of the residences would be temporary, and the land would be vacant until an appropriate land use could be established. Therefore, Alternative 3 would alter the existing visual landscape if these residences were required to be demolished.

#### **3.9.4 Future Operation and Maintenance (Action Alternatives)**

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions. However, additional graffiti removal activities may be required due to the addition of a retaining wall (Alternatives 2 and 4 only). As stated in the Initial Study, graffiti on the proposed retaining wall would occur and may be visible to residents in the immediate vicinity of the wall; however, the VCWPD's maintenance efforts and Graffiti Abatement Program would remove the graffiti and lessen this visual impact.

#### **3.9.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee system under Alternatives 2 and 4, would not result in significant long-term impacts to aesthetic resources; however, implementation of Alternative 3 would result in the acquisition and removal of three residences, which would be a significant and unavoidable aesthetic impact.

### **3.10 Recreation Resources**

#### **3.10.1 Existing Conditions**

Shiells Park is a local park located adjacent to the northeast end of the Section 408 Proposal area for approximately 980 feet. The park includes three baseball diamonds, bleachers, field markings for soccer and football, restroom facilities, and a parking lot.

The Sespe Creek Bike Trail runs adjacent to the riverward side of the SC-2 Levee. It is estimated that approximately 25 to 50 recreationalists use the Sespe Creek Bike Trail per day. Currently there are two formal public access points, one at the north end of the levee at Old Telegraph Road, and one at the south end of the levee at E Street. In addition, other informal and unauthorized entrances to the trail have been established by public users; in particular, there are openings in the garden walls at the end of Robin Court and Mallard Street.

#### **3.10.2 Criteria for Evaluation**

Impacts would be considered significant if the action would:

- Disrupt or limit access to recreation and/or open areas.
- Result in activities that substantially conflict with recreational uses.

### 3.10.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

With implementation of Alternative 1, upgrades to the existing SC-2 Levee system would not occur, and the current recreation activities at Shiells Park and the Sespe Creek Bike Trail would continue without interruption. However, the unauthorized access points to the trail would continue to be used and the beneficial impacts associated with the recreation improvements that would be implemented under one of the action alternatives (Alternatives 2, 3, or 4) would not be realized (see discussion below). Operations and maintenance activities would continue to occur intermittently (existing conditions).

#### Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative), Earthen Fill on Landward Side Alternative (Alternative 3), and Retaining Wall Landward Side Alternative (Alternative 4)

There is an existing row of medium to large mature trees located along the western border of Shiells Park, within the Corps' 15-foot VFZ. Under Alternatives 2, 3, and 4, 23 mature trees would be removed along Shiells Park, but would be replaced at a 1:1 ratio with native trees. In addition, a new access ramp would be constructed at the southern boundary of the park in order to allow access to the landward levee toe for maintenance and occasional flood-fighting activities. Construction activities associated with the tree removal and installation of the access ramp may temporarily interfere with recreation activities occurring at the park; however, these activities would not result in long-term impacts.

The existing informal entrances to the Sespe Creek Bike Trail have resulted in structural damage to the SC-2 Levee where foot traffic has displaced rip-rap on the riverward side of the levee. Under Alternatives 2, 3, and 4, the unauthorized entrance at the end of Robin Court would be closed, and a new formal access ramp would be installed at the end of Mallard Street, which would provide improved access to the bike trail.

Due to the close proximity of the Sespe Creek Bike Trail to the project work area, the Sespe Creek Bike Trail between SR 126 and Old Telegraph Road would be temporarily closed for public safety reasons during the construction period. Temporary exclusionary fencing and signage would be erected at the entrances to this section of the bike path notifying the public of the temporary closure (see environmental commitment PS-1 identified in Chapter 4.0). A temporary detour would be available along neighboring residential streets, which would minimize impacts to bicyclists and recreationists (*See Appendix B: Initial Study Figure A-8*).

#### 3.10.4 Future Operation and Maintenance (Action Alternatives)

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions. However, an additional access ramp would be constructed on the landward side of the levee at the southern boundary of Shiells Park; due to the proximity of this new access ramp to the existing recreational area at Shiells Park, it is possible that the presence of vehicles used for inspections during routine maintenance activities could introduce brief access delays or aesthetic effects for recreationists at the park. These impacts would be infrequent and short-term in nature. During the operation period for Alternatives 2, 3, and 4, access to the Sespe Creek Bike Trail would be more formalized than under current conditions, but overall the public would have the same level of access.

### **3.10.5 Determination of Impacts**

Impacts to recreation resources as a result of the Alternatives 2, 3, and 4 would be temporary and less than significant; implementation of these alternatives would also result in a beneficial impact of access improvements to the Sespe Creek Bike Trail. While there would be no adverse impacts to recreation resources under Alternative 1, improvements to the bike trail access would not occur and the beneficial impact of the action alternatives would not be realized.

### **3.11 Public Health and Safety**

#### **3.11.1 Existing Conditions**

The active channel of Sespe Creek comprises the area west of the SC-2 Levee, and agricultural areas are located west of the active channel. Agricultural areas are also located to the south of SR 126, which comprises the southern limit of the Section 408 Proposal area. Residential developments in the City of Fillmore are located to the east and south of the levee, and north of Old Telegraph Road, which comprises the northern limit of the Section 408 Proposal area. Residential structures are located adjacent to the levee along these areas. As discussed in the Initial Study (Section C.17), the Section 408 Proposal area is located within a SFHA.

#### **3.11.2 Criteria for Evaluation**

Impacts would be considered significant if the action would:

- Create human health issues related to vectors, contaminated soils and other pathogens, or introduce environmental factors that may pose a potential hazard to public health.
- Increase exposure of people or structures to flooding hazards.
- Create conditions that would present potential dangers to the public or attract the public to a potentially hazardous area (e.g., attractive nuisances).

#### **3.11.3 Section 408 Proposal Alternatives**

##### **No Action Alternative (Alternative 1)**

Under Alternative 1, no upgrades to the existing SC-2 Levee system would occur, and drainage patterns would not be altered. As such, developed areas would remain subject to inundation during a 100-year storm event, and FEMA would not accredit the levee system. The No Action Alternative would not reduce the potential for flooding to occur, or remove existing flooding hazards. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

##### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)**

Alternative 2 would affect two groups of the general public: workers undertaking Section 408 Proposal-related construction activities; and, persons proximate to the Section 408 Proposal area. Members of the public that could be within the Section 408 Proposal area include the following:

- Residents and agricultural workers living or working near the levee upgrade area; and
- Recreational users of the Sespe Creek Bike Trail.

Alternative 2 would not involve substantial subsurface disturbances. The only soil spoils associated with levee upgrades would be from tree removal (soil within tree root balls). As discussed in the Initial Study (Section C.20B), soil waste generated during construction would be disposed of in accordance with Ventura County Ordinances #4445 and #4421, to the extent practicable. This would reduce any potential public health or safety impacts related to the

removal of soils or other solid waste from the site. Furthermore, levee upgrades under Alternative 2 would not encourage any standing water that could increase vector populations.

Due to the close proximity of the Sespe Creek Bike Trail to the project work area, the Sespe Creek Bike Trail between SR 126 and Old Telegraph Road would be temporarily closed for public safety reasons during the construction period. Temporary exclusionary fencing and signage would be erected at the entrances to this section of the bike path notifying the public of the temporary closure (see environmental commitment PS-1 identified in Chapter 4.0). A temporary detour would be available along neighboring residential streets (See Appendix B: Initial Study Figure A-8), which would minimize the potential to attract the public to a potentially hazardous area.

Refer to Sections 3.4 (Air Quality/Climate Change), 3.5 (Noise), and 3.8 (Hazardous Waste and Materials) for the analysis of these issue areas with respect to any potential public health and safety effects to construction workers and local population. Also, refer to Chapter 4.0 for environmental commitments associated with public health and safety (PS-1 through PS-7).

### **Earthen Fill on Landward Side Alternative (Alternative 3) and Retaining Wall Landward Side Alternative (Alternative 4)**

Alternative 3 would require additional right-of-way acquisition when compared to Alternative 2. However, the levee geometry and construction modifications associated with Alternative 3 would result in similar or identical public health and safety impacts as those discussed for Alternative 2. While the construction period would be greater for Alternative 4 when compared to Alternative 2, the levee geometry and construction modifications associated with Alternative 4 would result in similar or identical public health and safety impacts as those discussed for Alternative 2.

#### **3.11.4 Future Operation and Maintenance (Action Alternatives)**

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions; therefore, no public health and safety impacts would occur. Improvements to the Sespe Creek Bike Trail, which would formalize pedestrian access, would result in a safety improvement, as the public would no longer need to navigate through the rip rap along the side of the levee to get from the residential neighborhood to the bike trail. With implementation of the Section 408 Proposal, structures adjacent to Sespe Creek along the SC-2 Levee would be less susceptible to flood, as the Section 408 Proposal would provide increased flood risk management. Refer to Sections 3.4 (Air Quality/Climate Change), 3.5 (Noise), and 3.8 (Hazardous Materials and Waste) for the operational analysis of these issue areas with respect to any potential public health and safety effects to local population.

#### **3.11.5 Determination of Impacts**

No adverse effects on public health and safety would occur from implementation of Alternative 1 (No Action Alternative). Upgrading the SC-2 Levee system under Alternatives 2, 3, and 4 would result in less-than-significant public health and safety impacts.

### **3.12 Socioeconomics and Environmental Justice**

This socioeconomic and Environmental Justice analysis is conducted from both a regional level (Ventura County) and a localized level (Census Tract 3.03 containing the SC-2 Levee area and the western portions of the City of Fillmore). For the regional (socioeconomic) study area, it is assumed construction workers would commute to work sites from within a one-hour commute area. For the local (Environmental Justice) study area, it is assumed environmental impacts

during construction and operation would be localized within the immediate census tract boundary.

The Council on Environmental Quality (CEQ) has developed guidance to assist Federal agencies so that environmental justice concerns are effectively identified and addressed. Also, this section discusses impacts to low income and minority populations in order to address compliance with Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations). This analysis considers the composition of the affected area to determine whether minority populations or low-income populations are present in the area affected by the Section 408 Proposal, and if so whether there may be disproportionately high and adverse environmental effects. According to the CEQ guidelines, minority populations should be identified when the minority population percentage either exceeds 50 percent or is meaningfully greater than the minority population in the general population. Additionally, the CEQ defines low-income populations as “individuals living below the poverty level,” as identified by the US Census.

### 3.12.1 Existing Conditions

Table 3.12-1 provides socioeconomic and Environmental Justice demographic data for the regional and localized study areas. As shown, the regional study area of Ventura County contains a large construction workforce and available housing, with a population of 31.3 percent minority and 10.7 percent low income. The localized study area has a minority population of 41.1 percent and a low-income percentage of 14.2 percent.

