Final
Supplemental Environmental Impact Statement
Replacement of National Oceanic and Atmospheric Administration Southwest Fisheries Science Center Demolition, Soil Stabilization and Seismic Improvements
La Jolla, California

Post-project rendering of Building D

Prepared for

National Oceanic and Atmospheric Administration

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Executive Summary

In April 2009, the National Oceanic and Atmospheric Administration (NOAA) prepared a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and issued a Record of Decision (ROD) for its Proposed Action to replace its Southwest Fisheries Science Center (SWFSC) facilities in La Jolla, California. The NOAA SWFSC is a National Marine Fisheries Service (NMFS) regional headquarters located at the University of California at San Diego. A joint Final EIS/EIR was prepared and approved in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code 4321-4347), the President's Council on Environmental Quality (CEQ) implementing regulations (40 CFR Part 1500 – 1508), NOAA Administrative Order (NAO) 216-6: Environmental Review Procedures for Implementing the National Environmental Policy Act and California Environmental Quality Act (CEQA) guidelines.

Since completion of the Final EIS/EIR, substantial changes to the Proposed Action are being considered by NOAA within portions of the project area containing the 2.5-acre property currently occupied by SWFSC and managed by NOAA under a 99-year deed from the University of California Office of the President (UCOP). These newly Proposed Actions were not previously analyzed in the Final EIS/EIR and involve additional demolition activities, substantial excavation and grading, installation of a geohazard soil stabilization system, structural upgrade to remaining structures, and other site alterations. These Proposed Actions were deemed necessary by NOAA based on additional geotechnical information and design recommendations received since approval of the Final EIS/EIR.

This Supplemental EIS (SEIS) was prepared to ensure a "full and fair" evaluation under NEPA has been performed by NOAA prior to a decision to implement or not implement the newly Proposed Actions. A Notice of Intent (NOI) to prepare a SEIS was placed in the Federal Register. The SEIS evaluates each environmental topic addressed in the Final EIS/EIR, and focuses on the newly Proposed Action relative to changes to the existing environment and potential effects to the human environment. The No-Action Alternative was analyzed and assumes the newly Proposed Actions would not be implemented. NOAA has submitted a Draft SEIS to the U.S. Environmental Protection Agency for review and accepted public comments on the Draft SEIS during a 45-day comment period beginning September 16, 2011, and ending on October 31, 2011. Comments received and responses to comments are provided in Appendix F of this Final SEIS.

The Draft SEIS and this Final SEIS concludes that no change in effects under NEPA would occur due to the Proposed Action. Impacts and mitigation measures presented in the Final EIS/EIR, and those effects evaluated in the SEIS are summarized below. These measures, when implemented, would ensure anticipated effects would be less than significant.

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
Land Use and Coastal Zone Management		
Proposed Action		
Impacts to Land Use and Coastal Zone Management	See Proposed Action mitigation measures listed for each resource below	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to Land Use and Coastal Zone Management	See No-Action mitigation measures listed for each resource below	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
		CEQA).
Geology, Soils, and Geologic Hazards		
Proposed Action		
Impact 1 – Vegetation Clearing and Soil Erosion	• This measure was previously identified and includes preparation and implementation of a SWPPP and BMPs (see CEQA impact identified in the Final EIS/EIR as Geo-1). • This measure was previously identified for use of straw mats and reseeding after construction/demolition activities are completed (see CEQA impact identified in the Final EIS/EIR as Geo-2).	Implementation of Mitigation Measures Geo-1 and Geo-2, as identified in the Final EIS/EIR and included below would result in erosion effects that are less than substantial under NEPA (and less than significant under CEQA).
Impact 2 – Seismic and Bluff Retreat Hazards	• Previous Geo-3 is modified to also include UCOP's Seismic Safety Policy and ASCE 41-6 guidelines (see CEQA impact identified in the Final EIS/EIR as Geo-3). • A Noise and Vibration Monitoring Plan will also be in effect during construction which would limit vibrations to 0.2 inch/second PPV within 40 ft of the source (see CEQA impact identified in the Final EIS/EIR as Noi-4). • The existing Bluff Erosion Monitoring System will continue to be operated. The construction specifications will include specific provisions to protect the existing slope inclinometers, and repair or replace these instruments if damaged (new measure). An up-to-date emergency response plan would be maintained including training managers and staff to implement the plan, as necessary (see CEQA impact identified in the Final EIS/EIR as Geo-4).	By implementing mitigation measures, construction impacts related to bluff instability hazards would be reduced to less than significant levels under NEPA (and less than significant under CEQA).
Impact 3 – Impact to Mineral Resources	None required.	Impacts to mineral resources would be less than significant under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impact 1 – Vegetation Clearing and Soil Erosion	None required.	There would be no increased impacts resulting from exposure of soil to wind and water erosion, beyond those identified in the Final EIS/EIR.

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
Impact 2 – Seismic and Bluff Retreat Hazards	Buildings A and D would be left as-is. A hazardous geologic condition would exist and occupants would be at risk. The continued use of the buildings would not be consistent with the University's Seismic Safety policies	Without geotechnical stabilization, the existing structures could still be damaged. This would be a significant impact.
Impact 3 – Impact to Mineral Resources	None required.	There would be no impacts to mineral resources.
Drainage and Water Quality		
Proposed Action		
Permitting Discharge of Stormwater during Construction and Demolition	Hyd-1 *(Impact 1)*: NOAA will prepare an SWPPP and submit required notices of intent and termination to the RWQCB. The following BMPs will be incorporated into the SWPPP and implemented during and after construction and demolition activities: • The area of land disturbance will be kept to a minimum and existing vegetative cover will be retained as much as possible. • Disturbed areas will be stabilized with temporary placement of woven mesh or netting until vegetation becomes established. • Controls (silt fences, hay bales, and so on) will be placed at the perimeters of the construction and demolition areas. • The sites will be sloped and graded to direct runoff away from steep hillsides or denuded areas. • Disturbed areas will be replanted with native coastal sage scrub vegetation.	Effects due to the change in regulation would be negligible under NEPA (and less than significant under CEQA).
Changes in Impervious Surfaces and Runoff	None required.	The effects to runoff resulting from the decrease in impervious surfaces would be negligible under NEPA (and less than significant under CEQA).
Flood Hazards	None required.	The Proposed Action would be consistent with policies contained in E.O. 11988 and therefore impacts would be negligible under NEPA (and less than significant under CEQA).
Water Quality Effects of Storm Runoff	Hyd-2 *(Impacts 3 and 5)*: The new SWFSC will incorporate the design features listed below to retain storm water on-site, thereby mitigating any increase in storm runoff rates:	If properly maintained, effects to stormwater quality from the parking lots at the existing SWFSC during operation of the

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	• Landscaping using native species will be planted adjacent to foundations to reduce the velocity of runoff flow and prevent erosion. • Storm water from roofs will be directed to water retention areas. • A new drainage trough will help to further reduce the projected increase in runoff. • Permeable pavement will be used where appropriate for walkways and parking areas. Hyd-3 *(Impact 5)*: All storm drain inlets and catch basins at the SWFSC site will be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCSD standards. Hyd-4 *(Impact 7)*: Outdoor storage areas for materials that may affect water quality will be covered and protected by secondary containment. Hyd-5 *(Impact 7)*: All trash container areas will be enclosed to prevent off-site transport of trash and drainage will be directed to the sanitary sewer system or the covered containers to prevent exposure of trash to precipitation (SRI International, 2009).	project would be negligible under NEPA (and less than significant under CEQA).
Use and Discharge of Seawater	None required.	Effects from the use and discharge of seawater would be negligible under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to drainage and water quality	None required.	Under the No-Action Alternative, the environmental effects and associated mitigation measures described for the Proposed Action would remain the same. The primary difference would be a further reduction in impervious surfaces under the No-Action Alternative, since the newly proposed parking areas would not be built and water quality treatment would not occur for these areas.

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
Biological Resources (Threatened and Endangered Species) and Wetlands		
Proposed Action		
Demolition Impacts	None required.	The effects resulting from removal of ornamental vegetation and the replacement of landscaping with species not requiring irrigation would be negligible under NEPA (and less than significant under CEQA).
Excavation and soil stabilization impacts	None required.	No substantial effects to biological resources would result either during proposed demolition of structures and stabilization or restoration actions, or during long-term use of the subject property for research and education purposes under NEPA (and would be less than significant under CEQA).
Construction impacts to birds	If demolition and/or other project-related activities at the existing SWFSC site are expected to occur during the raptor breeding season, February 1 through August 31, a qualified biologist would conduct raptor nest surveys within 500 ft of the project area prior to start of such activities. If active raptor nests are observed, demolition activities within 500 ft of the nests would be suspended until the biologist determines that the nests are no longer active or upon further coordination and agreement with the USFWS.	With incorporation of mitigation, potential impacts would be less than significant.
Impacts to wetlands	None required.	There would be no impact under NEPA (and no impact under CEQA).
No-Action Alternative		
Impacts to biological resources	None required.	There would be no impacts to biological resources.
Transportation		
Proposed Action		
Traffic Impacts Resulting from Demolition of Buildings A, B and C and Soil Stabilization and Earthmoving Activities Surrounding the New Grading	Tra-2 NOAA would prepare a traffic control plan covering the demolition periods for review by UCSD. The traffic control plan would address lane and/or road closures, emergency access and egress, efficient traffic circulation, and use of flaggers to control traffic and avoid conflicts. The plan would include recommendations, such	There would be no impact under NEPA (and no impact under CEQA).

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	as signage, detours, and temporary traffic controls. The plan would prohibit construction vehicles from using Downwind Way or the north–south oriented section of Shellback Way (which passes in from of the Keck Center, Nierenberg Hall, Speiss Hall, and associated service yards). (*Impacts 4)*	
No-Action Alternative		
Traffic Generation Impacts	None required.	There would be no impacts to transportation under NEPA (and no impact under CEQA).
Recreational Resources		
Proposed Action		
Demolition of Building A Impacts	None required.	Demolition period impacts to recreational resources would be temporary and less than significant under NEPA (and less than significant under CEQA).
Excavation and soil stabilization impacts	None required.	Project impacts to recreational resources would be temporary and less than significant under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to recreational resources	NOAA would continue to monitor the rate of bluff retreat and signs of accelerating ground and building failure, such as increased tilting and expansion of tension cracks, at Building A. If warranted, NOAA would inform local authorities of the need to take measures to protect beach users.	The potential impact would be substantial under NEPA (and significant under CEQA) unless adequately mitigated through adequate geotechnical methods and means.
Farmlands		
Proposed Action		
Impacts to farmlands	None required.	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to farmlands	None required.	Under the No-Action Alternative, there would be no impacts to important farmlands.
Air Quality		
Proposed Action		
Emissions of Air Pollutants during Demolition of Buildings B and C.	Air-2 NOAA would request that construction and demolition contractors implement *SmartWay*	The effects of the Proposed Action would be less than

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	Truck Efficiency and anti-idling practices to reduce the amount and effects of GHG emissions during the construction and demolition periods. These practices include retrofitting heavy-duty trucks and vehicles used during construction with the best available —SmartWay Transport and/or CARB-approved technology to reduce GHG. These technologies work by reducing aerodynamic drag and rolling resistance by using cab roof fairings, cab side gap fairings, cab side skirts, and on the trailer side, trailer side skirts, gap fairings, and trailer tail; and using single wide tires or low-rolling resistance tires and automatic tire inflation systems on both the tractor and the trailer. *(Impact 3).* Air-3 NOAA would prepare and implement Construction Emissions and Management Plan (CEMP) measures during the construction and demolition periods. The CEMP would identify detailed measures to minimize emissions of dust and other air pollutants, such as: • Stabilization of unpaved roads at the construction and demolition sites using water, chemical dust suppressants, and/or other stabilization techniques; • Pre-soaking and/or periodic sprinkling of areas to be cleared of vegetated and/or graded areas with water; • Periodic sweeping of streets surrounding the construction and demolition sites, to minimize dust emissions; • Limiting vehicle speeds on unpaved roads and areas to 15 mph; • Prompt revegetation of areas of exposed soil as soon as construction/demolition activities are completed; • Encouragement by NOAA for contractors to use alternate fuels and retrofit existing engines in construction equipment, to the extent that equipment is available and cost effective; • Limiting idling time of construction and demolition equipment to 10 minutes when not in use; and • Specify that contracts for demolition of Buildings A, B and C, soil stabilization and earthmoving activities at the existing	substantial under NEPA (and less than significant under CEQA).

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	SWFSC facility will require medium- and large-size construction fleets to comply with CARB regulations for in-use off-road diesel vehicles (California Code of Regulations, Title 13, Motor Vehicles, Article 4.8, Section 2449). (*Impact 3*)	
No-Action Alternative		
Impacts to Air Quality	None required.	The air quality impacts identified in the Final EIS/EIR would result.
Noise and Vibration		
Proposed Action		
Noise Impacts	Noi-1: NOAA would require construction and demolition contractors to comply with the construction noise abatement measures contained in the UCSD 2004 LRDP EIR, which are listed below. • Construction or demolition activities would be implemented in a manner that prevents the 12-hour average sound level from exceeding 75 dBA between 7:00 AM and 5:00 PM on Monday through Friday at the following noise sensitive land uses: residences located north of the existing SWFSC site and the Keck Center for Ocean Atmospheric Research. • Construction and demolition vehicles and equipment would be properly outfitted with manufacturer-recommended noise-reduction devices maintained in good working order. • Stationary construction and demolition equipment, such as generators, pumps, and batch plants, would be located as far as possible (at least 100 ft) from the residences located north of the existing and preferred SWFSC sites and the Keck Center for Ocean Atmospheric Research. • Laydown and staging areas for construction and demolition activities would be located as far as feasible from the residences located north of the existing and preferred SWFSC site and the Keck Center for Ocean Atmospheric Research. • Residents of houses located north of the	This impact would be reduced to a less than significant level under NEPA (and less than significant under CEQA).

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	existing and preferred SWFSC site and occupants of the Keck Center for Ocean Atmospheric Research would be informed at least two weeks prior to the start of SWFSC demolition of Buildings A, B and C.	
Vibration Impacts	None required.	Impacts due to vibration would be less than significant under NEPA (and less than significant under CEQA).
No-Action Alternative		
Demolition of Buildings B and C impacts	To mitigate this potentially significant impact, construction noise abatement measures contained in the UCSD 2004 LRDP EIR would be applied to demolition of Buildings B and C at the existing SWFSC. In addition, the noise mitigation measures described for the Proposed Action should be implemented.	Implementation of these mitigation measures would reduce this impact to a less than significant level under NEPA (and less than significant under CEQA).
Visual Aesthetics		
Proposed Action		
Impact to visual setting	Existing mature trees at the existing SWFSC would be retained to the maximum extent feasible during demolition of Buildings A, B, and C.	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impact to visual setting	None required.	No changes to the visual setting would result.
Historic and Cultural Resources		
Proposed Action		
Impacts to historic or potentially historic structures		Impacts to historic or potentially historic structures would be less than significant.
Impacts to archaeological resources	NOAA and UCSD will comply with PRC 5097.98 in the case where human remains are found. Any uncovered human remains would be treated with respect. This code section requires that excavations cease if potential human remains are uncovered and the County Medical Examiner/Coroner be notified. The Coroner must contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will contact the most likely descendant to determine the appropriate manner of handling the remains. If human remains are uncovered during any phase of the Proposed Action, soil associated with the remains should not be removed from the area.	Impacts to archaeological resources would not be substantial under NEPA (and less than significant under CEQA).

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
No-Action Alternative		
Impacts to historic and cultural resources	None required.	There would be no impacts to historic and cultural resources.
Socioeconomics and Environmental Justice		
Proposed Action		
Socioeconomic and environmental justice impacts	None required.	The effect of the Proposed Action would not create substantial socioeconomic impacts under NEPA (and less than significant under CEQA).
No-Action Alternative		
Socioeconomic and environmental justice impacts	None required.	No socioeconomic or environmental justice impacts would occur.
Public Services and Utilities		
Proposed Action		
Impacts of Proposed Action to public services and utilities	None required.	The effect of the Proposed Action would not create substantial public services and utilities impacts under NEPA (and would be less than significant under CEQA).
No-Action Alternative		
Impacts of Proposed Action to public services and utilities	None required.	Impacts to public services and utilities would be less than significant.
Population and Housing		
Proposed Action		
Impacts to population and housing	None required.	Proposed Action activities would not obstruct local evacuation routes or interfere with the ability of emergency service providers to respond to incidents (impacts to population and housing would be less than significant under CEQA).
No-Action Alternative		
Impacts to population and housing	None required.	There would be no impacts to population and housing from the No-Action Alternative.
Solid Waste and Hazardous Materials		
Proposed Action		
Generation of Solid/Hazardous Waste by Construction Activities – Impacts	Removal of ACMs during demolition of Building A and additional renovation at Building D would	The effect of the Proposed Action would not create

Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
associated with solid wastes and hazardous materials associated with demolition and renovation	be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division. Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity. Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.	substantial impacts associated with hazardous waste and hazardous materials under NEPA (and would be less than significant under CEQA).
No-Action Alternative		
Impacts associated with hazardous wastes and hazardous materials	Removal of ACMs during demolition of Building A and additional renovation at Building D would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division. Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity. Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.	Impacts to solid waste and hazardous materials would be less than significant provided that the NOAA Hazardous Waste Abatement Plan is revised to include the disposal of materials containing mercury, PCBs and Freon.
Wild and Scenic Rivers		
Proposed Action		
Impacts to wild and scenic rivers	None Required.	The Proposed Action will have no impact on Sespe Creek or designated wild and scenic rivers under NEPA (and no impact would occur under CEQA).
No-Action Alternative		
Impacts to wild and scenic rivers	None Required.	There would be no impacts to wild and scenic rivers from the No-Action Alternative.

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List of Acronyms

AB 32	State of California Global Warming Solutions Act of 2006
ACBM	asbestos-containing building material
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
ANSI	American National Standards Institute
APE	area of potential effect
ASBS	Area of Special Biological Significance
ASCE 41-06	American Society of Civil Engineers Standard 41-06
BMP	best management practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCA	California Coastal Act
CCMP	California Coastal Management Program
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEMP	Construction Emissions Management Plan
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CH_4	methane
CNEL	community equivalent noise level
CO	carbon monoxide
CO2	carbon dioxide
CRHR	California Register of Historical Resources
CWA	Clean Water Act
CWCP	California Wetlands Conservation Policy
CY	Cubic yards
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibel
DTSC	Department of Toxic Substances Control
E.O.	Executive Order
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FESA	Federal Endangered Species Act
FPPA	Farmland Protection Policy Act
FRA	Federal Railway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
gpm	gallons per minute
HFC	hydrofluorocarbons
HrE2	Huerhuero loam
HWCL	Hazardous Waste Control Law
IATTC	Inter-American Tropical Tuna Commission

IBC	International Building Code
kw	kilowatts
LBP	lead-based paint
LCP	Local Coastal Programs
Ldn	Day-Night Average Noise Level
Leq	equivalent sound level
LLG	Linscott, Law & Greenspan
Lmax	maximum Leq
Lmin	minimum Leq
LOS	Level of Service
LRDP	Long Range Development Plan
LUST	Leaking underground storage tank
MS4s	municipal separate storm sewer systems
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAO	NOAA Administrative Order
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRIS	National Register Information System
O_3	ozone
OBCF	octave band center frequency
OSHA	Occupational Safety and Health Administration
Pb	lead
PCE	Passenger Car Equivalence
PFC	perfluorocarbons
PGIA	pollution-generating impervious area
plf	per linear foot
PM	particulate matter
PPV	peak particle velocity
PWL	sound power level
RAQS	Regional Air Quality Strategy
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Officer
SIO	Scripps Institution of Oceanography
SIP	State Implementation Plan
SO2	sulfur dioxide

SPL/Lp	sound pressure level
SWFSC	Southwest Fisheries Science Center
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
UCOP	University of California Office of the President
UCSD	University of California at San Diego
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VOCs	volatile organic compounds
WDRs	Waste Discharge Requirements
WPC	Wade Perrow Construction, Incorporated

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1 INTRODUCTION

1.1 BACKGROUND

In April 2009, the National Oceanic and Atmospheric Administration (NOAA) prepared a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and issued a Record of Decision (ROD) for its Proposed Action to replace its Southwest Fisheries Science Center (SWFSC) facilities in La Jolla, California. The NOAA SWFSC is a National Marine Fisheries Service (NMFS) regional headquarters and laboratory located at the University of California at San Diego (UCSD) campus and the northern periphery of the Scripps Institution of Oceanography (SIO). The joint Final EIS/EIR was prepared and approved in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code 4321-4347), the President's Council on Environmental Quality (CEQ) implementing regulations (40 CFR Part 1500 – 1508), NOAA Administrative Order (NAO) 216-6 *Environmental Review Procedures for Implementing the National Environmental Policy Act* and the California Environmental Quality Act (CEQA) guidelines.

