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ENVIRONMENTAL ASSESSMENT
For
DEMOLITION OF BENNINGTON THEATER
At
NAVAL AIR WEAPONS STATION CHINA LAKE

August 2016



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Abstract

Designation: Environmental Assessment

Title of Proposed Action: Demolition of Bennington Theater

Project Location: Naval Air Weapons Station (NAWS) China Lake

Lead Agency for the EA: Department of the Navy

Cooperating Agency: None

Affected Region: Kern County, California

Action Proponent: NAWS China Lake, Environmental Management Division (EMD)

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Date: August, 2016

The Department of the Navy has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act of 1969, 42 United States Code §§ 4321-4370h, as implemented by the Council on Environmental Quality regulations (40 Code of Federal Regulations parts 1500-1508). The Proposed Action would demolish Building 00020 (Bennington Theater). Bennington Theater is damaged beyond reasonable repair (to include the presence of safety hazards such as damaged friable asbestos, peeling lead-based paint, and mold) and the demolition would substantially reduce NAWS China Lake's infrastructure repair and maintenance costs. The demolition would be expected to take four months to complete. This EA evaluates the potential environmental impacts associated with the Proposed Action and the No Action Alternative to the following resource areas: air quality; geological resources; cultural resources; biological resources; noise; and hazardous materials and waste. No significant impacts to area resources would occur from the implementation of the Proposed Action.

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EXECUTIVE SUMMARY

Proposed Action

The Proposed Action involves demolishing Bennington Theater at Naval Air Weapons Station (NAWS) China Lake.

Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to eliminate the current unsafe condition of Bennington Theater and to reduce NAWS China Lake's inventory of obsolete and unused buildings. The need for the Proposed Action is to comply with the Navy infrastructure reduction program and to eliminate potential environmental contamination due to the building containing damaged friable asbestos-containing materials (ACMs), peeling lead-based paint (LBP), and mold, and due to safety concerns, it cannot be accessed without Personal Protective Equipment.

Alternatives Considered

Alternatives were selected for analysis based upon the following screening criteria:

Eliminate potential safety hazards and human health risks associated with an aging and deteriorating building that contains damaged friable ACMs, peeling LBP, and mold contamination; and

Reduce NAWS China Lake's infrastructure repair and maintenance costs.

The Navy is considering one action alternative that meets the purpose and need for the Proposed Action and a No Action Alternative. The Demolition Alternative (Preferred Alternative) involves demolishing Bennington Theater, removing the foundation and hardscape, and capping underground utility connections. Hazardous substance abatement would occur within the building prior to demolition. After demolition of the structure is completed, the area would be stabilized with gravel and desert landscape. Under the No Action Alternative, Bennington Theater would not be demolished; the building would remain closed and unoccupied. Abatement of damaged friable ACMs, peeling LBP, and mold contamination would not occur.

Summary of Environmental Resources Evaluated in the EA

Council on Environmental Quality regulations, National Environmental Policy Act (NEPA), and Navy instructions for implementing NEPA, specify that an Environmental Assessment (EA) should focus on those resource areas potentially subject to more-than-trivial impacts. In addition, the level of analysis should be commensurate with the anticipated level of environmental impact.

The environmental resource areas analyzed in this EA include: air quality, geological resources, cultural resources, biological resources, noise, and hazardous materials and waste. Because potential impacts were considered to be negligible or nonexistent, the following resources were not evaluated in this EA: airspace, transportation, utilities, public health and safety, socioeconomics, and environmental justice.

Summary of Potential Environmental Consequences of the Demolition Alternative

Air Quality. Proposed demolition and site stabilization activities would involve the operation of heavy equipment and vehicles resulting in localized, short-term air quality impacts. Dust control measures (e.g., watering) would be implemented during ground-disturbing activities to reduce emissions of dust and particulate matter. The predicted total PM₁₀ emissions of 0.12 ton associated with demolition activities are well below the 100 tons per year de minimis level. Emissions associated with the Demolition

Alternative would not hinder maintenance of the National Ambient Air Quality Standards or California Ambient Air Quality Standards.

Geological Resources. Short-term impacts would occur as a result of ground disturbance (less than 1 acre) associated with demolition and site stabilization activities. However, potential erosion effects would be relatively minor and well below the level of significance, with implementation of standard construction practices reducing the potential for such effects still further. Upon completion of demolition activities, the area would be stabilized with gravel and desert landscape that would serve as effective long-term erosion control.

Cultural Resources. Bennington Theater (Building 00020) is eligible for listing in the National Register of Historic Places. Demolition of the building is considered an adverse effect to its eligibility for listing to the National Register of Historic Places. In a letter dated April 29, 2015, the California State Historic Preservation Officer (SHPO) concurred with the Navy's determination that the proposed undertaking would pose an adverse effect to Bennington Theater. Accordingly, the Navy is developing a Memorandum of Agreement (MOA), in conjunction with the California SHPO and the Advisory Council on Historic Properties (ACHP), to document the resolution of any such adverse effect(s) pursuant to the National Historic Preservation Act (NHPA). In doing so, the Navy, SHPO and ACHP are taking into consideration public inputs on potential mitigation measures relating to the proposed demolition. The proposed demolition of Bennington Theater would not result in significant impacts to cultural resources; however, resolution of adverse effects associated with the proposed demolition would further lessen such impacts.

Biological Resources. Bennington Plaza is situated within a highly urbanized area entirely developed with buildings and pavement and contains no open or undeveloped space or potential habitat except for decorative planters containing common ornamental tree and shrub species. Resident wildlife would likely be temporarily displaced due to the increased activity and noise, but would be able to seek similar habitat in the surrounding area. Displacement of common wildlife species is not considered significant due to their ability to seek similar habitat in the surrounding area. There is no habitat present within Bennington Plaza to support any of the listed species identified as having the potential to occur on NAWA China Lake. Additionally, no sensitive habitats are present within Bennington Plaza.

Nesting bird species protected under the Migratory Bird Treaty Act would be avoided to the maximum extent possible. If demolition activities occur during the general avian breeding season (February-August), a pre-demolition nesting bird survey would be conducted to identify active nests. If active nests are identified during the pre-demolition survey, an avoidance buffer (distance per regulatory guidance and/or discretion of monitoring biologist) would be established and the nest would be monitored until the juvenile birds have fledged.

Noise. Noise generated from demolition activities would be intermittent and short term, and would primarily occur at the project site. Once demolition and site stabilization activities are completed, proposed use of the area as open space is not expected to generate a substantial amount of noise.

Hazardous Materials and Hazardous Waste. Any ACMs, LBP, or mold contaminated wastes generated during abatement activities would be characterized, managed, transported, and/or where applicable, disposed of off-installation in accordance with applicable regulations and established procedures. Hazardous materials and wastes used/generated during demolition activities would be managed under established standard operating procedures.

Table ES-1 provides a tabular summary of the potential impacts to the resources associated with the No Action Alternative and Demolition Alternative.

Public Involvement

The Navy has coordinated and consulted with the California SHPO regarding the Proposed Action. As part of the Section 106 consultation process, the Navy conducted a public meeting in the City of Ridgecrest on June 14, 2016 to seek public input on potential mitigation measures for the proposed demolition of Bennington Theater. Input received during the meeting (see Appendix A) is being considered and coordinated with the California SHPO and ACHP in developing an MOA to resolve adverse effects, to include determination of appropriate mitigation measures.

The Navy released the Draft EA for a 15-day public comment period on August 29, 2016. The Notice of Availability of the Draft EA was published in the *Daily Independent*, *News Review*, and *Rocketeer II* (August 29-30, 2016), indicating that the Draft EA was available for review

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Table ES-1. Summary of Potential Impacts to Resource Areas

Resource Area	No Action Alternative	Demolition Alternative
Air Quality	No effect	<ul style="list-style-type: none"> • Short-term demolition emissions. • Dust from demolition activities controlled with BMPs. • Emissions from demolition activities would not hinder maintenance of the NAAQS or CAAQS.
Geological Resources	No effect	<ul style="list-style-type: none"> • Short-term effects during demolition activities. • Potential erosion effects controlled using standard construction practices. • Implementation of standard construction practices would reduce the potential for erosion effects. • Upon completion of demolition activities, the area would be stabilized with gravel and desert landscape that would serve as effective long-term erosion control.
Cultural Resources	Adverse effect from deterioration of a structure that is eligible for the NRHP.	<ul style="list-style-type: none"> • Adverse effect from demolishing a structure that is eligible for the NRHP. • Measures stipulated in an MOA would be implemented to mitigate and minimize already less-than-significant adverse effects.
Biological Resources	<p>No effect to wildlife. No effect to vegetation. No effect to federal or state listed species. No effect to sensitive habitats.</p>	<ul style="list-style-type: none"> • Short-term effects during demolition activities. • Common wildlife could be displaced to surrounding areas. • Common ornamental tree and shrub species would be removed. • No habitat within Bennington Plaza to support listed species having the potential to occur on NAWS China Lake. • If determined necessary, conservation measures focusing on avoidance and minimization of adverse impacts to migratory birds would be implemented during project activities. • No sensitive habitats are present within Bennington Plaza.
Noise	No effect	<ul style="list-style-type: none"> • Short-term, localized noise during demolition activities. • Proposed use of the area as open space would not generate a substantial amount of noise.
Hazardous Materials and Wastes	Damaged friable ACMs, peeling LBP, and mold contamination would remain.	<ul style="list-style-type: none"> • ACMs, LBP, or mold contaminated wastes generated during abatement activities would be disposed of off-installation in accordance with applicable regulations. • Hazardous materials and wastes used/generated during demolition activities would be managed under established standard operating procedures.

ACM = asbestos-containing material
BMP = best management practice
CAAQS = California Ambient Air Quality Standards
LBP = lead-based paint
MOA = Memorandum of Agreement
NAAQS = National Ambient Air Quality Standards

NAWS = Naval Air Weapons Station
NRHP = National Register of Historic Places

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Environmental Assessment
Demolition of Bennington Theater
Naval Air Weapons Station China Lake, CA
TABLE OF CONTENTS

Abbreviations and Acronyms.....		v
1	PURPOSE OF AND NEED FOR THE PROPOSED ACTION	1-1
1.1	Introduction	1-1
1.2	Location.....	1-1
1.3	Purpose of and Need for the Proposed Action	1-1
1.4	Scope of Environmental Analysis	1-7
1.5	Key Documents	1-8
1.6	Relevant Laws and Regulations.....	1-9
1.7	Public and Agency Participation and Intergovernmental Coordination	1-9
2	PROPOSED ACTION AND ALTERNATIVES.....	2-1
2.1	Proposed Action.....	2-1
2.2	Screening Factors.....	2-1
2.3	Alternatives Carried Forward for Analysis	2-1
	2.3.1 No Action Alternative	2-1
	2.3.2 Demolition Alternative (Preferred Alternative).....	2-1
2.4	Alternatives Considered but not Carried Forward for Detailed Analysis.....	2-5
	2.4.1 Rehabilitation Alternative.....	2-5
	2.4.2 Mothball Alternative.....	2-6
	2.4.3 Relocation Alternative	2-6
3	AFFECTED ENVIRONMENT	3-1
3.1	Air Quality	3-1
	3.1.1 Definition of Resource	3-1
	3.1.2 Affected Environment.....	3-4
3.2	Geological Resources	3-5
	3.2.1 Definition of Resource	3-5
	3.2.2 Affected Environment.....	3-6
3.3	Cultural Resources	3-6
	3.3.1 Definition of Resource	3-6
	3.3.2 Affected Environment.....	3-7

3.4	Biological Resources.....	3-8
3.4.1	Definition of Resource	3-8
3.4.2	Affected Environment.....	3-9
3.5	Noise	3-10
3.5.1	Definition of Resource	3-10
3.5.2	Affected Environment.....	3-11
3.6	Hazardous Materials and Wastes	3-11
3.6.1	Definition of Resource	3-11
3.6.2	Affected Environment.....	3-13
4	ENVIRONMENTAL CONSEQUENCES	4-1
4.1	Air Quality	4-1
4.1.1	No Action Alternative	4-1
4.1.2	Demolition Alternative (Preferred Alternative).....	4-1
4.2	Geological Resources	4-2
4.2.1	No Action Alternative	4-2
4.2.2	Demolition Alternative (Preferred Alternative).....	4-2
4.3	Cultural Resources	4-3
4.3.1	No Action Alternative	4-3
4.3.2	Demolition Alternative (Preferred Alternative).....	4-3
4.4	Biological Resources.....	4-4
4.4.1	No Action Alternative	4-4
4.4.2	Demolition Alternative (Preferred Alternative).....	4-4
4.5	Noise	4-6
4.5.1	No Action Alternative	4-6
4.5.2	Demolition Alternative (Preferred Alternative).....	4-6
4.6	Hazardous Materials and Wastes	4-7
4.6.1	No Action Alternative	4-7
4.6.2	Demolition Alternative (Preferred Alternative).....	4-7
4.7	Summary of Potential Impacts to Resources and Impact Avoidance and Minimization	4-8
5	CUMULATIVE IMPACTS	5-1
5.1	Past, Present, and Reasonably Foreseeable Actions	5-1
5.2	Assessment of Cumulative Impacts by Resource.....	5-2
6	OTHER CONSIDERATIONS REQUIRED BY NEPA	6-1
6.1	Consistency with other Federal, State, and Local, Laws, Plans, Policies, and Regulations.....	6-1
6.2	Irreversible or Irretrievable Commitment of Natural or Finite Resources	6-1

6.3	Unavoidable Adverse Impacts	6-1
6.4	Relationship Between Short-Term Use of the Environment and Long-Term Productivity	6-3
7	REFERENCES	7-1
8	LIST OF PREPARERS	8-1
9	DISTRIBUTION LIST.....	9-1
10	PERSONS CONTACTED LIST	10-1

List of Figures

Figure 1-1	Naval Air Weapons Station China Lake and Vicinity	1-3
Figure 1-2	Bennington Theater Location Map	1-5
Figure 2-1	Demolition Alternative	2-3

List of Tables

Table 3-1	National and California Ambient Air Quality Standards	3-2
Table 3-2	Baseline Emissions at NAWS China Lake	3-5
Table 3-3.	Federally and State Listed Threatened and Endangered Species on NAWS China Lake	3-10
Table 4-1	Total Demolition and Site Stabilization Emissions	4-1
Table 4-2	Summary of Potential Impacts to Resource Areas	4-9
Table 4-3	Impact Avoidance and Minimization Measures	4-10
Table 6-1	Summary of Applicable Environmental Regulations and Regulatory Compliance	6-2

Appendices

Appendix A	National Historic Preservation Act Section 106 Documentation
Appendix B	Record of Non-Applicability (RONA)

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Abbreviations and Acronyms

Acronym	Definition	Acronym	Definition
ACHP	Advisory Council on Historic Preservation	DoD	United States Department of Defense
ACM	Asbestos-Containing Material	EA	Environmental Assessment
ADA	Americans with Disabilities Act	EIS	Environmental Impact Statement
AICUZ	Air Installation Compatible Use Zone	EO	Executive Order
AIRFA	American Indian religious Freedom Act	EPCRA	Emergency Planning and Community Right-to-Know Act
APE	Area of Potential Effect	FPPA	Farmland Protection and Policy Act
BMP	best management practice	FY	Fiscal Year
CAA	Clean Air Act	GHG	greenhouse gas
CAAQS	California Ambient Air Quality Standards	HAER	Historic American Engineering Record
CalEEMod	California Emissions Estimator Model	HAP	hazardous air pollutant
CCR	California Code of Regulations	HSWA	Hazardous and Solid Waste Amendments
CDFW	California Department of Fish and Wildlife	HWSTF	Hazardous Waste Storage and Transfer Facility
CEQ	Council on Environmental Quality	INRMP	Integrated Natural Resources Management Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	LBP	lead based paint
CFR	Code of Federal Regulations	LMU	Land Management Unit
CHRIMP	Consolidated Hazardous Material Reutilization and Inventory Management Program	MBTA	Migratory Bird Treaty Act
CNEL	community noise equivalent level	MDAB	Mojave Desert Air Basin
CO	carbon monoxide	µg/kg	micrograms per kilogram
CO ₂	carbon dioxide	mg/kg	milligrams per kilogram
CO ₂ e	carbon dioxide equivalent	MOA	Memorandum of Agreement
CPSC	Consumer Product safety Commission	MSAT	Mobile Source Air Toxics
CWA	Clean Water Act	NAAQS	National Ambient Air Quality Standards
dB	decibel	NAGPRA	Native American Graves Protection and Reparation Act
dBA	A-weighted sound level	Navy	United States Department of the Navy
DNL	day-night average sound level	NAWS	Naval Air Weapons Station
		NEPA	National Environmental Policy Act
		NESHAP	National Emission Standards for Hazardous Air Pollutants
		NHPA	National Historic Preservation

Acronym	Definition	Acronym	Definition
	Act	USFWS	U.S. Fish and Wildlife Service
NO _x	nitrogen oxide	VOC	volatile organic compound
NO ₂	nitrogen dioxide		
NOA	notice of availability		
NRHP	National Register of Historic Places		
OPNAV	Office of the Chief of Naval Operations		
OPNAVINST	Office of the Chief of Naval Operations Instruction		
OSHA	Occupational Safety and Health Administration		
PCB	polychlorinated biphenyl		
P.L.	Public Law		
PM ₁₀	fine particulate matter less than or equal to 10 microns in diameter		
PM _{2.5}	fine particulate matter less than or equal to 2.5 microns in diameter		
POL	Petroleum, oils, and lubricants		
PPE	Personal Protective Equipment		
ppm	parts per million		
RCRA	Resource, Conservation, and Recovery Act		
ROI	Region of Influence		
RONA	Record of Non-Applicability		
RSL	Regional Screening Level		
SARA	Superfund Amendment and Reauthorization Act		
SHPO	State Historic Preservation Officer		
SIP	State Implementation Plan		
SO ₂	sulfur dioxide		
TPH	total petroleum hydrocarbon		
TCLP	Toxic Characteristic Leaching Procedure		
TSCA	Toxic Substances Control Act		
U.S.	United States		
U.S.C.	United States Code		
USEPA	U.S. Environmental Protection Agency		

1 Purpose of and Need for the Proposed Action

1.1 Introduction

The United States (U.S.) Department of the Navy (Navy) proposes to demolish Building 00020 (Bennington Theater) at Naval Air Weapons Station (NAWS) China Lake, California. This action would include completely removing the building, foundation, and hardscape as well as capping underground utility connections. Hazardous substance abatement would occur to remove all friable asbestos-containing materials (ACMs), mold, and peeling lead-based paint (LBP) contamination from the building. After demolition activities are completed, the area would be stabilized with gravel and desert landscape.