<b>Table 3.12-1. Year 2010 Demographics</b>	
<b>Regional Study Area (One-Hour Commute-Ventura County)</b>	
Population	823,318
Minority	257,514 (31.3%)
Low-Income	88,095 (10.7%)
Employed	387,454
Construction Trades	21,334 (5.5%)
Unemployment	44,133 (6.9%)
Total Housing Units	281,695
Owner-Occupied	174,168 (65.3%)
Renter-Occupied	92,752 (34.7%)
Vacancy	14,775 (5.2%)
<b>Localized Study Area (Census Tract 3.03)</b>	
Total Population	5,103
Minority	2,097 (41.1%)
Low-Income	725 (14.2%)

Source: US Census, 2010a and 2010b.

### 3.12.2 Criteria for Evaluation

Impacts would be considered significant if the action would:

- Induce substantial population growth in an area causing an increased demand in housing availability or social disruption.

- Result in disproportionately high and adverse impacts on minority or low-income populations.

### **3.12.3 Section 408 Proposal Alternatives**

#### **No Action Alternative (Alternative 1)**

Under Alternative 1, the existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions). Residents within the SFHA would be required to purchase flood insurance (see Appendix B: Initial Study Figure A-2). As shown in Table 3.12-1, Census Tract 3.03 contains the SFHA area and contains a minority population of 41.1 percent and a low-income population of 14.2 percent. These percentages fall below the CEQ Environmental Justice threshold of greater than 50 percent and are not substantially greater than those of the regional study area (refer to Table 3.12-1). Therefore, the requirement to purchase flood insurance associated with Alternative 1 would not cause a disproportionate burden to any Environmental Justice populations. No adverse impacts would occur that could disproportionately affect minority or low-income populations.

#### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)**

Alternative 2 would have minimal direct effect on growth-inducing impacts that could affect local demographics, housing, or economy. There would be an average of five construction workers onsite per day, with a peak of 15 workers per day. Additionally, there would be one construction inspector and one biological monitor onsite daily during construction. It is expected that these workers would all come from within the regional study area. Expenditures from construction are considered a beneficial effect. Therefore, no growth inducing or adverse economic impacts would occur as a result of implementing Alternative 2.

As discussed in the Initial Study (Section C.25), Alternative 2 would require the construction and removal of structures that may affect the visual character and community use/perception of the levee upgrade area. However, all activities under Alternative 2 would be consistent with applicable local policies or development standards and would not introduce physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within the community. It is estimated that the Sespe Creek Bike Trail would be temporarily closed for approximately two weeks or temporarily re-routed around the active construction area. This impact is considered a short-term and temporary social disruption. Therefore, Alternative 2 is not considered to have any adverse effect with respect to community change or social disruption.

As shown in Table 3.12-1, Census Tract 3.03 contains a minority population of 41.1 percent and a low-income population of 14.2 percent. These percentages fall below the CEQ Environmental Justice threshold of greater than 50 percent and are not substantially greater than those of the regional study area (refer to Table 3.12-1). Therefore, no environmental impacts associated with Alternative 2 would be disproportionately sustained by Environmental Justice populations.

#### **Earthen Fill on Landward Side Alternative (Alternative 3)**

Alternative 3 would require additional right-of-way acquisition when compared to Alternative 2, impacting three private parcels (Residences #1, #2, #3). It is assumed that the three parcels would have to be purchased in their entirety, as this alternative would render the residential sites unusable. This would increase social disruption impacts when compared to Alternative 2. All other socioeconomic and Environmental Justice impacts would be identical to that described above for Alternative 2.

### **Retaining Wall Landward Side Alternative (Alternative 4)**

While the construction period would be greater for Alternative 4 when compared to Alternative 2, the levee geometry and construction modifications associated with Alternative 4 would result in similar or identical socioeconomics and Environmental Justice impacts as those discussed for Alternative 2.

#### **3.12.4 Future Operation and Maintenance (Action Alternatives)**

Operations and maintenance of the improved levee would not differ from pre-construction (existing) conditions; therefore, no new socioeconomic or Environmental Justice impacts would occur. It is, however, recognized that pedestrian access to the Sespe Creek Bike Trail would shift under Alternatives 2, 3, and 4. This change would not be considered a social disruption as access to the trail would remain and be formalized.

#### **3.12.5 Determination of Impacts**

Upgrading the SC-2 Levee system under Alternatives 2 and 4 would result in less than significant socioeconomic and Environmental Justice impacts. It is assumed that the property acquisition of the three affected residential parcels required for Alternative 3 would be completed consistent with applicable local policies. Therefore, Alternative 3 would result in less than significant socioeconomic and Environmental Justice impacts.

### **3.13 Traffic and Transportation**

#### **3.13.1 Existing Conditions**

The area roadways are shown in Initial Study Table C.27-1. The table shows the roadway segments, the responsible agency that has jurisdiction of each roadway, the existing daily traffic volumes, the roadway capacity values, the volume/capacity (V/C) ratios, and the levels of service (LOS) on each roadway segment. Initial Study Table C.27-1 indicates that all of the study area roadway segments currently operate at acceptable levels of service (LOS A through D) based on the daily traffic volumes and roadway capacity values. Appendix B: Initial Study Figure C.27-1 illustrates the roadway network and shows the number of lanes, speed limits, and types of traffic control at the key intersections.

Initial Study Table C.27-2 presents the five study area intersections for the traffic analysis, including the responsible jurisdiction and the type of traffic control at each intersection. The existing peak hour traffic volumes at each intersection are shown on Appendix B: Initial Study Figure C.27-2. The intersection capacity utilization (ICU) values and the corresponding LOS have been determined for each intersection, as summarized in Initial Study Table C.27-4. All of the study area intersections currently operate at an acceptable level of service (LOS D or better).

The future baseline traffic conditions without the Section 408 Proposal for the target year of construction (2014) were estimated by considering the effects of general ambient regional growth and the cumulative increase in traffic volumes that would be generated by other development projects proposed in the vicinity of the Section 408 Proposal area. The future baseline ICU values and LOS for the five study area intersections are shown in Initial Study Table C.27-5. All five of the study area intersections are projected to operate at acceptable levels of service (LOS A through D) during the morning and afternoon peak hours for the year 2014 scenario without the Section 408 Proposal.

### 3.13.2 Criteria for Evaluation

The traffic impacts in the unincorporated areas were evaluated based on the Ventura County *Initial Study Assessment Guidelines*, which states that the minimum LOS for roadway segments and intersections is LOS D. A potentially significant adverse specific traffic impact would occur at an intersection if an action would exceed the thresholds shown in Initial Study Table C.27-6. The City of Fillmore's standards were used for areas within the city limits, which indicate that LOS D is the minimum acceptable LOS at all intersections along SR 126 and A Street, except the minimum acceptable LOS at the SR 126/A Street intersection is LOS E. At all other intersections in the City, LOS C is the minimum acceptable LOS. The Section 408 Proposal would have a significant impact if the traffic would cause an intersection that operates at an acceptable LOS to operate at an unacceptable LOS or if it is expected to result in an ICU degradation of 0.01 or greater at an intersection that is projected to operate at an unacceptable LOS without the Section 408 Proposal (City of Fillmore, 2007).

### 3.13.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Implementation of Alternative 1 would not result in any construction or new operational traffic impacts as no upgrades to the existing SC-2 Levee system would occur. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

#### Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative)

Construction of Alternative 2 would result in an increase in traffic volumes on the roadways that provide access to the Section 408 Proposal area. The levels of site-generated construction traffic are shown in Initial Study Table C.27-7. The table indicates that Alternative 2 would generate 40 peak hour trips and 130 daily trips on an average day and 63 peak hour trips and 260 daily trips on a peak day of construction activity. This includes 40 truck trips (round trips) on an average day and 60 truck trips on a peak day.

An analysis of traffic impacts was conducted by adding the traffic generated by Alternative 2 to the baseline conditions, then determining the ICU values and LOS at the study area intersections for the "without Proposed Action" and "with Proposed Action" scenarios. Two baseline scenarios are addressed in the analysis: (1) existing conditions and (2) year 2014 conditions when construction would occur. For the existing conditions baseline scenario, the before-and-after ICU values and LOS at each of the study area intersections are summarized in Initial Study Table C.27-8. The intersection impacts for the year 2014 baseline scenario are summarized in Initial Study Table C.27-9. As shown in these tables, none of the study area intersections would be adversely impacted by the construction of Alternative 2. A roadway segment analysis was also conducted, as summarized in Initial Study Tables C.27-10 and C.27-11. These tables indicate that all of the study area roadway segments would operate at acceptable LOS levels with implementation of Alternative 2.

#### Earthen Fill on Landward Side Alternative (Alternative 3) and Retaining Wall Landward Side Alternative (Alternative 4)

The traffic volumes that would be generated during construction of Alternatives 3 and 4 would be the same as those estimated for Alternative 2 for an average day and a peak day of construction activity. Although Alternative 3 would require more fill material and more truck trips than Alternative 2, the additional truck traffic would occur over a greater number of days rather than increasing the number of trips on a given day. Similarly, while Alternative 4 would

require less fill material and fewer truck trips than Alternative 2, the truck traffic on a given day would remain the same. The traffic impacts associated with Alternatives 3 and 4 would be essentially the same as Alternative 2 and none of the study area roadways or intersections would be adversely affected.

### **3.13.4 Future Operation and Maintenance (Action Alternatives)**

The traffic levels associated with the operation and maintenance of the improved levee would be the same as current operations. No new traffic volumes or impacts would occur.

### **3.13.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee system under Alternatives 2, 3, and 4, would not result in any significant traffic or transportation impacts.

## **3.14 Public Services and Utilities**

The SC-2 Levee is located along Sespe Creek near the City of Fillmore in Ventura County. The Section 408 Proposal area includes the typical array of municipal public services and utilities that support residential, commercial, and industrial uses. Public services and utilities serving the area include: fire protection (City of Fillmore and Ventura County), police protection (Ventura County Sheriff's Department), schools (Fillmore Unified School District), natural gas (Southern California Gas Company), electricity (Southern California Edison), water (City of Fillmore), waste water (City of Fillmore), and waste disposal and recycling (City of Fillmore).

### **3.14.1 Existing Conditions**

**Public Services** Law enforcement and emergency service personnel for the Section 408 Proposal area are provided by the Ventura County Sheriff's Department. Fire protection services would be provided by the Ventura County Fire Department. The Mountain Vista Elementary School and the Fillmore Library are the closest educational institution and public library to the Section 408 Proposal area, respectively.

**Utilities** There is an existing storm drain (operated by the VCWPD) on the levee-side of the garden wall near Residence #1; this feature would be protected in-place under the Section 408 Proposal. Buried utility lines and overhead electrical and communications infrastructure exist in the Section 408 Proposal area.

### **3.14.2 Criteria for Evaluation**

Impacts would be considered significant if the action would:

- Cause a disruption or re-routing of an existing utility facility or increase demand on a utility resulting in the need to expand the existing utility facility which has the potential for secondary environmental impacts.
- Substantially increase demand for law enforcement or emergency services as a direct or indirect result of population increase; one firefighter is required for every 3,000 to 4,000 persons, depending on density.
- Be located in excess of five (5) miles from a full-time paid fire department, measured from the apron of the fire station to the structure or pad of the proposed structure.
- Substantially interfere with the operations of an existing school facility.