Since completion of the Final EIS/EIR, substantial changes to the Proposed Action are being considered by NOAA within portions of the project area containing the 2.5-acre property currently occupied by SWFSC and managed by NOAA under a 99-year deed from the University of California Office of the President (UCOP). These newly Proposed Actions were not previously analyzed in the Final EIS/EIR and involve additional demolition activities, substantial excavation and grading, installation of a geohazard soil stabilization system, structural upgrade to remaining structures, and other site alterations. These Proposed Actions were deemed necessary by NOAA based on additional geotechnical information and design recommendations received since approval of the Final EIS/EIR.

This Supplemental EIS (SEIS) was prepared to ensure a "full and fair" evaluation under NEPA has been performed by NOAA prior to a decision to implement or not implement the newly Proposed Actions. The SEIS evaluates each environmental topic addressed in the Final EIS/EIR, and focuses on the newly Proposed Action relative to changes to the existing environment and potential effects to the human environment. The No-Action Alternative was analyzed and assumes the newly Proposed Actions would not be implemented. When appropriate, mitigation measures are identified to reduce project-related effects. The potential for substantial environmental effects to occur is also identified.

NOAA has prepared a Draft SEIS and this Final SEIS in accordance with the NEPA, CEQ Regulations, and NAO 216-6. For this SEIS, NOAA relied on prior public or agency scoping conducted during preparation of the Final EIS/EIR, as described in Volume II of that document. NOAA also considered comments received prior to July 29, 2011, in response to a Notice of Intent (NOI) to prepare a SEIS published in the Federal Register on June 30, 2011. Finally, NOAA also sought comment on its Draft SEIS from the public, interested parties and agencies during a 45-day public review period held between September 16, 2011, and October 31, 2011. The UCSD and UCOP intends to determine what additional CEQA documentation is necessary, such as an Addendum to the Final EIS/EIR, based on the findings of the SEIS and other factors.

URS Group has supported NOAA in the preparation of the SEIS. Background information, design bases, and other data have been furnished to URS by NOAA and/or third parties, which URS has used in preparing this report for NOAA. URS has relied on this information as furnished, and is neither responsible for nor has confirmed the accuracy of this information.

1.2 NATIONAL ENVIRONMENTAL POLICY ACT LEAD AGENCY

Actions associated with the replacement of the SWFSC facility constitute a major Federal action subject to procedural requirements of the NEPA. NOAA is the Federal lead agency for implementing procedural requirements of NEPA, including preparation of this SEIS. The 2.5-acre real property containing the existing SWFSC facility is owned by NOAA under a 99-year deed obtained from the UCOP for operation of the SWFSC. If NOAA discontinues use of the property, ownership will revert to the UCOP and its UCSD campus. As indicated in the Final EIS/EIR, UCSD is the lead agency under CEQA.

1.3 PUBLIC NOTICE OF SEIS PREPARATION AND SCOPING PROCESS

NEPA regulations require that the lead agency provide advance notice to responsible Government agencies and the public regarding their intent to prepare a SEIS. To meet these requirements, NOAA published a NOI in the Federal Register in accordance with NEPA requirements. The NOI announced the official SEIS scoping period, which lasted from June 30, 2011 to July 29, 2011. During this period, NOAA accepted written comments as to topics of concern, alternative actions, and sources of related environmental data. One comment was received requesting the commenter be placed on the distribution list when circulating a copy of the Draft SEIS.

A Notice of Availability (NOA) was prepared and placed in the Federal Register on September 19, 2011 (Volume 76, Number 181) to announce the availability of the Draft SEIS for public review and comment. Finally, a NOA was prepared and will be placed in the Federal Register to announce the availability of the Final SEIS in April 2012.

1.4 PUBLIC REVIEW OF SEIS

NOAA submitted its Draft SEIS to the U.S. Environmental Protection Agency (USEPA) for review and comment, in conformance with NEPA implementing regulations. Copies of this document were also distributed to persons who participated in the Final EIS/EIR scoping process, to other individuals expressing interest, and to local libraries in order to be made available to the general public (see Appendix D). NOAA accepted comments on the Draft SEIS during a 45-day official comment period that began September 16, 2011, and ended on October 31, 2011. Appendix F of this Final SEIS contains the comments received by NOAA during the official comment period and NOAA responses to substantive comments. Also in Appendix F is a March 27, 2012, letter from the UCSD Campus Architect – Facilities Design and Construction approving the NOAA design for the proposed action on behalf of the Regents of the University of California.

2 PURPOSE, NEED, AND OBJECTIVES

2.1 NMFS MISSION

As discussed in the 2009 Final EIS/EIR, the 2003 NOAA Fisheries Strategic Plan outlines the vision, mission, and strategic goals of NMFS. NOAA has an obligation to conserve, protect, and manage living marine resources in a way that ensures their continuation as functioning components of marine ecosystems, affords economic opportunities, and enhances the quality of life for the American public. The primary mission of NMFS is the "stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems." NMFS is responsible for the management, conservation, and protection of living marine resources within the U.S. Exclusive Economic Zone. NMFS also plays a supportive and advisory role in the management of living marine resources in coastal areas under State jurisdiction; provides scientific and policy leadership in the international arena; and implements international conservation and management measures as appropriate. To achieve its vision, NMFS conducts the following key activities:

- High-quality scientific research
- Communication and collaboration with constituents
- Partnering with other research and conservation organizations
- Enforcing laws and regulations to conserve and protect fishery and marine mammals resources

2.2 SWFSC ACTIVITIES

SWFSC conducts research involving fisheries and marine mammals throughout the Eastern Pacific and Antarctic waters for the protection and management of these resources. SWFSC Headquarters manages NMFS scientific research in the Southwest region. The La Jolla facility is the largest of the SWFSC laboratories and contains four divisions: (1) Fisheries Resources, (2) Protected Resources, (3) Antarctic Ecosystem Research, and (4) Information and Technology Services. The Center also collaborates with and provides office space for associated staff from the California Department of Fish and Game (CDFG) and the Inter-American Tropical Tuna Commission (IATTC).

2.3 SCIENTIFIC COLLABORATION BY UCSD/SIO AND SWFSC

SWFSC benefits from a broad range of strategic and functional relationships with local research and education organizations. Key among these relationships is interaction with UCSD/SIO. SWFSC's existing site is located on the campus of UCSD/SIO. The Center and UCSD/SIO strategically share research facilities, staff, students, and faculty. The synergies are highly complementary and cost efficient. SWFSC's 40-year relationship with SIO has provided numerous mutual benefits and efficiencies identified in the Final EIS/EIR.

2.4 SWFSC FACILITY NEEDS

Since the Record of Decision prepared by NOAA based on its 2009 Final EIS/EIR, construction activities have been initiated that are designed to meet current and future facility needs of SWFSC as identified in prior programming studies (Delawie Wilkes Rodrigues, and Barker Architects, 2007). The construction is designed to meet the need for about 124,000 gross square feet (sq ft) of floor space for offices, laboratories, storage, conferences and group gatherings, delivery/staging, seawater aquaria, and an acoustic calibration and test tank. An additional 90,000 sq ft of parking space is necessary to provide 202 parking stalls, located in an underground garage. This space would support the 283 staff working at the existing SWFSC and accommodate a modest increase of up to 17 additional staff.

2.5 PURPOSE AND NEED

A portion of the existing SWFSC facility is at the edge of a 180-ft high coastal bluff. The bluff is undergoing a natural retreat process due to erosion caused by wave and tidal action and subsequent slumping, gullying, and block failure of the cliff face. The average rate of retreat of the top of the bluff is approximately 1-ft per year; however, incidences of cliff toppling occur in discrete episodes often accelerated by El Niño events (Benumof, 2000). The U.S. Army Corps of Engineers (USACE) Seattle District (USACE, 1999) states:

> *The SWFSC site is located in a seismically active area. Bedrock underlying the facility is heavily jointed and faulted with many of the identified planes of weakness open, in that they contain no infilling to bind the sides of the discontinuities together … The primary slope weakening process agreed upon by all previous researchers is the basal erosion of the cliff face by impinging ocean waves. Waves breaking directly on the cliff loosen and break apart the weaker bedrock formation (Ardath Shale) forming the toe of the geologic formation. The removed bedrock falls to the beach to form a talus slope … Tidal and storm action eventually removes the talus deposit and the oversteepened slope retreats in more dramatic fashion.*

Four main multi-story precast concrete structures, Buildings A, B, C and D, were built for the SWFSC in the early 1960s. Three of the four existing buildings are within 25 feet (ft) of the bluff edge. The exception is Building D. The Final EIS/EIR analyzed the proposed NOAA action to relocate the SWFSC, demolish Buildings B and C due to the safety hazard to occupants associated with catastrophic bluff failure known at that time, and transfer ownership back to UCSD. However, the property and remaining buildings would continue to be threatened by ongoing coastal bluff erosion and retreat.

NOAA, in coordination with UCSD planners, has subsequently determined that safe and effective long-term reuse of the existing SWFSC property would be better served if Building A were to be removed and soil stabilization at Building D performed. The purpose of these actions is to further reduce the risk of catastrophic failure of the bluff affecting the remaining Utility Room (currently within Building A) and Building D occupants. A Geologic Hazards Investigation was prepared by NOAA for SWFSC Buildings A and D in May 2010 (GEOCON Inc., 2010). The dynamic slope stability analysis within that investigation report indicates that Building A is at risk from potential slope failure and Building D will require geotechnical mitigation for long-term occupation. The results of the geologic hazards study were compared to target Building Performance Levels presented in ASCE 41-06 (Seismic Rehabilitation of Existing Buildings). Based on this information and guidelines in American Society of Civil Engineers Standard 41-06 (ASCE 41-06), it is the opinion of the investigators and NOAA that Building A no longer meets the criteria for Collapse Prevention, and that Building D would meet the Life Safety Performance Level per ASCE 41-06 provided that suitable geotechnical and structural mitigation is implemented.

Mitigation for reuse of Building D would require geotechnical stabilization techniques, such as grade beams and/or tieback anchors to reduce the long-term risk of occupant safety. A proposed design has been prepared for NOAA by Wade Perrow Construction, Incorporated (WPC) that conforms to the recommendations in the Geologic Hazards Investigation and related studies prepared by GEOCON and approved by NOAA. The design prepared by WPC has been accepted by NOAA and is proposed as additional actions at its existing 2.5-acre SWFSC project area for the purpose of attaining a safe environment for future use of the 2.5-acre property. The design for these accepted safety mitigation features constitute the Proposed Action analyzed in this SEIS and are described in greater detail below.

3 PROPOSED ACTION AND ALTERNATIVES

3.1 PROPOSED ACTION

The April 2009 Final EIS/EIR analyzed the preferred NOAA action to construct a new SWFSC building across La Jolla Shores Drive from the existing NMFS facility. That analysis included the anticipated removal of two of four main concrete structures, Buildings B and C, at the existing 2.5-acre SWFSC property and the reuse of remaining structures.

Since completion of the Final EIS/EIR, substantial changes to the Proposed Action at the existing SWFSC property are being evaluated by NOAA. Construction of a new SWFSC building remains unchanged and this activity has been initiated. This NOAA SEIS analyzes proposed changes to previously analyzed actions by NOAA that are relevant to environmental concerns. The changes principally occur to property and structures at the existing SWFSC property or project area.

The changes analyzed are referred to in the SEIS as the Proposed Action or "the Project" and are evaluated in the context of the actions previously analyzed in the Final EIS/EIR, some of which have already occurred or are in progress.

The Proposed Action generally consists of an expanded demolition effort, on-site soil stabilization, site grading, parking areas and drainage, and building and property upgrades at the existing SWFSC property. These activities are further described below. The project location is identified on the regional map provided in Figure 3-1. An aerial photograph of the key features at or near the project location is provided in Figure 3-2. Pre-development and post development site conditions are provided in Figures 3-3, 3-3A, and 3-3B. Proposed drainage and landscaping plans are shown in Figures 3-4 and 3-5, respectively.

3.1.1 Demolition

In addition to the demolition of Buildings B and C that was analyzed in the Final EIS/EIR, the Proposed Action analyzed in this SEIS includes the demolition of a majority of Building A, with the retention of only its mechanical equipment room on the basement level. Building A is an approximately 20,000 sq ft structure consisting of four levels, including a basement. The 4,200 sq ft mechanical equipment room at the basement level will be retained to support heating, ventilation equipment and other utility service functions to Building D. As proposed for Buildings B and C, the demolition of Building A would occur systematically starting from top of the structure to foundation, floor by floor. A Demolition Plan is provided in Appendix A and incorporates project-specific methods to limit the duration of activities and their associated noise and dust and emissions to the surrounding environment.

Demolition of Building A would require removal of the second and third floors, as well at the first floor walls. The plazas adjacent to the first floor and basement floor at Building A would be retained, as well as the elevator at the plaza providing ADA access from the north to Building D (WPC, 2011a). Demolition would consist of the following series of steps. First, the property will be disconnected from public utilities following permanent vacancy of occupants and the removal of equipment and furniture. Demolition equipment would be initially staged in open areas onsite, primarily parking and courtyard areas. Safety and silt fences would be installed around the site, including along the bluff crest, in accordance with the Demolition Plan and a Storm Water Pollution Prevention Plan (SWPPP). Next, qualified and properly equipped personnel would remove asbestos-containing materials (ACMs) and lead-based paint (LBP) and the buildings would be stripped of all other removable materials to its concrete shell.

The demolition of the concrete shells would involve the use of two Ultra High Demolition excavators, one to break up and move concrete and a second excavator to separate steel and process concrete. One or both excavators, with breaker, will then remove the concrete foundations. As stated in the Final EIS/EIR, a maximum sustained vibration intensity of 0.2 PPV limited to within 40 ft of the source is anticipated for

this work. Demolition activities would result in noise, with a maximum of 75 dBA over a 12-hour average at the nearest residences, and intermittent increases between 81 to 104 dBA created by impact equipment during certain phases of demolition. No explosives would be used. Processed and sorted demolition materials would be removed by haul truck for off-site recycling or disposal at licensed facilities. The project area will be cleared of debris and any damages caused during demolition repaired. The demolition period is approximately three to six months and would occur during the hours of 7 am to 5 pm on weekdays.

Other than selective demolition of fixtures and removal of hazardous materials, major on-site demolition activities would not occur until August 2012. Following demolition and removal of buildings, excavation and soil stabilization work will begin.

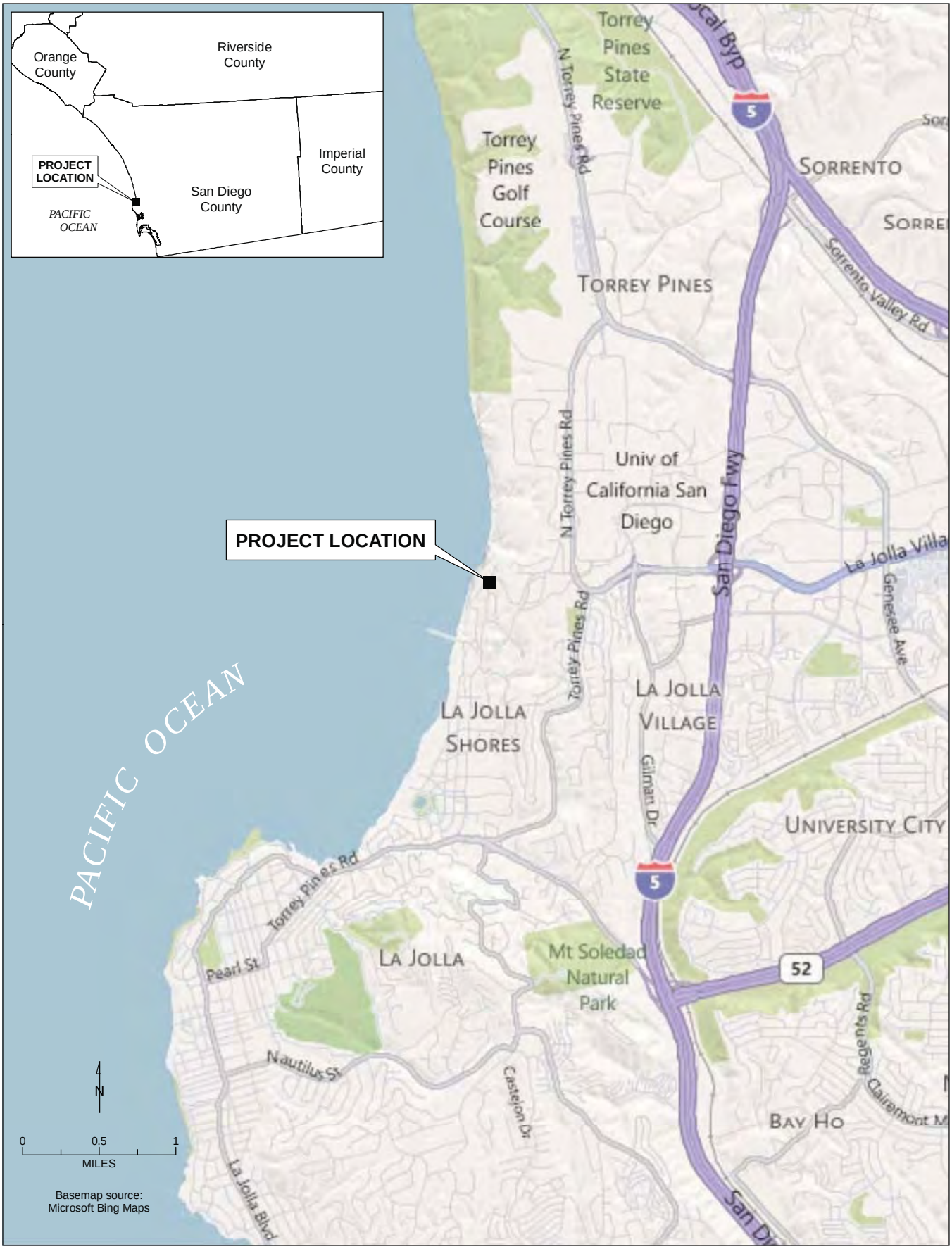
3.1.2 Excavation and Soil Stabilization

Following demolition activities, the Proposed Action would include on-site excavation for the purpose of implementing soil stabilization measures for Building D, These measures were not analyzed in the Final EIS/EIR. Sequential excavation of up to two parallel (twin) trenches is proposed for installing two rows of tieback anchors and anchor blocks. A less physically extensive single-trench design is also being considered. The tiebacks would provide greater lateral load stabilization beneath Building D. The proposed twin-trench design would utilize only an excavation depth and volume required to install the anchor blocks and tieback anchors. This approach reduces the amount of soil stockpiled on site during the installation of the tie-back anchors and construction of the retaining wall, subsequently reducing the surcharge load on the adjacent bluff. A conceptual image of the twin-trench design and proposed layout for the tie-back system, as a worst-case scenario, is provided in Figures 3-6 and 3-7. An excavation support structure consisting of a soil nail wall will be installed at the north end of the two trenches to further strengthen the existing Building A retaining wall and floor slab.

The average depth of the two parallel trench excavations would be 15 ft to 20 ft, with a 26 ft maximum depth. Under worst-case conditions, approximately 11,000 cubic yards (CY) of material would be excavated, of which about 7,900 CY would be backfilled at 90% compaction (Ed Band, personal communication, July 26, 2011). Approximately 2,800 CY of this excavation would be removed from the site and disposed at authorized disposal sites. The remaining portion will be stockpiled behind Building D. On-site stockpiling of excavated material will occur in such a way so as not to concentrate the loading at the bluff top (WPC, 2011a). Less material would be excavated under a single-trench design.