The Navy has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [U.S.C.] parts 4321-4370h), as implemented by the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] parts 1500-1508), and Navy regulations for implementing NEPA (32 CFR part 775).

1.2 Location

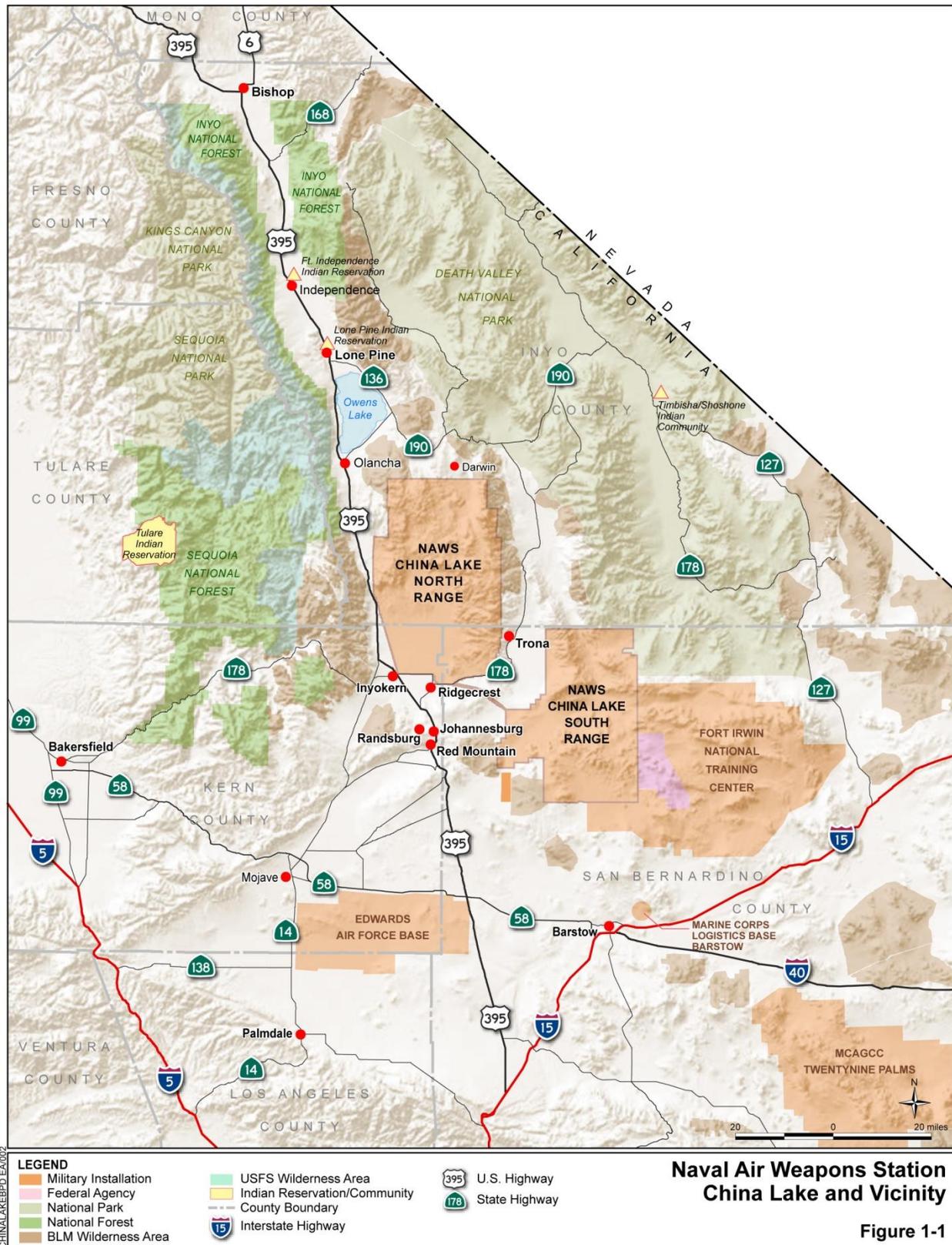
NAWS China Lake is located in the western Mojave Desert of California, approximately 150 miles northeast of Los Angeles; 80 miles east of Bakersfield; and 70 miles north of Barstow (Figure 1-1). The installation encompasses an area of more than 1.1 million acres within portions of Inyo, Kern, and San Bernardino counties. Bennington Theater is 15,326 square feet in area and was originally the focal point of Bennington Plaza, which is situated within the Mainsite Land Management Unit (LMU) on NAWS China Lake (U.S. Navy 2016). The Mainsite area includes the core administration and research facilities supporting the installation's missions as well as the core quality of life facilities supporting its military and civilian workforce. Bennington Theater is situated approximately 1.5 miles east of the installation Main Gate with Blandy Avenue providing access to the vehicle parking lot of Bennington Plaza (Figure 1-2).

1.3 Purpose of and Need for the Proposed Action

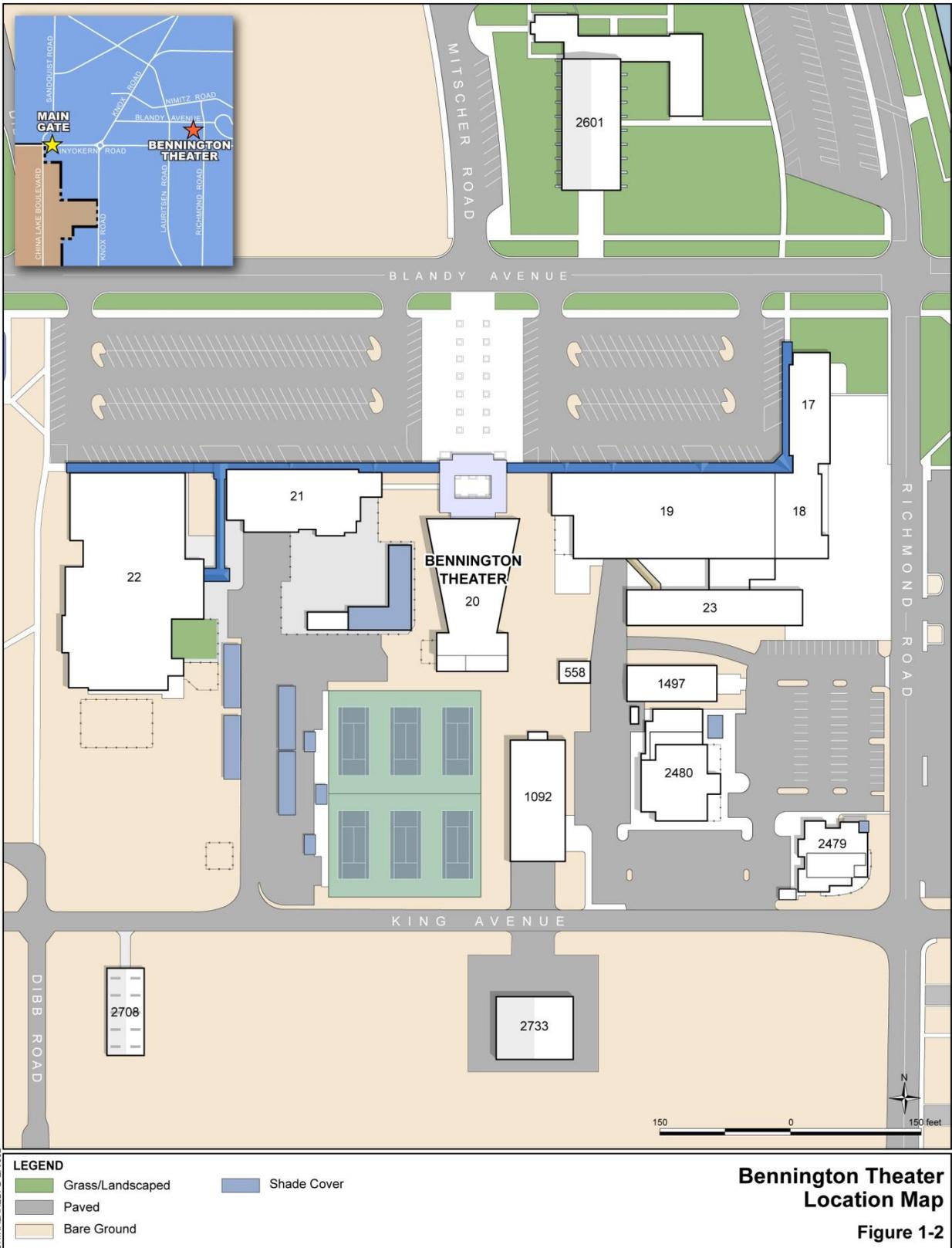
The purpose of the Proposed Action is to eliminate the current unsafe condition of the facility and to reduce NAWS China Lake's inventory of obsolete and unused buildings. Bennington Theater is no longer required owing to the low military population to support continued use of the theater, the development of the City of Ridgecrest (including entertainment facilities and community centers), and demolition of civilian housing on the installation. The Department of Defense (DoD) and Navy have mandated a reduction of such property maintained by the Navy. This project would comply with the Navy Installations Command's Demolition Footprint Reduction Program and the 2007 Defense Installation Strategic Plan. Demolition of Bennington Theater would also be consistent with the 2014 NAWS China Lake Mainsite Master Plan Update. The Navy is incurring annual maintenance costs for the Bennington Theater, which has been secured and abandoned since 2007 because there is no identified mission-related requirement for the facility and because of safety issues associated with use of the structure. By demolishing Bennington Theater, total expenditures for facilities sustainment would be reduced and safety would be increased.

The need for the Proposed Action is to comply with the infrastructure reduction program discussed above and to eliminate potential environmental contamination due to the structurally compromised building containing damaged friable ACMs, mold, and LBP contamination.

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The building is currently unused, damaged beyond the point where it can reasonably be repaired, and due to safety concerns, the interior cannot be accessed without Personal Protective Equipment (PPE) as it has fallen into a state of disrepair and has become hazardous.

1.4 Scope of Environmental Analysis

This EA includes an analysis of potential environmental impacts associated with the action alternative and the No Action Alternative. The environmental resource areas analyzed in detail in this EA include: air quality; geological resources; cultural resources; biological resources; noise; and hazardous materials and waste.

Several other resource areas were initially considered, but not carried forward for detailed analysis because there either would be no potential impacts or such impacts would be considered to be negligible. The following resources were not evaluated further in this EA:

Water Resources. No surface water features are situated near Bennington Theater. Proposed demolition activities would not introduce any contaminants with the potential to affect groundwater. Proposed demolition activities would not result in an increase in impervious surfaces; therefore, there would be no increase in runoff. Therefore, impacts to water resources would be negligible.

Land Use. Demolition activities that would occur under the Proposed Action would result in more open space within the existing project area, but would have no impact to surrounding land uses. Demolition of Bennington Theater would be consistent with the 2014 NAWS China Lake Mainsite Master Plan Update. Therefore, only beneficial effects to land use would occur.

Visual Resources: The Bennington Plaza area is considered to be of medium visual sensitivity. Medium visual sensitivity is characteristic of areas where human influence and modern civilization are evident and the presence of motorized vehicles is commonplace. Notwithstanding the fact that the theater is eligible for listing on the National Register of Historic Places (NRHP), the long-term effect of demolishing the closed theater and stabilizing the area with gravel and desert landscape would create a change in the aesthetic quality of the area as landscaping would be used to provide an attractive and professional-looking installation, using rock and boulders to blend with the surrounding environment. The potential effect of demolishing a building that is eligible for listing on the NRHP is addressed in Section 4.3, Cultural Resources.

Air Space. As designated “airspace” is not in the project area, the Proposed Action would result in no impact on air space, air space management, or airfield clear zones.

Transportation. Demolition-related traffic would likely use the NAWS China Lake Richmond Gate entrance to access the project location. This gate would provide direct access to the project location and avoids the main roadway (East Inyokern Road) through the installation. There would be a short-term increase in demolition-related traffic (project employee vehicles and project related equipment) during demolition activities; however, given the scope of the demolition activity, there would be no change in the traffic level of service on roadways. The construction-related traffic would be localized and would be temporary. Therefore, there would be negligible impacts to transportation.

Utilities. Because Bennington Theater is currently vacant with no access due to interior hazardous conditions, utilities (e.g., water, sewer, electricity) are not currently utilized. Utility requirements during demolition activities would be supplied in the form of portable generators, portable lavatories, and water trucks. Any solid waste generated during demolition activities would be hauled away and disposed of off-site at approved and permitted facilities for that type of waste in accordance with

applicable federal, state, and local regulations. Prior to initiating demolition activities, utility lines would be identified in the vicinity of Bennington Theater to ensure demolition activities do not affect utility systems in the area. After demolition activities are completed and the area has been stabilized, utilities will not be used at the former theater location. Therefore, there would only be negligible impacts to utilities.

Public Health and Safety. During demolition activities, safety practices would be conducted in accordance with applicable legal requirements established by the Navy, Occupational Safety and Health Administration (OSHA), and other federal and state agencies. Appropriate PPE would be used by trained individuals entering the building to abate hazardous substances (e.g., damaged friable ACMs, peeling LBP, and mold). The demolition site would be fenced and only accessible to workers and other persons with a need to be there. Thus, any risks to the safety of workers and passers-by would be minimized and no unusual risks would be created. Therefore, potential impacts to public health and safety would be negligible. The potential health and safety concerns associated with ACMs, LBP, and mold are addressed in Section 4.6, Hazardous Materials and Wastes.

Socioeconomics. Demolition of Bennington Theater would have no long-term economic or socioeconomic effect on the surrounding community. Demolition activities would not attract a long-term worker population to the project vicinity nor affect the need for housing in the area. It is expected that construction workers required for demolition activities would be comprised of local contractors providing some temporary jobs. The use of local/regional construction workers would produce increases in payroll taxes, and the purchases of local goods and services, resulting in a short-term beneficial increase in the local economy. Therefore, there would only be beneficial socioeconomic effects.

Environmental Justice and Protection of Children. Executive Order (EO) 12898, *Environmental Justice*, was issued by the President of the United States on February 11, 1994. Objectives of the EO, as it pertains to this EA, include development of federal agency implementation strategies, and identification of low-income and minority populations potentially affected because of proposed federal actions. In addition to potential environmental justice issues are concerns pursuant to EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. This EO directs federal agencies to identify and assess environmental health and safety risks that may disproportionately affect children.

Potential environmental impacts identified for resource areas in this EA would occur primarily at the project site. Demolition-related truck traffic entering and leaving the installation would be routed through adjacent communities according to local haul routes and restrictions. The Proposed Action would not create a large amount of additional traffic in the area that would affect local communities long-term. The nearest off-station community residential area (Ridgecrest) is located approximately 1.5 miles southwest of the project area; the nearest on-station residential area is approximately 0.5 mile to the northwest. The areas surrounding NAWS China Lake do not contain disproportionate minority, low-income, or child populations in relation to Kern County; therefore, disproportionately high environmental or human health impacts to minority, low-income, or child populations would not occur.