### 3.14.3 Section 408 Proposal Alternatives

#### No Action Alternative (Alternative 1)

Implementation of Alternative 1 would not result in any impacts to public services or utilities as no upgrades to the existing SC-2 Levee would occur. The existing SC-2 Levee system would remain in place with operations and maintenance activities occurring intermittently (existing conditions).

#### **Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 – Preferred Alternative), Earthen Fill on Landward Side Alternative (Alternative 3), Retaining Wall Landward Side Alternative (Alternative 4)**

#### Public Services

**Law Enforcement/Emergency Services** As discussed in the Initial Study (Section C.32), the proposed improvements under each of the action alternatives would not increase the population of the Section 408 Proposal area and do not involve any structural development. Therefore, the Section 408 Proposal would not cause a change in established officer-to-population ratios. Any graffiti that occurs on the proposed retaining wall associated with Alternatives 2 and 4 would be removed as a part of regular maintenance by the VCWPD. To help prevent attractive nuisances, the VCWPD also implements the following BMP: Gates, fences, and “no trespassing” signs are kept in working order to discourage dumping and vandalism (refer to Chapter 4.0, under Public Health and Safety). Construction and operation of the Section 408 Proposal would not increase the demand for law enforcement or emergency services.

**Fire Protection** As discussed in the Initial Study (Section C.33), fire protection services for the Section 408 Proposal area are provided by the Ventura County Fire Department (VCFD). The nearest fire station is Fire Station 27 - Fillmore Station (also known as the U.S. Forest Service Sespe Fire Station, Engine 54), which is located approximately 0.25 mile east of the SC-2 Levee. As the SC-2 Levee is located within five miles of the nearest fire station, no impacts with regard to the distance and response time of fire protection services would occur. Furthermore, the Section 408 Proposal would not increase the population of the area, and thus would not increase the demand for fire protection service personnel, equipment, or facilities. No impacts to fire protection services would occur.

**Education** The Mountain Vista Elementary School is the closest educational institution, which is approximately 0.26 miles (1,390 feet) northeast of the SC-2 Levee near Shiells Park. The nearest public library is the Fillmore Library, approximately 0.9 mile (4,650 feet) east of the SC-2 Levee. Alternative 2 would not involve the construction or removal/displacement of any residences; consequently, it would not affect the demand for schools or public library facilities within the County. No impacts to schools or public library facilities would occur.

#### Utilities

As discussed in the Initial Study (Section C.30), construction would require a minimal amount of electricity, which would be obtained from a local source (possibly by arrangement from the Faith Community Church). No disruptions to overhead electrical lines or buried utility lines would occur from either construction or operational activities associated with Alternatives 2, 3, and 4. Therefore, the Section 408 Proposal would not result in significant impacts to existing overhead electrical and communications infrastructure or buried utility lines.

### **3.14.4 Future Operation and Maintenance (Action Alternatives)**

Operation and maintenance of the improved levee would include routine inspections and repair, as needed over the lifetime of the Section 408 Proposal (50 years), and would not differ from pre-construction (existing) conditions; therefore, no new impacts to public services and utilities would occur.

### **3.14.5 Determination of Impacts**

Alternative 1, and upgrading the SC-2 Levee under Alternatives 2, 3, and 4, would not result in significant long-term impacts to public services and utilities.

## **3.15 Cumulative Impacts**

Pursuant to NEPA (40 CFR Parts 1500-1508), cumulative impacts of a proposed action must be assessed. A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR Part 1508.7). The intent is to identify impacts of other past, present, and future projects that, when considered together with the Section 408 Proposal, may significantly compound or increase environmental impacts. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. Infrastructure, industrial, commercial, residential, and other projects located in close proximity to the Section 408 Proposal area are considered to have the potential for creating cumulative impacts in association with the Section 408 Proposal activities.

A list and description of pending and recently approved projects within Ventura County, as identified by the Ventura County Resource Management Agency, Planning Division, as well as a map of these projects is provided in Initial Study Appendix 1 (located in Appendix B of this Environmental Assessment). Initial Study Table C-1 (Section C) provides a summary of the 16 projects located within approximately five miles of the Section 408 Proposal area, in order of proximity from nearest to farthest. Of the projects listed, only the Upland Rock Sediment Removal/Mining of Sespe Creek (Upland Rock Project) could potentially occur during the same timeframe and in proximity to the Section 408 Proposal activities. A detailed description of the Upland Rock Project is provided immediately following Initial Study Table C-1.

### **3.15.1 Land Use**

Land use impacts tend to be localized, affecting properties in the immediate vicinity of a project. Potential land use impacts from the Section 408 Proposal would affect existing recreation and residential, land uses surrounding the Section 408 Proposal area. Similarly, the area potentially affected by cumulative land use impacts would include the local vicinity of the proposed flood risk management features where construction and operation activities could affect nearby land uses.

If Upland Rock Project occurs during the same timeframe and in physical proximity to the Section 408 Proposal activities, it may temporarily affect the land uses surrounding the Section 408 Proposal area. The mining and excavation area for this project covers approximately 98.8 acres in the East Branch of Sespe Creek, extending from Old Telegraph Road to approximately 2,000 feet south of SR 126. Construction activities may interfere with recreation activities along Sespe Creek, including the Sespe Creek Bike Trail and Shiells Park. However, these impacts are temporary and significant long-term impacts would not occur. Therefore, the Section 408 Proposal would not contribute to cumulatively significant land use impacts.

### 3.15.2 Geology and Soils

As addressed above in Section 3.2, all geology and soils impacts associated with the Section 408 Proposal would be less than significant or non-existent. The geologic and seismic hazards associated with landslides/mudslides, expansive soils, fault rupture, seismically induced ground shaking, liquefaction, and seiche and tsunami and the potential effects of damage from these hazards would affect each project individually. As such, geology and soils impacts associated with construction of the levee upgrades would not be cumulatively considerable.

### 3.15.3 Water Resources

As addressed above in Section 3.3, all water resources impacts associated with the Section 408 Proposal would be less than significant. The water resources impacts associated with drainage pattern alterations, erosion, and siltation would be minimized or avoided through the implementation of BMPs required per compliance with existing laws and regulations; such effects would not be cumulatively considerable, and no adverse cumulative effects would occur. Water resources impacts associated with flood risk management hazards would be beneficial, because the Section 408 Proposal would remove existing hazards from the area; the Section 408 Proposal would not contribute cumulatively considerable and adverse impacts associated with the floodplain or flood hazards, and no cumulative effect would occur.

### 3.15.4 Air Quality/Climate Change

**Air Quality** A list of the reasonably foreseeable projects located in the Section 408 Proposal area is provided in the introduction to Section C, as supported by Appendix 1, of the Initial Study that is attached to this Environmental Assessment as Appendix B. This list shows that sixteen recently approved and pending development projects are within a 5-mile radius of the Section 408 Proposal area. Most of these projects are not major development projects that would have significant air emissions, which could create cumulative air quality impacts. Furthermore, because Alternative 1 and the proposed levee upgrades associated with Alternatives 2, 3, and 4 would not result in a change in operations and maintenance from existing conditions, cumulative impacts would be limited to the construction period.

During the Section 408 Proposal's construction timeframe, activities associated with the Upland Rock Sediment Removal/Mining of Sespe Creek project may occur within Sespe Creek in close proximity to the Section 408 Proposal. As such, the Upland Rock Sediment Removal/Mining of Sespe Creek project would have the potential to contribute to air quality cumulative impacts. While the concurrent activity location, duration, and quantity of air pollutant emissions for the Upland Rock sediment removal / mining activities are not currently known, to avoid adverse cumulative impacts, environmental commitment AQ-5 includes a requirement that the VCWPD's construction contractor coordinate with Upland Rock's project representatives to reduce the occurrence of nearby concurrent activities. Considering this additional coordination requirement and the other environmental commitments for the Section 408 Proposal (AQ-1 through AQ-4), as well as the fugitive dust control requirements for the sediment removal per the Upland Rock CUP and Ventura County Air Pollution Control District Rule 55, it is determined that the mitigated cumulative air pollutant emissions from Alternatives 2, 3, and 4 would have less than significant cumulative air quality impacts.

**Climate Change** GHG emissions create long-term globally cumulative climate change impacts. There are no Section 408 Proposal-specific localized impacts from GHG emissions. Therefore, the assessment presented above in Section 3.4 constitutes a cumulative impacts assessment.

### **3.15.5 Noise**

Noise impacts are generally considered to be localized; therefore, only those projects that are in the immediate vicinity of the levee upgrades would have the potential to result in cumulative noise impacts. Cumulative impacts would be limited to the construction period as the levee upgrades would not result in a change in operations or maintenance. In reviewing Initial Study Table C-1, only the Upland Rock Project has the potential to result in cumulative impacts, as these activities could potentially occur at the same time as construction of the levee upgrades and in close proximity of the Section 408 Proposal area (within the east branch of Sespe Creek).

Upland Rock's CUP-4185 specifies various conditions of approval (see Initial Study Section C.21) such that noise impacts associated with the Upland Rock Project would be minimized. Taking into consideration the low noise standards that must be met by Upland Rock and the distance from the levee upgrades (300 to 500 feet), these noise levels would not combine with the substantially higher noise levels generated by the proposed levee upgrade activities, which would occur at much closer distances to noise-sensitive receptors, to result in a cumulative impact. Furthermore, noise impacts from the Section 408 Proposal activities would be minimized with implementation of the environmental commitments identified in Chapter 4.0 (N-1 through N-7). As such, noise impacts associated with Alternative 1 and with construction of the levee upgrades under Alternatives 2, 3, and 4 would not be cumulatively considerable.

### **3.15.6 Biological Resources**

There is only one project that could occur within the same timeframe and physical proximity (within three miles) of the Section 408 Proposal site (see Initial Study Table C-1). It is the Upland Rock Project, where sediment removal / mining activities would occur within the bed and banks of Sespe Creek, potentially within approximately 300 to 500 feet from the Section 408 Proposal site. The Upland Rock Project would result in permanent and temporary impacts to native riparian vegetation. However, as part of the mitigation requirements for impacts to native vegetation, Upland Rock would restore and/or enhance native habitat within the bed and banks of Sespe Creek. Therefore, if the two projects were to occur at the same time, they would not result in significant cumulative impacts to vegetation. The impacts from both the Section 408 Proposal and the Upland Rock Project would be short term, limited in scope, and are would not incrementally add to any adverse cumulative impacts to special-status plants or wildlife species.

### **3.15.7 Cultural Resources**

Table C-1 of the Initial Study provides a list of the reasonably foreseeable projects located in the Section 408 Proposal area. Nearby cumulative projects involve earth-disturbing activities could potentially impact significant archaeological resources. However, it is highly unlikely that the levee upgrade activities would affect archaeological resources, and, in the event that a discovery is made, environmental commitments identified in Chapter 4.0 (C-1 and C-2) would be implemented to ensure that potential effects are less than significant. Therefore, the incremental contribution to archaeological resources impacts from the levee upgrades associated with Alternatives 2, 3, and 4 would not be cumulatively considerable.