Assuming the more extensive duel-trench design, each 300-ft long trench would have approximately 27 tieback anchors placed in machine-drilled and cement grouted holes having a minimum of 6 inches in diameter. The system may include bonded and unbonded lengths installed at a declination of 20 degrees from horizontal. Each of the tieback anchors would have double layers of corrosion protection. The anchor blocks would be approximately 30 to 36 inches in thickness and approximately 6 ft in vertical height at each row of tieback anchors. They are constructed of reinforced shotcrete and buried with a minimum of three feet below soil cover. Upon installation, each anchor would be tested per industry standards and set (locked off) to withstand an overall horizontal active force of approximately 157,000 pounds per linear foot (plf), as specified in NOAA-approved geotechnical requirements. Once the anchor blocks have been constructed, the tieback anchors installed, stressed and locked off, the excavations would be backfilled and the stabilization system buried. No future maintenance of the stabilization system would be required.

Based on the sequencing and coordination of the grading operation this excavation can be backfilled with either stockpiled material, material excavated from the next grade beam or a combination of material. Backfill would be compacted to a minimum of 90% of existing density.



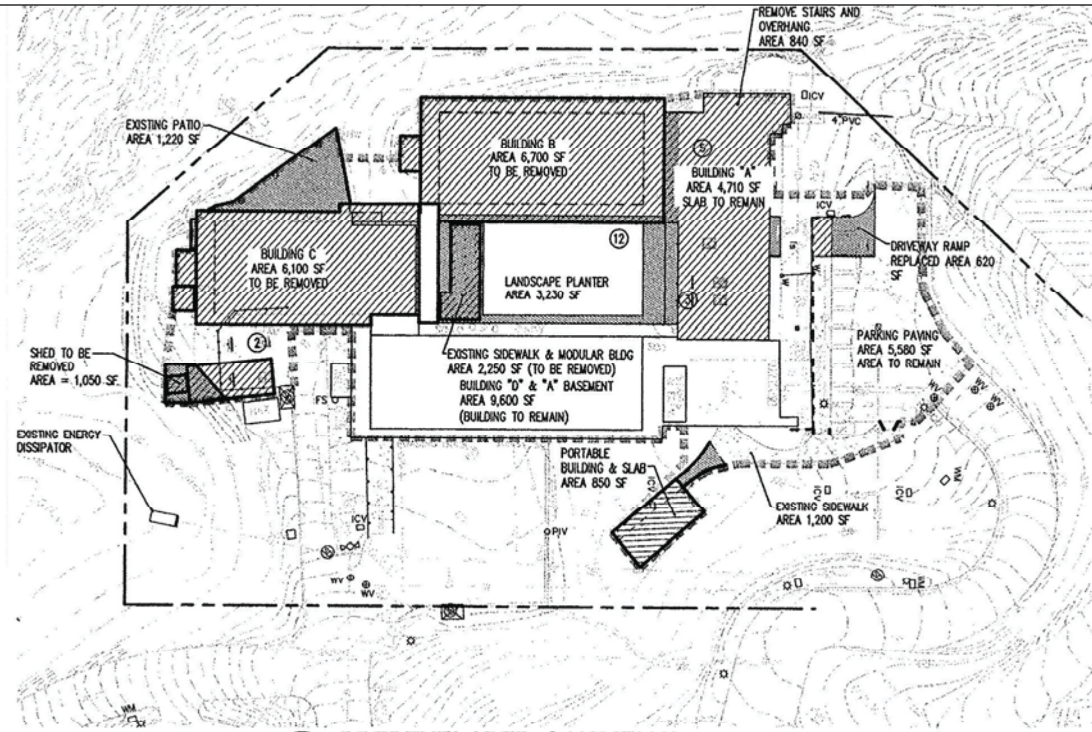
NOAA National Marine Fisheries Service
Southwest Fisheries Science Center Replacement SEIS

Figure 3-1
Vicinity Map

NOAA National Marine Fisheries Service
Southwest Fisheries Science Center Replacement SEIS

Figure 3-2
Existing Site Features

Source: WPC, http://www.wpconstruction.com/current/lajolla/lajolla100percentsubmittal.php,
Drawing Number C1.01, August 1, 2011.



1 **PREDEVELOPED CONDITION**

GRAPHIC SCALE 0 20 40 80 FEET

LEGEND

- BUILDING AND SELECT BUILDING DEMOLITION
- DEMOLISH ASPHALT
- DEMOLISH CONCRETE WALK
- PROJECT LIMITS
- (X) PARKING COUNT; TOTAL PARKING COUNT = 22 STALLS; ADA ACCESSIBLE = 5 STALLS

PREDEVELOPED BASIN SUMMARY

SITE AREA:		43,950 SF
BUILDING AREA	29,850 SF	
PARKING PAVING	6,200 SF	
CONCRETE PAVING	4,670 SF	
TOTAL IMPERVIOUS AREA		40,720 SF
LANDSCAPE AREA		3,230 SF

City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101
(619) 446-5000

Storm Water Requirements Applicability Checklist

FORM DS-560 JANUARY 2011

Project Address: [redacted]

SECTION 1. Permanent Storm Water BMP Requirements:
Additional information for determining the requirements is found in the Storm Water Standards Manual.

Part A: Determine if Exempt from Permanent Storm Water BMP Requirements.
Projects that are considered maintenance, or are otherwise not categorized as "development projects" or "redevelopment projects" according to the Storm Water Standards manual are not required to install permanent storm water BMPs. If "Yes" is checked for any line in Part A, proceed to Part C and check the box labeled "Exempt Project." If "No" is checked for all of the lines, continue to Part B.

1. The project is not a Development Project as defined in the Storm Water Standards Manual: for example habitat restoration projects, and construction inside an existing building. ☐ Yes ☒ No
2. The project is only the construction of underground or overhead linear utilities. ☐ Yes ☒ No
3. The project qualifies as routine maintenance (replaces or renews existing surface materials because of failed or deteriorating condition). This includes roof replacement, pavement spot repairs and resurfacing treatments such as asphalt overlay or slurry seal, and replacement of damaged pavement. ☐ Yes ☒ No
4. The project only installs sidewalks, bike lanes, or pedestrian ramps on an existing road, and does not change sheet flow condition to a concentrated flow condition. ☐ Yes ☒ No

Part B: Determine if Subject to Priority Development Project Requirements.
Projects that match one of the definitions below are subject to additional requirements including preparation of a Water Quality Technical Report.
If "Yes" is checked for any line in Part B, proceed to Part C and check the box labeled "Priority Development Project." If "No" is checked for all of the lines, continue to Part C and check the box labeled "Standard Development Project."

1. **Residential development of 10 or more units.** ☐ Yes ☒ No
2. **Commercial development and similar non-residential development greater than one acre.** Hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; and other light industrial facilities. LESS THAN 1.0 ACRE ☐ Yes ☒ No
3. **Heavy industrial development greater than one acre.** Manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas. ☐ Yes ☒ No
4. **Automotive repair shop.** Facilities categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539. ☐ Yes ☒ No
5. **Restaurant.** Facilities that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), and where the land area for development is greater than 5,000 square feet. ☐ Yes ☒ No
6. **Hillside development greater than 5,000 square feet.** Development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions and where the development will grade on any natural slope that is twenty-five percent or greater. ☐ Yes ☒ No
7. **Water Quality Sensitive Area.** Development located within, directly adjacent to, or discharging directly to a Water Quality Sensitive Area (as depicted in Appendix C) in which the project either creates 2,000 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" is defined as being situated within 200 feet of the Water Quality Sensitive Area. "Discharging directly to" is defined as outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands. ☒ Yes ☐ No
8. **Parking lot with a minimum area of 5,000 square feet or a minimum of 15 parking spaces** and potential exposure to urban runoff (unless it meets the exclusion for parking lot reconfiguration on line 11). ☒ Yes ☐ No

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Upon request, this information is available in alternative formats for persons with disabilities.
DS-560 (01-25-11)

Page 2 of 2 City of San Diego • Development Services Department • Storm Water Requirements Applicability Checklist

9. **Street, road, highway, or freeway.** New paved surface in excess of 5,000 square feet used for the transportation of automobiles, trucks, motorcycles, and other vehicles (unless it meets the exclusion for road reconfiguration on line 11). ☐ Yes ☒ No
10. **Retail Gasoline Outlet (RGO)** that is: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. ☐ Yes ☒ No
11. **Significant Redevelopment;** project installs and/or replaces 5,000 square feet or more of impervious surface and the existing site meets at least one of the categories above. The project is not considered Significant Redevelopment if reconfiguring an existing road or parking lot without a change to the footprint of an existing developed road or parking lot. The existing footprint is defined as the outside curb or the outside edge of pavement when there is no curb. ☒ Yes ☐ No
12. **Other Pollutant Generating Project.** Any other project not covered in the categories above, that disturbs one acre or more and is not excluded by the criteria below. ☐ Yes ☒ No

Projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces or if they sheet flow to surrounding pervious surfaces.

Part C: Select the appropriate category based on the outcome of Parts A & B.
1. If "Yes" is checked for any line in Part A, then check this box. Continue to Section 2. ☐ Exempt Project
2. If "No" is checked for all lines in Part A, and Part B, then check this box. Continue to Section 2. ☐ Standard Development Project
3. If "No" is checked for all lines in Part A, and "Yes" is checked for at least one of the lines in Part B, then check this box. Continue to Section 2. See the Storm Water Standards Manual for guidance on determining if Hydromodification Management Plan requirements apply. ☒ Priority Development Project

SECTION 2. Construction Storm Water BMP Requirements:
For all projects, complete Part D. If "Yes" is checked for any line in Part D, then continue to Part E.

Part D: Determine Construction Phase Storm Water Requirements.
1. Is the project subject to California's statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities? (See State Water Resources Control Board Order No. 2009-0009-DWQ for rules on enrollment) LESS THAN 1.0 ACRE ☐ Yes ☒ No
2. Does the project propose grading or soil disturbance? ☒ Yes ☐ No
3. Would storm water or urban runoff have the potential to contact any portion of the construction area, including washing and staging areas? ☒ Yes ☐ No
4. Would the project use any construction materials that could negatively affect water quality if discharged from the site (such as, paints, solvents, concrete, and stucco)? ☒ Yes ☐ No
5. Check this box if "Yes" is checked for line 1. Continue to Part E. ☐ SWPPP Required
6. Check this box if "No" is checked for line 1, and "Yes is checked for any line 2-4. Continue to Part E. ☒ WPCP Required
7. Check this box if "No" is checked for all lines 1-4. Part E does not apply. ☐ No Document Required

Part E: Determine Construction Site Priority
This prioritization must be completed with this form, noted on the plans, and included in the SWPPP or WPCP. The City reserves the right to adjust the priority of the projects both before and during construction. [Note: The construction priority does NOT change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by City staff.]

☐ **1. High Priority**
a) Projects where the site is 50 acres or more and grading will occur during the wet season
b) Projects 1 acre or more and tributary to an impaired water body for sediment (e.g., Peñasquitos watershed)
c) Projects 1 acre or more within or directly adjacent to or discharging directly to a coastal lagoon or other receiving water within a Water Quality Sensitive Area.
d) Projects subject to phased grading or advanced treatment requirements.

☐ **2 Medium Priority.** Projects 1 acre or more but not subject to a high priority designation.

☒ **3 Low Priority.** Projects requiring a Water Pollution Control Plan but not subject to a medium or high priority designation.

Name of Owner or Agent *(Please Print)*: SCOTT KAUL Title: PROJECT ENGINEER
Signature: [signature] Date: 6/17/2011

FROM FIGURE 4-1: HMP APPLICABILITY DETERMINATION

1. IS PROJECT A PRIORITY DEVELOPMENT PROJECT?
YES: PER FORM DS-560
2. PROPER ENERGY DISSIPATION PROVIDED?
YES: EXISTING SYSTEM HAS ENERGY DISSIPATION IN PLACE.
3. DOES PROJECT INCREASE IMPERVIOUS AREA?
NO: DECREASE IMPERVIOUS AREA BY 10,195 SF
4. DOES PROJECT INCREASE UNMITIGATED PEAK FLOWS TO ANY OUTLET LOCATION?
NO: EXISTING IMPERVIOUS IS DECREASED THEREFORE PEAK FLOWS (Q) WILL DECREASE.
i.e. $Q = C \times I \times A$: Cexist > Credevelop THEREFORE Qexist > Qredevelop.

PROJECT IS HMP EXEMPT

END OF FIGURE 4.1 (DECISION MATRIX).

DECISION MATRIX IS LOCATED ON SHEET 4-20 OF THE CITY OF SAN DIEGO STORM WATER STANDARDS DATED JANUARY 14, 2011

TABLE 4-3. STRUCTURAL BMP TREATMENT CONTROL SELECTION

1. BIORETENTION BASIN	CANNOT USE SINCE IT WILL DIRECT WATER TO THE BLUFF.
2. VEGETATED SWALE	EXISTING AND MODIFIED SITE WILL NOT ALLOW ROOM TO ACCOMMODATE A SWALE. CANNOT USE SINCE IT WILL DIRECT WATER TO THE BLUFF.
3. MEDIA FILTER	EFFECTIVE TREATMENT DEVICE. WILL NOT DIRECT RUNOFF TO THE BLUFF.

PROJECT PROPOSES USE OF CONTECH STORMFILTER MANHOLE TO ACHIEVE MEDIA FILTRATION.

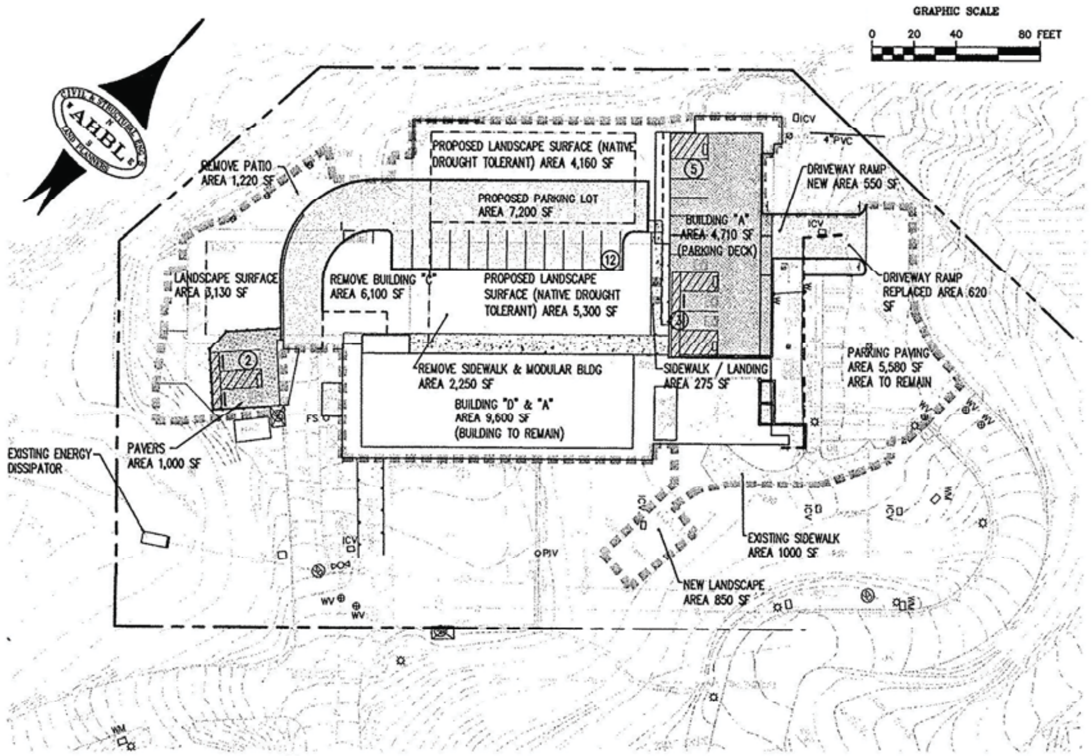
TREATMENT CONTROL SELECTION MATRIX IS LOCATED ON SHEET 4-16 OF THE CITY OF SAN DIEGO STORM WATER STANDARDS DATED JANUARY 14, 2011

TREATMENT CALCULATION: (STORMFILTER MANHOLE)

$Q = CIA$
$C = 0.85$ $I = 0.20$ in/hr $A = (7{,}200\ SF + 4{,}710\ SF) = 11{,}910\ SF$
$Q = 0.85 \times 0.20 (\frac{1}{12})(\frac{1}{3600}) \times 11.910\ SF$
$Q = 0.047\ CFS$

CARTRIDGE FLOW RATES PER MODEL SIZE:
7.5GPM (18-INCH), 11.3GPM (27-INCH)

CARTRIDGES = (Q)CFS X (449 GPM / CFS) / 7.5 (GPM / CARTRIDGE)
= 2.81 => PROVIDE 3 (18") CARTRIDGES
CARTRIDGES = (Q)CFS X (449 GPM / CFS) / 11.3 (GPM / CARTRIDGE)
= 1.86 => PROVIDE 2 (27") CARTRIDGES



2 **DEVELOPED CONDITION**

GRAPHIC SCALE 0 20 40 80 FEET

DEVELOPED BASIN SUMMARY

SITE AREA:		43,950 SF
BUILDINGS	9,600 SF	
'A' PARKING DECK AREA	4,710 SF	
ASPHALT PAVING (NEW/REPLACED)	8,370 SF	
PARKING PAVING (EXIST)	5,580 SF	
CONCRETE PAVING	1,275 SF	
PAVERS	1,000 SF	
TOTAL IMPERVIOUS AREA		30,535 SF
LANDSCAPE AREA		13,440 SF

SUMMARY OF CHANGED CONDITIONS

TOTAL DISTURBED AREA = 24,060 SF
[43,950 (SITE) – 5,580 (EXIST PARKING)–9,600 (EXIST BLDG) – 4,710 (BLDG 'A' SLAB)]

TOTAL REDUCTION IN IMPERVIOUS SURFACES
40,720 SF – 30,535 SF = 10,195 SF

CREATED POLLUTION GENERATING IMPERVIOUS SURFACE
7,200 SF + 4,710 SF + 550 SF + 620 SF + 1000 SF= 14,080 SF

"50% RULE" PAGE 2-3 OF STORM WATER STANDARDS PERCENTAGE OF NEW IMPERVIOUS TO TOTAL SITE IMPERVIOUS COVER ((14,080 SF + 1250 SF)/ 40,720 SF) = 38% < 50%

TREATMENT IS ONLY REQUIRED FOR NEW IMPERVIOUS SURFACES

LEGEND

- PROPOSED RETAINING WALL
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DECK PAVEMENT
- PROJECT LIMITS

100% DESIGN SUBMITTAL DESIGN REVIEW AUGUST 1, 2011

WEB SITE:
www.wpconstruction.com/current/lajolla/lajolla100percentsubmittal.php

REGISTERED PROFESSIONAL ENGINEER THOMAS R. HICKS 4692 12-31-11 STRUCTURAL STATE OF CALIFORNIA

WPC AHBL

NO.	REVISIONS	DATE
4		
3		
2		
1		

WESTERN REGION PROJECT PLANNING AND MANAGEMENT DIVISION
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
SEATTLE WASHINGTON

DESIGN–BUILD FOR THE DEMOLITION, RESTORATION AND UPGRADES OF THE EXISTING SOUTHWEST FISHERIES SCIENCE CENTER
LA JOLLA, CA

STORMWATER ANALYSIS AND DECISION MATRIX

PROJECT NO.	CAD FILE NAME	DATE	DRAWING NO.
NAAJ5732-10-14640	210597.10	08/01/11	C1.01
DESIGNED	CHECKED	APPROVED	SHEET 3 OF