1.5 Key Documents

In accordance with CEQ regulations for implementing NEPA and with the intent of reducing the size of this document, a number of materials have been incorporated by reference, including but not limited to the following:

Final Environmental Impact Statement/Legislative Environmental Impact Statement for Renewal of Naval Air Weapons Station China Lake Public Land Withdrawal (U.S. Navy 2015). This document addresses the Navy's proposal to continue the withdrawal of the 1,044,126 acres of public lands in counties for Navy-related purposes at NAWS China Lake and to conduct expanded research, development, acquisition, test, and evaluation activities at NAWS China Lake.

NAWS China Lake Mainsite Master Plan Update 2014 (U.S. Navy 2013). The Master Plan establishes the foundation for detailed planning and is a guide for real property investment to support long-term mission requirements. The Master Plan is based on an examination of the constraints and opportunities at the installation as well as existing and potential future missions.

A list of references used in preparing this EA (including the two documents described above) can be found in Chapter 7. Documents incorporated herein by reference are available upon request during the public review period by contacting the Navy via the information provided above in the Abstract.

1.6 Relevant Laws and Regulations

The Navy has prepared this EA based upon federal and state laws, statutes, regulations, and policies that are pertinent to the implementation of the Proposed Action, including the following:

- NEPA (42 U.S.C. parts 4321-4370h), which requires an environmental analysis for major federal actions that have the potential to significantly impact the quality of the human environment
- CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500-1508)
- Navy regulations for implementing NEPA (32 CFR part 775), which provides Navy policy for implementing CEQ regulations and NEPA
- Clean Air Act (CAA) (42 U.S.C. part 7401 et seq.)
- Clean Water Act (CWA) (33 U.S.C. part 1251 et seq.)
- National Historic Preservation Act (NHPA) (16 U.S.C. part 470 et seq.)
- Migratory Bird Treaty Act (MBTA) (16 U.S.C. parts 703-712)
- Bald and Golden Eagle Protection Act (16 U.S.C. part 668-668d)
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks.

1.7 Public and Agency Participation and Intergovernmental Coordination

The Navy is coordinating and consulting with the California State Historic Preservation Officer (SHPO) regarding the Proposed Action. As part of the Section 106 consultation process, the Navy conducted a public meeting in the City of Ridgecrest on June 14, 2016 to seek public input on potential mitigation measures for the proposed demolition of Bennington Theater. Input received during the meeting is being considered and coordinated with the California SHPO and ACHP in developing an MOA to resolve adverse effects, to include determination of appropriate mitigation measures.

Regulations from the Council on Environmental Quality (40 CFR § 1506.6) direct agencies to involve the public in preparing and implementing their NEPA procedures. The Navy is circulating the Draft EA for public review from August 29 to September 12, 2016. The Navy published a Notice of Availability (NOA)

of the Draft EA in the *Daily Independent*, *News Review*, and *Rocketeer II* newspapers on August 29-30, 2016. The NOA briefly described the Proposed Action, solicited public comments on the Draft EA, provided dates of the 15-day public comment period, and announced that a copy of the EA would be available for public review on the Navy Regional Southwest website and at local libraries. Comments received will be taken into consideration in the preparation of the Final EA.

2 Proposed Action and Alternatives

2.1 Proposed Action

The Proposed Action involves demolishing Bennington Theater at NAWS China Lake.

2.2 Screening Factors

NEPA's implementing regulations provide guidance on the consideration of alternatives to a federally proposed action and require rigorous exploration and objective evaluation of reasonable alternatives. Only those alternatives determined to be reasonable require detailed analysis. Potential alternatives were evaluated against the following screening factors in addition to the purpose and need:

- Eliminate potential safety hazards and human health risks associated with an aging and deteriorating building that contains damaged friable ACMs, mold, and LBP contamination; and
- Reduce NAWS China Lake's infrastructure repair and maintenance costs.

2.3 Alternatives Carried Forward for Analysis

Based on the reasonable alternative screening factors and meeting the purpose and need for the proposed action, one action alternative was identified and will be analyzed within this EA. The Demolition Alternative meets the purpose and need of the Proposed Action eliminating the unsafe condition of the facility and reducing NAWS China Lake's inventory of obsolete and unused buildings. The Demolition Alternative is consistent with the infrastructure reduction program and eliminates potential environmental contamination of structurally compromised buildings containing damaged friable ACMs, mold, and LBP contamination.

2.3.1 No Action Alternative

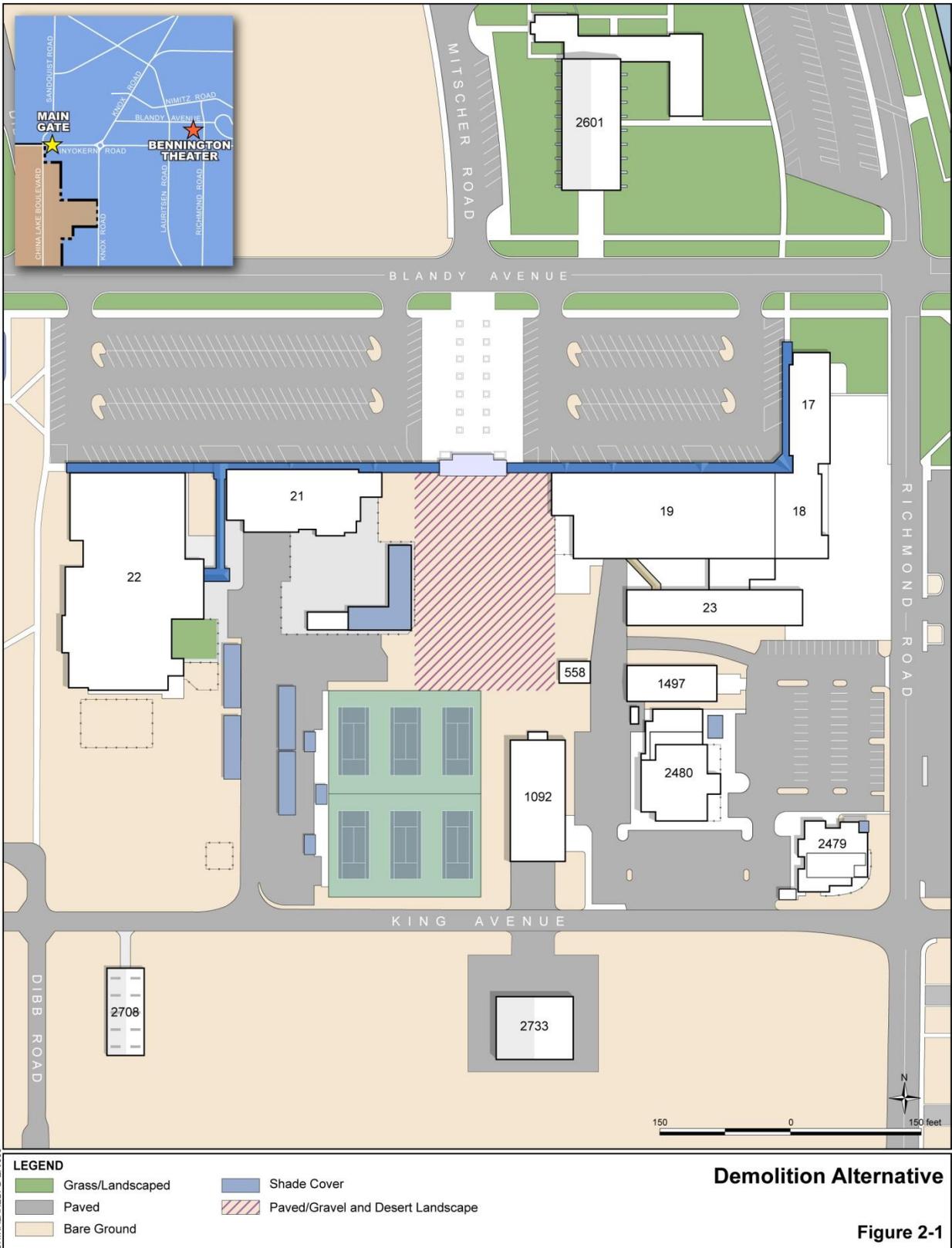
Under the No Action Alternative, the Proposed Action would not occur. Bennington Theater would not be demolished; the building would remain closed and unoccupied. Abatement of damaged friable ACMs, mold, and peeling LBP contamination would not occur. Appropriate PPE would be required for trained individuals entering the structure. It should be noted that since the existing fire suppression system is currently inoperable, the building would be unprotected in the event of a fire. The No Action Alternative would not meet the purpose and need for the Proposed Action; however, as required by NEPA, the No Action Alternative is carried forward for analysis in this EA and provides a baseline for measuring the environmental consequences of the Proposed Action.

2.3.2 Demolition Alternative (Preferred Alternative)

Under this alternative, the Navy would demolish the Bennington Theater. This would include completely removing the foundation and hardscape and capping underground utility connections (Figure 2-1). Hazardous substance abatement would occur within the building prior to demolition. Total area of disturbance during demolition of the 15,326 square foot Bennington Theater is estimated to be less than 1 acre. Equipment would be staged in open areas adjacent to the structure or in open areas south of the building.

After demolition of the structure is completed, the area would be stabilized with gravel and desert landscape. New connecting sections of concrete paving and the covered walkway would be installed between existing sections in the area of the demolished forecourt. Landscaping would be used to provide an attractive and professional-looking installation by using gravel, rock, and boulders to blend

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with the surrounding environment and to minimize maintenance inputs in terms of energy, water, manpower, and equipment. Landscaping would conform to the 2014 NAWS China Lake Mainsite Master Plan Update requirements. For analysis purposes, it is assumed that demolition and site stabilization activities would be completed within a four-month period.

Demolition activities would be performed in accordance with applicable federal, state, and local regulations and guidelines, including best management practices (BMPs), to protect the human and natural environment. Demolition activities would be conducted in accordance with Navy safety regulations and standards prescribed by OPNAV Instruction 5100.23G, *Navy Safety and Occupational Health Program Manual*. Environmental controls could include, but not be limited to, preparation of a pre-demolition survey report, health and safety plan, waste disposal plan, dust control plan, and hazardous substance removal plan. The contractor performing the demolition activities would be required to submit these plans and specifications to the Public Works Department Facility Engineering and Acquisition Division, China Lake for NAVFAC integrated review.

Debris and hazardous waste would be transported and disposed of off-site at approved and permitted facilities for that type of waste in accordance with applicable federal, state, and local regulations. The removal of damaged friable ACMs and peeling LBP materials or other hazardous substances would be conducted by a qualified abatement contractor in accordance with applicable federal, state, and local regulations. If a spill were to occur during demolition activities, it would be cleaned up in accordance with the site management plan. Hazardous materials likely to be used during demolition activities would include fuels; petroleum, oil, and lubricants (POL); adhesives; corrosives; paints; and solvents.

2.4 Alternatives Considered but not Carried Forward for Detailed Analysis

In accordance with OPNAV M-5090.1 the number of alternatives identified and carried through the analysis was determined by the level of unresolved conflicts concerning alternative uses of available resources and identified issues. The EA includes the proposed action and no action alternatives. The rationale for not including an action alternative in addition to the proposed action and no action was determined based on the Navy Infrastructure Reduction Program. The need for the Proposed Action is to comply with the Navy Infrastructure Reduction Program and to eliminate potential environmental contamination due to the building containing damaged friable asbestos-containing materials (ACMs), peeling lead-based paint (LBP), and mold, and due to safety concerns, it cannot be accessed without Personal Protective Equipment. Other actions were considered, but not carried forward for detailed analysis in this EA as they did not meet the purpose and need for the project and satisfy the reasonable alternative screening factors presented in Section 2.2.

2.4.1 Rehabilitation Alternative

This alternative would entail rehabilitating Bennington Theater into a usable facility at its current location. This alternative would include:

- Implement structural/seismic upgrade, as required;
- Installation of a new fire sprinkler and alarm system;
- Meet any applicable Americans with Disabilities Act (ADA) code requirements (using the California Historical Building Code);
- Installation of a new roof;
- Removal of debris within the building;
- Abatement of toxic/hazardous substances (i.e., ACMs, LBP, and mold) in accordance with applicable legal requirements;

- Upgrade of mechanical (heating and air conditioning), plumbing, and electrical systems; and,
- Complete interior and exterior restoration of character-defining historic features per *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

This alternative would not meet the purpose and need of the Proposed Action and was not considered for further analysis because it is geared toward rehabilitating, maintaining, and reusing a structure for which the Navy does not have and does not anticipate a requirements-driven need.

2.4.2 Mothball Alternative

This alternative would entail performing rehabilitation of the building (repairs and hazardous substance abatement) and maintenance as needed to restore Bennington Theater to a usable condition and maintain it as such in a 'mothball' status. This alternative would include:

- Removal of debris within the building;
- Abatement of toxic/hazardous substances (as necessary to allow for routine maintenance and inspection) in accordance with applicable legal requirements;
- Repair and stabilization of the roof structure;
- Provide venting to maintain adequate interior temperature and humidity levels;
- Repair and restore exterior finishes;
- ADA upgrades in accordance with applicable legal requirements;
- Repair security and fire alarms to be functional;
- Secure the building as it would remain unoccupied; and,
- Implement a routine maintenance and inspection program to ensure the building remains in a state of "arrested decay".

This alternative would not meet the purpose and need of the Proposed Action and was not considered for further analysis because it is geared toward rehabilitating and maintaining a structure for which the Navy does not have and does not anticipate a requirements-driven need.

2.4.3 Relocation Alternative

This alternative would involve the relocation of Bennington Theater to a vacant site on the installation and involve the construction of a new foundation. This alternative would require:

- Identification of a suitable site for relocation;
- Grading of new site;
- Moving the structure to the new location;
- Connection of site utilities;
- Provide accessible path from vehicle parking area to entrance;
- Install hardscape, site lighting, and landscaping;
- Implement structural/seismic upgrade, as required;
- Installation of a new fire sprinkler and alarm system;
- Upgrade to meet ADA code requirements;
- Installation of a new roof;
- Abatement of toxic/hazardous substances
- Upgrade of mechanical (heating and air conditioning), plumbing, and electrical systems;
- Complete interior and exterior restoration of character-defining historic features per *The Secretary of the Interior's Standards for the Treatment of Historic Properties*; and
- Survey for biological resources and cultural resources, as necessary.

After relocation of the structure is completed, the former location of the structure at Bennington Plaza would be graded and stabilized with gravel and desert landscape.

This alternative would not meet the purpose and need of the Proposed Action and was not considered for further analysis because the Navy does not have and does not anticipate a requirements-driven need.

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3 Affected Environment

This chapter presents a description of the environmental resources and baseline conditions that could be affected from implementing the Proposed Action. All potentially relevant environmental resource areas were initially considered for analysis in this EA. In compliance with NEPA, CEQ, and 32 CFR part 775 guidelines; the discussion of the affected environment (i.e., existing conditions) focuses only on those resource areas potentially subject to impacts. Additionally, the level of detail used in describing a resource is commensurate with the anticipated level of potential environmental impact. This section includes air quality, geological resources, cultural resources, biological resources, noise, and hazardous materials and waste.

The region of influence (ROI) to be studied will be defined for each resource area affected by proposed activities. The ROI determines the geographical area to be addressed as the Affected Environment.

3.1 Air Quality

Air quality in a given location is defined by the concentration of various pollutants in the atmosphere. A region's air quality is influenced by many factors including the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions.

3.1.1 Definition of Resource

Criteria Pollutants and National Ambient Air Quality Standards

The principal pollutants defining the air quality, called "criteria pollutants," include carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone, suspended particulate matter less than or equal to 10 microns in diameter (PM₁₀), fine particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}), and lead. CO, SO₂, lead, and some particulates are emitted directly into the atmosphere from emissions sources. Ozone, NO₂, and some particulates are formed through atmospheric chemical reactions that are influenced by meteorology, ultraviolet light, and other atmospheric processes.

Under the Clean Air Act (CAA), the U.S. Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) (40 CFR part 50) for these pollutants. NAAQS are classified as primary or secondary. Primary standards protect against adverse health effects; secondary standards protect against welfare effects, such as damage to farm crops and vegetation and damage to buildings. Some pollutants have long-term and short-term standards. Short-term standards are designed to protect against acute, or short-term, health effects, while long-term standards were established to protect against chronic health effects.

In addition to NAAQS, USEPA allows states to set state air quality standards that are more stringent than NAAQS based on a state's air quality. California has established California Ambient Air Quality Standards (CAAQS) for most of the criteria pollutants and for some additional pollutants for which there are no NAAQS. The NAAQS and CAAQS are outlined in Table 3-1.

Areas that are and have historically been in compliance with the NAAQS are designated as attainment areas. Areas that violate a federal air quality standard are designated as nonattainment areas. Areas that have transitioned from nonattainment to attainment are designated as maintenance areas and are required to adhere to maintenance plans to ensure continued attainment.