Cumulatively significant impacts could occur to paleontological resources if cumulative projects either (1) consistently result in the discovery (and possible damage) of fossil remains, or (2) consistently occur within areas that are considered to have a "High," "Moderate to High," or "Moderate" paleontological importance. The Section 408 Proposal would have no impact on paleontological resources. Therefore, the levee upgrades would not contribute to cumulative impacts related to paleontological resources.

### **3.15.8 Hazardous Waste and Materials**

Initial Study Table C-1 provides a list of the reasonably foreseeable projects located in the Section 408 Proposal area. All of the past, present and reasonably foreseeable projects within Ventura County are, or would be, subject to compliance with all applicable Federal, State, and local laws, regulations and ordinances regarding hazardous materials and the disposal of hazardous waste, and may be required to implement additional safety measures for the handling and disposal of hazardous waste if warranted by project-specific regulatory reviews and approvals. As discussed above, no conflicts with hazardous waste and materials associated with implementation of the Section 408 Proposal are anticipated to occur. Therefore, the incremental contribution to impacts associated with hazardous waste and materials from the levee upgrades would not be cumulatively considerable.

### **3.15.9 Aesthetic Resources**

A cumulative impact to aesthetics resources would occur if impacts of the Section 408 Proposal would combine with similar impacts of past, present, or reasonably foreseeable projects in the cumulative scenario. Construction of the Faith Community Church's expansion includes approximately 3,000 square feet of structural additions; however, construction activities would not occur at the same time as construction of the Section 408 Proposal. The Upland Rock Project is located just south of SR 126 and consists of mining and excavation of the East Branch of Sespe Creek. These are anticipated to be the closest cumulative projects to the Section 408 Proposal, neither of which would result in permanent changes to the existing scenic landscape, nor impair or obstruct major visual elements. Therefore, no cumulative impacts to aesthetic resources would occur.

### **3.15.10 Recreation Resources**

A cumulative impact to recreation resources would occur if impacts of the Section 408 Proposal would combine with similar impacts of past, present, or reasonably foreseeable projects in the cumulative scenario. Construction activities associated with the Faith Community Church's expansion and the Upland Rock Project would occur in areas adjacent to the Section 408 Proposal area; however, it is not known whether they would occur within the same timeframe as the Section 408 Proposal. For both cumulative projects, construction would be temporary and would not affect the long-term operation of any recreation facilities. In addition, the construction activities associated with the Faith Community Church's expansion would not coincide with construction of the Section 408 Proposal. Consequently, the incremental contribution to recreation impacts from the levee upgrades would be less than significant.

### **3.15.11 Public Health and Safety**

Public health and safety impacts based on the criteria identified in Section 3.11.2 are localized in nature; therefore, only those cumulative projects in the immediate vicinity of the levee upgrade area would have the potential to result in cumulative impacts. Cumulative impacts would be limited to the construction period, as levee upgrades would not result in a change in operations. In reviewing Initial Study Table C-1, only the adjacent Upland Rock Project has the potential to result in cumulative impacts, due to potentially overlapping construction schedules and close physical proximity. However, because no public health and safety impacts would occur from the evaluated alternatives, they would not contribute to any considerable public health and safety impacts associated with the Upland Rock Project. No cumulative public health and safety impacts would occur.

### **3.15.12 Socioeconomics and Environmental Justice**

In reviewing Initial Study Table C-1, there is the potential for large-scale cumulative development projects to require 30 or more new full-time-equivalent employees. However, since no evaluated alternative would induce growth in the area, no cumulatively considerable incremental contribution to local demographics, housing, economy, or social conditions would occur. The local demographic study areas contain less than 50 percent minority and low-income populations, and are also not substantially greater than those of the regional study area (refer to Table 3.12-1). Therefore, no evaluated alternative would cumulatively contribute to an environmental impact that could be disproportionately burdened by Environmental Justice populations. No cumulative socioeconomic or Environmental Justice impacts would occur.

### **3.15.13 Traffic and Transportation**

The cumulative levels of traffic that would be generated by other reasonably foreseeable projects in the study area were considered in the determination of the baseline traffic volumes for the future analysis scenario of 2014, which is the time period when the Section 408 Proposal's construction activities would occur. Included among the cumulative projects is the Upland Rock Project, which may be excavating and transporting material from Sespe Creek during the same time period and in proximity to the Section 408 Proposal. In order to be conservative in the analysis of potential traffic and transportation effects, the traffic that would be generated by the Upland Rock activities was incorporated into the traffic projections for the future analysis year. The analysis of this future scenario indicates that the cumulative impacts on the study area roadways and intersections would be less than significant. The year 2020 scenario is not addressed in the analysis because the Section 408 Proposal would not generate any additional traffic during operations. The cumulative impacts on the study area roadways would, therefore, be less than significant.

### **3.15.14 Public Services and Utilities**

The proposed levee upgrades are not growth-inducing and it is not anticipated that local law enforcement/emergency services or fire protection services would be required. The proposed levee upgrades would also not interfere with the operation of educational facilities or affect the demand for schools or public library facilities. Consequently, the Section 408 Proposal would not combine with other past, present and reasonably foreseeable projects to contribute to an impact to law enforcement/emergency services, fire protection services, or educational facilities that would be cumulatively considerable. Furthermore, the proposed levee upgrades would not increase demand or cause disruptions to any existing electrical, natural gas, or communications facilities, resulting in no cumulative contribution to impacts on utility facilities.

## 4.0 ENVIRONMENTAL COMMITMENTS

This section describes the environmental commitments that would be implemented as part of the Section 408 Proposal for the Sespe Creek Levee improvements. Due to the short-term nature of the construction activities involved and the limited area of disturbance, the activities of the Section 408 Proposal are not expected to cause any long term adverse effects. The environmental commitments discussed below would decrease the severity of any short-term or temporary Section 408 Proposal-related impacts on resources. The environmental commitments described in this section are not legally binding and do not constitute a mitigation requirement that would be binding or enforceable against the United States.

### Water Resources

**WR-1:** All BMPs associated with the SWPPP shall include but are not limited to the following: General Site Design Control Measures (Conserve Natural Areas / Protect Slopes and Channels / Control Peak Stormwater Runoff Discharge Rates / Minimize Impervious Area); Site-Specific Source Control Measures (Storm Drain Message and Signage / Outdoor Material Storage Area Design / Outdoor Trash Storage Area Design / Fueling Area Design); and Treatment Control Measures (Grass Strip Filter / Grass Swale Filter / Detention Basin / Porous Landscape Detention / Infiltration Trench).

### Air Quality

**AQ-1:** All equipment shall be turned off when not in use. Engine idling shall not exceed five (5) minutes unless required for proper operation.

**AQ-2:** All equipment engines shall be maintained in good operating condition and in tune per manufacturers' specification.

**AQ-3:** All off-road construction diesel engines not registered under California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower or more, shall meet, at a minimum, the Tier 3 California Emission Standards for Off-road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Section 2423(b)(1). If a Tier 3 or Tier 3-equivalent engine is not available for a particular item of equipment, Tier 2 compliant engines shall be allowed on a case by case basis, as determined by the VCWPD.

**AQ-4:** All Section 408 Proposal construction and site preparation operations shall be conducted in compliance with all applicable Ventura County Air Pollution Control District (VCAPCD) Rules and Regulations with emphasis on Rule 50 (Opacity), Rule 51 (Nuisance), and Rules 55 (Fugitive Dust) and 55.1 (Paved Roads and Public Unpaved Roads), as well as Rule 10 (Permits Required). The following specific dust control measures, unless more strict measures are implemented for VCAPCD rule compliance, shall be implemented:

1. Apply environmentally safe chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with public paved surface to the working areas of the Section 408 Proposal site, with an acceptable width to accommodate traffic ingress and egress from the site.
2. Install a properly functioning and well-maintained track-out control device(s) that prevents track-out of soil onto paved public roads.
3. Remove track-out from pavement as soon as possible but no later than one hour after it has been deposited on the paved road.
4. Use properly secured tarps or covering that covers the entire surface area of the earthen fill, or other fine bulk material, loads.

5. Water or use environmentally safe chemical stabilization to treat the earthen fill storage piles to create stabilized surfaces that will minimize wind erosion emissions.
6. Limit vehicle speeds on the Section 408 Proposal site unpaved roads to 10 mph.
7. Discontinue work activities including all grading activities, but not fugitive dust control activities, as necessary to prevent nuisance dust conditions during high wind events (25 mph for more than 5 minutes in any hour).

**AQ-5:** The construction contractor shall coordinate with representatives of the Faith Community Church, consistent with Mitigation Measures N-1, and representatives of Shiells Park to conduct tree removal or other Section 408 Proposal activities at these locations during periods when they are not specifically scheduled for use. Additionally, the construction contractor shall coordinate with representatives of the Upland Rock Sediment Removal/Mining of Sespe Creek project to identify if concurrent sediment removal and Section 408 Proposal activities will occur in proximity to one another, and will schedule the Section 408 Proposal activities, as feasible, to minimize such concurrent activities.

### **Noise**

**N-1:** The VCWPD shall coordinate with the Faith Community Church (355 D Street), First Baptist Church of Fillmore (1057 First Street), and The Church of Jesus Christ of Latter Day Saints (1017 First Street) to schedule construction activities in the vicinity of these churches, including vegetation removal and wood chipping activities at Shiells Park, when the churches are not in use. However, if construction activities near the church(es) must occur when the church(es) is/are in use, the VCWPD shall monitor construction noise levels to ensure noise levels do not exceed the County of Ventura daytime noise threshold of 55 dBA Leq (hourly) within 10 feet of the sanctuary building. If noise levels are determined to exceed 55 dBA Leq (hourly), offending construction activities must be temporarily suspended until the affected church activity has finished.

**N-2:** The wood chipper shall be sited at Shiells Park on the far western portion of the park, approximately equidistant from the north and south boundaries of the park, such that the chipper would be located as far away from residences as possible. To further reduce noise levels, a temporary paneled noise shield, barrier, or enclosure shall be installed around the wood chipper; the noise control shield shall be made of panels featuring a solid panel with a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Wood chipper operations shall be scheduled to occur during times of highest ambient noise levels, to the extent feasible and without conflict of N-1.

**N-3:** All equipment shall include noise reduction measures, as applicable. These measures shall include, but may not be limited to, properly operating and maintaining mufflers, correct placement of equipment engine covers, and ensuring that small loading equipment is equipped with rubber tires.

**N-4:** All machinery shall be equipped with the best available exhaust mufflers and “hush kits,” as applicable.

**N-5:** Chain saws shall be maintained with sharp, damped blades with random tooth spacing.

**N-6:** Noise producing signals, including horns, whistles, alarms, and bells shall be limited to safety warning purposes only.

**N-7:** As part of the Section 408 Proposal’s advanced notification to all residences and property owners, a VCWPD contact person name and phone number shall be provided. The contact person shall respond to questions or concerns related to noise and vibration within 24 hours. If

warranted by inquiries or complaints, on-site noise measurements shall be taken to determine if noise or vibration levels are substantially greater than expected levels.