Figure 3-3
Stormwater Analysis and Decision Matrix

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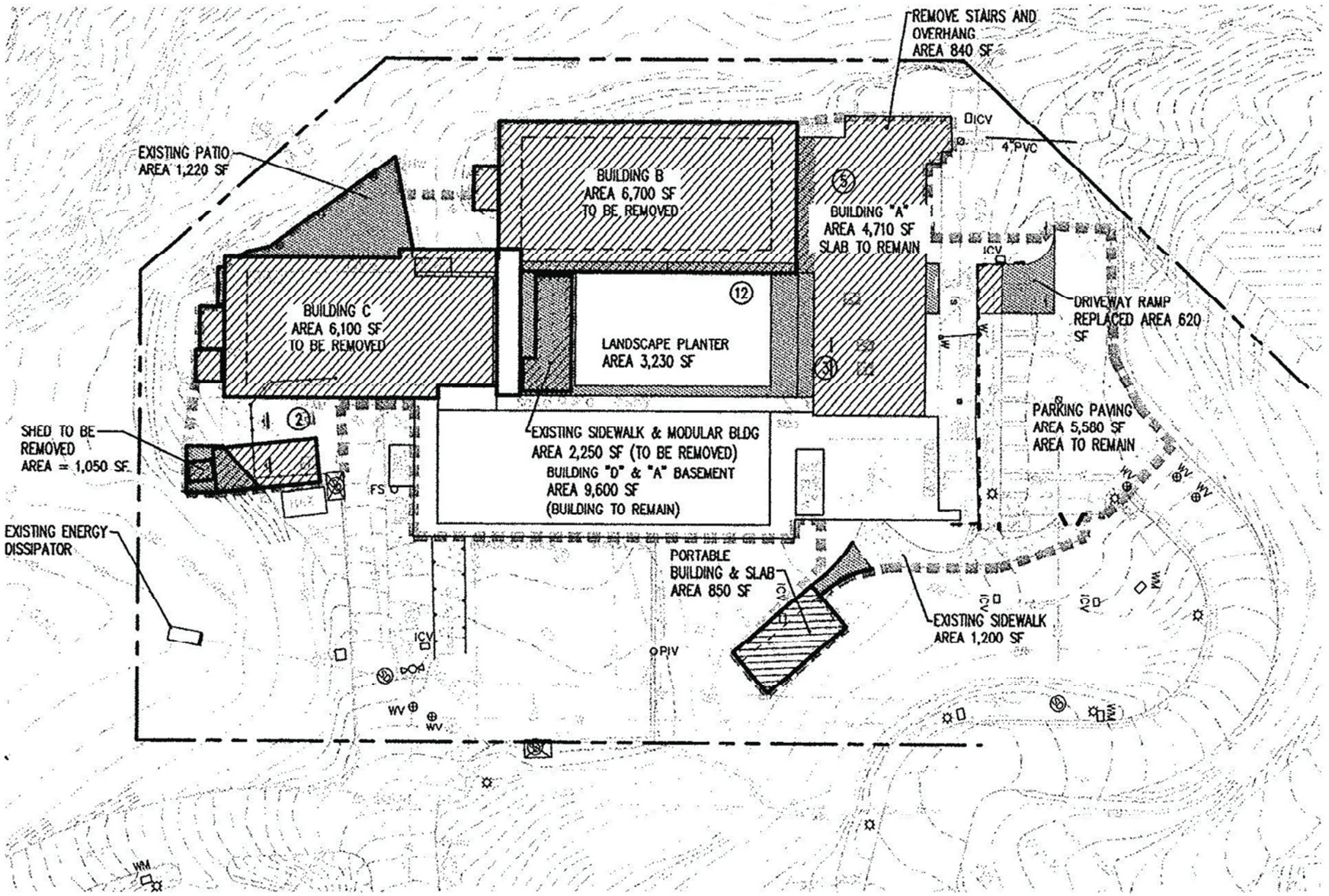

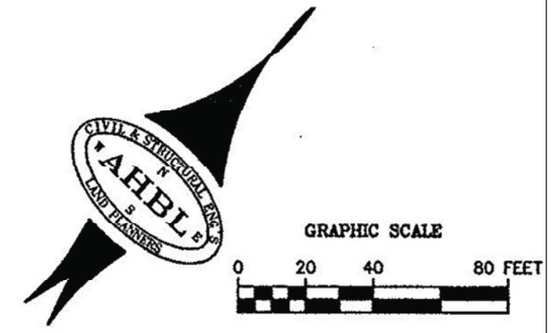

LEGEND

- BUILDING AND SELECT BUILDING DEMOLITION
- DEMOLISH ASPHALT
- DEMOLISH CONCRETE WALK
- PROJECT LIMITS
- (X) PARKING COUNT
  - TOTAL PARKING COUNT = 22 STALLS
  - ADA ACCESSIBLE = 5 STALLS

PREDEVELOPED BASIN SUMMARY

SITE AREA:		43,950 SF
BUILDING AREA	29,850 SF	
PARKING PAVING	6,200 SF	
CONCRETE PAVING	4,670 SF	
TOTAL IMPERVIOUS AREA		40,720 SF
LANDSCAPE AREA		3,230 SF

1 PREDEVELOPED CONDITION

Source: Refer to Figure 3-3, Stormwater Analysis and Decision Matrix

Figure 3-3A
Stormwater Analysis - Predeveloped Condition

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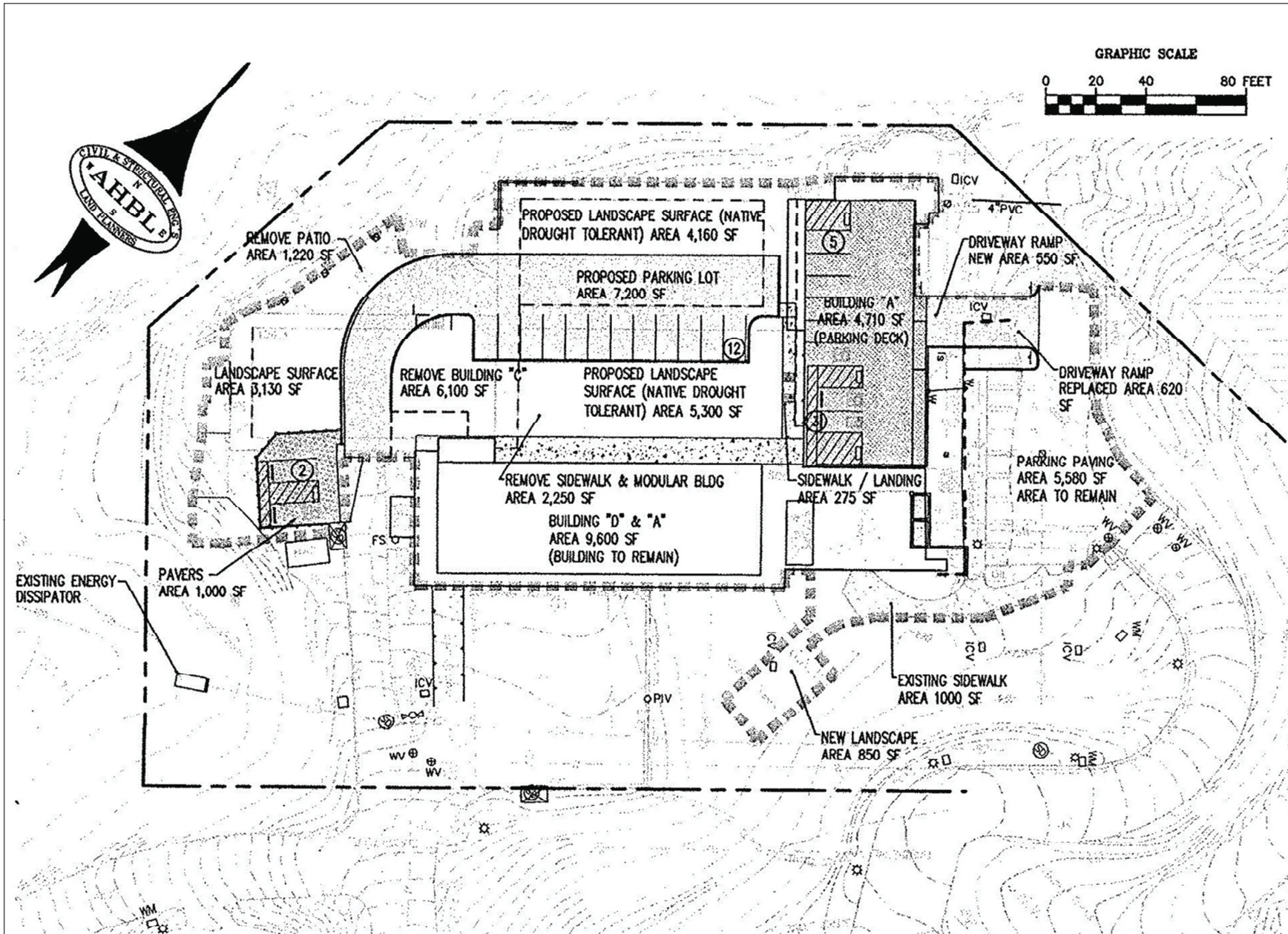

2 DEVELOPED CONDITION

DEVELOPED BASIN SUMMARY

SITE AREA:		43,950 SF
BUILDINGS	9,600 SF	
'A' PARKING DECK AREA	4,710 SF	
ASPHALT PAVING (NEW/REPLACED)	8,370 SF	
PARKING PAVING (EXIST)	5,580 SF	
CONCRETE PAVING	1,275 SF	
PAVERS	1,000 SF	
TOTAL IMPERVIOUS AREA		30,535 SF
LANDSCAPE AREA		13,440 SF

SUMMARY OF CHANGED CONDITIONS

TOTAL DISTURBED AREA = 24,060 SF
[43,950 (SITE) – 5,580 (EXIST PARKING)–9,600 (EXIST BLDG) – 4,710 (BLDG 'A' SLAB)]

TOTAL REDUCTION IN IMPERVIOUS SURFACES
40,720 SF – 30,535 SF = 10,195 SF

CREATED POLLUTION GENERATING IMPERVIOUS SURFACE
7,200 SF + 4,710 SF + 550 SF + 620 SF + 1000 SF= 14,080 SF

"50% RULE" PAGE 2-3 OF STORM WATER STANDARDS
PERCENTAGE OF NEW IMPERVIOUS TO TOTAL SITE IMPERVIOUS COVER ((14,080 SF + 1250 SF)/ 40,720 SF) = 38% < 50%

TREATMENT IS ONLY REQUIRED FOR NEW IMPERVIOUS SURFACES

LEGEND

- PROPOSED RETAINING WALL
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DECK PAVEMENT
- PROJECT LIMITS

Source: Refer to Figure 3-3, Stormwater Analysis and Decision Matrix

Figure 3-3B
Stormwater Analysis - Developed Condition

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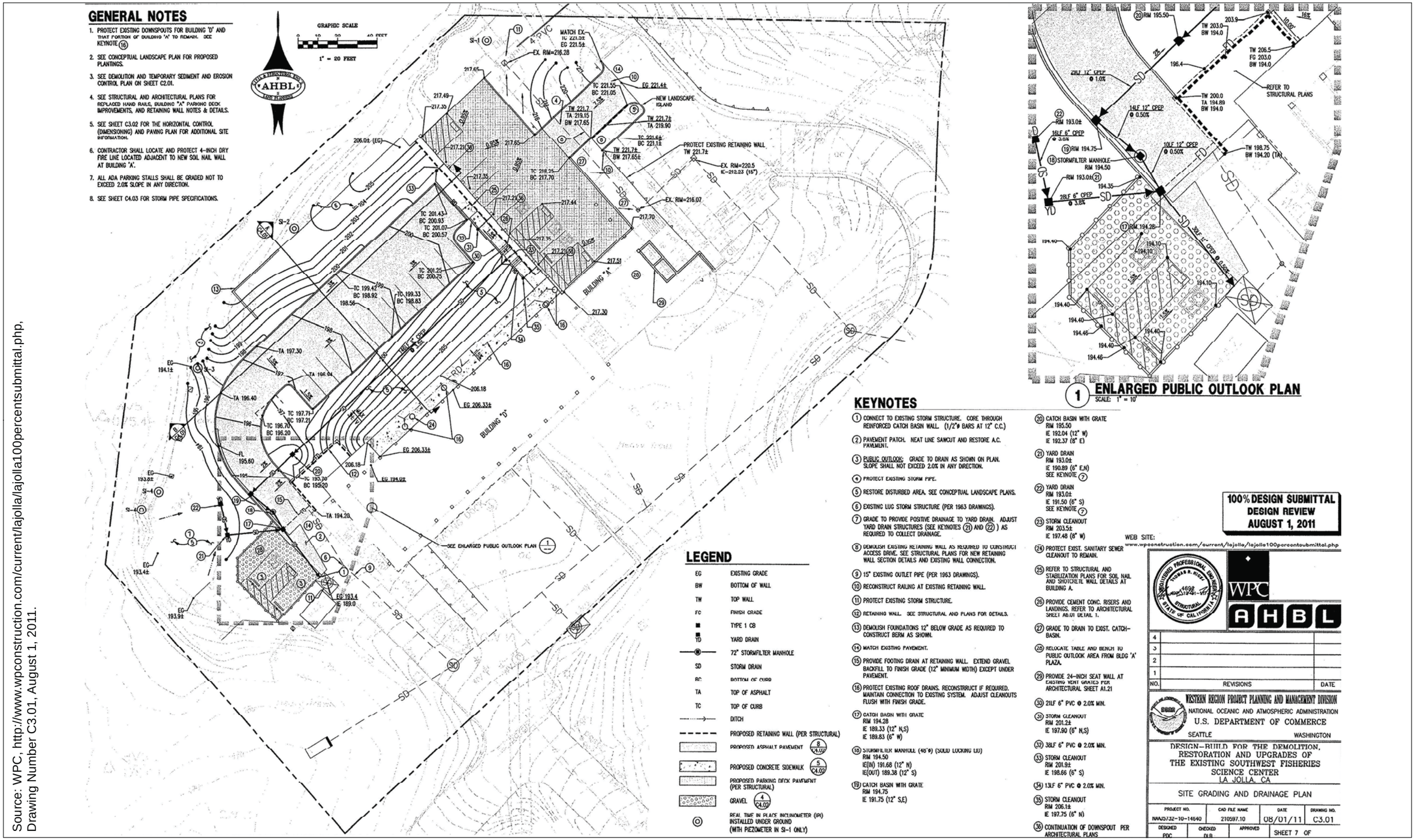

Source: WPC, http://www.wpconstruction.com/current/lajolla/lajolla100percentsubmittal.php, Drawing Number C3.01, August 1, 2011.

URS NOAA National Marine Fisheries Service
Southwest Fisheries Science Center Replacement SEIS

Figure 3-4
Site Grading and Drainage

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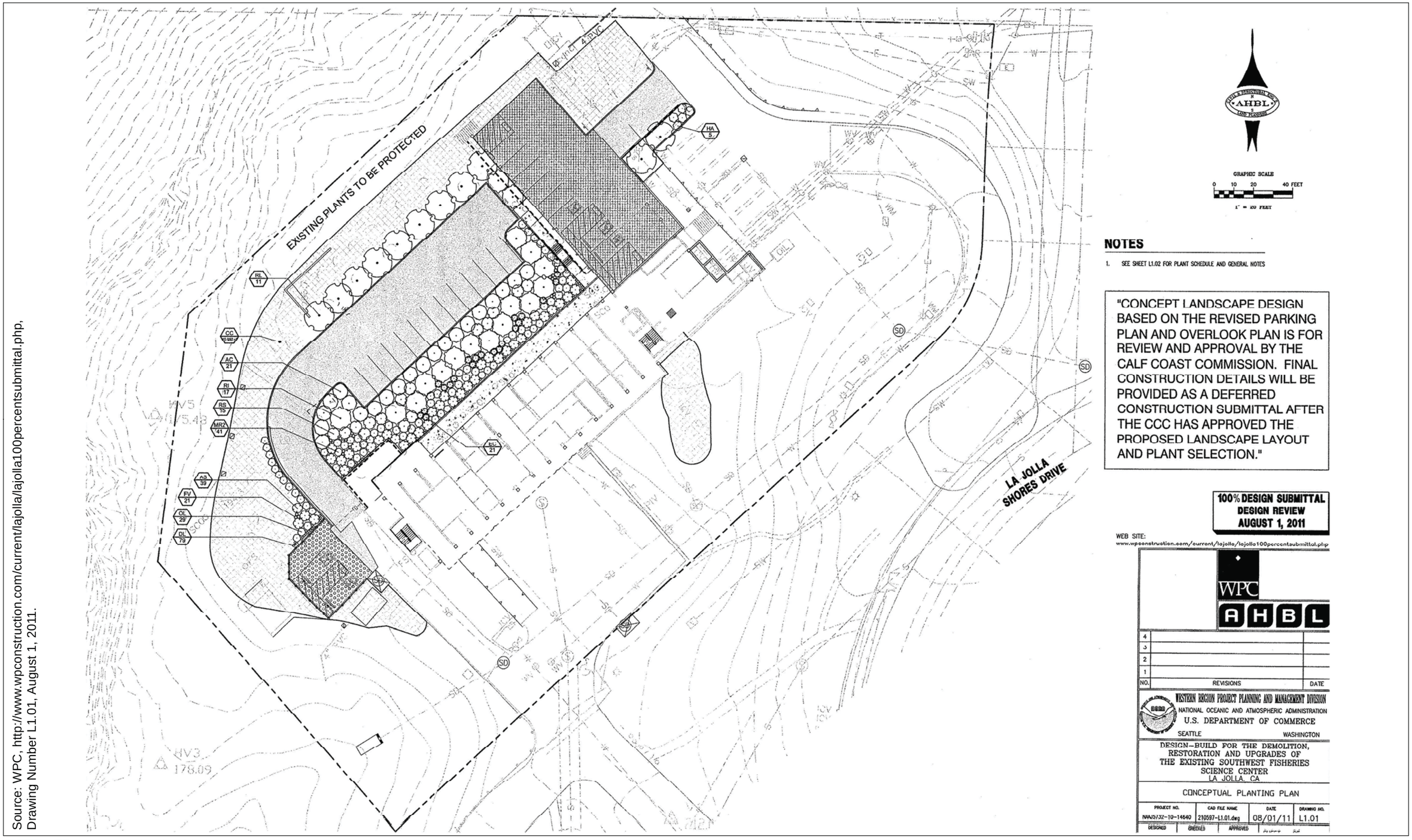

Source: WPC, http://www.wpconstruction.com/current/lajolla/lajolla100percentsubmittal.php, Drawing Number L1.01, August 1, 2011.

URS NOAA National Marine Fisheries Service
Southwest Fisheries Science Center Replacement SEIS

Figure 3-5
Landscape Planting Design

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3.1.3 Grading and Drainage

Following installation of soil stabilization measures and the backfilling of trenches using compacted material stored on-site, open areas will be graded for proposed parking areas, vehicle and pedestrian circulation and landscaping. The grading and installation of pavement and drainage curbs would occur for the proposed parking areas west of Building D and at the former site of Building A. The parking area proposed at the current location of Building A would create 4,710 sq ft of additional pollution-generating impervious area (PGIA). The parking area proposed west of Building D would create 7,200 sq ft of PGIA. Most of the 6,200 sq ft parking area currently serving Building A would remain and continue to contribute 5,580 sq ft of PGIA. The project would provide approximately 20 parking stalls, three of which will be compliant with Americans with Disabilities Act (ADA) accessibility requirements. An 8-foot-wide concrete pedestrian path would connect the western parking lot to Building D and to the parking lot proposed and the current Building A site via a concrete walk and existing stairwell structure.

The pre-project total impervious area is 40,720 sq ft and the post-project total impervious area would be 30, 535 sq ft, a net decrease of 10,185 sq ft in total impervious area within the project site (WPC, 2011a). However since some building area would be converted to parking and other concrete paving, there will be an increase in the pollution-generating impervious area (PGIA) by 13,460 sq ft. With respect to pervious pollution-generating area, which is defined as landscaped areas, areas remaining for landscaping would be planted (or replanted) with native coastal, drought-tolerant species. Refer to Figures 3-4 and 3-5, respectively, for the proposed site grading and drainage plan and the surfacing and horizontal control plan. Additional PGIA values and other information are provided in Section 4.3, *Drainage and Water Quality*.

A closed conveyance system is proposed to accommodate drainage from the new western parking lot and parking/observation deck at Building A. Parking area drainage would be conveyed to a proposed mechanical media filter to provide water quality treatment. The media filters, which are housed in a manhole, would connect to an existing storm structure, located south of Building D. Equally effective bio-swales may be substituted by UCSD prior to occupying the affected area. A 15-inch diameter stormwater pipe and outlet connects downstream to a 24-inch diameter closed conveyance system and outfalls to an existing concrete structure within the NOAA property. Other temporary sediment and erosion controls measures are proposed during construction. Special drainage design elements would be installed in the areas that were excavated and backfilled. Drainage of the fill mass will include a filter fabric-wrapped gravel drain that outlets to an existing discharge location. Two layers of fabric within the gravel drain are proposed at the forecut of each grade beam excavation.