Table 3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
			Primary/Secondary	Level
Carbon Monoxide	8-hour	9 ppm	Primary	9 ppm
	1-hour	20 ppm		35 ppm
Lead	Rolling 3- month average	--	Primary and Secondary	0.15 µg/m ³ ⁽¹⁾
	30-day average	1.5 µg/m ³	--	--
Nitrogen Dioxide	1-hour	0.18 ppm	Primary	100 ppb
	Annual	0.030 ppm	Primary and Secondary	53 ppb ⁽²⁾
Ozone	1-hour	0.09 ppm	--	--
	8-hour	0.070 ppm	Primary and Secondary	0.075 ppm ⁽³⁾
Particulate Matter	PM _{2.5}	Annual	Primary	12 µg/m ³ ⁽⁴⁾
		Annual	Secondary	15 µg/m ³
		24-hour	Primary and Secondary	35 µg/m ³
	PM ₁₀	24-hour	Primary and Secondary	150 µg/m ³
Sulfur Dioxide	1-hour	0.25 ppm	Primary	0.075 ppm ⁽⁵⁾
	3-hour	--	Secondary	0.5 ppm
	24-hour	0.04 ppm	--	--
Visibility-reducing particles	8 hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more	No national standards	
Sulfates	24 hour	25 µg/m ³		
Hydrogen sulfide	1 hour	0.03 ppm		
Vinyl chloride	24 hour	0.01 ppm		

Notes:

- ⁽¹⁾ Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- ⁽²⁾ The official level of the annual nitrogen dioxide standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of a clearer comparison to the 1-hour standard.
- ⁽³⁾ Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard (“anti-backsliding”). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.
- ⁽⁴⁾ Final rule signed January 15, 2013. The primary annual fine particle (PM_{2.5}) standard was lowered from 15 to 12 µg/m³.
- ⁽⁵⁾ Final rule signed June 2, 2010. The 1971 annual and 24-hour SO₂ standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

EPA = Environmental Protection Agency
 µg/m³ = micrograms per cubic meter
 PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
 PM₁₀ = particulate matter equal to or less than 10 microns in diameter
 ppm = parts per million
 ppb = parts per billion
 SO₂ = sulfur dioxide

By contrast, emissions of hazardous air pollutants (HAPs) are regulated through the use of process-based emissions standards under Section 112(b) of the 1990 CAA Amendments. The *National Emission Standards for Hazardous Air Pollutants* regulate HAP emissions from stationary sources (40 CFR § 61).

General Conformity

The USEPA General Conformity Rule applies to federal actions occurring in nonattainment or maintenance areas when the total direct and indirect emissions of nonattainment pollutants (or their precursors) exceed specified thresholds. The emissions thresholds that trigger requirements for a conformity analysis are called *de minimis* levels. *De minimis* levels (in tons per year) vary by pollutant and also depend on the severity of the nonattainment status.

A conformity applicability analysis is the first step of a conformity evaluation and assesses if a federal action must be supported by a conformity determination. This is typically done by quantifying applicable direct and indirect emissions that are projected to result due to implementation of the federal action. Indirect emissions are those emissions caused by the federal action and originating in the region of interest, but which can occur at a later time or in a different location from the action itself and are reasonably foreseeable. Indirect emissions are only included in the applicability analysis to the extent the federal agency can control and will maintain control over the indirect action due to a continuing program responsibility of the federal agency. Reasonably foreseeable emissions are projected future direct and indirect emissions that are identified at the time the conformity evaluation is performed. The location of such emissions is known and the emissions are quantifiable, as described and documented by the federal agency based on its own information and after reviewing any information presented to the federal agency. If the results of the applicability analysis indicate that the total emissions would not exceed the *de minimis* emissions thresholds, then the conformity evaluation process is completed.

Title V (Operating Permit)

The Title V Operating Permit Program consolidates CAA requirements applicable to the operation of a source, including requirements from the State Implementation Plan (SIP), preconstruction permits, and the air toxics program. It applies to stationary sources of air pollution that exceed the major stationary source emission thresholds, as well as other non-major sources specified in a particular regulation. The program includes a requirement for payment of permit fees to finance the operating permit program whether implemented by USEPA or a state or local regulator. Navy installations subject to Title V permitting comply with the requirements of the Title V Operating Permit Program, which are detailed in 40 CFR Part 70 and specific requirements contained in their individual permits.

Greenhouse Gases

Greenhouse gasses (GHGs) are gas emissions that trap heat in the atmosphere. These emissions occur from natural processes and human activities. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce negative economic and social consequences across the globe.

The USEPA issued the Final *Mandatory Reporting of Greenhouse Gases Rule* on September 22, 2009. GHGs covered under the Final *Mandatory Reporting of Greenhouse Gases Rule* are carbon dioxide (CO₂), methane, nitrogen oxide (NO_x), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and other fluorinated gases including nitrogen trifluoride and hydrofluorinated ethers. Each GHG is assigned a global warming potential. The global warming potential is the ability of a gas or aerosol to trap heat in

the atmosphere. The global warming potential rating system is standardized to CO₂, which has a value of one. The equivalent CO₂ rate is calculated by multiplying the emissions of each GHG by its global warming potential and adding the results together to produce a single, combined emissions rate representing all GHGs. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of mobile sources and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions as CO₂ equivalent (CO₂e) are required to submit annual reports to the USEPA.

On a national scale, federal agencies are addressing emissions of GHGs by reductions mandated in federal laws and EOs. Most recently, EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, and EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, were established to address GHGs, including GHG emissions inventory, reduction, and reporting.

In an effort to reduce energy consumption, reduce GHGs, reduce dependence on petroleum, and increase the use of renewable energy resources in accordance with the goals set by EO 13423 and the Energy Policy Act of 2005, the Navy has implemented a number of renewable energy projects. The Navy has established Fiscal Year (FY) 2020 GHG emissions reduction targets of 34 percent from a FY 2008 baseline for direct GHG emissions and 13.5 percent for indirect emissions. Examples of Navy-wide GHG reduction projects include energy efficient construction, thermal and photovoltaic solar systems, geothermal power plants, and the generation of electricity with wind energy. The Navy continues to promote and install new renewable energy projects.

3.1.2 Affected Environment

The ROI for the air quality analysis includes the existing air shed within which the project site is situated. Bennington Plaza is within the Mainsite Land Management Unit (LMU) on NAWS China Lake, which is within the Mojave Desert Air Basin (MDAB) consisting of portions of Kern County and San Bernardino County.

Regional air quality is typically defined by geographical areas, designated air basins, or planning areas. Attainment with the NAAQS and CAAQS in the portion of the air basin that the project site lies within is determined from recent data from air quality monitoring stations in the region. Bennington Plaza is located in the Indian Wells Valley Planning Area that is currently designated as attainment/maintenance for PM₁₀, and in attainment or unclassified for all other NAAQS criteria pollutants. Regarding the CAAQS, all of Kern and San Bernardino counties are designated as nonattainment for ozone and PM₁₀. The de minimis level for PM₁₀ attainment/maintenance status within the Indian Wells Valley Planning area is 100 tons per year. The General Conformity Rule does not apply to attainment/unclassified areas.

The dominant air emissions sources at NAWS China Lake are related to range flight events, airfield flight events, and range ground activities including stationary source operations and unpaved road dust. The baseline mobile and stationary emissions have been documented in the NAWS China Lake Land Withdrawal Renewal Environmental Impact Statement (EIS) (U.S. Navy 2015) as shown in Table 3-2.

Table 3-2. Baseline Emissions at NAWS China Lake

Emission Source Category	Annual Emissions (Tons per Year)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂ ^(d)
Range Flight Events							
Armitage Airfield Flight Events and Aircraft Maintenance ^(a)	320.6	124.7	1,028.1	4.8	82.6	82.6 ^(c)	31,763.4
Range Test and Evaluation Flights Events	0.9	8.8	5.9	0.6	6.8	6.8 ^(c)	3,163.2
Range Ground Activities							
Munitions and Energetics Use at Target and Test Sites	--	0.3	2.7	0.0	4.8	0.1	286.7
Ground Vehicle Activities ^(b)	0.0	0.1	0.6	0.0	64.9	6.5	93.4
Other Stationary Sources							
Boilers, generators, tanks, paint booths, etc.	16.1	44.4	31.7	0.7	10.3	10.3 ^(c)	1,997.4
Totals	337.6	178.2	1,069.0	6.1	169.4	106.3	37,304.1

Source: U.S. Navy 2015.

Notes:

- Includes airfield-related flight activity and aircraft maintenance activities and addition unmanned aerial vehicle flight activity on airfield and ranges.
- Includes vehicle exhaust emissions and fugitive dust from vehicles.
- Conservatively assume to be the same as PM₁₀.
- Metric tons.

NAWS China Lake is considered a major stationary source, which requires a Title V operating permit. Typical ground stationary sources include range testing mobile units, space heating boilers, paint booths, laboratories, developed test sites, and on-installation fugitive dust. Because the Installation extends into three different air quality control districts, NAWS China Lake is currently operating under three separate Title V permits covering stationary sources within:

- San Bernardino County – Mojave Desert Air Quality Management District;
- Kern County – Eastern Kern Air Pollution Control District; and
- Inyo County – Great Basin Unified Air Pollution Control District.

The actual stationary source emissions inventories as summarized in Table 3-2 include the levels documented in the NAWS China Lake Land Withdrawal Renewal EIS (U.S. Navy 2015) based on the available Title V fee inventory for the sources in Inyo County and the levels obtained from the California Hotspot Analysis Reporting Program database for the sources in Kern and San Bernardino counties.

3.2 Geological Resources

3.2.1 Definition of Resource

Geological resources are defined as the topography, geology, and soils of a given area. Topography is typically described with respect to the elevation, slope, and surface features found within a given area. The geology of an area may include bedrock materials, mineral deposits, and fossil remains. The principal geological factors influencing the stability of structures are soil stability and seismic properties. Soil refers to unconsolidated earthen materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility determine the ability for the ground to support structures and facilities. Soils are typically described in terms of their type, slope, physical characteristics, and relative compatibility or limitations with regard to particular construction activities and types of land use.

3.2.2 Affected Environment

The ROI for geological resources includes Bennington Theater and the surrounding area (Bennington Plaza) on NAWS China Lake (within Mainsite LMU) that may be affected by activities associated with the Proposed Action, particularly demolition and site stabilization activities.

3.2.2.1 Topography

The topography of Bennington Plaza is flat, with elevations ranging from 2,250 to 2,246 feet above mean sea level, sloping to the southeast.

3.2.2.2 Geology

Bennington Plaza is located within the Basin and Range Province, which is an arid physiographic province occupying much of the western and southwestern part of the United States. The region comprises almost all of Nevada, the western half of Utah, southeastern California, the southern portion of Arizona and extends into northwestern Mexico. Within the Basin and Range Province, the Earth's crust has been stretched with the entire region being subjected to extension that thinned and cracked the crust as it was pulled apart, creating faults. This faulting results in the varied topography consisting largely of numerous, roughly parallel, mountain ranges (trending north-south) separated by nearly flat desert plains, or basins.

NAWS China Lake is located in an active seismic region. Studies have documented that there is a 90 percent probability of an earthquake with a magnitude greater than 6.0 on the Richter scale occurring in close proximity to NAWS China Lake within a 100-year period (U.S. Navy 2013).

Mirror Lake (usually dry), situated approximately 0.35 mile southeast of Bennington Plaza is a localized depression that receives runoff from the Mainsite LMU (PBF Consulting 2012).

3.2.2.3 Soils

Soil at the project site is classified as Rosamond, Rosamond Variant, and Playas, which are deep, well drained soils that formed in material weathered mainly from granitic alluvium. These soils are found on the lower margin of alluvial fans between the sloping fans and the playas and have slopes of 0 to 2 percent. The California Department of Conservation, Farmland Mapping and Monitoring Program indicates that these soil types are not prime farmland soil and do not qualify as a soils of statewide importance (California Department of Conservation 2009).

A soil survey conducted in 2009 at Bennington Theater identified low levels of polychlorinated biphenyls (PCBs) and total petroleum hydrocarbon (TPH) around the perimeter of the theater. The highest PCB concentrations ranged from 50 to 67 micrograms per kilogram ($\mu\text{g}/\text{kg}$) for PCB-1254 and 30 to 50 $\mu\text{g}/\text{kg}$ for PCB-1260. The USEPA lists the Regional Screening Levels (RSLs) for both PCB-1254 and PCB-1260 at 220 $\mu\text{g}/\text{kg}$. Therefore, PCB levels recorded were all below established RSLs. TPH was detected as diesel with the highest levels detected at 72 milligrams per kilogram (mg/kg). No RSLs have been established for TPH. No source of PCBs or TPH was identified in the vicinity of the theater (U.S. Navy 2009).

3.3 Cultural Resources

3.3.1 Definition of Resource

For ease of discussion, cultural resources have been divided into archaeological resources (prehistoric and historic), architectural resources, and traditional cultural properties:

- Archaeological resources (prehistoric and historic) are locations where human activity measurably altered the earth or left deposits of physical remains.
- Architectural resources include standing buildings, structures, landscapes, and other built-environment resources of historic or aesthetic significance.
- Traditional cultural properties may include archaeological resources, structures, neighborhoods, prominent topographic features, habitat, plants, animals, and minerals that Native Americans or other groups consider essential for the preservation of traditional culture.

Cultural resources are governed by federal laws and regulations, including the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act (AIRFA), Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act (NAGPRA). Federal agencies' responsibility for protecting historic properties is defined primarily by sections 106 and 110 of the NHPA. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties in accordance with 36 CFR § 800. Section 110 of the NHPA requires federal agencies to establish—in conjunction with the Secretary of the Interior—historic preservation programs for the identification, evaluation, and protection of historic properties. Cultural resources also may be covered by state, local, and territorial laws.

3.3.2 Affected Environment

For the purposes of this analysis, the term ROI is synonymous with the “area of potential effect” (APE) as defined under cultural resources legislation. The ROI for cultural resources includes Building 00020 (Bennington Theater) and the surrounding area (Bennington Plaza) on NAWS China Lake (within Mainsite LMU) that may be affected by activities associated with the Proposed Action, particularly demolition and site stabilization activities. It should be noted that Bennington Theater is eligible for listing on the NRHP under Criterion A and C; however, the Mainsite LMU and Bennington Plaza as a whole do not qualify for NRHP listing. No other historic properties are visible from Bennington Theater.

Cultural resources that are listed in the National Register of Historic Places (NRHP) or eligible for listing in the NRHP are “historic properties” as defined by the NHPA. The list was established under the NHPA and is administered by the National Park Service on behalf of the Secretary of the Interior. The NRHP includes properties on public and private land. Properties can be determined eligible for listing in the NRHP by the Secretary of the Interior or by consensus of a federal agency official and the applicable State Historic Preservation Officer (SHPO). A NRHP-eligible property has the same protections as a property listed in the NRHP. The historical properties include archaeological and architectural resources.

3.3.2.1 Archaeological Resources

Because the Bennington Plaza area was excavated and graded during construction of the buildings, vehicle parking lots, and roadways for the Plaza, no intact archaeological resources are anticipated to be present at the Bennington Theater project site. NAWS China Lake consulted with the California SHPO in a letter dated September 19, 2014; the SHPO did not comment on archaeological resources but rather focused on the potential effect to the NRHP eligible structure (SHPO 2015) (Appendix A).

3.3.2.2 Architectural Resources

Bennington Plaza is a cluster of commercial and recreational buildings with parking lots, not unlike a modern shopping center. In the absence of other considerations, it would be preferable to treat Bennington Plaza as a single entity, a related group of commercial and recreational buildings. Most of

the Bennington Plaza buildings, however, were either built in recent years or are World War II-era buildings that have been extensively altered or modified. Because of a lack of integrity, Bennington Plaza as a whole does not qualify for NRHP listing (Epsilon 2011).

Building 00020 (Bennington Theater) is in inadequate condition and is eligible for listing on the NRHP under Criterion A due to its significance as the commercial and recreational anchor at NAWS China Lake's inception in 1944 and under Criterion C as it represents the early Modern, International Style of architecture. The theater has been closed to all visitors due to the mold, LBP dust, and ACM contamination. Bennington Theater has been assessed as part of a historic case analysis report (N62473-08-D-8623) to determine the extent of potential issues and options for future action (Epsilon 2011).

Building 00020, the theater at Bennington Plaza, was once the central focus for Bennington Plaza: it is situated at the center of the plaza and is fitted with an elaborate entry portal. From the perspective of architectural merit, particularly when seen in the context of military construction during World War II, the theater represents a distinguished entity and retains enough integrity to have been deemed eligible for listing in the NRHP with SHPO concurrence in 1997 (Epsilon 2011).

NAWS China Lake consulted with the California SHPO in a letter dated September 19, 2014; the SHPO concurred with the recommendation that demolition of Bennington Theater would result in an adverse effect to historic properties in a letter dated May 5, 2015 (SHPO 2015) (Appendix A).