### **Biological Resources**

**B-1:** The VCWPD shall not clear riparian vegetation during the migratory bird breeding season (March 15 through September 15). If construction activities extend into the breeding season (March 15 to September 15) the VCWPD shall conduct protocol surveys for least Bell's vireo in areas that support riparian habitat within 500 feet of the construction footprint. Work shall not occur within 500 feet of a nesting vireo unless authorized by the County, USFWS, and CDFW.

**B-2:** Prior to construction activities, a qualified biologist shall inspect the construction site and adjacent areas to determine if any sensitive plants, fish, or wildlife species are present. If a sensitive fish or wildlife species is present at the construction site during the work period, the VCWPD shall schedule work to avoid the species, if possible. If avoidance of any listed species is not feasible, the VCWPD shall cease work and consult with the USFWS or National Marine Fisheries Service, as appropriate.

**B-3:** All personnel, including contractors, and VCWPD staff, involved in Section 408 Proposal activities will receive environmental training on sensitive biological resources that may be encountered in the Section 408 Proposal area. Environmental training shall be implemented throughout the duration of construction of the Section 408 Proposal. The environmental training shall include, at a minimum, the following items:

- A discussion of measures to be implemented for avoidance of the sensitive resources discussed above and the identification of an onsite contact in the event of the discovery of sensitive species on the site. This will include a discussion on microtrash and its potential harmful effects on California condors.
- Training materials and briefings shall include but not be limited to: a discussion of the Federal and State Endangered Species Acts and the Migratory Bird Treaty Act; the consequences of non-compliance with these acts; identification and values of plant and wildlife species and significant natural plant community habitats; hazardous substance spill prevention and containment measures; a contact person and phone number in the event of the discovery of dead or injured wildlife; and a review of mitigation requirements.
- Protocols to be followed when road kill is encountered in the work area or along access roads to minimize potential for additional mortality of scavengers, including listed species such as the California condor and the identification of an onsite representative to whom the road kill will be reported. Road kill shall be reported to the appropriate local animal control agency within 24 hours.
- Literature and photographs or illustrations of potentially occurring special-status plant and/or wildlife species will be provided to all Section 408 Proposal contractors and heavy equipment operators.
- A weather protected bulletin board or binder shall be centrally placed or kept onsite (e.g., in the break room, construction foreman's vehicle, construction trailer, etc.) for the duration of the construction. This board or binder will provide key provisions of regulations or Section 408 Proposal conditions as they relate to biological resources or as they apply to grading activities. This information shall be easily accessible for personnel in all active work areas.

**B-4:** Upon development of final construction plans and prior to site disturbance, the VCWPD shall clearly delineate the limits of construction on Section 408 Proposal plans. All construction, site disturbance, and vegetation removal shall be located within the delineated construction boundaries. The storage of equipment and materials, and temporary stockpiling of soil shall be located within designated

areas only, and outside of natural habitat areas. The limits of construction shall be delineated in the field with temporary construction fencing, staking, or flagging.

**B-5:** The VCWPD shall retain a qualified biologist(s) with demonstrated expertise with listed and/or special-status plants, invertebrates and gastropods, birds, amphibians, terrestrial mammals and reptiles to monitor, a minimum of once a week, during all construction activities. The qualified biologist(s) shall be present at all times during ground-disturbing activities immediately adjacent to, or within, habitat that supports populations of the listed or special-status species identified within the Section 408 Proposal area boundaries. Any listed or special-status plants shall be flagged for avoidance. Any special-status non-listed terrestrial species found within a Section 408 Proposal impact area shall be relocated by the authorized biologist and relocated to suitable habitat outside the impact area. If the installation of exclusion fencing is deemed necessary by the qualified biologist, the qualified biologist shall direct the installation of the fence.

If, during construction, the biological monitor observes a dead or injured listed or special-status wildlife species on the construction site, a written report shall be sent within five calendar days to the appropriate agencies (e.g., VCWPD, USFWS, and/or CDFW, where CDFW reporting is a requirement of the local sponsor under the California Endangered Species Act). The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). The biological monitor shall, immediately upon finding the remains, coordinate with the onsite construction foreman to discuss the events that caused the mortality, if known, and implement measures to prevent future incidents. Details of these measures shall be included with the report. If possible, species remains shall be collected and frozen as soon as possible, and CDFW and/or USFWS shall be contacted regarding ultimate disposal of the remains.

**B-6:** BMPs will be implemented as standard operating procedures during all construction-related activities to avoid or minimize impacts on biological resources. These BMPs will include but are not limited to the following:

- a. Vehicles and equipment shall be parked on designated staging or parking areas, pavement, existing roads, and previously disturbed areas to the extent practicable.
- b. No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is constructed. Spill kits shall be maintained onsite in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven and/or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of materials.
- c. All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps, cigarettes, etc.) and other human-generated debris scheduled to be removed weekly will be stored in animal-proof containers and/or removed from the site each day. No deliberate feeding of wildlife will be allowed.
- d. Use of chemicals, fuels, lubricants, or biocides will be in compliance with all local, state and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation, as well as additional Section 408 Proposal-related restrictions deemed necessary by the USFWS and CDFW. Any contractor or employee that inadvertently kills or injures a special-status animal, or finds one either dead, injured, or entrapped, will immediately report the incident to the onsite representative identified in the environmental training. The representative will contact the appropriate agency(ies) (e.g. USFWS, CDFW, and/or VCWPD) by telephone by the end of the day, or at the beginning of the next working day if the agency office is closed. In addition, formal notification shall be provided in writing within three working days of the incident or finding. Notification will include the date, time, location and circumstances of the incident. Any

threatened or endangered species found dead or injured will be turned over immediately to CDFW or USFWS, as appropriate, for care, analysis, or disposition.

- e. Avoidance and minimization of construction activities resulting in impacts to jurisdictional wetlands, streambeds, and banks of any jurisdictional ephemeral drainage, except as authorized by regulatory agencies.
- f. All excavation, steep-walled holes or trenches in excess of 6 inches in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth dirt fill or wooden planks. Trenches will also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife discovered will be allowed to escape before construction activities are allowed to resume, or removed from the trench or hole by a qualified approved biologist holding the appropriate permits (if required).

**B-7:** A Spill Prevention and Contingency Plan for work adjacent to the Sespe Creek is a key component of the Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall be implemented prior to and during site disturbance and construction activities. The SWPPP will include measures to prevent or avoid an incidental leak or spill, including identification of materials necessary for containment and clean-up and contact information for management and agency staff. The SWPPP and necessary containment and clean-up materials shall be kept within the construction area during all construction activities. Workers shall be educated on measures included in the SWPPP at the pre-construction meeting or prior to beginning work on the Section 408 Proposal. VCWPD staff shall contact appropriate authorities in the County or affected municipalities.

**B-8:** Prior to any site disturbance within the recognized breeding season (March 15 to September 15) for nesting birds (i.e., mobilization, staging, grading or construction), the VCWPD shall retain a qualified biologist to conduct pre-construction surveys for nesting birds in all areas within 500 feet of Section 408 Proposal components. Surveys for raptors shall be conducted for all areas from February 1 to August 15. The required survey dates may be modified based on local conditions, as determined by a qualified biologist, with the approval of the USFWS and/or CDFW. Measures intended to exclude nesting birds shall not be implemented without prior consultation with the USFWS and/or CDFW and shall not exceed Ventura County noise standards.

If breeding birds with active nests are found prior to or during construction, a biological monitor shall establish a 300 foot buffer around each nest and a 500 foot buffer for raptors from ground-based construction activities and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. The prescribed buffers may be adjusted to reflect existing conditions including ambient noise, topography, and disturbance with the approval of the CDFW and/or USFWS as appropriate. If for any reason an active bird nest must be removed during the nesting season, written documentation providing concurrence from the USFWS and CDFW authorizing the nest relocation must be obtained.

**B-9.1:** No more than 15 days prior to grading near or the removal of trees or other structures, the Applicant shall retain a qualified biologist, to conduct pre-construction surveys for sensitive bats. Should construction activities extend into the known maternity season for bats (1 March to 31 July) additional surveys shall be conducted in all suitable habitat within 300 feet of Section 408 Proposal activities.

If active maternity roosts or hibernacula are found, the structure or tree occupied by the roost shall be avoided (i.e., not removed), if feasible. If avoidance of the maternity roost is not feasible, the biologist shall survey for nearby alternative maternity colony sites. If the biologist determines in consultation with the CDFW that there are alternative roost sites used by the maternity colony and young are not

present then no further action is required, and it will not be necessary to provide alternate roosting habitat. (i.e., MM B-9.2 would not apply although MM B-9.3 would still apply). However, if there are no alternative roosts sites used by the maternity colony, MM B-9.2 is required. If no active roosts are found, then no further action is required. If active maternity roosts are absent, but a hibernaculum (i.e., a non-maternity roost) is present, then MM B-9.2 is not necessary, but MM B-9.3 is required.

**B-9.2:** If a maternity roost will be impacted by the Section 408 Proposal, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the Section 408 Proposal site no less than three months prior to the eviction of the colony. Alternative roost sites will be constructed in accordance with the specific bats requirements in coordination with CDFW. By making the roosting habitat available prior to eviction (MM B-9.2), the colony will have a better chance of finding and using the roost. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. The CDFW shall also be notified of any hibernacula or active nurseries within the construction zone.

If construction of alternative roost sites is required, the biologist shall provide a written report, documenting the required coordination with CDFW as well as the location of roost sites.

**B-9.3:** If non-breeding bat hibernacula are found in structures or trees scheduled to be removed, the individuals shall be safely evicted, under the direction of a qualified biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified biologist shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (i.e., there shall be no less or more than one night between initial disturbance and the grading or tree removal).

If an active maternity roost is located in an area to be impacted by the Section 408 Proposal, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (i.e., prior to 1 March) or after young are flying (i.e., after 31 July) using the exclusion techniques described above.

## **Cultural Resources**

**C-1:** In the event that archaeological resources are found during Section 408 Proposal implementation, the on-site supervisor shall contact an approved archaeological consultant immediately. The on-site supervisor shall additionally divert all Section 408 Proposal-related activities to other areas until the discovery has been evaluated by the approved archaeological consultant, who will determine if further mitigation measures are warranted.

**C-2:** If human remains are encountered during excavations associated with this Section 408 Proposal, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include A) the nondestructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains

and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment.

### **Public Health and Safety**

**PS-1:** Public access to the active construction work site shall be prohibited. The Sespe Creek Bike Trail between SR 126 and Old Telegraph Road will be temporarily closed during the five- to six-month project construction period. Temporary exclusionary fencing and signage will be erected at the entrances to this section of the bike path notifying the public of the temporary closure. The VCWPD shall inform the public of these construction period restrictions by posting project activity information on signs, newspaper announcements, and/or direct communication such as phone calls or mailers. These postings/communications by the VCWPD shall first occur at least one week prior to Section 408 Proposal activities.