A SWPPP would be prepared for the Proposed Action and implemented by NOAA. Site utilities disrupted by the Proposed Action would be reconnected or reconstructed for Building D and the remaining portion of Building A. Prior to approving the project design, NOAA would have the following work plans completed.

- Steep slope & adjacent property plan
- Vibration & noise mitigation plan
- Smart way truck control plan
- Haul/traffic control plan
- Construction vehicle emission plan
- Construction emission plan
- Demolition and deconstruction plan
- Waste management plan
- Raptor nesting survey

NOAA would maintain, or if damaged due to the Proposed Action, repair the existing bluff erosion monitoring system during the construction period.

3.1.4 Seismic Retrofit of Building D

The Project includes a seismic retrofit of Building D in accordance with life safety standards outlined in American Society of Civil Engineers Standard Number 41-06, Seismic Rehabilitation of Existing Buildings (ASCE 41-06), and UC Office of the President (UCOP) Policy on Seismic Safety (UCOP, 1995; UCOP, 2007), and the current California Building Code. In addition to the geotechnical stabilization outlined above, the Proposed Action includes providing a seismic safety upgrade to Building D through the installation of numerous shotcrete shear walls. The seismic upgrade would consist of strengthening the transverse concrete shearwalls and their footings, and providing a longitudinal bracing scheme. These actions would primarily be confined to within the building envelope and at adjacent corridors and stairwells. The seismic retrofit and upgrading of Building D would meet the 2010 California Building Code (CBC) and the "Good" standard referenced in the UCOP Policy on Seismic Safety.

The Proposed Action would be initiated in August 2012 and is scheduled to be completed by 2014.

3.2 NO-ACTION ALTERNATIVE

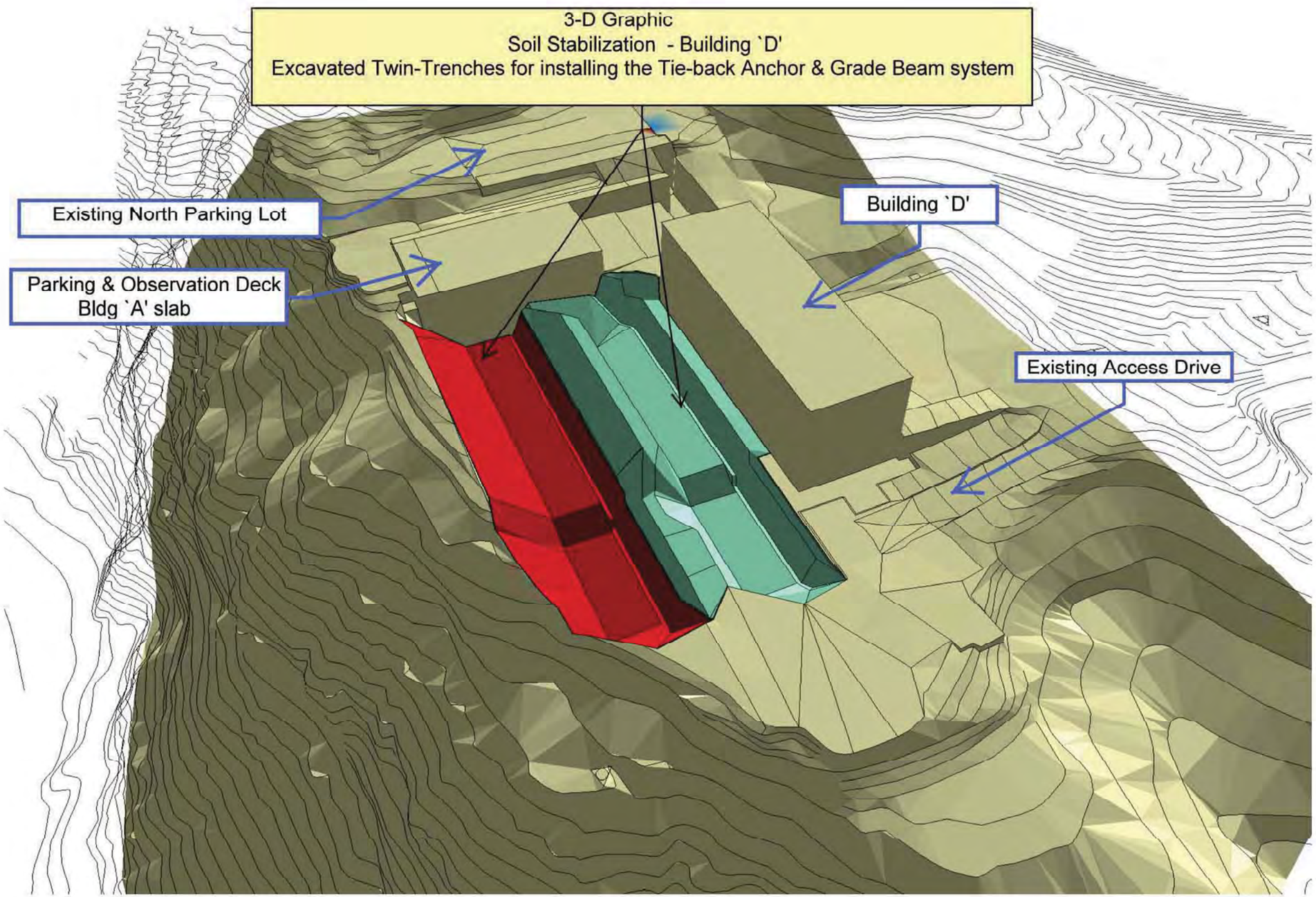
The range of action alternatives that were associated with relocation of the SWFSC are identified in the Final EIS/EIR. NOAA's subsequent changes to its Proposed Action, to remove the majority of Building A and provide seismic retrofits and soil stabilization for Building D, is based upon recommendations prepared by GEOCON in 2010.

The proposed design approach by WPC for reuse of the subject property approved by NOAA was prepared so as to meet the geotechnical recommendations presented by GEOCON. No substantively different alternative actions or design approaches have been identified by NOAA as reasonably feasible.

The No-Action alternative would be to implement the Proposed Action analyzed in the Final EIS/EIR, which would involve retention of Building A and would not include the implementation of seismic upgrades to Building D, substantive soil stabilization measures, and proposed grading, parking and public access within the subject property.

An analysis of the No-Action alternative associated with not proceeding with facility relocation and demolition at all is presented in the 2009 Final EIS/EIR. That discussion is not included here, as the baseline for No-Action has now shifted given NOAA's decision to proceed with the preferred action analyzed in the Final EIS/EIR.

Demolition, Renovation, and Upgrades to
Existing Southwest Fisheries Science Center, La Jolla, CA



Source: WPC, http://www.wpconstruction.com/current/lajolla/lajolla65percentsubmittal.php, 2010.

Figure 3-6
Rendering of Proposed Excavation

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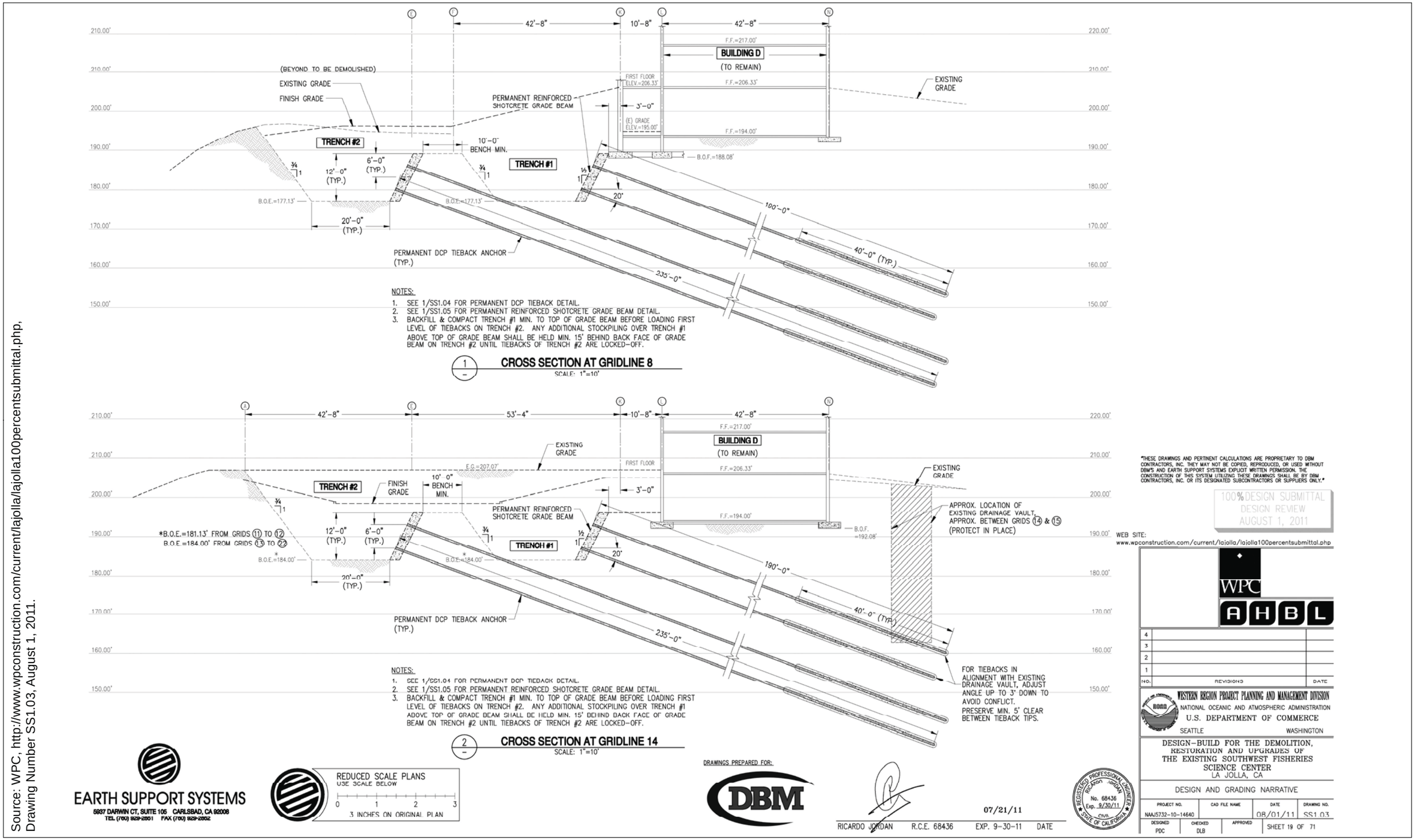

Source: WPC, http://www.wpconstruction.com/current/lajolla/lajolla100percentsubmittal.php, Drawing Number SS1.03, August 1, 2011.

Figure 3-7
Cross Sections of Tie-Backs

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4 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This chapter describes the physical, natural, and regulatory setting of the existing and proposed SWFSC sites and vicinities. A comprehensive range of issue areas are addressed and for each issue area, one or more impacts are analyzed and the level of significance of each impact is determined. This chapter lists specified impacts correlated to mitigation measures that would reduce or eliminate the level of impact.

4.1 LAND USE AND COASTAL ZONE MANAGEMENT

4.1.1 Setting

The Public Buildings Amendments of 1988, Public Law 100 678, requires Federal officials to take into consideration nationally recognized building codes and permit normal inspections by local building officials during construction, among other actions.

Because UCOP is a State entity and NOAA is an entity of the Federal government, neither are subject to municipal land use and zoning requirements (UCSD, 2004a). However, UCSD considers municipal planning principles to be an important guide for on-campus planning (UCSD, 2004a).

The Federal Coastal Zone Management Act of 1972, as amended (CZMA) authorizes coastal States to develop management plans for coastal areas. The Federally approved California Coastal Management Program (CCMP) is administered by CCC, which approves Local Coastal Programs (LCPs) developed by local entities. The UCSD 2004 Long Range Development Plan (LRDP) is the governing LCP for the UCSD campus, including the existing SWFSC site. UCSD has not submitted the LRDP to CCC for approval. Instead, UCSD has submitted plans for individual projects within the coastal zone for CCC review (UCSD, 2004b).

In accordance with Section 307 of the CZMA and 15 CFR 930, a federal determination regarding consistency with an approval CCMP is required for federally sponsored actions within a Coastal Zone. For the reasons discussed below and within other sections of this document, NOAA finds that the Proposed Action, including the demolition of Building B and Building C, would be consistent to the maximum extent practicable with the CCMP, pursuant to the requirements of the CZMA and the California Coastal Act of 1976, as amended (CCA).

The existing SWFSC site is located in La Jolla, a community within the City of San Diego. The community of La Jolla comprises approximately 5,718 acres of land within the north coastal region of the City of San Diego (City of San Diego, 2004), including a large stretch of Pacific Ocean shoreline. Land use within the community is 58% residential, 19% roads, 16% open space/parks, 5% institutions/schools, and 2% commercial.

The UCSD campus is owned by the State of California and covers 1,152 acres, divided into east, west, and SIO campuses. The existing site is within the SIO campus, which is comprised of neighborhoods. The existing SWFSC site is in the SIO West neighborhood. Development of the UCSD/SIO campus is generally guided by the University Community Plan (UCSD, 2000).

The existing SWFSC site is planned for academic uses, described as classrooms, class and research laboratories, and ancillary support facilities. The strips of undeveloped and landscaped lands to the west, south, and east of the existing SWFSC buildings are designated as restoration lands, described as areas disturbed by erosion, invasive vegetation, and past military use, but which could be restored to enhance their value as natural ecosystem. The northern boundary of the existing site is also the boundary of the SIO campus. To the north are single-family residential and open space uses (UCSD, 2004a). The existing SWFSC site is not located in the vicinity of an airport and is not subject to an airport land use plan.

4.1.2 Impact – Proposed Action

The April 2009 Final EIS/EIR and subsequent Record of Decision dated August 20, 2009, provided the basis for an approved Coastal Consistency Determination (CD-035-09) for the construction of a new SWFSC facility. That Consistency Determination did not address the demolition of buildings and other actions at the existing SWFSC property, and it expressly states that a separate determination would be made for actions within the existing SWFSC property and submitted for review.

This analysis evaluates subsequently Proposed Actions by NOAA at its existing SWFSC property to selectively demolish Building A, in addition to the demolition of Building B and Building C. The analysis also considers Proposed Actions to eliminate potential geological hazards by constructing soil stabilization, upgrades to Building D, and site restoration. Analyzed below are the following key CCMP provisions and reasonably foreseeable effects of the Proposed Action within the existing SWFSC property: Public Access (Article 2), Recreation (Article 3), Marine Environment (Article 4), Land Use (Article 5), Development (Article 6), and Industrial Development (Article 7).

Public Access – Public access is not provided to the bluff face, beaches and tidal zone adjacent to the project site due to safety concerns associated with the approximately 180 ft high eroding bluff face. Beach access is afforded at low tide from adjacent beaches near Scripps Pier where safe entry and public stairs are provided. Affording public access from the project site to the bluff faces, beach, and ocean is not proposed because it would not be consistent with public safety and the protection of fragile coastal resources.

However, public access to coast and ocean views from La Jolla Shores Drive will be enhanced by the removal of buildings and the addition of a public overlook with limited parking and observation areas.

Recreation - The project site is not suitable for access to water-oriented recreational activities, and the development of other recreational uses is not consistent with the research and education functions of past, present and future use of the property by federal and state entities. Other public and private coastal recreational uses occur within appropriate locations near the project area, including La Jolla Shores beaches to the south and a glider port to the north. The project does provide for limited parking and a scenic overlook that was not previously offered to the public.

Marine Environment - There will be no adverse effects upon the marine environment due to the Proposed Action. On-site storm water runoff is currently released directly into coastal waters and a biologically sensitive marine environment. The Proposed Action would result in treatment of runoff from new impervious surfaces through a filtering system installed at a proposed manhole, potentially improving the quality of water released to the environment.

Land Resource - The Proposed Action, including removal of Building B and Building C, results in a net decrease in impervious area and a net decrease in pervious pollution-generating area; however, there will be an increase in the PGIA by approximately 13,460 sq ft. The Proposed Action includes the installation a mechanical media filtration structure.

Diegan coastal sage scrub vegetation, wetlands or wildlife corridors do not occur at the project site; no impacts to these resources would result. To prevent disturbance to nesting raptors, a survey of nesting trees within 500 ft of the demolition area is proposed should work commence between February 1 and August 31. If active nests are found, demolition and restoration activities that may disturb the nests would be suspended until the nests are no longer active. The potential for direct impacts to nesting raptors would be avoided by removing vegetation during the non-nesting season (September 1 through January 31). The proposed landscaping within the project area will consist of native coastal, drought-tolerant vegetation and minimal irrigation.

Development - Building D will be retained following seismic retrofit and soil stabilization measures and used for research and educational purposes, similar in nature to its existing use.

The soil stabilization incorporates buried anchor blocks and tieback anchors to achieve the stabilization. Parking areas will be retained and added to the project area. The proposed development of the subject property would be consistent with CCA.

Parking lot drainage will be conveyed to a proposed mechanical media filter housed in a manhole and connected to an existing storm catchment that drains to the Pacific Ocean. The use of other equally effective replacement storm water conveyance systems, such as open channels, swales, or detention ponds may be used by UCSD at their discretion. Although the proposed storm water discharge will remain as a direct ocean discharge point, no degradation of water quality would result and the quality of water discharged would potentially be improved by the use of mechanical media filters.

Grade slope at the proposed parking and access areas would be no greater than 3 percent, and ADA stalls provided with associated access to Building D. NOAA will implement a *SmartWay* Truck Efficiency Plan and a Construction Emissions Management Plan (CEMP) during the demolition and restoration work to minimize Greenhouse Gas, dust and emission of other air pollutants.

Industrial Development - This article does not apply to the Proposed Action or location.

In accordance with the Federal Coastal Zone Management Act of 1972, as amended, NOAA has determined that the Proposed Action would be consistent to the maximum extent practicable with the CCMP, pursuant to the requirements of the CZMA and the CCA, as amended. NOAA would conform to the requirements of Public Buildings Amendments of 1988, Public Law 100 678.

The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).

4.1.3 Mitigation – Proposed Action

Mitigation measures recommended for reducing or eliminating effects to Land Use and Coastal Zone resources under the Proposed Action alternative are those described for each topic presented in Section 7.1, Summary of Impacts and Mitigation Measures.

4.1.4 Impact – No-Action Alternative

The No-Action Alternative would not provide added coastal access, treatment of stormwater runoff, or enhanced geotechnical safety to occupants and the public. Ocean views by the public traveling south on La Jolla Shores Drive would remain partially obscured by Building A.

The following reasonably foreseeable effects of the No-Action alternative would result within the existing SWFSC property:

Public Access - Public parking and access to ocean views from within the project area would not be provided under the No-Action alternative. The demolition of Building A would not occur, thus views from specific segments of southbound La Jolla Shores Drive would remain obstructed by this structure.

Recreation - No recreational resources would be adversely affected under the No-Action alternative, and no new recreational amenities would be provided. As mentioned above, new opportunities for limited parking and public views afforded by a scenic overlook area would not occur.

Marine Environment - There will be a minor adverse effect upon the marine environment due to the No-Action alternative. On-site storm water runoff is currently released directly into coastal waters and a biologically sensitive marine environment. The No-Action alternative would not result in treatment of

new impervious surfaces associated with the removal of Building B and Building C, potentially resulting in a reduction in quality of stormwater released to the environment.

Land Resource - The No-Action alternative includes the removal of Building B and Building C; however, no net change in impervious area, including pollution-generating area would result.

Diegan coastal sage scrub vegetation, wetlands or wildlife corridors do not occur at the project site; no impacts to these resources would result. To prevent disturbance to nesting raptors, a survey of nesting trees within 500 ft of the demolition area is proposed should work commence between February 1 and August 31. If active nests are found, demolition and restoration activities that may disturb the nests would be suspended until the nests are no longer active. The potential for direct impacts to nesting raptors would be avoided by removing vegetation during the non-nesting season (September 1 through January 31). The proposed landscaping within the project area will consist of native coastal, drought-tolerant vegetation and minimal irrigation.

Development - Building D will be retained without seismic retrofit and soil stabilization measures but may be deemed unsuitable for research and educational purposes due to a less than "good" rating as defined in the UCOP Policy on Seismic Safety.

Parking lot drainage will be conveyed to the Pacific Ocean and the quality of water quality discharged would not be improved by the use of mechanical media filters.