3.3.2.3 Traditional Cultural Properties

There are no known traditional cultural resources at Bennington Theater. Because of site disturbance that occurred during construction of the building, it is unlikely that any culturally sensitive areas that would be subject to AIRFA or NAGPRA remain at the site.

The Navy conducted consultations with representatives of Native American groups as required under AIRFA during the preparation of the 2015 NAWS China Lake Land Withdrawal Renewal EIS. The purpose of these consultations was to determine AIRFA-related concerns such as access to sites of past cultural activity, landforms, and components of the natural environment which may occur at NAWS China Lake and are important to traditional religious practices of Native American groups. The Native American groups consulted include the Big Pine Paiute Tribe of the Owens Valley, Bishop Tribal Council, Bridgeport Indian Colony, Fort Independence Paiute Tribe, Inter-Tribal Council of California, Inc., Kern Valley Indian Council, Lone Pine Paiute-Shoshone Reservation, Mono Lake Kutzadika Tribe, Owens Valley Indian Water Commission, Timbisha Shoshone Tribe, and Tübatulabal Tribe. The Native American groups contacted expressed no interest in Bennington Theater.

3.4 Biological Resources

3.4.1 Definition of Resource

Biological resources include the native and introduced plants and animals within the project area. For discussion purposes, these are divided into vegetation, wildlife, threatened and endangered species and other special status species, and sensitive habitats.

NAWS China Lake biological resources management programs focus on federally listed threatened and endangered species, and other federally protected species, and also provide for the conservation of NAWS China Lake special status species, as well as wetlands and riparian habitats on the NAWS China Lake ranges. Federally listed threatened and endangered plant or wildlife species are those listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS). Other federally protected

species include birds covered by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act. NAWS China Lake special status species are an additional group of species managed at NAWS China Lake, which include plants and animals not federally protected but considered important components of the Installation's biological resources.

The NAWS China Lake Integrated Natural Resources Management Plan (INRMP) (U.S. Navy 2014) describes the Installation's natural resources management programs, goals, and guidelines; prioritizes management efforts; establishes a baseline for existing resource conditions; and delineates staffing and funding requirements. The INRMP formalizes existing programs and focuses on the five principal resource management areas: threatened and endangered species, habitat conservation (including species warranting stewardship), water resources, wild horse and burro management, and resources inventory and data management.

3.4.2 Affected Environment

The ROI for biological resources includes Bennington Theater and the surrounding area (Bennington Plaza) on NAWS China Lake (within Mainsite LMU) that may be affected by activities associated with the Proposed Action, particularly demolition and site stabilization activities.

3.4.2.1 Vegetation

Bennington Plaza is situated within a highly urbanized area entirely developed with buildings and pavement and contains no open or undeveloped space or potential habitat except for decorative planters containing common ornamental tree and shrub species typically found in urban areas.

3.4.2.2 Wildlife

As discussed above, Bennington Plaza is situated within a highly urbanized area entirely developed with buildings and pavement. Common bird species that could occur in the area include the mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), common raven (*Corvus corax*), barn swallow (*Hirundo rustica*), American robin (*Turdus migratorius*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), dark-eyed junco (*Junco hyemalis*), western meadowlark (*Sturnella neglecta*), Brewer's blackbird (*Euphagus cyanocephalus*), and house finch (*Carpodacus mexicanus*). Common mammals include desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), and coyote (*Canis latrans*). Common reptiles include, side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), red racer (*Masticophis falgellum*), and gopher snake (*Pinesnare melanoleucus*).

Bat species known to be present at NAWS China Lake include the big brown bat (*Eptesicus fuscus*), spotted bat (*Euderma maculatum*), Townsend's bigeared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), Mexican free-tailed bat (*Tadarida brasiliensis*), western mastiff bat (*Eumops perotis*), western pipistrelle (*Pipistrellus hesperus*), and Yuma myotis (*Myotis yumanensis*) (U.S. Navy 2014).

3.4.2.3 Threatened and Endangered Species and Other Special Status Species

Federal law directs that federal agencies and departments use their authority to conserve endangered and threatened species through compliance with the Endangered Species Act. NAWS China Lake's management of federally listed or otherwise protected species and their habitats involves coordination with the USFWS, which may include informal or formal consultation under Section 7 of the Endangered

Species Act or under the provisions of either the Bald and Golden Eagle Protection Act or the MBTA, and the development of conservation measures to minimize potential impacts to these species.

Table 3-3 presents federal and state threatened and endangered species listed by the USFWS and California Department of Fish and Wildlife (CDFW) as having the potential to occur at NAWS China Lake.

Table 3-3. Federally and State Listed Threatened and Endangered Species on NAWS China Lake

Species Common Name (Scientific Name)	Status Federal/State	Habitat on NAWS China Lake
Mohave tui chub (<i>Siphateles [Gila] bicolor mohavensis</i>)	E/E	Lark Seep System, G-1 Seep
desert tortoise (<i>Xerobates [Gopherus] agassizii</i>)	T/T	Creosote bush scrub, saltbush scrub, and Joshua tree woodland; designated critical habitat on South Range
Inyo California towhee (<i>Pipilo crissalis eremophilus</i>)	T/E	Riparian habitats in the southern Argus Range; designated critical habitat on North Range
bald eagle (<i>Haliaeetus leucocephalus</i>)	FD/E	Migrate over most habitats
western snowy plover (<i>Charadrius nivosus nivosus</i>) ^(a)	T/-	Wastewater Treatment Facility ponds, G-1 Seep
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E/E	Riparian habitats, the housing area, and golf course
least Bell's vireo (<i>Vireo bellii pusillus</i>)	E/E	Riparian habitats, the housing area, and golf course
Mohave ground squirrel (<i>Xerospermophilus mohavensis</i>)	-/T	Alluvial fans adjacent to hills and mountains, where the sandy soils tend to be deep

Source: U.S. Navy 2015.

Notes:

a Only the Pacific coastal population of western snowy plover is listed. Plovers occurring on NAWS China Lake are considered to be part of an unlisted inland population.

E = Endangered
T = Threatened
FD = Federal Delisted

There is no known habitat present within Bennington Plaza to support any of the listed species identified as having the potential to occur on NAWS China Lake. Because bird species are highly mobile, there is potential for listed bird species to be observed; however, any sightings of the listed bird species would likely be rare and more than likely transitory in nature.

3.4.2.4 Sensitive Habitats

The project area consists of paved areas, buildings, and landscape vegetation. Based on a review of the NAWS China Lake INRMP, no sensitive habitats are present within Bennington Plaza where the theater is situated (U.S. Navy 2014).

3.5 Noise

3.5.1 Definition of Resource

Noise is defined as sound that is undesirable because it interferes with speech communication and hearing, is intense enough to damage hearing, or is otherwise annoying. The decibel (dB), a logarithmic unit that accounts for the large variations in amplitude, is the accepted standard unit for the measurement of sound. A-weighted sound levels (dBAs) are commonly used to account for the frequency response to the human ear. The day-night average sound level (DNL) was developed to

evaluate the total community noise environment and is an accepted unit for quantifying human annoyance to general environmental noise, which includes aircraft noise. However, in California, a descriptor similar to DNL is used to evaluate impacts due to noise. The Community Noise Equivalent Level (CNEL) is similar to the DNL with the exception that there is a 5-dB penalty added to those noises occurring during evening hours (7:00 p.m. to 10:00 p.m.). Both DNL and CNEL represent a 24-hour average of the A-weighted noise levels at a particular location. CNEL is used in this EA because it is the noise descriptor recognized for evaluating noise environments within the state of California.

In accordance with the Air Installation Compatible Use Zone (AICUZ) program, a program designed to achieve compatible uses of public and private lands in the vicinity of military airfields, NAWS China Lake has conducted noise studies for aircraft operations at Armitage Airfield (U.S. Navy 2011). Noise contours were generated using NOISEMAP version 7, a computerized program that produces contour maps indicating ground dB-level averages and noise exposure from aircraft operations.

Land use compatibility in AICUZ planning areas is based on federal government guidelines contained in OPNAVINST 11010.36C. These guidelines are used for land use planning and analysis by the Navy and other branches of the DoD, the USEPA, the Department of Housing and Urban Development, and the Veterans Administration. The guidelines address land use compatibility as a function of both noise exposure and accident potential. The guidelines indicate that 65 dB CNEL is the maximum acceptable exterior noise level compatible with cultural, entertainment, and recreational (auditoriums and concert halls) land uses.

3.5.2 Affected Environment

The ROI for noise includes Bennington Theater and the surrounding area (Bennington Plaza) on NAWS China Lake (within Mainsite LMU) that may be affected by activities associated with the Proposed Action, particularly demolition and site stabilization activities.

Bennington Plaza is situated approximately 2.5 miles southeast of Armitage Airfield, the primary source of aircraft noise in the area. Based on noise modeling presented in the NAWS China Lake 2011 AICUZ Update, Bennington Plaza is situated in an area with intermittent aircraft noise exposure less than 65 dBA (U.S. Navy 2011). The Plaza includes facilities such as the former theater, Navy Exchange, Fitness Center, Indoor Pool, Recreation Center, Youth Center, Tennis Courts, and Hobby Shop. Vehicles visiting the Plaza are the primary source of noise within the ROI.

3.6 Hazardous Materials and Wastes

3.6.1 Definition of Resource

The analysis of hazardous substances, hazardous waste, and toxic substances focuses on the potential for these substances to be introduced into the environment or be impacted during proposed demolition activities. Factors considered in the analysis include the potential for increased human health risk or environmental exposure, as well as changes in the quantity and types of hazardous substances transported, stored, used, and disposed.

3.6.1.1 Hazardous Substances

As defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. § 9601 et seq., Sections 101[14] and 101[33]) and the Superfund Amendment and Reauthorization Act (SARA) of 1986, (Public Law [P.L.] 99-499), a hazardous substance is a substance, pollutant, or contaminant that, due to its quantity, concentration, or physical and chemical

characteristics, poses a substantial present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous substances are identified and regulated under CERCLA (42 U.S.C. 9601 et seq.); the Occupational Safety and Health Act (29 U.S.C. 651 et seq.); and the Emergency Planning and Community Right-to-Know Act (EPCRA) (42 U.S.C. 11001 et seq.).

3.6.1.2 Hazardous Waste

The Resource Conservation and Recovery Act (RCRA) of 1976 (40 CFR §§240-280) and the Hazardous and Solid Waste Amendments (HSWA) of 1984 (40 CFR §260) define hazardous waste as a solid waste, or combination of wastes that, due to its quantity, concentration, or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or may pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise managed. In addition to the regulation of hazardous waste under RCRA and HSWA, CERCLA, and its follow-up amendment, SARA, establish a series of programs for the cleanup of hazardous waste disposal and spill sites nationwide. CERCLA and SARA also establish cleanup programs for inactive and abandoned hazardous waste sites and are administered by the USEPA.

3.6.1.3 Toxic Substances

A toxic substance is any chemical or mixture that may be harmful to the environment and to human health if inhaled, swallowed, or absorbed through the skin. Toxic substances are regulated by the USEPA under the Toxic Substances Control Act (TSCA) of 1976. TSCA addresses those chemical substances and mixtures that may present unreasonable risk of personal injury or health of the environment from their manufacturing, processing, distribution, use, or disposal. Toxic substances evaluated in this EA include ACMs, LBP, polychlorinated biphenyls (PCBs), and mold.

Asbestos-Containing Material. ACM is defined by OSHA as any material containing more than 1 percent asbestos. Asbestos is a common constituent of building materials manufactured prior to 1978. Although several friable ACMs were banned by the USEPA during the 1970s, some building products containing ACM can still be legally manufactured and sold in the US today. Asbestos may be contained in plaster, acoustic ceiling tiles, wallboard, pipe insulation, floor tiles and floor-tile mastic. Asbestos has been classified as a hazardous air pollutant by the USEPA, in accordance with Section 112 of the CAA (40 CFR 61). However, asbestos is only hazardous when fibers are available for inhalation or ingestion by potential receptors. As recommended by the USEPA, the Navy manages intact ACMs in place, unless these materials are likely to be damaged or disturbed.

Lead-Based Paint. Lead is a heavy ductile metal commonly found in association with organic compounds, as well as in oxides, salts, or as metallic lead. The USEPA and OSHA, as well as other agencies, have determined that human exposure to lead presents an adverse health risk. Typical sources of lead exposure include paint, dust, and soil. In 1973, the Consumer Product Safety Commission (CPSC) established a maximum allowable lead content in paint of 0.5 percent by weight in a dry film of newly applied paint. Paint that contains 0.5 percent or more by weight is defined by TSCA (Section 401(9)) as LBP. In 1978, the Consumer Product Safety Act (P.L. 101-608 as implemented by 16 CFR Part 1303) lowered the allowable lead level in paint to 0.06 percent by weight in a dry film of newly applied paint. The Consumer Product Safety Improvement Act of 2008 (CPSIA) further reduced the allowable lead content in household paint to 0.009 percent by weight (effective August 2009). Hazardous waste containing lead is disposed of in accordance with 40 CFR Part 260, et seq., and 29 CFR Part 1910.120.

Lead-containing waste is defined as hazardous if its leachate contains lead at concentrations equal to or exceeding 5.0 milligrams per liter, as determined using the USEPA Toxic Characteristic Leaching Procedure (TCLP). It is possible that Navy facilities constructed prior to or during 1978 may contain LBP. However, the Navy does not abate lead-containing paint (in non-residential or non-child-occupied structures) unless it is damaged, flaking or otherwise poses an unacceptable health risk.

Polychlorinated Biphenyls. PCBs are common constituents of oils used as dielectric fluids or coolants in electrical equipment manufactured prior to 1979 when a federal ban of the manufacture of PCBs became effective. The disposal of PCBs is regulated under TSCA (15 U.S.C. Section 2601, et seq., as implemented by 40 CFR Part 761), which banned the manufacture and distribution of PCBs, with the exception of PCBs used in enclosed systems. By federal definition, PCB equipment contains 500 parts per million (ppm) PCBs or more, whereas PCB-contaminated equipment contains PCB concentrations equal to or greater than 50 ppm, but less than 500 ppm. TSCA regulates and the USEPA enforces the removal and disposal of all equipment containing 50 ppm or more of PCBs; the regulations are more stringent for PCB equipment than for PCB-contaminated equipment.

Mold. Molds can be found almost anywhere; they can grow on virtually any organic substance, as long as moisture and oxygen are present. There are molds that can grow on wood, paper, carpet, foods, and insulation. When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed. It is impossible to eliminate all mold and mold spores in the indoor environment. All molds have the potential to cause health effects. Molds can produce allergens that can trigger allergic reactions or even asthma attacks in people allergic to mold. Others are known to produce potent toxins and/or irritants. Potential health concerns are an important reason to prevent mold growth and to remediate/clean up any existing indoor mold growth.

3.6.2 Affected Environment

The ROI for hazardous materials and waste includes those areas at Bennington Theater that would be disturbed by demolition and site stabilization activities.

3.6.2.1 Hazardous Materials

Hazardous substances at NAWS China Lake are managed in accordance with Title III of the Superfund Amendments and Reauthorization Act (SARA), also known as the Emergency Planning and Community Right to Know Act (EPCRA). EPCRA establishes different reporting and planning requirements for businesses that handle, store, or manufacture certain hazardous materials. These plans and reports provide federal, state, and local emergency planning and response agencies with information about the amounts of chemicals that businesses use, routinely release, and spill. Navy policy is to comply with EPCRA as required by EO 13148 and to encourage compliance with state and local EPCRA programs to the extent that resources allow and where such compliance does not interfere with command mission accomplishment or other legal obligations. Bennington Theater has been closed since 2007; as a result, no hazardous substances are stored or used on the property. When the theater was in operation, primary hazardous substances stored/used on site included common janitorial supplies used for cleaning purposes.

3.6.2.2 Hazardous Waste

Hazardous wastes generated at NAWS China Lake consist primarily of waste oil, waste jet fuel, spent absorbent, oily wastewater, contaminated soil, empty containers, photo processing wastes, batteries,

miscellaneous laboratory chemicals, paints, solvents, and aerosols. The hazardous wastes generated are containerized, labeled, stored, and transported in accordance with USEPA, U.S. Department of Transportation, State of California, and U.S. Navy regulations and requirements for hazardous waste storage, transport, treatment, and disposal. Hazardous wastes are accumulated temporarily at satellite areas located at or near the point of generation (i.e., the activity generating the waste), or at 90-day areas located at various areas throughout the Installation. Typically, those hazardous wastes that are temporarily accumulated throughout the Installation are transferred to the NAWS China Lake RCRA Part B-permitted Hazardous Waste Storage & Transfer Facility (HWSTF). The HWSTF operates under a Hazardous Waste Facility Permit (#01-NC-06) issued by the California EPA's Department of Toxic Substances Control. The HWSTF provides the capability to safely receive, segregate, transfer, and store hazardous wastes prior to transport off-installation for final disposition.