**PS-2:** A Communication Plan shall be developed by VCWPD and implemented during all Section 408 Proposal activities. The Communication Plan shall describe how local authorities shall be notified of public safety concerns, incidents, and emergencies.

**PS-3:** The contractor shall employ appropriate signaling and signage to accommodate interruptions in existing traffic flows. These measures shall be defined in the Traffic Control Plan.

**PS-4:** Prior to implementation of the Section 408 Proposal, relevant fire, police, and other emergency service agencies of the proposed work areas shall be notified of potential congestion, and traffic management methods to be used to ensure access at all times.

**PS-5:** A Safety Plan, in accordance with applicable Corps standards, shall be developed and implemented during all construction activities. The Safety Plan shall include evacuation procedures in response to natural disaster(s), as well as from the channel with a forecast storm event.

**PS-6:** On-site re-fueling of the equipment would be accomplished at least 50 feet away from flowing water and with the use of liners. Best Management Practices (BMPs) would be used and include such actions as having hazardous waste clean-up equipment and spill kits staged on-site, using the appropriate size and gauge drip pans and absorbent diapers. Spill kits shall be in close proximity to the fuel truck in case of fuel or other fluid spills. All equipment would be checked for leaks prior to operation and repaired as necessary.

**PS-7:** Fluids released because of spills, equipment failure (broken hose, punctured tank) or refueling would be immediately controlled, contained, and cleaned-up per Federal regulations. All contaminated materials would be disposed of promptly and properly to prevent contamination of the site. Someone would be present to monitor refueling activities to ensure that spillage from overfilling, nozzle removal, or other action does not occur.

### **Traffic and Transportation**

**T-1:** Haul routes shall be designed to minimize distances to the work site and avoid heavily congested areas or large residential communities to the maximum extent feasible.

**T-2:** The contractor shall submit a Traffic Control Plan to the County of Ventura for review and approval at least 30 days prior to the onset of construction. The Traffic Control Plan shall demonstrate practices and safety precautions designed to minimize temporary traffic impacts, including but not limited to the signage requirements required per environmental commitment PS-3.

**T-3:** If damage to roads occurs, the contractor shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired. Roads disturbed by trucks or equipment shall be properly restored to ensure long-term protection of road surfaces. Such repairs shall occur as part of the active construction period.

**T-4:** The contractor shall obtain all applicable permits and clearances from appropriate agencies for transporting and hauling equipment and debris.

## **5.0 ENVIRONMENTAL COMPLIANCE**

### **5.1 National Environmental Policy Act (NEPA) Compliance**

The NEPA is the nation's primary charter for protection of the environment. It establishes national environmental policy which provides a framework for Federal agencies to minimize environmental damage and requires Federal agencies to evaluate the potential environmental impacts of their proposed actions. Under NEPA, a Federal agency must prepare an EA describing the environmental effects of any proposed action having a significant impact on the environment. The EA must identify measures necessary to avoid or minimize adverse impacts resulting from the proposed action or determine if further analysis is required and prepare an Environmental Impact Statement (EIS).

This EA has been prepared to comply with the requirements of NEPA of 1969 (42 USC 4321, as amended) and the CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508), dated 1 July 1988.

### **5.2 US Fish and Wildlife Coordination Act (16 USC 661)**

This Act requires Federal agencies to coordinate with the USFWS and local and state agencies when any stream or body of water is proposed to be modified. The intent of this act is to give fish and wildlife conservation equal consideration with other purposes of water resources development projects.

The Preferred Alternative would not involve modification of a body of water, therefore, formal coordination and preparation of a Coordination Act Report is not required.

### **5.3 Endangered Species Act of 1973 (Public Law 93-205), as amended**

The Endangered Species Act (ESA) protects threatened and endangered species listed by the USFWS from unauthorized "take," and directs Federal agencies to ensure that their actions do not jeopardize the continued existence of such species. Section 7 of the ESA defines Federal agency responsibilities for consultation with the USFWS. As described in Section 3.6, no special-status wildlife or plants were observed within the Section 408 Proposal area during surveys conducted for the Section 408 Proposal; however, numerous special-status species have been observed, detected, or previously reported in the larger survey area. Detailed analysis of endangered species and discussion of survey efforts conducted for the Section 408 Proposal are provided in Initial Study Section C.4.

Under the Preferred Alternative, and with implementation of the environmental commitments detailed in Section 4.0, there would be no significant adverse impacts to endangered species.

### **5.4 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. Almost all native birds are covered by this Act and any bird listed in wildlife treaties between the United States and several countries, including Great Britain, Mexican States, Japan, and countries once part of the former Soviet Socialist Republics. A "migratory bird" includes the living bird, any parts of the bird, or its nests or eggs. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requires harvesting to be limited to levels that prevent over-utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take

of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. Disturbance of the nest of a migratory bird requires a permit issued by the USFWS pursuant to Title 50 of the CFR.

Under the Preferred Alternative, and with implementation of the environmental commitments detailed in Section 4.0, there would be no significant adverse impacts to migratory bird breeding or nesting activity.

## 5.5 Clean Water Act

The Federal Water Pollution Control Act was passed in 1972, and was amended in 1977 as the Clean Water Act (CWA, 33 USC 1251, 1376). The CWA was reauthorized in 1981, 1987, and 2000, and establishes the basic structure for regulating discharges of pollutants into federally jurisdictional waters, or Waters of the U.S. The U.S. Environmental Protection Agency (USEPA) has the authority to implement pollution control programs under the CWA, which requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface waters. Many pollutants are regulated under the CWA, including various toxic pollutants, total suspended solids, biological oxygen demand and pH (acidity/alkalinity measure scale). Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process. Specific sections of the CWA are summarized below, with respect to the Section 408 Proposal.

- **Section 401** of the CWA requires the State (via the nine RWQCBs) to issue Water Quality Certifications (WQC) for licenses or permits issued for, among other things, the discharge of dredged or fill materials to Waters of the United States which are located within the State. In order for a Section 401 WQC to be required, the activity causing the discharge must be authorized by a permit or license issued by a federal agency.

As described in Initial Study Section C.4, a planning level preliminary wetlands/waters jurisdictional delineation was conducted in March 2012 and portions of the Study Area were identified as potentially jurisdictional wetlands/waters; however, construction and operational activities would avoid impacts to potentially jurisdictional wetlands/waters.

- **Section 402** of the CWA prohibits the discharge of pollutants from point sources to Waters of the U.S., unless authorized under an NPDES permit issued by the USEPA; one exception to this is the discharge of dredged or fill material, which is regulated under Section 404 of the CWA. In California, NPDES permitting authority is delegated by the USEPA to the State Water Resources Control Board (SWRCB) and administered by the nine RWQCBs. Projects that disturb one or more acres and would result in discharge(s) to Waters of the U.S. are required to obtain NPDES coverage by meeting the following criteria:
  - Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies BMPs that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters;
  - Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation; and
  - Perform inspections of all BMPs.

NPDES coverage under the Construction General Permit also regulates non-stormwater discharges, such as those associated with dewatering of excavation areas.

As noted above, the Preferred Alternative would avoid impacts to Waters of the U.S. However the Preferred Alternative is located within the jurisdiction of the Los Angeles

RWQCB, and would be implemented in compliance with this RWQCB's NPDES Municipal Separate Storm Sewer System (MS4) Order (NPDES Permit CAS004002) for stormwater (wet weather) and non-stormwater (dry weather) discharges from the MS4 within the VCWPD, the County of Ventura, and the incorporated cities within the county (Los Angeles RWQCB, 2010).

- **Section 404** of the CWA establishes a permit program administered by the Corps, which regulates the discharge of dredged or fill material into Waters of the U.S. (including wetlands). Guidelines for implementation of this portion of the CWA are referred to as the Section 404(b)(1) Guidelines and were developed by the USEPA in conjunction with Corps (40 CFR 230). The Guidelines allow the discharge of dredged or fill material into Waters of the U.S. only if there is no practicable alternative that would have less adverse impacts. As noted above, the Preferred Alternative would avoid impacts to Waters of the U.S.

As described in Initial Study Section C.4, a planning level preliminary wetlands/waters jurisdictional delineation was conducted in March 2012 and portions of the Study Area were identified as potentially jurisdictional wetlands/waters; however, construction and operational activities would avoid impacts to potentially jurisdictional wetlands/waters.

- **Section 303(d)** of the CWA requires States to identify "impaired" waterbodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to the USEPA for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of the Section 303(d) listing process, States are required to prioritize waters and watersheds for future development of Total Maximum Daily Load (TMDL) requirements. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop TMDL requirements.

Sespe Creek is listed on the current Section 303(d) list as impaired for Chloride and pH, from 500 feet below the confluence of Sespe Creek and Little Sespe Creek, to the headwaters of Sespe Creek. This reach of Sespe Creek is upstream of the Section 408 Proposal area. As described in Initial Study Section C.2, the Los Angeles RWQCB manages an ongoing TMDL program for the Santa Clara River watershed, including Sespe Creek.

The Preferred Alternative would require VCWPD's compliance with the County of Ventura's Countywide Stormwater Quality Management Program and Ventura Countywide Post-Construction Stormwater Management Plan (PCSMP) for the VCWPD, the County of Ventura, and the Cities of Ventura County (VCWPD, 2011a). BMPs to minimize or avoid potential water quality impacts are identified in the Ventura Countywide PCSMP, as well as the County's "Technical Guidance Manual for Stormwater Quality Control Measures," which was updated in 2011 (VCWPD, 2011b). As noted above, the Section 408 Proposal would occur in compliance with the County's PCSMP; BMPs identified in the PCSMP and the Technical Guidance Manual would be implemented as appropriate. The Preferred Alternative would meet all requirements of the CWA.

## 5.6 Clean Air Act of 1970 (42 USC 7401 et seq.)

The 1977 Amendments to the Clean Air Act enacted legislation to control seven toxic air pollutants. The USEPA adopted National Emission Standards for Hazardous Air Pollutants, which have been designed to control Hazardous Air Pollutants and emissions to prevent adverse

health effects in humans. 1990 Amendments to the Clean Air Act determine the attainment and maintenance of NAAQS (Title I), motor vehicles and reformulation (Title II), hazardous air pollutants (Title III), acid deposition (Title IV), operating permits (Titles V), stratospheric ozone protection (Title VI), and enforcement (Title VII).

The Preferred Alternative does not include any stationary sources that would be subject to permitting or recordkeeping requirements of the Clean Air Act; however, under Section 176(c) of the Clean Air Act Amendments (CAAA) of 1990, the Lead Agency is required to make a determination of whether the Preferred Alternative “conforms” to the State Implementation Plan (SIP). Conformity is defined in Section 176(c) of the CAAA as compliance with the SIP’s purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. However, if the total direct and indirect emissions from a proposed project are below the General Conformity Rule “*de minimis*” emission thresholds, the Preferred Alternative would be exempt from performing a comprehensive Air Quality Conformity Analysis and would be considered to be in conformity with the SIP.