Grade slope at the proposed parking and access areas would be no greater than 3 percent, and ADA stalls provided with associated access to Building D. NOAA will implement a *SmartWay* Truck Efficiency Plan and a Construction Emissions Management Plan (CEMP) during the demolition and restoration work to minimize Greenhouse Gas, dust and emission of other air pollutants.

Industrial Development - This article does not apply to the Proposed Action or location.

NOAA would conform to the requirements of Public Buildings Amendments of 1988, Public Law 100 678.

The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).

4.1.5 Mitigation – No-Action Alternative

Mitigation measures recommended for reducing or eliminating effects to Land Use and Coastal Zone resources under the No-Action alternative are those described in Section 7.1, Summary of Impacts and Mitigation Measures.

4.2 GEOLOGY, SOILS, AND GEOLOGIC HAZARDS

4.2.1 Setting

The regulatory setting associated with these topics includes the International Building Code (IBC), CBC, the UCSD Seismic Safety Policy, and Life Safety Performance Level per ASCE 41-06. Although these last two provisions were not specifically mentioned in the Final EIS/EIR, no new impact significance levels need to be analyzed.

The SWFSC is located at the crest of a steep coastal bluff rising about 200 ft above MSL. The site is underlain by Eocene age sedimentary formations including the Scripps Formation and Ardath Shale. Both formations are bedded and contain weak clay layers. The site is in a known or suspected landslide area, according to the Seismic Safety Element of the City of San Diego (City of San Diego, 2008a), and the UCSD LRDP EIR (UCSD, 2004b). The Final EIS/EIR indicated the site is subject to wave action eroding

the base of the bluff, steepening the bluff face and leading to slope failures in the form of landslides, slumps, rockfalls, and toppling of blocks (see Figure 4.2-1). The rate of bluff retreat was estimated to range between about 0.4 and 1.05 ft per year, according to the Final EIS/EIR. A relatively narrow sandy beach extends along the base of the bluff, providing some protection from waves. However, due to the erosion rate, weak clay layers in the subsurface, and presence of perched groundwater, and the suspected deep landslide, the coastal bluff was considered unstable at the existing SWFSC site.

As stated in Final EIS/EIR, there are no active faults known at or near the SWFSC site, thus fault rupture does not present a potential geologic hazard. Secondary seismic effects, such as liquefaction would have little to no potential, due to the site geologic setting. The SWFSC site is subject to strong seismic shaking which could produce failure of the underlying bluff during an earthquake. The Easter 2010 Mexicali Earthquake resulted in some minor damage in San Diego, but there was no significant coastal bluff instability reported.

In 2009, NOAA installed a dewatering well with radial drains to help remove perched groundwater at the site and improve bluff stability (see Figure 4.2-2). A bluff erosion monitoring system was also installed including real-time in place inclinometers and tilt meters along the top edge of Building A and D (Figure 4.2-3). The dewatering well and bluff erosion monitoring systems have been operated since preparation of the Final EIS/EIR. Both systems are planned to remain operational during construction.

After the Final EIS/EIR, an update geologic hazards investigation was prepared by GEOCON and dated May 10, 2010. According to GEOCON, several surficial slope failures (i.e. block topples, soil slips) have occurred over the years along the bluff face on the north and west margin of the property. These movements have resulted in a talus/debris apron at the base of the cliff below Building B. The aforementioned investigation by GEOCON confirmed the presence of relatively deep weak beds (bedding plane shears) at depth below the site. These features dip out of slope and contribute to potential deep instability of the coastal bluff below the SWFSC (Figure 4.2-4). GEOCON's investigation did not rule out the possibility of a possible deep ancient slide, thought to extend partly below Building D, as reported in the geologic literature (Moore, 1973).

The natural soils at the existing SWFSC site are mostly covered with structures and paving, the topography had been leveled during construction. The natural soils had been described as having high clay content and are subject to shrink-swell behavior, as described in the Final EIS/EIR. Economically viable mineral deposits are not known to occur at the site.

Inasmuch as the existing SWFSC site is still vulnerable to erosion, instability and seismic shaking, the geologic and seismic setting of the existing SWFSC has no substantive changes since 2009.

4.2.2 Impact – Proposed Action

The Final EIS/EIR indicated the site is subject to wave action eroding the base of the bluff, steepening the bluff face and leading to slope failures in the form of landslides, slumps, rockfalls, and toppling of blocks. For this SEIS, it is assumed that erosion of the coastal bluff has continued but major bluff instability has not occurred since the time frame of the Final EIS/EIR. The Final EIS/EIR analyzed soil erosion, bluff instability and mineral resources, as discussed below to include the Proposed Action.

Impact 1- Vegetation Clearing and Soil Erosion

- Would implementation of the Proposed Action result in substantial soil erosion or loss of topsoil?

The Final EIS/EIR identified the existing SWFSC site as being within Huerhuero loam (HrE2) type soil, which is mostly disturbed by previous grading. The demolition of Buildings B and C at the site would expose about 0.5 acre of soil to wind and water erosion. Erosion hazards were considered a significant concern. Proposed Mitigation Measures Geo-1 and Geo-2 were previously identified in the Final EIS/EIR.

Demolition of Building A would include retention of the existing concrete basement structure. Little to no soil would be disturbed. Safety and silt fences would be installed around the site, including along the bluff crest, in accordance with the Demolition Plan (Appendix A) and a Storm Water Pollution Prevention Plan to be prepared by NOAA. Implementation of Mitigation Measures Geo-1 and Geo-2, as identified in the Final EIS/EIR and included below would result in erosion effects that are less than substantial under NEPA (and less than significant under CEQA).

Impact 2- Seismic and Bluff Retreat Hazards

The existing SWFSC site could be subject to strong seismic shaking during a major earthquake, and as a result, bluff failure could occur. The coastal bluff underlying the site is potentially unstable in its static condition, that is, a bluff failure could occur independent of an earthquake. The following two standards of significance are closely related and are analyzed together, as discussed below.

- Would implementation of the Proposed Action alternative expose people or structures to potential substantial adverse effects of a rupture of a known earthquake fault, strong seismic shaking, seismic related ground failure, liquefaction, or landslides?
- Would implementation of the Proposed Action occur on a geologic unit or soil that is unstable or that would become unstable and potentially result in a landslide, lateral spreading, subsidence, liquefaction, or collapse?

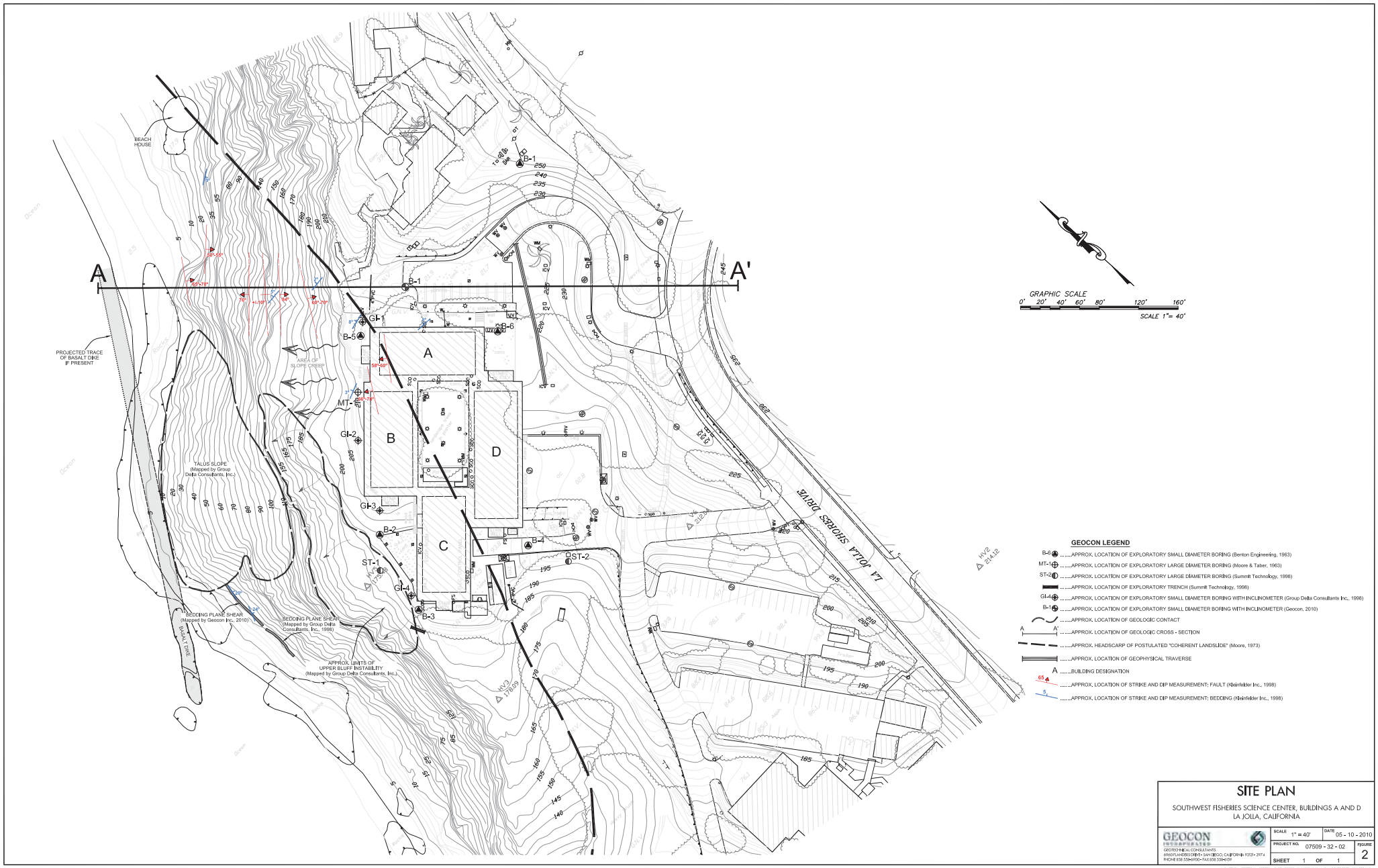
Seismic Effects - With the proposed demolition of Building A (along with Buildings B and C), only Building D would remain on the site. This would eliminate potential earthquake damage to Buildings A, B and C. The proposed geotechnical stabilization measures, including the twin trenches with two rows of tie back anchors and anchor blocks would improve the bluff stability, which would reduce potential earthquake damage to Building D.

The GEOCON report analyzed the effects of seismic shaking on the overall stability of the existing site, including the shallow and deep site stability (GEOCON Inc., 2010). Although GEOCON did not specifically analyze the proposed twin trench soil stabilization scheme, GEOCON considered a number of geotechnical mitigations feasible for Building D, including anchors and tie-backs. According to GEOCON, Building D, with suitable geotechnical and structural mitigation, would meet the Life Safety Performance Level per ASCE 41-06.

In addition to the proposed twin (or single) trench geotechnical stabilization, the proposed seismic upgrades to Building D include new shear walls and strengthening of footings. These actions are to be designed to meet the University's Seismic Safety Policy, ASCE 41-6 guidelines, and the current California Building Code. By adopting these provisions, the proposed 1) seismic retrofit of the existing building and 2) twin (or single) trench geotechnical stabilization scheme at Building D would be designed in accordance with these provisions and would mitigate seismic hazards to less than significant levels.

GEOCON's investigation did note the presence of deep weak planes at depth below the SWFSC site, extending below Building D. GEOCON analyzed a number of subsurface failure geometries, including relatively deep seated bluff instability (generally this would involve deep landslide movement along a weak plane deeper than the depth of the proposed soil stabilization anchors). GEOCON noted that the seismic ground motions associated with a 500-year seismic event could produce ground movement that could damage Building D. However, the likelihood of an earthquake with a 500-year return period is considered low, and is thereby considered to represent a low seismic risk to Building D. It is not reasonably expected that the Proposed Action would result in a substantial effect relative to geological conditions.

However, should a deep slide be found to be present at some future date, it would not be stabilized under the Proposed Action and the potential for damage to Building D as a result of deep slide movement could be substantial.



NOAA National Marine Fisheries Service
Southwest Fisheries Science Center Replacement SEIS

Figure 4.2-1
Geologic Map

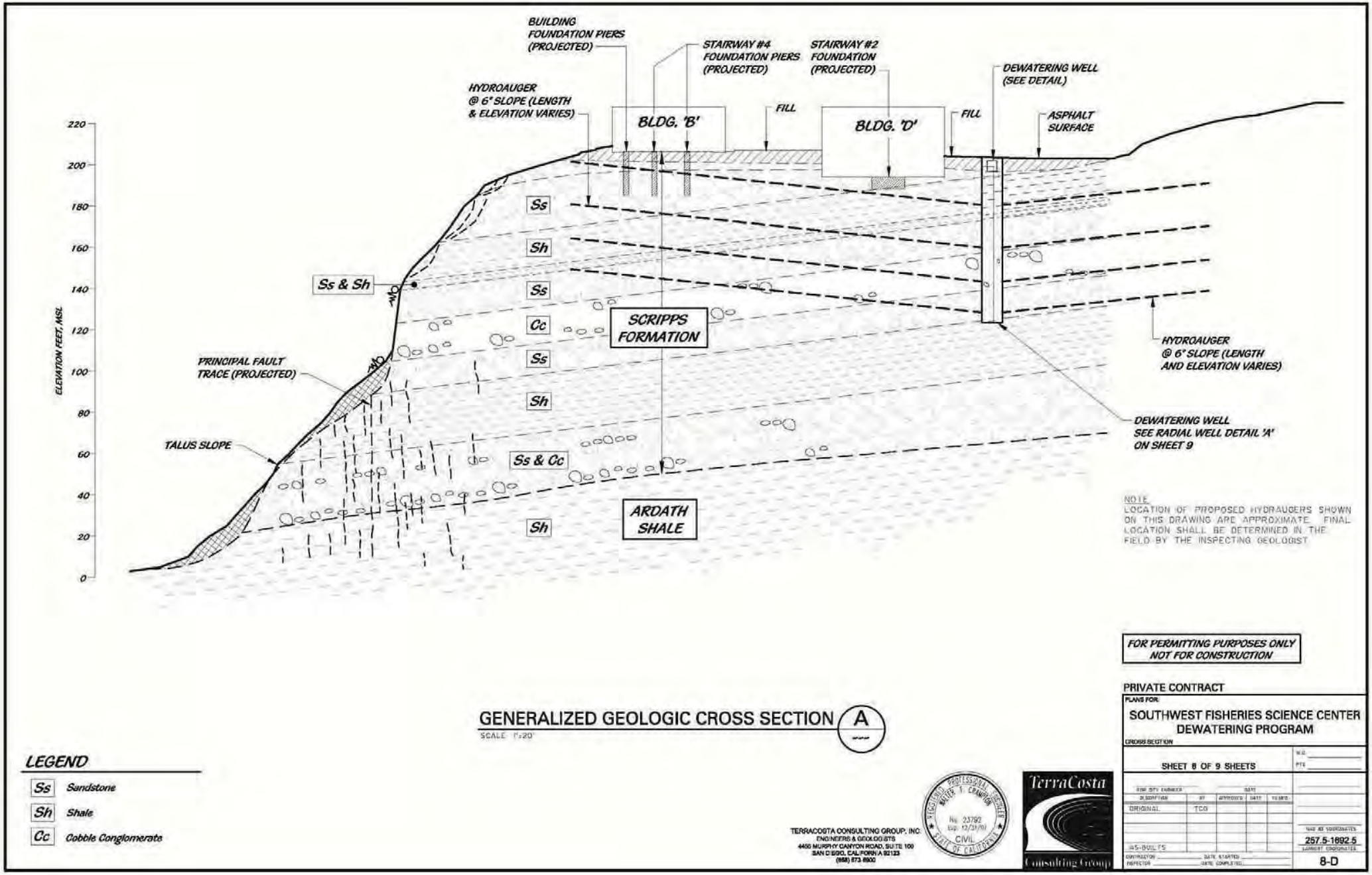
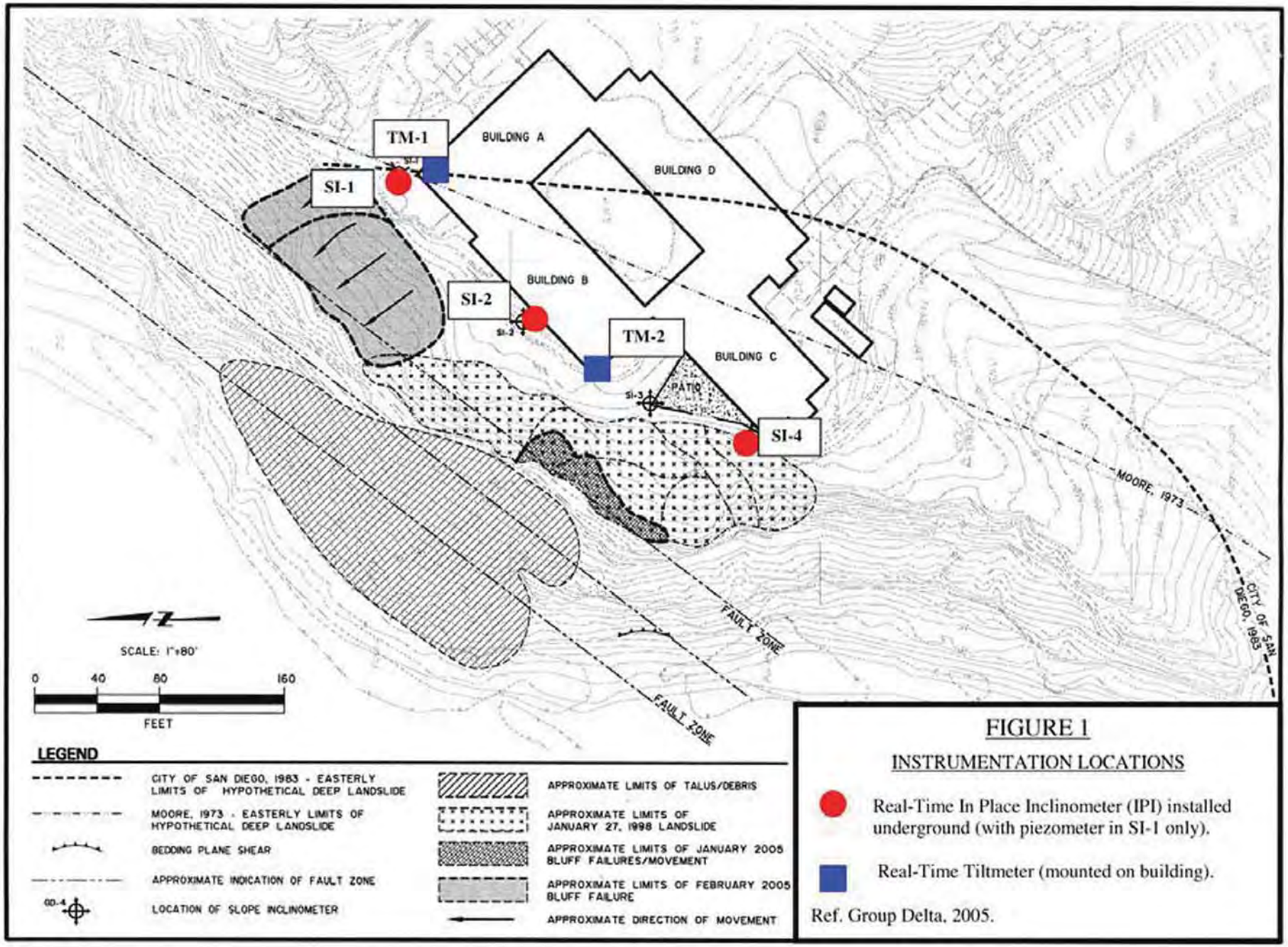
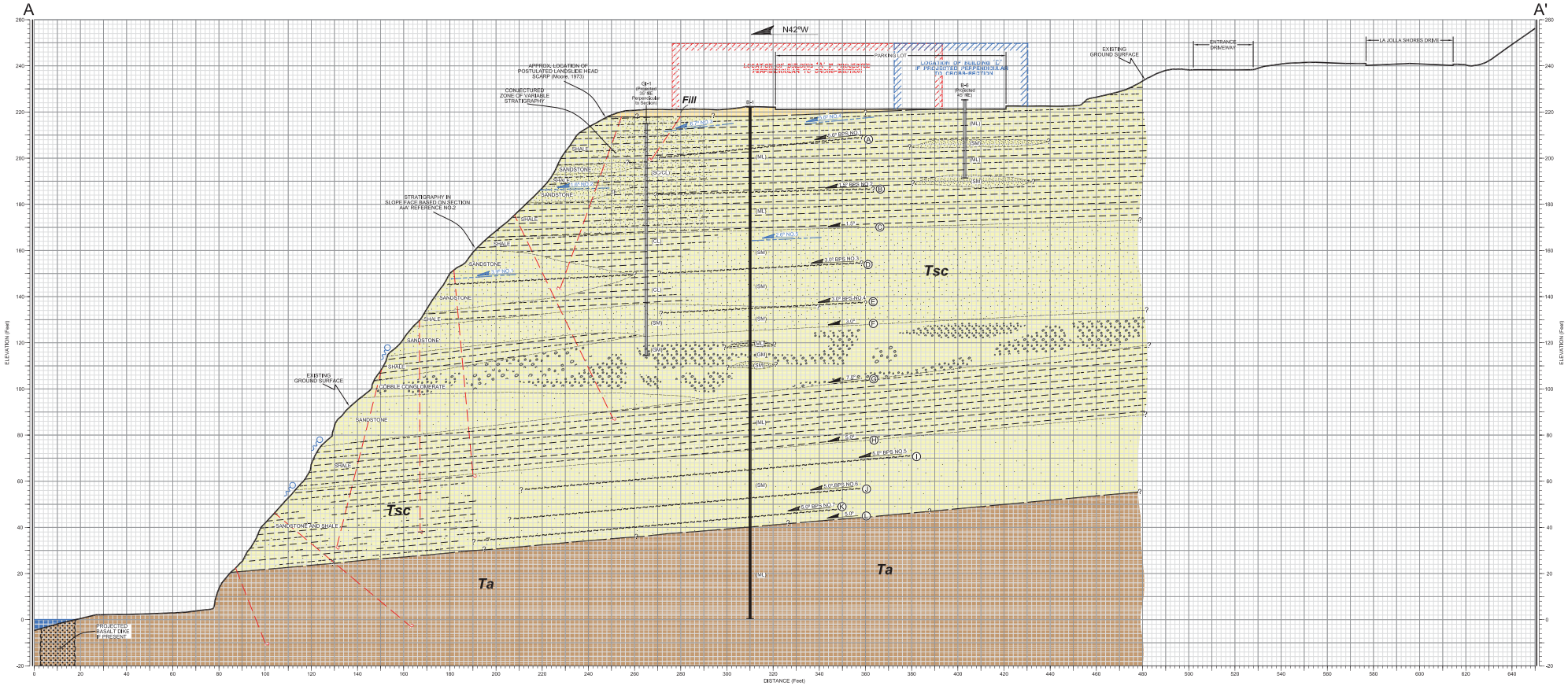