Bennington Theater, when in operation, was not an industrial facility, as a result, no hazardous wastes were generated or stored on the property.

3.6.2.3 Toxic Substances

Asbestos-Containing Material. Historically, asbestos was used throughout various NAWS China Lake buildings and structures on both exteriors and interiors. Asbestos is abated, where necessary, when exposed in occupied structures or prior to demolition or renovation. The contractor conducting abatement activities submits an Asbestos Abatement Plan, which addresses procedures for abatement. Qualified personnel at NAWS China Lake review and approve each plan. In addition, qualified personnel monitor abatement activities to ensure that the abatement contractor is following the Asbestos Abatement Plan. ACM waste is handled and disposed of according to applicable regulations. ACM waste is disposed of only in landfills that are permitted for such waste.

An asbestos survey conducted in 2009 for Bennington Theater identified asbestos in floor tile, floor tile mastic, linoleum, thermal system insulation on pipe, wall plaster, and roofing material (U.S. Navy, 2009). Debris from the collapsed ceiling lying in the southeast lobby was also reported to contain asbestos. The building has been closed since 2007 with restricted entry due to known asbestos hazards within the building.

Lead-Based Paint. Historically, lead was a constituent in paint used throughout the exteriors and some interiors of NAWS China Lake buildings and structures. Lead paint is abated, where necessary, when exposed in occupied structures (chipped/cracked paint) or prior to demolition or renovation. The contractor conducting abatement activities submits a Lead Abatement Plan, which addresses procedures for abatement. Qualified personnel at NAWS China Lake review and approve each plan. In addition, qualified personnel monitor abatement activities to ensure that the contractor is following the Lead Abatement Plan. If lead paint is intact and in good shape, the paint remains in place but is checked periodically by qualified NAWS China Lake personnel.

An LBP survey conducted in 2009 for Bennington Theater identified LBP in the walls of the main theater and lobby, exterior walls, roof flashing and fascia, building canopy, window sills, and doors and door jambs (U.S. Navy 2009). Damaged paint was noted in some areas of the theater. Demolishing a building containing LBP would have the potential for releasing lead into the environment.

Soil sampling also identified lead in the drip line surrounding the theater. The highest lead concentrations were on the building's west side, which contained 80 mg/kg lead. The building's south and north sides contained 68 mg/kg and 59 mg/kg lead, respectively. The lowest concentrations were on the building's east side, which contained 24 mg/kg (U.S. Navy 2009).

Polychlorinated Biphenyls. Comprehensive high-voltage equipment surveys conducted at NAWS China Lake in 1988 and 1990 identified 2,760 electrical items that contained dielectric fluid. Based on this survey, 965 of 2,760 evaluated were found to contain fluids with PCB concentrations exceeding 50 ppm. As part of the Navy's PCB Elimination Program, all 965 items containing PCBs exceeding 50 ppm were removed from service and properly disposed of. Any items containing PCBs currently in service have concentrations of less than 50 ppm. Any of those items that show signs of leakage are promptly repaired or removed from service and properly disposed of in accordance with applicable federal, state, and local regulations. NAWS China Lake has a RCRA-permitted unit for the storage of PCB wastes. The PCB Storage Building is located in the Public Works Department compound and is authorized for the storage of PCB wastes for up to 9 months. This unit is authorized for the storage of state and federal PCB wastes, including containerized fluids, articles (e.g., transformers), and containerized solid wastes (e.g., spill clean-up material). The maximum permitted quantity of PCB wastes that can be accommodated annually at the PCB Storage Building is 101 tons.

No PCB-containing equipment is known to be present at Bennington Theater. PCBs may still be present in older light ballasts; however, these ballasts are well below any reporting limit and are not regulated as PCB equipment or PCB-contaminated equipment.

A soil survey conducted in 2009 identified low levels of PCBs around the perimeter of the theater. The highest concentrations ranged from 50 to 67 µg/kg for PCB-1254 and 30 to 50 µg/kg for PCB-1260. The USEPA lists the Regional Screening Levels for both PCB-1254 and PCB-1260 at 220 µg/kg. Therefore, PCB levels recorded were all below established Regional Screening Levels. Additionally, there was no identified source of PCBs in the vicinity of the theater (U.S. Navy 2009).

Mold. A mold survey was conducted at the Bennington Theater in February, 2009. Air spore samples and tape lift samples were collected. Results of air spore samples collected within the main theater reported 691 fungal spores per cubic meter in the northwest portion of the room and 395 fungal spores per cubic meter in the southern portion of the room. The dominant species reported were aspergillus and ascospores in the northwest area, and cladosporium in the south. Results from a sample collected in the southwest men's restroom reported 148 fungal spores of the ascospores and cladosporium species (U.S. Navy 2009).

Results of mold tape-lift samples in the main theater reported rare amounts (1 to 10 spores per sample) of mold present on the carpeting and seating. Species reported include alternaria, arthrimum, aspergillus, cladosporium, and myxomycetes. Samples collected on the southwest men's room floor also reported the presence of rare amounts (1 to 10 spores per sample) of alternaria and cladosporium, and light levels (11 to 100 spores per sample) of myxomycetes. The survey also reported rare amounts of mold on the floors of the front lobby and the front kitchen on the first floor, in the northeast and northwest mechanical rooms, and on the catwalk in the main theater on the second floor (U.S. Navy 2009).

The types of mold identified include aspergillus, ascospores, alternaria, arthrimum, cladosporium, and myxomycetes. These mold types and potential health effects are described below:

Alternaria is often found outdoors but also grows in damp places indoors like in showers or under sinks with leaky pipes. It can also be found in buildings that have been flooded or suffered other water damage. Exposure to alternaria can cause allergic reactions and asthma attacks.

Arthrimum is typically found in soil and decaying plant material. It grows well indoors on cellulose containing materials and is known as an allergen.

Aspergillus is a type of mold frequently found indoors. It can cause allergic reactions and respiratory infections.

Ascospores refers to a category of spore type rather than a mold genus. There are many different types of Ascospores and they are found virtually everywhere typically in outdoor environments. Many types of Ascospores have wet spores, which are dispersed by rain or other moisture. It can cause allergic reactions.

Cladosporium is a type of mold often found growing indoors. While most types of mold prefer warm climates, cladosporium can grow in cool areas, too. It often grows on fabrics, like carpets, and on wood surfaces, like cabinets and floorboards. It can cause a variety of respiratory problems.

Myxomycetes is typically found in decaying logs, dead leaves, dung, lawns, and mulched flower beds and grows well on rotting lumber. It can cause allergic reactions.

4 Environmental Consequences

This chapter presents the results of the analysis of potential environmental effects associated with implementing the Demolition Alternative or No Action Alternative. Changes to the natural and human environments that may result from proposed activities were evaluated relative to the existing environment as described in Chapter 3.0. The potential for significant environmental consequences was evaluated utilizing the context and intensity considerations as defined in CEQ regulations for implementing the procedural provisions of NEPA (40 CFR Part 1508.27).

4.1 Air Quality

The air quality analysis compares the Demolition Alternative to the existing air quality of the affected area. Under the Demolition Alternative, potential impacts to air quality could occur from proposed demolition and site stabilization activities.

4.1.1 No Action Alternative

Under the No Action Alternative, Bennington Theater would remain closed with no public access and there would be no change to baseline air quality. Therefore, no significant impacts to air quality or air resources would occur with implementation of the No Action Alternative.

4.1.2 Demolition Alternative (Preferred Alternative)

Under the Demolition Alternative, project-related demolition and site stabilization activities would occur. These activities can be expected to cause short-term air quality impacts.

Demolition activities would involve operation of heavy equipment and vehicles as a result of building demolition and site stabilization activities. Criteria pollutant emissions generated by temporary demolition and site stabilization activities were calculated using the California Air Pollution Control Officers Association-developed California Emissions Estimator Model (CalEEMod, Version 2013.2.2) based on the size of the demolition and site stabilization area. The CalEEMod was developed to provide a uniform platform for government agencies, land use planners, and environmental professionals to estimate potential emissions associated with both construction and operational uses. These emission estimates are suitable for use in NEPA compliant documents for air quality and climate change impacts. Table 4-1 provides the model-predicted demolition and site stabilization related total emissions.

Table 4-1. Total Demolition and Site Stabilization Emissions

Emission Source Category	Demolition and Site Stabilization Emissions (Tons)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂ ^(a)
Combined Demolition and Site Stabilization	0.70	1.30	1.05	0.002	0.12	0.09	131.84

Source: CalEEMod Run, November 06, 2015.

Notes:

a. metric tons.

Clean Air Act General Conformity Rule Applicability. Section 176(c) of the CAA requires federal agencies to ensure that actions undertaken in nonattainment or maintenance areas are consistent with the CAA and with federally enforceable air quality management plans. The CAA General Conformity requirements apply to actions involving ongoing federal agency responsibility and control over direct or indirect sources of air pollutant emissions.

Compliance with the General Conformity Rule can be demonstrated in several ways. Compliance is presumed if the net increase in direct and indirect emissions from a federal action would be less than

the relevant *de minimis* level (i.e., an established emissions threshold). If net emissions increases exceed the relevant *de minimis* level, a formal conformity determination process must be followed. The *de minimis* level for PM₁₀ attainment/maintenance status within the Indian Wells Valley Planning area is 100 tons per year. The General Conformity Rule does not apply to attainment/unclassified areas.

The predicted total PM₁₀ emissions of 0.12 tons associated with the Demolition Alternative as summarized in Table 4-1 are well below the 100 tons per year *de minimis* level. Therefore, the general conformity rule determination does not apply and a Record of Non-Applicability (RONA) was prepared and is included in Appendix B. After completion of any proposed demolition activities and stabilization of the area, no operational emissions would occur at the site.

Although demolition-related air quality impacts would be minor, in compliance with SIP requirements the following dust control measures would be implemented to further minimize air quality impacts from the proposed demolition and site stabilization activities:

- Using water for controlling dust during demolition and site stabilization activities;
- Applying water on materials stockpiles, and other surfaces that could create airborne dust; and
- Covering open equipment for conveying or transporting material likely to create objectionable air pollution when airborne.

Greenhouse Gas Emissions. Implementation of the Demolition Alternative would contribute directly to emissions of GHGs from the combustion of fossil fuels. Demolition and site stabilization activities would generate approximately 132 metric tons of CO₂e. The estimated annual GHG emissions fall well below the CEQ meaningful assessment threshold of 25,000 metric tons. This limited amount of emissions would not likely contribute to global warming to any discernible extent. Therefore, implementation of the Demolition Alternative would not result in significant impacts to air quality.

Mitigation Measures. The proposed demolition activity would not result in any significant impacts to air quality; and, therefore, no mitigation would be required.

4.2 Geological Resources

The geological resources analysis compares the Demolition Alternative to the existing conditions of geological resources in the affected area. Under the Demolition Alternative, potential impacts to geological resources could occur from ground disturbance during proposed demolition and site stabilization activities.

4.2.1 No Action Alternative

Under the No Action Alternative, Bennington Theater would remain closed with no public access and there would be no change to baseline geology, topography, or soils. Therefore, no significant impacts to geological resources would occur with implementation of the No Action Alternative.

4.2.2 Demolition Alternative (Preferred Alternative)

Under the Demolition Alternative, ground-disturbing activities would occur on less than one acre within Bennington Plaza.

The minimal ground disturbance at Bennington Theater would not affect the geology of the area or change the seismicity of the region. No new structure would be constructed; therefore requirements for seismic safety would not apply. The project area does not contain soils that would be classified as prime

farmland soils. Disturbances of soil can lead to increased rates of erosion, compaction, and changes in permeability, runoff, and other soil characteristics. Short-term erosion impacts could occur during ground-disturbing activities (i.e., grading). Potential impacts would be minimized through proper management practices approved by NAWA China Lake. Standard construction practices (BMPs) that could be implemented to minimize soil erosion include:

- Add protective cover, such as mulch or straw, to exposed soil
- The use of sediment control structures (e.g., silt fences) to minimize water-borne erosion
- Watering soil stockpiles in dry conditions to minimize wind erosion
- Implement site grading procedures that limit the time that soils are exposed prior to being covered by impermeable surfaces
- Implement storm water diversions to reduce water flow through exposed sites during ground-disturbing activities
- Implement temporary impoundments to catch soil eroded from the site
- Implement soil erosion plans in coordination with the local Natural Resources Conservation Service.

Upon completion of demolition activities, the area would be stabilized with gravel and desert landscape that would serve as effective long-term erosion control. Therefore, implementation of the Demolition Alternative would not result in significant impacts to geological resources.

Mitigation Measures. The proposed demolition activity would not result in any significant impacts to geological resources; and, therefore, no mitigation would be required.

4.3 Cultural Resources

The cultural resources analysis compares the Demolition Alternative to the existing conditions of cultural resources in the affected area. Under the Demolition Alternative, potential impacts to cultural resources could occur from proposed demolition and site stabilization activities.

4.3.1 No Action Alternative

Under the No Action Alternative, Bennington Theater would remain closed with no public access. No changes in the current conditions of cultural resources of Bennington Plaza are anticipated. However, adverse effects from deterioration of a structure that is eligible for the NRHP could occur.

4.3.2 Demolition Alternative (Preferred Alternative)

Prehistoric and Historic Archaeological Resources. Demolition and site stabilization activities would not be expected to affect any prehistoric or historic archaeological resources. The Bennington Plaza area was excavated and graded during construction of the buildings, vehicle parking lots, and roadways for the Plaza, as a result, no intact archaeological resources would be anticipated to be present at the Bennington Theater project site. However, in the event that archaeological materials are unexpectedly encountered, demolition/construction activity in the immediate area would cease, the find would be protected from further disturbance, and the NAWA China Lake Cultural Resources Manager and California SHPO would be notified to assess whether any such find would be NRHP-eligible. In the event further investigation is required, any data recovery would be performed in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37)

and take into account the Advisory Council on Historic Preservation's (ACHP) publication, Treatment of Archaeological Properties. Subsequent actions would follow guidance provided in 36 CFR 25 Part 800.11 and/or NAGPRA. Due to the developed nature of the property, no significant impacts to prehistoric or historic archaeological resources are anticipated.

Historic Buildings and Structures. Building 00020 (Bennington Theater) has been determined to be eligible for inclusion on the NRHP due to its significance as the commercial and recreational anchor at NAWS China Lake's inception in 1944. The California SHPO has concurred with the Navy's determination of eligibility. Should a final decision be made to demolish Bennington Theater, the Navy would develop a Memorandum of Agreement (MOA) between the Navy, California SHPO, and ACHP to document the accepted measures for the demolition of the theater that would reduce impacts to less than significant.

Traditional Cultural Properties. In support of the 2015 NAWS China Lake Land Withdrawal Renewal EIS, the Navy conducted consultations with representatives of Native American groups as required under AIRFA. The purpose of these consultations was to determine AIRFA-related concerns such as access to sites of past cultural activity, landforms, and components of the natural environment which may occur at NAWS China Lake and are important to traditional religious practices of Native American groups. The Native American groups consulted includes the Big Pine Paiute Tribe of the Owens Valley, Bishop Tribal Council, Bridgeport Indian Colony, Fort Independence Paiute Tribe, Inter-Tribal Council of California, Inc., Kern Valley Indian Council, Lone Pine Paiute-Shoshone Reservation, Mono Lake Kutzadika Tribe, Owens Valley Indian Water Commission, Timbisha Shoshone Tribe, and Tübatulabal Tribe.

Based on consultation with representatives of Native American groups, no traditional cultural resources, sacred areas, or traditional use areas have been identified at Bennington Theater within Bennington Plaza. Therefore, no significant impacts are anticipated.

Mitigation Measures. Because the proposed action's impacts to cultural resources would be less than significant, and such impacts would be further minimized with implementation of measures outlined in the MOA currently being developed for resolution of adverse effects (see above), no mitigation measures would be required.

4.4 Biological Resources

The biological resources analysis compares the Demolition Alternative to the existing biological conditions of the affected area. Under this alternative, potential impacts to biological resources could occur from proposed demolition and site stabilization activities.

4.4.1 No Action Alternative

Under the No Action Alternative, Bennington Theater would remain closed with no public access. No changes in the current biological environment of Bennington Plaza would occur. Therefore, there would be no significant impacts to biological resources with implementation of the No Action Alternative.

4.4.2 Demolition Alternative (Preferred Alternative)

Vegetation. Bennington Plaza is situated within an urbanized area entirely developed with buildings and pavement and contains no open or undeveloped space or potential habitat except for decorative planters containing common ornamental tree and shrub species typically found in urban areas. Removal of ornamental plant species in close proximity to Bennington Theater would occur during demolition activities. Impacts to such highly disturbed, human-created habitats are considered insignificant. After demolition of the structure is completed, the area would be stabilized with gravel and desert landscape.

Landscape design would use gravel, rock, and boulders for semi-improved grounds that would minimize maintenance inputs in terms of energy, water, manpower, and equipment. Landscaping design would conform to the 2014 NAWS China Lake Mainsite Master Plan Update requirements. No significant impacts to vegetation are anticipated.