Based upon the analysis of air quality impacts, a conformity determination for a specific pollutant is not required because for each criteria pollutant or precursor the total of direct and indirect emissions of the criteria pollutant or precursor in the nonattainment area caused by the Preferred Alternative would not equal or exceed any of the rates in 40 CFR 93.153(b)(1) or (b)(2). As a result, the Preferred Alternative conforms to the CAA (see Table 3.4-1). With approval of the Preferred Alternative, VCWPD would be required to implement environmental commitments (AQ-1 to AQ-5) to ensure that impacts to air quality are not considered to be regionally significant, such that construction emissions would not violate NAAQS or state standards and emissions would be below the *de minimis* thresholds (see Table 3.4-1). The Preferred Alternative would have no long-term impacts on local or regional air quality.

Based upon a recent U.S. Supreme Court decision (*Massachusetts v. EPA* (2007) 549 U.S. 497), the USEPA has been given the authority to regulate CO<sub>2</sub> or GHG emissions as an air pollutant under the federal Clean Air Act (42 USC 7602(g)). The USEPA has adopted *40 CFR Part 98 – Mandatory Reporting of Greenhouse Gases Rule* which requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons of CO<sub>2</sub>e emissions per year (Corps, 2009) and *40 CFR Part 52 – Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule* which mandates Prevention of Significant Deterioration (PSD) permitting to facilities whose stationary source CO<sub>2</sub>e emissions exceed 75,000 tons per year (USEPA, 2011). Neither of these regulations is applicable to the Preferred Alternative because it has no operating stationary emission sources that are subject to these regulations.

### **5.7 Noise Control Act of 1972, as amended (42 USC 4901 et seq.)**

Noise generated by any activity, which may affect human health or welfare on Federal, state, county, local, or private lands must comply with noise limits specified in the Noise Control Act of 1972. Major sources of noise include transportation vehicles and equipment, machinery, appliances, and other products in commerce. The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. Primary responsibility for control of noise rests with state and local governments, although the USEPA is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control.

The Preferred Alternative would result in temporary construction-related noise emissions; however, VCWPD would be required to reduce noise impacts through implementation of

environmental commitments (N-1 through N-7). Operation and maintenance of the Preferred Alternative would not alter the existing noise environment, as operation and maintenance activities would remain unchanged.

### **5.8 National Historic Preservation Act (Public Law 89-665; 16 USC 470-470m, as amended, 16 USC 460b, 470l-470n)**

The National Historic Preservation Act (NHPA) of 1966 establishes the National Register of Historic Places (or “National Register”) and defines the Section 106 process requiring federal agencies to consider the effects of an action on cultural resources in or eligible for listing in the National Register. Criteria for determining eligibility of cultural resources are provided in 36 CFR 800. Even cultural resources that have not yet been discovered are subject to Section 106 review.

The Preferred Alternative would not impact cultural resources. As discussed in Section 3.7 (Cultural Resources), the Native American Heritage Commission (NAHC) was contacted with regard to potential sacred lands issues and requesting a search of their files for sensitive or sacred cultural resources that may have relevance to the SC-2 Levee area. A letter response was received from the NAHC on February 12, 2012 indicating that no known Native American resources will be affected by the Preferred Alternative. In addition, no previously recorded prehistoric or historic archaeological resources or historic properties that meet eligibility or significance criteria under the National Register of Historic Places, or appear eligible as State, county or local landmarks, exist within the boundaries of the Section 408 Proposal area. Consequently, the Corps determined that the Preferred Alternative would have no potential to effect cultural resources.

In compliance with Section 106 requirements, the NAHC and State Historic Preservation Officer (SHPO) were provided a copy of this Draft Environmental Assessment (EA) for consultation, review, and comment. All concerns will be presented in the Final EA. As discussed in Sections 3.7 and 4.0 (Environmental Commitments), if any unanticipated cultural resources are discovered during earth-disturbing activities associated with construction or operation and maintenance, they will need to be evaluated for their eligibility for inclusion in the National Register of Historic Places pursuant to 36 CFR 800.13(b), post-review discoveries.

### **5.9 Comprehensive Environmental Response, Compensation and Liability Act**

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provided the USEPA with the authority to identify and clean up contaminated hazardous waste sites. Individual states may implement hazardous waste programs under the Resource Conservation and Recovery Act (RCRA) with approval of the USEPA. California has not yet received this approval; instead, the California Hazardous Waste Control Law (HWCL) is administered by the California Environmental Protection Agency (CALEPA) to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the state and Federal laws apply in California. CERCLA also contains enforcement provisions for the identification of liable or responsible parties. It details the legal claims that arise under the statute, and provides guidance on settlements with the USEPA. Section 120 of CERCLA addresses hazardous waste cleanups at Federal facilities, and requires the creation of a Federal Agency Hazardous Waste Compliance Docket, which lists facilities that have the potential for hazardous waste problems.

As described in Initial Study Section C.20, a search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR) for a 0.5-mile radius of the construction area to meet the search requirements of EPA’s Standards and Practices for All Appropriate Inquiries (40 CFR 312) for identifying hazardous material/waste sites. Four existing

and historic underground storage tanks were identified in this search, but would not be collocated with or impeded upon by implementation of the Preferred Alternative, and the likelihood of encountering such facilities is extremely low. During implementation (construction and operation/maintenance) of the Preferred Alternative, conformance with CERCLA would only be engaged if unforeseen waste is found or abandoned on-site in the future.

### 5.10 Executive Order 11988, Floodplain Management

Executive Order 11988 was signed into law on May 24, 1977, requiring that Federal agencies provide leadership and take action to restore and preserve the natural and beneficial values served by floodplains. Before proposing, conducting, supporting, or allowing an action in the floodplain, each Federal agency must determine if planned activities would affect the floodplain and evaluate the potential effects of the intended action on the floodplain's functions.

Guidelines for compliance with Executive Order 11988 identify an eight-step process for agencies to use in determining how projects would have potential impacts to or within the floodplain. As described in this guidance, if a proposed action is located within the base floodplain (Step 1), where the "base floodplain" is the area which has a one percent or greater chance of flooding in any given year (also referred to as the "100-year Flood Zone," "Flood Hazard Area," or "0.1 Exceedance Area"), agencies should conduct early public review (Step 2), identify and evaluate practicable alternatives to locating in the base floodplain (Step 3), identify impacts of the proposed action (Step 4), develop measures to minimize the impacts and restore and preserve the floodplain as appropriate (Step 5), reevaluate alternatives (Step 6), and present the findings and a public explanation (Step 7), with the final step being to implement the action (Step 8) (FEMA, 2012).

The Preferred Alternative has been considered with respect to each of these steps, which are detailed below.

- **Step 1: Location within Floodplain** The Sespe Creek Levee system is located within the 0.1 exceedance area, or the area with a one percent chance of being inundated by stormwater flows during any given year. As a flood control project, it is essential that the Sespe Creek Levee system be located in this area.
- **Step 2: Public Review** The VCWPD held a public meeting on January 19, 2012 to inform the public of the project and to solicit public input regarding the range of preliminary design alternatives being considered. Public comments were submitted verbally, and included the following concerns: sediment is expected to rise again, such that the levee may need to be raised again and again; consider mining of the riverbed (to maintain flood capacity); degradation of the levee's integrity due to foot traffic in unauthorized areas; graffiti and graffiti removal responsibilities; allow levee walls to be vegetated after construction to deter graffiti; and flood diversion alternative(s) should be better explored. Verbal responses were provided by VCWPD to all public comments submitted during the January 19th meeting.
- **Step 3: Alternatives Outside the Floodplain** The Preferred Alternative is designed specifically to accommodate the 0.1 exceedance level within the floodplain, thereby protecting existing developed areas from flood-related hazards; there are no alternatives located outside of the floodplain that would accomplish the goals of the project or fulfill the purpose and need for the project.
- **Step 4: Impact Analysis** Potential impacts of the Preferred Alternative are identified and assessed in Section 3.0 of this EA, with additional information and details provided in the Initial Study included as Appendix B of this EA.
- **Step 5: Mitigation Measures** Environmental commitments which are identified in Section 4.0 of this EA have been incorporated as part of the design of the proposed

alteration/modification to avoid or minimize potential environmental impacts of the Preferred Alternative.

- **Step 6: Alternatives Analysis** Section 3.0 of this EA includes analysis of alternatives, including the following: Alternative 1, No Action Alternative; Alternative 2, Earthen Fill/Retaining Wall Hybrid Alternative (Preferred Alternative); Alternative 3, Earthen Fill on Landward Side Alternative, and Alternative 4, Retaining Wall on Landward Side Alternative.
- **Step 7: Presentation of Findings** The findings of the environmental analysis for the Section 408 Proposal are presented throughout this EA (see Section 3.0), as supported by the Initial Study included as Appendix B. This EA and the attached Initial Study are being published for public review.
- **Step 8: Implementation** Implementation of the Section 408 Proposal Preferred Alternative or an alternative of the Section 408 Proposal would occur only after the Corps' decision makers have used the Final EA with other relevant materials in considering all environmental impacts, and issued a Finding of No Significant Impact (FONSI) or determined that an Environmental Impact Statement (EIS) must be prepared.

Based on the above discussion, it has been determined that the Preferred Alternative would be in compliance with Executive Order 11988. The Preferred Alternative would have no adverse effects on floodplain function, and the Preferred Alternative is recommended as the most responsive option to planning objectives and requirements established by Executive Order 11988.

### **5.11 Executive Order 11990, Protection of Wetlands**

Under Executive Order 11990, Federal agencies shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies responsibilities. Each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds that there is no practicable alternative to such construction, and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding, the head of the agency may consider economic, environmental, and other pertinent factors. Each agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands.

A planning-level preliminary wetlands/waters jurisdictional delineation was conducted in the Section 408 Proposal area in March of 2012 and potential jurisdictional wetlands/waters were identified. The Preferred Alternative has been designed to avoid impacts to potential jurisdictional wetlands/waters. The Preferred Alternative would occur in compliance with Executive Order 11990. In addition, as described in the FONSI, the Preferred Alternative is selected by the Corps from among other considered alternatives because it would result in the least environmental impacts.

### **5.12 Executive Order 12088, Federal Compliance with Pollution Control Standards**

Under Executive Order 12088 of 1978, Federal agencies are required to ensure compliance of agency decisions with all applicable pollution control standards, laws, and regulations, including but not limited to the following: Toxic Substances Control Act; Federal Water Pollution Control Act; Public Health Service Act; Clean Air Act; Noise Control Act of 1972; Solid Waste Disposal Act; Radiation guidance pursuant to Section 274(h) of the Atomic Energy Act of 1954; Marine Protection, Research, and Sanctuaries Act of 1972; and Federal Insecticide, Fungicide, and Rodenticide Act. The head of each Executive agency is responsible for ensuring that all

necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under control of the agency.