Figure 4.2-2
Existing Radial Well System



NOAA National Marine Fisheries Service
Southwest Fisheries Science Center Replacement SEIS

Figure 4.2-3
Existing Inclinometers



GEOLOGIC CROSS - SECTION A - A'

SCALE: 1" = 20' (Horiz. = Vert.)

GEOCON LEGEND

- **Tsc** .....SCRIPPS FORMATION
- **Ta** .....ARDATH SHALE
- .....APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)
- .....APPROX. LOCATION OF INTERFORMATIONAL CONTACT (Queried Where Uncetain)
- 5.0° BPS NO.7 .....APPROX. LOCATION OF BEDDING PLANE SHEAR SHOWING ASSUMED DIP AND IDENTIFICATION NUMBER (Queried Where Uncertain)
- 5.0° .....APPROX. LOCATION OF BEDDING SHOWING ASSUMED DIP BASED ON STRATIGRAPHIC CORRELATION
- 5.0° NO.5 .....APPROX. LOCATION OF BEDDING SHOWING APPARENT DIP BASED ON DIRECT MEASUREMENT BY OTHERS
- .....APPROX. LOCATION OF PREVIOUSLY MAPPED FAULT (Kleinfelder Inc., 1998)
- B-6 .....APPROX. LOCATION OF EXPLORATORY BORING (Benton Engineering, 1963)
- GI-1 .....APPROX. LOCATION OF EXPLORATORY BORING WITH INCLINOMETER (Group Delta Consultants Inc., 1998)
- B-1 .....APPROX. LOCATION OF EXPLORATORY BORING WITH INCLINOMETER (Geocon, 2010)
- .....APPROX. LOCATION OF SEEP (Group Delta Consultants Inc., 1998)
- (SM) .....UNIFIED SOIL CLASSIFICATION SYMBOL
- (L) .....SEE TABLE 5.2 IN GEOCON 2010 REPORT FOR EXPLANATION

GEOLOGIC CROSS - SECTION A-A'

SOUTHWEST FISHERIES SCIENCE CENTER, BUILDINGS A AND D
LA JOLLA, CALIFORNIA

GEOCON INCORPORATED
GEOTECHNICAL CONSULTANTS
6960 FLANDERS DRIVE • SAN DIEGO, CALIFORNIA 92121 • 2974
PHONE 858 558-6900 • FAX 858 558-6159

SCALE 1" = 20'	DATE 05 - 10 - 2010
PROJECT NO. 07509 - 32 - 02	FIGURE 3
SHEET 1 OF 1	

Construction Effects - The proposed demolition of Buildings A, B, and C, excavation of single or twin trenches, and other bluff top construction activities can produce vibrations which, if strong enough could result in blockfalls, or other bluff failures. Blockfalls could present a hazard to persons using the beach and trail below the SWFSC site. As described in the Demolition Plan (Appendix A), the proposed building demolition would be accomplished by selectively saw-cutting and removing concrete floor layers in small sections without the use of hammers. Excavation of trenches would be done sequentially (i.e., one trench at a time) in accordance with an Excavation/Stockpile/Backfill Plan to help minimize the excavation equipment being used at any one time in a particular area, and to avoid loading the bluff with the excavated soil.

Groundwater is known to be a contributing factor to coastal bluff instability. Some of the shallow groundwater within the area of the existing SWFSC site is thought to be from offsite sources. Previous water line breakages (prior to the installation of the radial drainage system) may have increased the amount of shallow perched groundwater below the site. The existing radial drainage system drains to a central dewatering well installed specifically to reduce groundwater build up. During construction of the soil stabilization of Building D, the existing radial drainage facility will be kept intact. The contractor will be required to avoid impacting the existing radial drains while drilling the proposed angled tie back anchors. The radial drains will be repaired or replaced if damaged during construction. To further reduce potential groundwater build-up, the twin trench system will contain a new subsurface drainage system, including fabric wrapped gravel drains. The subsurface drains would tie into the existing site drainage system; groundwater collected within the backfilled soil would be routed offsite.

To further reduce the likelihood of bluff instability during construction, the existing Bluff Erosion Monitoring System will continue to be operated. The construction specifications will include specific provisions to protect the existing slope inclinometers, and repair or replace these instruments if damaged. A Noise and Vibration Monitoring Plan will also be in effect during construction which would provide measures needed to limit vibrations to 0.2 inch/second PPV within 40 ft of the source. By implementing the Plan, construction effects related to bluff instability hazards would remain less than substantial under NEPA (and less than significant under CEQA).

Impact 3- Impact to Mineral Resources.

The Final EIS/EIR indicated the removal of Buildings B and C would not impact mineral resources, as no economically valuable resources are known to underlie the site. This conclusion is applicable to the current project, which is in the same geologic setting previously analyzed. Impacts to mineral resources would be less than substantial under NEPA (and less than significant under CEQA).

4.2.3 Mitigation – Proposed Action

The project mitigation measures identified in the Final EIS/EIR would be required, and modified as outlined below:

- This measure was previously identified and includes preparation and implementation of a SWPPP and BMPs (see CEQA impact identified in the Final EIS/EIR as Geo-1).
- This measure was previously identified for use of straw mats and reseeding after construction/demolition activities are completed (see CEQA impact identified in the Final EIS/EIR as Geo-2).
- Building D seismic retrofitting and soil stabilization actions are to be designed to meet the current California Building Code. Previous Geo-3 is modified to also include UCOP's Seismic Safety Policy and ASCE 41-6 guidelines (see CEQA impact identified in the Final EIS/EIR as Geo-3).

- A Noise and Vibration Monitoring Plan will also be applied during construction which would provide measures needed to limit vibrations to 0.2 inch/second PPV within 40 ft of the source (see CEQA impact identified in the Final EIS/EIR as Noi-4).
- The existing Bluff Erosion Monitoring System will continue to be operated. The construction specifications will include specific provisions to protect the existing slope inclinometers, and repair or replace these instruments if damaged (new measure). An up-to-date emergency response plan would be maintained including training managers and staff to implement the plan, as necessary (see CEQA impact identified in the Final EIS/EIR as Geo-4).

4.2.4 Impact – No-Action Alternative

The No-Action Alternative would include the demolition of Buildings B and C. This activity was previously addressed in the Final EIS/EIR. Buildings A and D would be left as-is.

Under the current No-Action Alternative, Building A would remain at the existing SWFSC project area and the proposed geotechnical stabilization trench would not be installed at Building D. Both Buildings (A and D) would not have adequate seismic or geotechnical safety features required under UCOP Policy on Seismic Safety, and other professional criteria. A hazardous condition would continue to exist to persons in the vicinity due to the potential for seismic shaking to damage these facilities and/or catastrophic failure of the coastal bluff on which portions of this building are situated.

Buildings A and D would be left as-is. A hazardous geologic condition would exist and occupants would be at risk. The continued use of the buildings would not be consistent with the University's Seismic Safety policies.

Impact 1 - Vegetation Clearing and Soil Erosion

There would be no increased impacts resulting from exposure of soil to wind and water erosion, beyond those identified in the Final EIS/EIR.

Impact 2 - Seismic and Bluff Retreat Hazards

According to the Final EIS/EIR, Buildings A and D were not considered in imminent danger from bluff retreat due to their location 21 ft and 113 ft, respectively, from the edge of the coastal bluff. Both buildings are in a hazardous geologic setting due to the potentially unstable coastal bluff, and the possibility of a deep landslide. If Building A is left in place, potential demolition related effects on the bluff would be reduced to the impacts previously addressed for Building B and C demolition.

If Buildings A and D are to be occupied, both buildings (A and D) would require seismic upgrades to meet current building codes and UCSD's Seismic Safety Policy. Without the geotechnical stabilization at Building D, the building would remain at risk from a bluff failure, and would not meet the Life Safety Performance Level per ASCE 41-06.

Impact 3 - Impact to Mineral Resources

There would be no impacts to mineral resources.

4.2.5 Mitigation – No-Action Alternative

All of the mitigation measures identified above for the Proposed Action would also be required, as appropriate for the demolition of Buildings B and C, in accordance with the Final EIS/EIR.

Seismic upgrades at Buildings A and D would be required by subsequent owner/occupants to meet the current building codes (see CEQA impact identified in the Final EIS/EIR as Geo-3). An alternate geotechnical stabilization scheme would be required for both buildings to conform to UCOP's Seismic Safety Policy, and ASCE 41-6 guidelines.

4.3 DRAINAGE AND WATER QUALITY

4.3.1 Setting

The Final EIS/EIR concluded that replacement of the SWFSC would have a low potential to result in impacts on drainage and water quality. Substantial changes have been proposed for the design of the demolition and upgrades for the existing SWFSC subsequent to the Final EIS/EIR evaluation in April 2009.

The Clean Water Act (CWA) is the primary federal law protecting the quality of the nation's surface waters. The primary principle is that any pollutant discharge into the nation's waters is prohibited unless specifically authorized by a permit. Section 402 establishes a permitting system for the discharge of pollutants except dredge or fills material into waters of the United States. It requires a National Pollutant Discharge Elimination System (NPDES) permit for discharges. In California, the State Water Resources Control Board (SWRCB) and/or the Regional Water Quality Control Boards (RWQCBs) are responsible for implementing CWA Sections 401, 402, and 303(d).

Executive Order 11988 requires that a project constructed, permitted, or funded by a federal agency must avoid incompatible floodplain development, be consistent with the standards and criteria of the National Flood Insurance Program, and restore and preserve natural and beneficial floodplain values. Federal actions are located outside of the 100-year flood plain, if practical.

In California, the Porter-Cologne Water Quality Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the state (including both surface and groundwater) and directs the RWQCB to develop regional Basin Plans. Water quality control plans are implemented by the NPDES permitting system regulating waste discharges and by Waste Discharge Requirements (WDRs) issued by the RWQCB so that water quality objectives are met. WDRs for discharges to surface waters also serve as NPDES permits.

Water Quality Control Plans

The SWRCB and RWQCBs adopt water quality control plans to establish water quality objectives, protect beneficial uses, and create an implementation program for achieving water quality objectives.

The *Water Quality Control Plan for the Oceans of California* (California Ocean Plan) (SWRCB, 2009a) is the plan adopted by the SWRCB for protection of ocean waters. This plan designated the La Jolla and the San Diego – Scripps area as an Area of Special Biological Significance (ASBS) in 1974, making the Pacific Ocean west of the SWFSC part of the San Diego Marine Life Refuge. Waste discharges to an ASBS are prohibited unless an exemption is granted from the SWRCB.

The *Water Quality Control Plan for the San Diego Basin* (Basin Plan) (RWQCB, 2007) is the applicable basin plan for inland surface water and groundwater for the San Diego region. The SWFSC is located within the Scripps Hydrologic Area, which is part of the Pañasquitos Hydrologic Unit.

NPDES Phase II Municipal Storm Water Permit

The SWRCB regulates storm water discharges from small municipal separate storm sewer systems (MS4s) under a general permit. The SWRCB has adopted *WDRs for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems* (Order No. 2003-0005-DWQ, NPDES Permit No. CAS000004) (SWRCB, 2003) which requires the development and implementation of a Storm Water Management Program (SWMP) describing best management practices (BMPs), measurable goals, and an implementation schedule.

The UCSD, which includes SIO and the SWFSC, is subject to this general permit. UCSD applied for coverage under the permit in March 2003 for all of their facilities but a permit was not issued at that time due to SWRCB staffing limitations (UCSD, n.d.). The general permit is currently being renewed by the SWRCB and a Draft Phase II Small MS4 general permit has been issued for public review. In the draft permit, UCSD is designated as a new non-traditional small MS4 permittee.

NPDES Construction Storm Water Permit

The SWRCB has adopted the statewide *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ, NPDES Permit No. CA000002) (SWRCB, 2009b) to regulate stormwater discharges from construction sites. This general permit applies to projects resulting in 1 or more acres of soil disturbance and to projects that are part of a common plan of development or sale that disturbs more than 1 acre of land surface. The construction general permit implements a risk-based permitting approach, specifies minimum BMP requirements, and requires stormwater monitoring and reporting. The construction general permit establishes three project risk levels that are based on site erosion and receiving-water risk factors. Risk Levels 1, 2, and 3 correspond to low-, medium-, and high-risk levels for a project. A preliminary analysis indicates that the upgrade project at the existing SWFSC is likely to be categorized as either Risk Level 1 or 2 depending on the construction schedule.

The construction general permit (Order No. 2009-0009 DWQ) requires preparation and implementation of a SWPPP, which would provide BMPs to minimize potential short-term increases in transport of sediment and other pollutants caused by construction. Typical BMPs include:

- Implementing practices to minimize the contact of construction materials, equipment, and maintenance supplies with stormwater.
- Limiting fueling and other activities using hazardous materials to designated areas, providing drip pans under equipment, and daily checks for vehicle condition.
- Implementing practices to reduce erosion of exposed soil, including stabilization for soil stockpiles, watering for dust control, perimeter silt fences, and/or placement of fiber rolls.
- Implementing practices to maintain water quality including silt fences, stabilized construction entrances, and storm drain inlet protection.
- Implementing practices to capture and provide proper offsite disposal of concrete washwater, including isolation of runoff from fresh concrete during curing to prevent it from reaching the local drainage system.
- Developing spill prevention and emergency response plans to handle potential fuel or other spills.
- Where feasible, limiting construction to dry periods.

The construction of the new SWFSC was covered under a prior version of the construction general permit (Order No. 99-08-DWQ, WDID 9 37C356183) and transferred over to the new permit (Order No. 2009-0009-DWQ) in June 2010. Construction of the new SWFSC is estimated to be completed by April 2012.

Waste Discharge Requirements for Scripps Institution of Oceanography, NPDES Permit No. CA0107239

SIO which is part of the UCSD system has been discharging waste seawater and urban runoff to the Pacific Ocean adjacent to the San Diego Marine Life Refuge since 1910. The California Ocean Plan designated the Pacific Ocean west of the San Diego – Scripps area an Area of Special Biological Significance (ASBS) in 1974 which made the ocean waters west of SWFSC part of the San Diego Marine Life Refuge.

In November 1999, the RWQCB adopted WDRs to regulate the discharge of waste seawater from SIO to the Pacific Ocean (NPDES Permit No. CA0107239, Order No. 99-83). SIO applied for this permit to be renewed in 2004.

In March 2004, the SWRCB adopted Resolution No. 2004-0052 to provide SIO with a conditional exception to the California Ocean Plan prohibition against waste discharges to the San Diego Marine Life ASBS. The exception established conditions and requirements applicable to the discharges from the seawater system and from the municipal storm water collection system at SIO into the ASBS.

The RWQCB adopted new WDRs in February 2005 (Order No. R9-2005-0008, NPDES Permit No. CA0107239) that regulated discharges from the seawater system and from the municipal storm water collection system at SIO and incorporated the SWRCB's conditions and exceptions from Resolution No. 2004-0052. The WDRs were modified in November 2008 (RWQCB, 2008). The permit specifies numeric effluent limitations and numeric action levels for discharges from the flow-through seawater system at SIO. It prohibits non-stormwater discharges except for discharges associated with firefighting or other catastrophic events. The permit prohibits discharges that alter the *Natural Water Quality* conditions seaward of the surf zone, as defined by an advisory committee established by the permit.

SIO has conducted a dilution and dispersion study, bacterial monitoring studies, and compliance monitoring under this permit (RWQCB, 2008). A storm water management plan (SWMP) was developed for SIO under the permit and included identification of all known discharge locations from the storm water conveyance system. SIO's SWMP was attached as an Appendix to UCSD's SWMP (UCSD, 2011). SIO's SWMP was submitted to the RWQCB and SWRCB in August 2005 (UCSD, 2005).

UCSD and SIO's Storm Water Management Plans

Stormwater management programs limit to the maximum extent practicable the discharge of pollutants from storm sewer systems. Each program includes BMPs intended to reduce the quantity and improve the quality of stormwater discharged to the stormwater system. UCSD has a SWMP that was submitted to RWQCB as part of the application for the Phase II municipal stormwater general permit in March 2003. SIO has a SWMP that was submitted to the SWRCB and the RWQCB in August 2005 to meet the requirements of their individual permit (Order No. R9-2005-0008). UCSD and SIO's SWMPs include a stormwater pollution reduction program and a non-stormwater discharge elimination program.

SIO's SWMP identifies locations where storm water, non-storm water, groundwater, and/or waste seawater discharge from UCSD/SIO property directly into the ASBS or to City of San Diego property. Out of the 108 points of discharge, 30 are stormwater discharges. The SWMP designates the SWFSC as a high priority potential pollutant generating facility where the following non-structural source control BMPs are to be implemented (UCSD, 2005):

- Outdoor work area management BMPs, including housekeeping and spill prevention.
- Vehicle and equipment management BMPs, including managing outdoor washing/cleaning, fueling operations, and equipment and vehicle maintenance.
- Material and waste management BMPs, including trash management, hazardous material management, hazardous waste management, and onsite transportation of materials and waste.
- Facilities and grounds management BMPs, including landscape management and surface cleaning/pressure washing, water system flushing, and outdoor painting and sandblasting provisions.

SIO's non-stormwater discharge elimination program prohibits the following type of flows from being discharged into the storm drain system (UCSD, 2005):

- Sewage and septic: Flows that are produced from sewer pipes and septic systems.
- Wash water and tap water: Flows generated from a wide variety of activities and operations (i.e. vehicle and equipment washing).

- Liquid wastes: Flows from liquids such as oil, paint, and process water.
- Landscape irrigation: Flows derived from excess potable water used for irrigation.
- Air conditioning and refrigeration condensate: Flows derived from the condensate produced by air conditioners or refrigerators.
- Pools, fountains, water tanks, and aquariums: Flows derived from leaks and losses from pools, fountains, water tanks, and aquariums and the associated appurtenances.
- Aboveground storage tanks: Flows derived from leaks and losses from emergency generators and transformers.