Wildlife. Increased human activity and noise levels in the immediate vicinity of Bennington Theater during demolition and site stabilization activities could affect resident or migratory wildlife within the ROI. Most of the species known to inhabit developed portions of NAWS China Lake are common and/or disturbance tolerant. Resident wildlife would likely be temporarily displaced due to the increased activity and noise, but would be able to seek similar habitat in the surrounding area. Displacement of common wildlife species is not considered significant due to their ability to seek similar habitat in the surrounding area. After demolition and site stabilization activities are completed, ambient noise levels would be similar to existing levels and wildlife species temporarily displaced would likely return to the area and establish population levels similar to pre-demolition levels.

Several bat species known to be present on NAWS China Lake may also be present at Bennington Theater as the structure has been abandoned since 2007. Prior to initiating demolition activities, a qualified biologist, while protected from ACM contamination, would inspect the building to determine whether bats are roosting. If bats are present, passive exclusion would be conducted (prior to the start of maternity season in May) to allow bats to leave but to prevent their return.

The potential effects of demolition and site stabilization activities on wildlife would not be significant.

Threatened and Endangered Species and Other Special Status Species. Building demolition activities would occur on previously disturbed and developed land. There is no habitat present within Bennington Plaza to support any of the listed species identified as having the potential to occur on NAWS China Lake. Because bird species are highly mobile, there is potential for listed bird species to be observed; however, observations of the listed bird species would be rare and more than likely transitory in nature.

Nesting migratory bird species protected under the MBTA have the potential to breed within the structures and ornamental trees at Bennington Plaza. If determined necessary, conservation measures focusing on avoidance and minimization of adverse impacts to breeding, wintering, and migratory birds would be implemented during project activities. Nesting bird species protected under the MBTA would be avoided to the maximum extent possible. If necessary, demolition activities would be limited to non-breeding season (September-January) within areas identified as having potential for nesting birds.

If any of the listed species potentially present at NAWS China Lake are within the vicinity of Bennington Theater during demolition and site stabilization activities, the expected impact would include temporary displacement of individuals. However, due to the nature of the project (which is limited to a relatively small physical area), the environmental setting at Bennington Theater (highly-developed at the site and throughout the surrounding area), and the unlikelihood that any special status species would potentially be present, such potential effects would be extremely unlikely to occur, and extent of any such effects would be discountable by virtue of being temporary and relatively minimal. Therefore, no significant impacts to federally listed threatened and endangered species from implementation of the Demolition Alternative are anticipated.

Sensitive Habitats. The project area consists of paved areas, buildings, and landscape vegetation. Based on a review of the NAWS China Lake INRMP, no sensitive habitats are present within Bennington Plaza where the theater is situated. Therefore, no significant impacts are anticipated.

Mitigation Measures. The proposed demolition activity would not result in any significant impacts to biological resources; and, therefore, no mitigation would be required.

4.5 Noise

The noise analysis compares the Demolition Alternative to the existing noise of the affected area. Under the Demolition Alternative, potential impacts from noise could occur from proposed demolition and site stabilization activities.

4.5.1 No Action Alternative

Under the No Action Alternative, Bennington Theater would remain closed with no public access. No changes to the existing noise environment would occur. Therefore, there would be no significant impacts to noise with implementation of the No Action Alternative.

4.5.2 Demolition Alternative (Preferred Alternative)

Bennington Plaza is situated in an area with aircraft noise exposure less than 65 dBA. Cultural, entertainment, and recreational (auditoriums and concert halls) land uses are considered a compatible land use within this noise level.

Temporary noise impacts could occur during demolition activities. Noise generated by demolition equipment could produce localized noise events of 100 dBA or higher at the project site, with noise levels decreasing with distance from the site. An OSHA study of construction noise found noise levels ranging from 93 to 107 dBA at construction sites. Typical noise levels generated by construction tools range from 65 to 110 dBA. A heavy truck would typically create a noise level of approximately 90 dBA at a distance of 50 feet, and a “backup” alarm on a truck could range from 90 to 95 dBA (Federal Highway Administration 2011). These noise levels are not comparable to aircraft noise levels. Aircraft noise is discussed in terms of an average sound level that evaluates the total daily community noise environment, while the demolition noise is discussed in terms of the noise level of the equipment while in operation at a certain distance. As these noises are temporary, and only affect areas close to the project area, they are not averaged as part of the CNEL.

Enforcement of OSHA guidelines for hearing protection for workers on the project site would be the responsibility of the demolition contractor. Noise from demolition activities would decrease with distance through divergence, atmospheric absorption, shielding by intervening structures, and absorption and shielding by ground cover. Signs warning of high noise levels would be posted at the project site by the demolition contractor, if demolition noise levels warrant this measure. While noise may be a temporary source of annoyance for individuals visiting Bennington Plaza, it would not be at levels that would require hearing protection measures.

Noise generated from proposed demolition and site stabilization activities would be intermittent and short term, and would primarily occur at the project site. Once demolition and site stabilization activities are completed, proposed use of the area as open space would not generate a substantial amount of noise. Therefore, no significant noise impacts are anticipated from implementation of the Demolition Alternative.

Mitigation Measures. The proposed demolition activity would not result in any significant impacts to noise; and, therefore, no mitigation would be required.

4.6 Hazardous Materials and Wastes

The potential effects of the Demolition Alternative were assessed by considering how the Demolition Alternative would affect hazardous substances management, hazardous waste management, and toxic substances at NAWS China Lake. Under the Demolition Alternative, potential impacts to hazardous materials and waste could occur from proposed demolition and site stabilization activities.

4.6.1 No Action Alternative

Under the No Action Alternative, Bennington Theater would remain closed with no public access. Regulations and plans that pertain to hazardous substances, hazardous waste, and toxic substances would continue to be followed and existing conditions would remain unchanged. Therefore, there would be no significant impacts to hazardous substances and waste management with implementation of the No Action Alternative.

4.6.2 Demolition Alternative (Preferred Alternative)

Hazardous Substances Management. During demolition and site stabilization activities, small amounts of hazardous substances are expected to be utilized, and the potential for spills would exist. Any spills or releases of hazardous substances would be cleaned up by the contractor. Hazardous substances likely to be utilized during demolition and site stabilization activities include motor fuels; solvents; POL; and household products. Storage, handling, and transportation of hazardous substances associated with demolition and site stabilization activities would be conducted in accordance with applicable regulations and established procedures. Only required hazardous substances would be used/stored in appropriate containers with adequate spill containment/protection. Because hazardous substances would be managed in accordance with applicable regulations, no significant impacts are anticipated.

Hazardous Waste Management. Small quantities of hazardous waste may be generated during demolition and site stabilization activities. NAWS China Lake would ensure that the contractor follows applicable regulations for management of any hazardous waste generated and cleans up any spills or releases of fuel or oil from equipment. NAWS China Lake would also ensure that the contractor disposes any hazardous waste generated on the property in accordance with applicable regulations at an approved off-site location. Any hazardous waste generated would be stored at a temporary accumulation area at the work site in appropriate containers with adequate spill containment/protection. Large quantities of wastes generated, such as asbestos waste, would be shipped directly from the work site to an approved off-site location. Because hazardous waste would be managed and disposed of in accordance with applicable regulations, no significant impacts are anticipated.

Toxic Substances.

Asbestos. ACMs identified at Bennington Theater includes floor tile, floor tile mastic, linoleum, thermal system insulation on pipe, wall plaster, and roofing material. All ACM will be removed in accordance with applicable federal, state, local, and Navy regulations, prior to the beginning of the building demolition. Workers conducting the asbestos abatement would be advised of the type, condition, and amount of ACM present. Demolition activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment. Any ACM discovered as a result of demolition activities would be properly abated and disposed of off-site in accordance with applicable regulations. Management of ACMs and ACM waste in accordance with applicable regulations would preclude significant impacts. Therefore, there would be no significant impacts associated with management of ACMs with implementation of the Demolition Alternative.

Lead-Based Paint. LBP at Bennington Theater is known to be present on walls of the main theater and lobby, exterior walls, roof flashing and fascia, building canopy, window sills, and doors and door jambs. Workers conducting demolition activities would be advised, to the extent known, of the type, condition, and amount of LBP present at Bennington Theater. Demolition activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment. Any LBP waste generated as a result of demolition activities would be disposed of off-site in accordance with applicable regulations. The contractor would be required to perform a TCLP scan on demolition debris prior to disposal to ensure it is not hazardous. If a waste is classified as hazardous, disposal must take place in accordance with applicable hazardous waste rules. Materials containing LBP would have to be disposed of at a facility that accepts solid waste containing LBP. The highest lead concentration identified in the soils surrounding the theater was 80 mg/kg, which is well below the USEPA action level of 400 mg/kg. Management of LBP and LBP waste in accordance with applicable regulations would preclude significant impacts. Therefore, there would be no significant impacts associated with the management of LBP with implementation of the Demolition Alternative.

Polychlorinated Biphenyls. No PCB-containing equipment is known to be present at Bennington Theater. PCBs may still be present in older light ballasts; however, these ballasts are well below any reporting limit and are not regulated as PCB equipment or PCB-contaminated equipment. Removal and disposal of equipment containing PCBs and light ballasts containing PCBs would be conducted by licensed abatement and removal contractors following applicable federal, state, and local regulations for protecting human health and safety and the environment. PCB levels recorded in soils surrounding the theater were all below established RSLs. Therefore, there would be no significant impacts associated with PCBs with implementation of the Demolition Alternative.

Mold. State and federal public health agencies recommend that any amount of mold be treated as a hazard and, therefore, that it be removed. Mold at Bennington Theater is known to be present within the main theater, restrooms, front lobby, kitchen, mechanical rooms, and on the catwalk in the main theater. Mold was identified on the carpeting/pad and theater seats, which would be removed during demolition activities. To limit exposure to mold, the floors of the restrooms, kitchen, front lobby, mechanical rooms, and the catwalk in the main theater should be cleaned with an anti-fungal agent. Demolition activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment. Any mold waste generated during demolition activities would be disposed of off-site in accordance with applicable regulations. Management of mold in accordance with applicable regulations would preclude significant impacts. Therefore, there would be no significant impacts associated with management of mold with implementation of the Demolition Alternative.

Mitigation Measures. The proposed demolition activity would not result in any significant impacts to hazardous materials and waste; and, therefore, no mitigation would be required.

4.7 Summary of Potential Impacts to Resources and Impact Avoidance and Minimization

A summary of the potential impacts associated with the Demolition Alternative and the No Action Alternative and impact avoidance and minimization measures are presented in Tables 4-2 and 4-3 respectively.

Table 4-2. Summary of Potential Impacts to Resource Areas

Resource Area	No Action Alternative	Demolition Alternative
Air Quality	No effect	<ul style="list-style-type: none"> Short-term demolition emissions. Dust from demolition activities controlled with BMPs. Emissions from demolition activities would not hinder maintenance of the NAAQS or CAAQS.
Geological Resources	No effect	<ul style="list-style-type: none"> Short-term effects during demolition activities. Potential erosion effects controlled using standard construction practices. Implementation of standard construction practices would reduce the potential for erosion effects. Upon completion of demolition activities, the area would be stabilized with gravel and desert landscape that would serve as effective long-term erosion control.
Cultural Resources	Adverse effect from deterioration of a structure that is eligible for the NRHP.	<ul style="list-style-type: none"> Adverse effect from demolishing a structure that is eligible for the NRHP. Measures stipulated in an MOA would be implemented to mitigate and minimize already less-than-significant adverse effects.
Biological Resources	<p>No effect to wildlife. No effect to vegetation. No effect to federal or state listed species. No effect to sensitive habitats.</p>	<ul style="list-style-type: none"> Short-term effects during demolition activities. Common wildlife could be displaced to surrounding areas. Common ornamental tree and shrub species would be removed. No habitat within Bennington Plaza to support listed species having the potential to occur on NAWWS China Lake. If determined necessary, conservation measures focusing on avoidance and minimization of adverse impacts to migratory birds would be implemented during project activities. No sensitive habitats are present within Bennington Plaza.
Noise	No effect	<ul style="list-style-type: none"> Short-term, localized noise during demolition activities. Proposed use of the area as open space would not generate a substantial amount of noise.
Hazardous Materials and Wastes	Damaged friable ACMs, peeling LBP, and mold contamination would remain.	<ul style="list-style-type: none"> ACM, LBP, or mold contaminated wastes generated during demolition activities would be properly abated and disposed of off-site in accordance with applicable regulations. Hazardous materials and wastes used/generated during demolition activities would be managed under established standard operating procedures.

ACM = asbestos-containing material
BMP = best management practice
CAAQS = California Ambient Air Quality Standards
LBP = lead-based paint
MOA = Memorandum of Agreement
NAAQS = National Ambient Air Quality Standards

NAWS = Naval Air Weapons Station
NRHP = National Register of Historic Places

Table 4-3. Impact Avoidance and Minimization Measures

Measure	Anticipated Benefit	Evaluating Effectiveness	Implementing and Monitoring	Responsibility	Estimated Completion Date
Demolition Alternative (Preferred Alternative)					
Conduct pre-demolition nesting bird survey	Prevent/minimize the potential risk to migratory birds	No take	Implemented and monitored by qualified biologist	NAWS China Lake EMD	Prior to demolition
Inspect the building to determine whether bats are roosting; if bats are present, implement passive exclusion	Prevent/minimize the potential risk to bats	No take	Implemented and monitored by qualified biologist	NAWS China Lake EMD	Prior to demolition
Implement measures stipulated in MOA for historic resources	Lessen adverse effects to historic resources	No impact	Implemented and monitored by NAWS China Lake EMD	NAWS China Lake EMD	Prior to demolition
Manage hazardous materials during demolition activities in accordance with applicable regulations and established procedures.	Prevent/minimize the potential risk to human health and the environment	No releases	Implemented by demolition contractor monitored by NAWS China Lake EMD	Demolition contractor overseen by NAWS China Lake EMD	Completion of site stabilization
Manage hazardous waste generated during demolition activities in accordance with applicable regulations. Any hazardous waste generated on the property would be disposed of at an approved off-site location in accordance with applicable regulations.	Prevent/minimize the potential risk to human health and the environment	No releases	Implemented by demolition contractor monitored by NAWS China Lake EMD	Demolition contractor overseen by NAWS China Lake EMD	Completion of site stabilization
Manage ACMs prior to general demolition activities in accordance with applicable federal, state, and local regulations. Appropriate safety protocols for site workers to be implemented.	Prevent/minimize the potential risk to human health and the environment	No releases	Implemented by demolition contractor monitored by NAWS China Lake Facilities Engineering and Acquisition Division (FEAD) and Facilities Management Division (FMD)	Demolition contractor overseen by NAWS China Lake FEAD and FMD	Prior to starting general building demolition
Manage LBP encountered during demolition activities in accordance with applicable federal, state, and local regulations. Appropriate safety protocols for site workers to be implemented.	Prevent/minimize the potential risk to human health and the environment	No releases	Implemented by demolition contractor monitored by NAWS China Lake FEAD and FMD	Demolition contractor overseen by NAWS China Lake FEAD and FMD	Completion of building demolition

Table 4-3. Impact Avoidance and Minimization Measures

Measure	Anticipated Benefit	Evaluating Effectiveness	Implementing and Monitoring	Responsibility	Estimated Completion Date
Demolition Alternative (Preferred Alternative)					
Manage PCBs prior to general demolition activities in accordance with applicable federal, state, and local regulations. Appropriate safety protocols for site workers to be implemented.	Prevent/minimize the potential risk to human health and the environment	No releases	Implemented by demolition contractor monitored by NAWS China Lake FEAD and FMD	Demolition contractor overseen by NAWS China Lake FEAD and FMD	Prior to general building demolition
Manage mold encountered during demolition activities in accordance with applicable federal, state, and local regulations. Appropriate safety protocols for site workers to be implemented.	Prevent/minimize the potential risk to human health and the environment	No releases	Implemented by demolition contractor monitored by NAWS China Lake FEAD and FMD	Demolition contractor overseen by NAWS China Lake FEAD and FMD	Completion of building demolition
Implement appropriate standard construction practices: <ul style="list-style-type: none"> • Add protective cover, such as mulch or straw, to exposed soil • Use of sediment control structures (e.g., silt fences) to minimize water-borne erosion • Watering soil stockpiles to minimize wind erosion • Implement site grading procedures that limit the time soils are exposed prior to being covered by impermeable surfaces or gravel • Implement storm water diversions to reduce water flow through exposed sites during demolition activities • Implement temporary impoundments to catch soil eroded from the site <ul style="list-style-type: none"> ▪ Implement soil erosion plans in coordination with the local Natural Resources Conservation Service 	Minimize increased rates of soils erosion, compaction, and changes in permeability	No dust or uncontrolled runoff at the site	Implemented by demolition contractor monitored by NAWS China Lake EMD	Demolition contractor overseen by NAWS China Lake EMD	Completion of site stabilization

Table 4-3. Impact Avoidance and Minimization Measures

Measure	Anticipated Benefit	Evaluating Effectiveness	Implementing and Monitoring	Responsibility	Estimated Completion Date
Demolition Alternative (Preferred Alternative)					
Water exposed soils to minimize particulate emissions during demolition activities.	Minimize particulate emissions	No dust at site	Implemented by demolition contractor monitored by NAWS China Lake FEAD and FMD	Demolition contractor overseen by NAWS China Lake FEAD and FMD	Completion of site stabilization

5 Cumulative Impacts

CEQ regulations implementing the procedural provisions of NEPA define cumulative impacts as:

“...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (40 CFR § 1508.7).