The Preferred Alternative would be conducted in compliance with State regulations governing pollution control and hazardous wastes, including those defined by the Department of Toxic Substances Control, which require the safe disposal of all hazardous waste. The only soil spoils associated with the Preferred Alternative would be from tree removal (soil within tree root balls), and all vegetative material would be disposed of at the nearest green waste recycling facility. All Preferred Alternative activities would be conducted in accordance with standard VCWPD contract specification and requirements, as well as Federal, State and local laws, regulations and ordinances. The Preferred Alternative would meet the standards of Executive Order 12088.

### **5.13 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

Executive Order 12898 was signed on February 11, 1994, directing Federal agencies to “...make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the [U.S.]...”

The Preferred Alternative would remove developed areas from flood hazard areas. As described in Section 3.12, no minority or low-income communities would be disproportionately affected by implementation of the Preferred Alternative. The Preferred Alternative would occur in compliance with Executive Order 12898.

### **5.14 Executive Order 13112, Invasive Species**

Under Executive Order 13112, signed into law on February 3, 1999, Federal agencies are to expand and coordinate efforts to prevent the introduction and spread of invasive species and to minimize the economic, ecological, and human health impacts that invasive species may cause.

Under the Preferred Alternative, it is possible that the colonization of non-native, invasive plant species could occur due to increased human presence on foot or equipment. However, the environmental commitments detailed in Section 4.0 would be implemented to minimize or avoid potential impacts to biological resources, including as related to invasive species. The Preferred Alternative also includes eradication of vegetation from within the Corps' VFZ, which would include the eradication of any present invasive plant species. The Preferred Alternative would meet the intent of Executive Order 13112, and would occur in compliance with all associated requirements.

## 6.0 LIST OF PREPARERS

The following tables list the individuals that assisted with the review and preparation of this EA.

**Table 6-1. Corps' Reviewers**

<b>Name</b>	<b>Title</b>	<b>Role</b>
Deborah Lamb	Landscape Architect, RLA 3115	Environmental Coordinator
Stephen Dibble	Archeologist	Archeologist
Lillian Dampios	Office of Counsel	Reviewer

**Table 6-2. Ventura County Reviewers**

<b>Name</b>	<b>Affiliation</b>	<b>Role</b>
Elizabeth Martinez	Ventura County Watershed Protection District	Project Environmental Planner
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Yugal Lall	Ventura County Watershed Protection District	Water Quality Engineer
Melinda Talent	Ventura County Resource Management Agency Environmental Health Division	Local Enforcement Agency Environmental Planner
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Ben Emami	Ventura County Public Works Agency Transportation Department	Transportation Engineering Manager
Pandee Leachman	Ventura County Public Works Agency Integrated Waste Management Division	Environmental Resource Analyst
John Dodd	Ventura County Fire Protection District	Senior Fire Inspector
Alicia Stratton	Ventura County Air Pollution Control District	Air Quality Analyst
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Allan Coulson	Ventura County Department of Airports	Airports Project Manager
Laura Hernandez	Ventura County Sheriff's Department	Law Enforcement Officer

**Table. 6-3. Preparers – Aspen Environmental Group**

<b>Name</b>	<b>Education and Experience</b>	<b>Role</b>
Lisa Blewitt	B.S., Chemical Engineering, 1996 16 years of experience	Project Manager, Description of Alternatives, Noise
Aubrey Mescher	Master of Environmental Science and Management, 2005 B.A., Environmental Studies, 2000 7 years of experience	Deputy Project Manager, Description of Alternatives, Water Resources
Susanne Huerta	Master of Urban Planning, 2007 B.A., Geography, 2004 6 years of experience	Introduction, Land Use, Aesthetic Resources, Recreation Resources
Will Walters	B.S., Chemical Engineering, 1985 Professional Engineer (P.E.) 26 years of experience	Air Quality/Climate Change
Jared Varonin	B.S., Ecology and Systematic Biology, 1999 11 years of experience	Biological Resources Reviewer
Justin Wood	M.S., Biology, 2011 B.S. Biology, 2006 11 years of experience	Biological Resources
Scott DeBauche	B.S., Urban Planning, 1995 16 years of experience	Public Health and Safety, Socioeconomic and Environmental Justice
Stan Yeh	M.P.A., Environmental Policy, 2004 B.S., Environmental Studies, 1998 14 years of experience	Cultural Resources, Hazardous Waste and Materials, Public Services and Utilities

**SUBCONTRACTORS**

<b>Name</b>	<b>Affiliation</b>	<b>Education and Experience</b>	<b>Role</b>
Aurie Patterson	Geotechnical Consultants, Inc.	Graduate Study in Geology, 1990-1993 B.A., Geology, 1989 Professional Geologist No. 7083, State of California 16 years of experience	Geology and Soils
Richard Garland	Garland & Associates	M.S., Civil Engineering, 1980 B.S., Civil Engineering, 1976 Registered Traffic Engineer (P.E.) 30+ years of experience	Traffic and Transportation

## **7.0 RECOMMENDATION**

The recommended alternative, the Earthen Fill/Retaining Wall Hybrid Alternative (Alternative 2 - Preferred Alternative) would most effectively meet the need and purpose of the Section 408 Proposal. The implementation of the measures described in Chapter 4.0, Environmental Commitments, would minimize or avoid potential impacts of the Section 408 Proposal.

This hybrid alternative would combine the simplicity of construction associated with the earthen fill alternative (Alternative 3) with a short 321-foot section of retaining wall to avoid encroachment and acquisition of residential properties, specifically Residences #1, #2, and #3. The Preferred Alternative (Alternative 2) would meet the purpose and need for the Section 408 Proposal by providing effective flood risk management, providing the most cost effective solution, and causing the least environmental impacts.

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# **Appendix A**

## **Glossary and Acronyms**

## GLOSSARY

### A

- alignment** In transportation, the horizontal and vertical ground plan of a roadway, railroad, transit route, or other facility as it would appear in plan and profile.
- alluvial** Relating to or deposited by flowing water.
- Alquist-Priolo** The earthquake fault zone that covers Alameda, Imperial, Riverside, San Diego, and Ventura counties.
- attainment area** An area considered to have air quality standards that are good or better than the National Ambient Air Quality standards as defined in the Clean Air Act.
- A-weighted decibel (dBA)** Unit for measuring sound in which the sensitivity of the human ear to certain frequencies is taken into account.

### B

- best management practice (BMP)** Techniques used in various industries to assure that projects, work, or processes meet regulatory or industry standards.

### C

- cumulative impact** The effects of two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts.

### D

- decibel (dB)** Unit for measuring sound, based on a logarithmic scale.
- de minimis** Minimal importance.

## **E**

### **equivalent sound-level (Leq)**

The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.

### **erosion**

The process by which the Earth's surface gets worn down due to natural processes such as water and wind flow.

### **expansive soils**

Soils characterized by their ability to undergo significant volume change (shrink and swell) due to variation in soil moisture content. Expansive soils are typically very fine grained with a high to very high percentage of clay. The amount and type of clay minerals in the soil influence volume change.

## **F**

### **fault**

A fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side.

### **frequency**

A measure of how rapidly sound pressure fluctuates over one second, in units of hertz.

### **fugitive dust**

Emissions of windblown dust from sources other than exhaust stacks (e.g., wheel dust from unpaved roads).

## **H**

### **Holocene**

An epoch of the Quaternary period spanning the time from the end of the Pleistocene (8,000 years ago) to the present

### **hydraulics**

The study of the mechanical properties of liquids.

### **hydrology**

The study of the occurrence, distribution, movement and properties of water on Earth.

## **I**

### **impact**

The effect of an action on the environment.

## **L**

### **Leq**

Equivalent sound pressure level-the steady sound level that, over a specified period of time, would produce the same energy equivalence as the fluctuating sound level actually occurring.

**liquefaction** The phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong groundshaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude and frequency of earthquakes in the surrounding region.

## **M**

**mitigation  
(mitigation  
measure)**

Methods proposed to avoid, minimize, rectify, reduce, eliminate, or compensate for a significant impact.

## **N**

**noise**

Unpleasant, unwanted, undesirable, or disturbingly loud sound that disrupts a person's quality of life by interfering with communication, sleep, and/or leisure.

**nonattainment  
area**

An area considered to have air quality standards that are worse than the National Ambient Air Quality standards as defined in the Clean Air Act.

## **P**

**peak ground  
acceleration**

The measure of earthquake acceleration on the ground.

**Pleistocene**

The latest major geological epoch, colloquially known as the "Ice Age" due to the multiple expansion and retreat of glaciers.

## **Q**

**Quaternary**

The most recent period in the Earth's history.

## **S**

**safety**

The protection of people from accidental occurrences that could injure or kill them and protection of property from such accidents.

**sedimentation**

A process used to settle out suspended solids in water under the influence of gravity.

**seiche** A series of waves caused by an earthquake within an enclosed or semi-enclosed body of water.

**sensitive receptor** An individual who is more susceptible to the effects of air pollution than the general population. Sensitive receptors generally include children and elderly individuals.

**subsidence** General term for the slow, long-term regional lowering of the ground surface with respect to sea level.

## **T**

**tsunami** A series of waves generated by an undersea disturbance, such as an earthquake or landslide.

## **W**

**wetlands** Areas “inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” (33 CFR 328.3, 40 CFR 230.3).

## ACRONYMS

A-P	Alquist-Priolo
APN	Assessor Parcel Number
AQ	Air Quality
ASA (CW)	Secretary of the Army for Civil Works
BMP	Best management practice
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CALEPA	California Environmental Protection Agency
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CERCLA	Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Survey
CH <sub>4</sub>	methane
CMB	crushed miscellaneous base
CMU	concrete masonry unit
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
CY	cubic yards
dB	decibel
dBA	A-weighted decibel system
DFIRMs	Digital Flood Insurance Rate Maps
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
EIA	Energy Information Administration
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GHG	Greenhouse gas
H <sub>2</sub> O	water
HWCL	Hazardous Waste Control Law
ICU	intersection capacity utilization
LOMR	Letter of Map Revision
LOS	levels of service
MBTA	Migratory Bird Treaty Act
MLD	most likely descendant
MS4	Municipal Separate Storm Sewer System
N <sub>2</sub> O	nitrous oxide

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO <sub>2</sub>	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resources Conservation Service
O <sub>3</sub>	ozone
PACE	Pacific Advanced Civil Engineering, Inc.
PAL	Provisionally Accredited Levee
PCSMMP	Post-Construction Stormwater Management Plan
PE	Professional Engineer
PM10	particulate matter (10 microns)
PM2.5	particulate matter (2.5 microns)
PSD	Prevention of Significant Deterioration
RBF	RBF Consulting
RCRA	Resource Conservation and Recovery Act
ROG	Reactive Organic Gases
ROW	right of way
RWQCB	Regional Water Quality Control Board
SC-2	Sespe Creek Levee 2
SCCAB	South Central Coast Air Basin
SFHA	Special Flood Hazard Areas
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V/C	volume/capacity
VC	Ventura County
VCAPCD	Ventura County Air Pollution Control District
VCFD	Ventura County Fire Department
VCWPD	Ventura County Watershed Protection District
VFZ	vegetation-free zone
VOC	Volatile Organic Compounds
WQC	Water Quality Certification