Each resource, ecosystem, and human community must be analyzed in terms of its ability to accommodate additional effects, based on its own time and space parameters. Therefore, cumulative effects analysis normally will encompass an ROI or geographic boundaries beyond the immediate area of the Proposed Action, and a time frame including past actions and foreseeable future actions, to capture these additional effects.

For the Proposed Action to have a cumulatively significant impact to an environmental resource, two conditions must be met. First, the combined effects of identified past, present, and reasonably foreseeable projects, activities, and processes on a resource, including the effects of the Proposed Action, must be significant. Second, the Proposed Action must make a contribution to that significant cumulative impact. In order to analyze cumulative effects, a cumulative effects region must be identified for which effects of the Proposed Action and other past, present, and reasonably foreseeable actions would occur.

5.1 Past, Present, and Reasonably Foreseeable Actions

The Navy was unable to identify specific actions within and adjacent to the Bennington Plaza as the area in which cumulative impacts could result from implementation of the Proposed Action at Bennington Theater.

Instead, this analysis depends on the availability of data and the relevance of effects of past, present, and future actions. Because specific information and data on past projects and actions are usually scarce, the analysis of past effects is often qualitative (Council on Environmental Quality 1997).

Future actions in the vicinity of Bennington Theater include continued uses within Bennington Plaza such as the exchange; gym and pool; and morale, welfare, and recreation office. These activities are considered part of the baseline conditions and do not currently impact the project site. One past action was completed in 2014 (construction of the Consolidated Auto Center) south of Bennington Plaza; however, activities at this new facility are not anticipated to result in cumulative environmental effects during the Proposed Action. Based on the *2014 Mainsite Master Plan Update*, no other reasonably foreseeable actions have been identified in the vicinity of Bennington Theater that could be considered as contributing to a potential cumulative impact on the environment, along with impacts associated with implementation of the Demolition Alternative.

Regarding cumulative air quality impacts, the ROI for air quality includes the existing air shed within which the project site is situated; this ROI is somewhat larger than the ROI for other environmental factors considered in the EA where the area is focused more on the general project area. The cumulative projects identified in the region of NAWWS China Lake would not be expected to have any significant cumulative air quality impacts in conjunction with the Demolition Alternative. Emissions from any on-installation construction projects would be minimized by controlling fugitive dust; these emissions would only have temporary effects and would not result in significant impacts. Continuation of mission

operations at NAWS China Lake could result in minor changes to air emissions from on-installation activities; however, based on the number of training events and types of activities, air emissions from these activities is not anticipated to result in appreciable air quality effects.

Off-installation projects of potential interest from a cumulative air quality impact perspective include several solar development projects in eastern Kern County and miscellaneous small development projects in the City of Ridgecrest (e.g., road and drainage channel improvements). Construction-related air quality impacts associated with these projects would be temporary, with localized air quality impacts. Clearing of land for development could result in an increase in dust (particulate matter) emissions during windy conditions. Air emissions associated with construction projects would be minimized by controlling fugitive dust and would not be expected to have significant air quality impacts. After construction activities are completed, operation of the solar facilities would not result in significant air quality emissions. Consequently, these projects would not have significant long-term impacts on overall air quality in the region. Additionally, solar energy developments must implement dust control measures to keep dust to a minimum as a film of dust on solar panels reduces their efficiency for power production.

Regarding cultural resources, most of the Bennington Plaza buildings were either built in recent years or are World War II-era buildings that have been extensively altered or modified. Because of a lack of integrity, Bennington Plaza as a whole does not qualify for NRHP listing. Building 00020 (Bennington Theater) is within Bennington Plaza and is eligible for listing on the NRHP as an individual structure due to its significance as the commercial and recreational anchor at NAWS China Lake's inception in 1944. No other historic properties are visible from Bennington Theater; therefore, demolition of Bennington Theater is not anticipated to result in cumulative effects to other NRHP-eligible structures at NAWS China Lake.

The potential impacts from the Demolition Alternative are short term and minor, and are not expected to contribute to cumulative environmental impacts.

5.2 Assessment of Cumulative Impacts by Resource

Based on the analysis of the Proposed Action in conjunction with other past, present, and reasonably foreseeable future projects, no significant cumulative impacts to any of the resources evaluated in this EA are anticipated.

6 Other Considerations Required by NEPA

6.1 Consistency with other Federal, State, and Local, Laws, Plans, Policies, and Regulations

In accordance with 40 CFR section 1502.16(c), analysis of environmental consequences shall include discussion of possible conflicts between the Proposed Action and the objectives of federal, regional, state and local land use plans, policies, and controls. Table 6-1 identifies the principal federal and state laws and regulations that are applicable to the Proposed Action, and describes briefly how compliance with these laws and regulations would be accomplished.

6.2 Irreversible or Irretrievable Commitment of Natural or Finite Resources

NEPA requires that environmental analysis include identification of "...any irreversible or irretrievable commitments of resources that would be involved if the Proposed Action is implemented." The term "resources" (both renewable and nonrenewable) means the natural and cultural resources committed to, or lost by, the action, as well as labor, funds, and materials committed to the action.

The permanent use and subsequent loss of non-renewable resources, such as oil, natural gas, and iron ore, are considered irreversible because non-renewable resources cannot be replenished by natural means. An action that causes a loss in the value of an affected resource, which cannot be restored (e.g., disturbance of a cultural site), is considered an irretrievable commitment of resources. Similarly, the consumption of a renewable resource that would be lost for a period of time is also considered an irretrievable commitment of resources. Renewable natural resources include water, lumber, and soil, all of which can be replenished by natural means within a reasonable timeframe.

The Proposed Action involves irretrievable commitment of both non-renewable and renewable resources. Facility demolition activities would expend fuel, construction materials, and labor; an irretrievable commitment of non-renewable resources. The demolition of the NRHP-eligible facility (a cultural resource) would also be considered an irretrievable commitment of a non-renewable resource.

The total amount of construction materials (e.g., concrete, asphalt, etc.) required for the Proposed Action is relatively small when compared to the resources available in the region. The construction materials and energy required for facility demolition are not in short supply. Moreover, the use of construction materials and energy would not have an adverse impact on the continued availability of these resources. The commitment of energy resources to implement the Proposed Action is not anticipated to be excessive in terms of region-wide usage. Furthermore, compliance with EO 13514 and EO 13423 requirements would minimize irreversible or irretrievable effects to non-renewable and renewable resources.

6.3 Unavoidable Adverse Impacts

This EA has determined that the Proposed Action would not result in any significant impacts. Implementing the Proposed Action would result in the following unavoidable environmental impacts:

- Bennington Theater has been determined to be eligible for inclusion on the National Register. The California SHPO has concurred with the Navy's determination of eligibility. An MOA between the Navy, California SHPO, and Advisory Council would be developed to document the accepted measures for the demolition of the theater that would reduce impacts to less than significant.

Table 6-1. Summary of Applicable Environmental Regulations and Regulatory Compliance

Plans, Policies, and Controls	Regulatory Authority	Compliance Status
NEPA (42 U.S.C. 4341 <i>et seq.</i>), CEQ regulations implementing NEPA (CFR Parts 1500-1508) and Department of the Navy Procedures for Implementing NEPA (32 CFR 775)	Navy	The EA has been prepared in accordance with NEPA, CEQ regulations implementing NEPA, and Navy NEPA procedures. Public participation and review are being conducted in compliance with NEPA
Noise Control Act of 1972 and Quiet Communities Act of 1978	Navy	Due consideration to noise impacts presented in the EA ensure consistency with these Acts
CAA (42 U.S.C. 7401 <i>et seq.</i>)	USEPA	The air quality analysis in the EA concludes that emissions under the Proposed Action would not create a major regional source of air pollutants or affect the current attainment status at NAWS China Lake, and would comply with applicable state and regional air agency rules and regulations
EO 12898, <i>Environmental Justice</i> , (59 Federal Register 7629)	Navy	The Proposed Action would not have disproportionate effects on minority and low income populations
EO 13045, <i>Protection of Children from Environmental Health Risks and Safety Risks</i> (62 Federal Register 19883)	Navy	The Proposed Action would not have disproportionate effects on children
NHPA, as amended (16 U.S.C. 470 <i>et seq.</i>)	SHPO	Adverse effect to the NRHP-eligible facility would be mitigated to less than significant through preparation of an MOA to document the accepted measures for the demolition of the theater that would reduce impacts to less than significant. No impacts to traditional cultural properties are expected
Archaeological Resources Protection Act of 1979 (16 U.S.C. 470 <i>et seq.</i>); Final Uniform Regulations (32 CFR 229)	SHPO	The Proposed Action would not affect archaeological resources
CWA (33 U.S.C. 1251 <i>et seq.</i>) Safe Drinking Water Act (42 U.S.C. 300f <i>et seq.</i>)	USEPA, USACE, RWQCB	Storm water runoff during demolition and site stabilization activities would be minimized through implementation of proper site management practices approved by NAWS China Lake
EO 11988, <i>Floodplain Management</i> (42 FR 26951)	FEMA	The Proposed Action would not impact floodplains or floodplain management at NAWS China Lake
ESA (16 U.S.C. 1531 <i>et seq.</i>)	USFWS and California Department of Fish and Wildlife	The Proposed Action would not impact special status species at NAWS China Lake
MBTA (16 U.S.C. 703 <i>et seq.</i>)		The Proposed Action would not increase impacts to migratory birds
RCRA (42 U.S.C. 6901 <i>et seq.</i>)	USEPA	The Proposed Action would not result in significant hazardous materials and wastes related impacts
CERCLA (42 U.S.C. 9601 <i>et seq.</i>)	USEPA	The Proposed Action would not impact Environmental Restoration Program sites

6.4 Relationship Between Short-Term Use of the Environment and Long-Term Productivity

Demolishing Bennington Theater is not expected to result in the types of impacts that would reduce environmental productivity, have long-term impacts on sustainability, affect biodiversity, or narrow the range of long-term beneficial uses of the environment. As discussed in Chapter 4, the Proposed Action would not result in significant environmental effects.

The number of personnel at NAWs China Lake would remain unchanged under the Proposed Action. Project-related demolition activities would temporarily increase air pollution emissions and noise in the immediate vicinity of the affected area. Noise from demolition activities would be short-term and would not be expected to result in permanent damage or long-term changes in wildlife productivity or habitat use. Sustainability principles would be incorporated into landscaping design and practices in accordance with NAVFAC Instruction 9830.1, *Sustainable Development Policy*.

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Appendix A

National Historic Preservation Act Section 106 Documentation

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Appendix B
Record of Non-Applicability (RONA)

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RECORD OF NON-APPLICABILITY (RONA)
IN ACCORDANCE WITH THE CLEAN AIR ACT - GENERAL CONFORMITY RULE
for
DEMOLITION OF BENNINGTON THEATER AT
NAVAL AIR WEAPONS STATION CHINA LAKE, CALIFORNIA

The Clean Air Act (CAA) requires federal actions in air pollutant non-attainment or maintenance areas to conform to the applicable State Implementation Plan (SIP). The SIP is designed to achieve or maintain an attainment designation of air pollutants as defined by the National Ambient Air Quality Standards (NAAQS). The regulations governing this requirement are found in 40 CFR Parts 51 and 93, also known as the "General Conformity Rule". The project area is located in an area that is currently designated as "attainment/maintenance" for particulate matter less than or equal to 10 microns in diameter (PM₁₀). As a result, the proposed action must comply with the requirements of the General Conformity Rule.

PROPOSED ACTION

Activity: The proposed action is to demolish Bennington Theater at NAWS China Lake, California.

Proposed Action Name: Demolition of Bennington Theater at NAWS China Lake, California.

Proposed Action Summary: The Navy would demolish Bennington Theater. This would include completely removing the foundation and hardscape and capping underground utility connections. Hazardous substance abatement would occur within the building prior to demolition. Total area of disturbance during demolition of the 15,326 square foot Bennington Theater is estimated to be less than 1 acre.

After demolition of the structure is completed, the area would be stabilized with gravel and desert landscape. New connecting sections of concrete paving and the covered walkway would be installed between existing sections in the area of the demolished forecourt. Landscape design would use gravel, rock, and boulders for semi-improved grounds that would minimize maintenance inputs in terms of energy, water, manpower, and equipment. Landscaping design would conform to the 2014 NAWS China Lake Mainsite Master Plan Update requirements. For analysis purposes, it is assumed that demolition and site stabilization activities would be completed within a 4-month period over approximately 1 acre of land.

Air Emissions Analysis: The South Coast Air Quality Management District (SCAQMD)-developed California Emissions Estimator Model (CalEEMod) was used through incorporating the size and type of proposed development conceptual plan described above to predict demolition and site stabilization activity-associated emissions. CalEEMod calculates both the criteria emissions and greenhouse gas emissions associated with construction and operational sources as part of development projects. These emission estimates can be used for quantification and reporting as part of the National Environmental Policy Act (NEPA) and other environmental documentation.

The construction module of CalEEMod is used to calculate the emissions associated with the proposed demolition and site stabilization activities. Demolition emissions have several different types of sources which contribute to emissions of pollutants. These source types include off-road equipment usage, on-

road vehicle travel, fugitive dust, architectural coating, and paving. Each of these source types were considered in the model with default input parameters described below.

Phasing - In CalEEMod, the SCAQMD construction survey is used to estimate default phase lengths based on total project acreage (i.e., 1 acre for the proposed project) as calculated from the acreage entered in the model.

Off-Road Equipment - Since the majority of the off-road construction equipment used for construction projects is diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel. The SCAQMD construction survey is used to estimate default equipment lists based on total project acreage as calculated from the acreage entered in the model. The model calculates the exhaust emissions based on California Air Resources Board (ARB) OFFROAD2011 methodology with default input through multiplying below parameters:

- EF = Emission factor in grams per horsepower-hour (g/hp-hr) as processed from OFFROAD2011
- Pop = Population, or the number of pieces of equipment
- AvgHp = Maximum rated average horsepower
- Load = Load factor Activity = Hours of operation
- Equipment type.

Vehicle Trips - The number of worker, vendor, and hauling trips and associated vehicle miles traveled (VMT) are used to determine both the exhaust emissions associated with on-road vehicle use and fugitive dust emissions. Worker trips for all construction phases except building construction and architectural coating is based on 1.25 workers per equipment in that phase resulting in one roundtrip per worker. For building construction workers, the trip number is estimated using the trip generation rate from a survey conducted by SMAQMD.

Fugitive Dust – Fugitive dust is generated by the various source activities occurring at a construction site. This dust contributes PM₁₀ emissions and for detailed emission breakdowns are distinguished from exhaust particulate matter emissions. CalEEMod calculates fugitive dust associated with the site preparation and grading phases from three major activities: haul road grading, earth bulldozing, and truck loading. As recommended by SCAQMD, the fugitive dust emissions from the grading phase are calculated using the methodology described in USEPA AP-42.

Air Emissions Summary: Diesel and gasoline engine mobile emission sources and earth movement generated fugitive dust emissions associated with demolition and site stabilization activities for the proposed action were considered and calculated using CalEEMod. The emissions from demolition equipment and motor vehicles, as well as fugitive emissions are estimated and summarized in Table 1.

Table 1 Total PM₁₀ Emissions Level

Demolition Alternative	0.12 ton
<i>De minimis</i> Level	100 tons
Exceed Threshold?	No

EMISSIONS EVALUATION CONCLUSION

Provisions in the CAA regulations (40 CFR Sect 51.853(c)(1)) allow for exemptions from performing a conformity determination if total emissions of individual non-attainment or maintenance area pollutants resulting from the action fall below specific threshold values (i.e., *de minimis* levels). As demonstrated by the information in Table 1, the change in the emission levels for applicable PM₁₀ do not exceed the corresponding *de minimis* levels. Therefore, the Navy concludes that further formal Conformity Determination procedures are not required, resulting in this RONA.

RONA APPROVAL

To the best of my knowledge, the information presented in this RONA is correct and accurate and I concur in the finding that the Proposed Action is not subject to the General Conformity Rule determination.

JOHN O'GARA
Director
NAWS China Lake Environmental Management Division

Date

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