The remainder of this section describes the physical setting for the project with emphasis on features relevant to drainage and water quality. Limited changes have occurred to the physical environment since the Final EIS/EIR was published in 2009.

Surface Water Drainage

Per the Final EIS/EIR, the existing SWFSC is located in the Scripps Hydrologic Area, which is part of the 170-square mile Pañasquitos Hydrologic Unit. The Unit drains to the Pacific Ocean via several intermittent short coastal drainages. The Pacific Ocean west of the Scripps Hydrologic Area is part of the San Diego Marine Life Refuge, which is an ASBS. SIO outfalls to the ASBS are shown in Figure 4.3-1.

The existing SWFSC property contains several catch basins, which convey storm water runoff from the property into a closed storm drain system that also collects storm water runoff from a 4.8-acre undeveloped off-site area. Roof drains on the buildings are connected to this closed conveyance system (WPC, 2011a). The storm drain system discharges via a concrete-lined spillway into a steep gully that flows southwestward to the beach and directly to the San Diego Marine Life Refuge ASBS (SRI International, 2009; PBS&J, 2007). The gully also receives runoff from the adjacent bluff and may serve to convey groundwater seepage. The drainage outfall is located approximately 100 ft from the southern corner of Building D. It is referred to in this document, the hydrology appendix to the Final EIS/EIR, and SIO's SWMP as the "fisheries outfall".

Groundwater

At the SWFSC site, NOAA has installed a groundwater well to remove perched groundwater, which is thought to result from anthropogenic sources. The perched groundwater is believed to contribute to instability of the coastal bluff (SRI International, 2009).

Water Supply

SWFSC receives domestic water service from the City of San Diego. An on-site well is present to prevent excess buildup of shallow groundwater, but the on-site well does not supply domestic water. SWFSC receives sewage service from the City of San Diego (SRI International, 2009).

Seawater aquaria are present at the existing SWFSC and receive seawater from UCSD/SIO, which has an ocean intake located south of the SWFSC site. Seawater is circulated through the aquaria and discharged back to the ocean with other SIO waste seawater via one of the outfalls regulated under SIO's individual NPDES permit (Order No. R9-2005-0008) (SRI International, 2009).

4.3.2 Impact – Proposed Action

This section summarizes the impact determinations in Final EIS/EIR, presents the potential effects due to proposed changes, and evaluates whether the effects of the prior actions and newly Proposed Actions will be substantial based on significance levels in the Final EIS/EIR and new enforceable standards. The criteria established in the Final EIS/EIR were used to evaluate drainage and water quality impacts and effects in the SEIS.

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Figure 4.3-1. Scripps Institution of Oceanography Outfall Locations

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For drainage and water quality, project effects are defined as follows:

- Negligible effects are those that would have a slight measurable change in surface water hydrology, groundwater, water quality, drainage, or floodplains but are very close to the existing conditions.
- Moderate effects are those with a considerable change in these resources, but do not contribute to a violation of regulatory standards or exceed the capacity of existing facilities (e.g., drainage facilities).
- Substantial effects are those that contribute to a violation of regulatory standards or exceed the capacity of existing facilities.

The following effects to drainage and water quality would result from implementation of the Proposed Action.

Permitting Discharge of Stormwater during Construction and Demolition

The existing SWFSC complex is approximately 2.5 acres; however, the demolition and upgrade project would be restricted to approximately 1 acre. Of that area, 0.93 acres are currently impervious (the area of the buildings and paved surfaces) and approximately 0.07 acres are landscaped. The SWFSC upgrade would cause approximately 0.55 acres of land disturbance primarily at Buildings B and C. Total impervious surfaces will be reduced by approximately 0.23 acres which will be replaced with landscaping. Pollution generating impervious areas (PGIA) will be increased by 0.32 acres primarily due to the construction of new parking lots and paved access ramps (WPC, 2011a).

Although the Proposed Action at the existing SWFSC site will disturb less than 1 acre of land, construction of the new SWFSC facility has disturbed approximately 2.7 acres (SWRCB, 2009c). Therefore, the upgrade project for the existing SWFSC, which is part of a larger plan of development associated with relocation of the SWFSC, would disturb more than 1 acre and is subject to the requirements of the construction general permit (Order No. 2009-0009-DWQ).

NOAA can choose to either include the existing SWFSC upgrades with the new SWFSC construction project or apply separately under the construction general permit. If the SWFSC upgrades are to be included with the current construction activities, the SWPPP would need to be amended and re-submitted to the SWRCB with revised permit registration documents. If NOAA and/or UCSD choose to apply under the construction general permit for the SWFSC upgrades as a separate project, a SWPPP would need to be developed that is in compliance with the construction general permit (Order No. 2009-0009-DWQ).

The impact of permitting stormwater discharge during construction was considered to be less than significant in the Final EIS/EIR. Compliance with the new construction general permit would be similar in nature to compliance with the old permit. Effects due to the change in regulation would be negligible under NEPA (and less than significant under CEQA).

Changes in Impervious Surfaces and Runoff

The Final EIS/EIR evaluated the increases in impervious surface and runoff at the site for the new SWFSC and concluded that changes in runoff rates and effects to the quality of storm water flowing off the new SWFSC site were negligible and less than significant. There have been no changes to the project at the proposed site for the new SWFSC since the previous evaluation in 2009.

Construction of upgrades at the existing SWFSC will decrease the amount of impervious surfaces by approximately 0.23 acres, or potentially more if a bioswale technique is implemented by UCSD. This would decrease the rate of storm runoff during the 10-year 6-hour storm event by about 0.2 cubic feet per second (cfs). The effects to runoff resulting from the decrease in impervious surfaces would be negligible under NEPA (and less than significant under CEQA).

Flood Hazards

The SWFSC is not within a 100-year floodplain and is not subject to flood hazards. The Proposed Action would be consistent with policies contained in E.O. 11988 and therefore effects would be negligible under NEPA (and less than significant under CEQA).

Water Quality Effects of Storm Runoff

The Final EIS/EIR considered construction effects on water quality to be less than significant because implementation of a SWPPP will minimize the potential for contamination of storm runoff or transport of pollutants to off-site water bodies. Potential pollutants that would be generated and/or used at the construction site include eroded soil, construction materials, fuels, lubricants, asphalt and concrete, cleaning and finishing chemicals, paints, vegetative matter, fertilizers, pesticides, and herbicides. During construction, NOAA would require construction contractors to adhere to the BMPs and other requirements contained in the SWPPP, including proper handling and storage of potential pollutants to prevent contamination of storm water, periodic inspection of drainage and erosion control measures, maintenance and repair of measures as necessary to maintain proper functioning throughout the construction period, installation of supplemental measures if original measures prove inadequate, maintenance of inspection records, and annual reporting (SRI International, 2009). A SWPPP would still be required under the new construction general permit, and therefore the effects to storm water quality resulting from project construction would be negligible.

The Final EIS/EIR also considered effects on stormwater quality from operations at the new SWFSC site. It considered potential effects from sanitary sewers in comparison to septic systems. Water quality impacts during operation of the new SWFSC were considered to be less than substantial under NEPA and less than significant under CEQA. There have been no substantive changes to the project at the new SWFSC site since the original evaluation.

The project will result in a net decrease in impervious area. However, currently, most of the impervious area consists of building roofs from which runoff is generally considered to be of high water quality. The project will construct 0.32 acre of PGIA which could introduce sediment and oils and grease into runoff. A new closed storm water conveyance system would collect surface drainage from the new parking lot and from the parking at Building A. The conveyance system would direct storm water runoff to a mechanical media filter to provide water quality treatment. The media filter, which is housed in a manhole, would connect to an existing storm drain network and fisheries outfall structure located south of Building D (WPC, 2011a). An equally effective alternative bioswale filter design may be implemented by UCSD following property transfer. If properly maintained, effects to stormwater quality from the parking lots at the existing SWFSC during operation of the project would be negligible under NEPA (and less than significant under CEQA).

Use and Discharge of Seawater

The Final EIS/EIR considered the use and discharge of seawater at the existing and new SWFSC and considered effects to be less than significant. Seawater aquaria operations at the existing and new SWFSC have not changed from the previously analyzed action, as described below.

Seawater is currently used in the research aquaria at the existing SWFSC and would also be required for the research aquaria planned for the relocated SWFSC. SIO currently provides seawater to SWFSC through underground pipelines connecting between SIO and SWFSC. The average flow rate is 50 gallons per minute (gpm) (SRI International, 2009).

Seawater is stored in an existing 15,000-gallon settling and storage tank located at the corner of La Jolla Shores Drive and La Jolla Shores Lane. That tank would be retained for use by the new SWFSC and pipes would be extended under La Jolla Shores Drive to the relocated SWFSC. The volume of seawater contained in seawater aquaria at the new SWFSC would be the same as at the existing SWFSC. After

initial filling, the amount of seawater used at the new SWFSC facility would be the same as at the existing facility and the existing average flow rate of 50 gpm would not change. However, SIO may operate the seawater aquaria at the existing SWFSC when it assumes possession of Building D. In this case, the overall demand for seawater, considering use at both the existing and new sites, would double to 100 gpm. The effect of this potential increase in the amount of seawater extracted from the Pacific Ocean would be "less than significant" (SRI International, 2009).

After use at the new SWFSC, seawater would be either returned to SIO (as currently occurs) for discharge to the ocean or discharged to the sanitary sewage system. Seawater coming into contact with only native fish and not subject to chemical treatment would be returned to SIO for ocean discharge. Seawater coming into contact with non-native fish, marine mammals, or chemicals would be discharged to the City sanitary sewage system. The amount and quality of used seawater returned by the new SWFSC would not change in comparison to the existing SWFSC. However, if SIO continues operation of the existing seawater aquaria, then the amount of used seawater discharged to the ocean would roughly double. Because the returned seawater would not be contaminated through exposure to non-native fish or contact with chemicals, this impact would be "less than significant" (SRI International, 2009).

Therefore effects from the use and discharge of seawater would be negligible under NEPA (and less than significant under CEQA).

Water Quality Effects of Material Use at SWFSC

The Final EIS/EIR considered material use at the existing and new SWFSC and concluded that effects to drainage and water quality would be less than substantial. Regulated materials and chemicals used at SWFSC would be stored in secure areas that are protected from precipitation and used in accordance with manufacturers' recommendations. Solid and hazardous wastes would be properly labeled and removed for off-site disposal. Operation of the existing or new SWFSC would not result in significant potential for contamination of groundwater (SRI International, 2009). Therefore effects from material use would be negligible under NEPA (and less than significant under CEQA).

4.3.3 Mitigation – Proposed Action

The Final EIS/EIR prescribed the following avoidance, minimization, and mitigation measures.

Hyd-1 *(Impact 1)*: NOAA will prepare an SWPPP and submit required notices of intent and termination to the RWQCB. The following BMPs will be incorporated into the SWPPP and implemented during and after construction and demolition activities:

- The area of land disturbance will be kept to a minimum and existing vegetative cover will be retained as much as possible.
- Disturbed areas will be stabilized with temporary placement of woven mesh or netting until vegetation becomes established.
- Controls (silt fences, hay bales, and so on) will be placed at the perimeters of the construction and demolition areas.
- The sites will be sloped and graded to direct runoff away from steep hillsides or denuded areas.
- Disturbed areas will be replanted with native coastal sage scrub vegetation.

Hyd-2 *(Impacts 3 and 5)*: The new SWFSC will incorporate the design features listed below to retain storm water on-site, thereby mitigating any increase in storm runoff rates:

- Landscaping using native species will be planted adjacent to foundations to reduce the velocity of runoff flow and prevent erosion.
- Storm water from roofs will be directed to water retention areas.

- A new drainage trough will help to further reduce the projected increase in runoff.
- Permeable pavement will be used where appropriate for walkways and parking areas.

Hyd-3 *(Impact 5)*: All storm drain inlets, bioswales and catch basins at the SWFSC site will be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCSD standards.

Hyd-4 *(Impact 7)*: Outdoor storage areas for materials that may affect water quality will be covered and protected by secondary containment.

Hyd-5 *(Impact 7)*: All trash container areas will be enclosed to prevent off-site transport of trash and drainage will be directed to the sanitary sewer system or the covered containers to prevent exposure of trash to precipitation (SRI International, 2009). Measure Hyd-2 does not apply to the existing SWFSC due to concerns that perched groundwater may contribute to instability of the coastal bluff. The remaining avoidance, minimization, and mitigation measures apply to both the previously evaluated action and the Proposed Action at the existing SWFSC.

4.3.4 Impact – No-Action Alternative

Under the No-Action Alternative, the environmental effects and associated mitigation measures described for the Proposed Action would remain the same. The primary difference would be a further reduction in impervious surfaces under the No-Action Alternative, since the newly proposed parking areas would not be built and water quality treatment would not occur for these areas.

4.3.5 Mitigation – No-Action Alternative

None required.

4.4 BIOLOGICAL RESOURCES (THREATED AND ENDANGERED SPECIES) AND WETLANDS

4.4.1 Setting

To examine the effects of the Proposed Action on biological resources, this analysis considers the federal Endangered Species Act (ESA) (16 U.S. Code 1536), which provides for the conservation of endangered and threatened species of fish, wildlife, and plants and Section 9 of the Act prohibits taking of these species. Take is the act of harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, or collecting federally listed species. Harming a federally listed species includes injuring or destroying individuals of the species or modifying the habitat of the listed species. Effects are considered significant if adverse impacts to species listed under the Federal ESA, or to its habitats, are considered significant. Federal agencies must ensure that Proposed Actions do not jeopardize the continued existence of any endangered or threatened species or cause the destruction or adverse modification of their habitat. If listed species or designated critical habitat are present and could be affected by the Proposed Action, the federal agency shall consult with the U.S. Fish and Wildlife Service (or the National Marine Fisheries Service) and prepare a biological assessment to analyze the potential effects of the project on listed species and critical habitat before a determination of effect is made.

The existing SWFSC site is developed with small areas of ornamental landscaping, including a central planted area containing Torrey Pine trees. The Torrey Pine, *Pinus torreyana*, is rare, growing only in San Diego County, and on one of the Channel Islands. It is not protected outside of wild populations within state parks and public lands.

The existing site conditions do not provide suitable habitat for rare or endangered flora or fauna, including the California gnatcatcher. Raptors and migratory birds may nest in trees on or near the project

area. There are no jurisdictional wetlands protected by E.O. 11990 and California Wetlands Conservation Policy (CWCP) present at the existing SWFSC site.

4.4.2 Impact – Proposed Action

As stated within the April 2009 Final EIS/EIR, demolition of Buildings B and C at the existing SWFSC would result in the removal of small areas of ornamental landscaping. Demolition of Building A would result in a similar impact. Demolition of Building A would result in the removal of small amounts of landscaping. The effects resulting from removal of ornamental vegetation and the replacement of landscaping with species not requiring irrigation would be negligible under NEPA (and less than significant under CEQA).

The proposed excavation and soil stabilization, grading and drainage actions associated with the proposed parking areas and seismic retrofitting of Building D would have temporary biological effects due to the replacement of landscaping and temporary displacement of ground cover. The affected area surrounding Building D is urbanized and, as mentioned previously, does not provide suitable habitat for rare or endangered species. No substantial effects to biological resources would result either during proposed demolition of structures and stabilization or restoration actions, or during long-term use of the subject property for research and education purposes under NEPA (and would be less than significant under CEQA).

If demolition and construction activities occur during the raptor nesting season, February 1 through August 31, raptor surveys would be performed within 500 ft of Building D and, if necessary, demolition activities would be restricted to prevent disturbance of active raptor nests. With incorporation of mitigation, potential effects would be less than substantial.

The Proposed Action would not impact wetlands protected by E. O. 11990 and CWCP, since wetlands are not present at the existing SWFSC facility project area. There would be no effect under NEPA (and no impact under CEQA).

4.4.3 Mitigation – Proposed Action

NOAA would implement the following measures to mitigate impacts to biological resources:

If demolition and/or other project-related activities at the existing SWFSC site are expected to occur during the raptor breeding season, February 1 through August 31, a qualified biologist would conduct raptor nest surveys within 500 ft of the project area prior to start of such activities. If active raptor nests are observed, demolition activities within 500 ft of the nests would be suspended until the biologist determines that the nests are no longer active or upon further coordination and agreement with the USFWS.

4.4.4 Impact – No-Action Alternative

Under the No-Action Alternative, proposed demolition of Building A, excavation and soil stabilization, grading and drainage, and seismic retrofit of Building D would not occur. Therefore, there would be no impacts to biological resources.

4.4.5 Mitigation – No-Action Alternative

None required.

4.5 TRANSPORTATION

This Supplemental EIS section focuses on construction traffic associated with the additional demolition work, soil stabilization, and grading and drainage activities at the existing SWFSC facility. Operational impacts associated with the Proposed Action were adequately addressed in the Final EIS/EIR document and this Proposed Action does not change operational traffic.

Construction traffic impacts associated with such a project should be looked upon as temporary impacts, as the activities surrounding demolition, soil stabilization and earthmoving are to occur over a period of approximately ten months. The following analysis is a supplement to the traffic study prepared by Linscott, Law & Greenspan, engineers (LLG), included in this document along with a list of key assumptions presented in Appendix E of the Final EIS/EIR.

4.5.1 Setting

As illustrated in the Final EIS/EIR, City of San Diego Transportation/Circulation and Parking regulations are considered guidance for determining potential impacts. While the City of San Diego Development Services Department's CEQA Significance Determination Thresholds document was updated in January 2011, no changes to traffic criteria for determining effects were made. The following criteria are used to determine whether potential impacts to traffic are considered significant or not significant:

- Would implementation of the proposed project cause a substantial increase in traffic?
- Would implementation of the proposed project result in inadequate parking capacity?
- Would implementation of the proposed project conflict with applicable policies, plans, or programs supporting alternative transportation (for example, bus turnouts, bicycle racks)?
- Would implementation of the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The existing SWFSC is accessed by a two-lane driveway connecting to La Jolla Shores Drive. The driveway approach is controlled by a stop sign and the La Jolla Shores Drive approaches are uncontrolled. There are about 30 parking stalls at the SWFSC site, a number of which are assigned to specific NOAA staff. This amount of parking is inadequate and staff and visitor vehicles regularly park on nearby streets, primarily La Jolla Shores Drive and La Jolla Shores Lane. The new site is undeveloped and lacks road access, although Shellback Way is adjacent to the southern boundary of the site and La Jolla Shores Drive is adjacent to the western, northern, and eastern boundaries of the site.

Roads of concern in proximity to the existing and new SWFSC sites include Expedition Way, Downwind Way, Shellback Way, North Torrey Pines Road, and La Jolla Shores Drive. Expedition Way, Downwind Way, and Shellback Way are paved two-lane unclassified local roadways. La Jolla Shores Drive is a paved two-lane modified collector. North Torrey Pines Road is a paved four-lane major street.

LLG prepared a detailed traffic report for the Proposed Action and performed analysis of the Level of Service (LOS) of a number of intersections and road segments in the vicinity of the existing SWFSC site and new replacement site (see Technical Appendix E in Volume II of the Final EIS/EIR). LLG completed traffic counts at 10 road segments and 10 intersections while UCSD was in session during the week of April 7, 2008. Additional counts were conducted during August 2008 to account for summer traffic conditions. Because the summer time counts were about 10% higher than the academic year counts, the summer counts were used to analyze existing and projected operations of the road segments and intersections in the vicinity of the new site.

The existing traffic volumes at each of these segments are below their daily capacity (see Table 4.5-1). For each road segment, existing daily LOS is D or better, which is considered acceptable.

Table 4.5-1
Existing Street Segment Operations

Street Segment	Daily Capacity (LOS E)	Existing ADT	LOS
N. Torrey Pines Road			
Expedition Way to Torrey Pines Road	40,000	27,368	C
La Jolla Shores Drive			
N. Torrey Pines Road to SWFSC Driveway	15,000	8,720	C
SWFSC Driveway to Biological Grade	15,000	8,640	C
Shellback Way to Downwind Way	15,000	8,440	C
Downwind Way to La Jolla Parkway	15,000	10,760	D
Expedition Way			
N. Torrey Pines Road to Downwind Way	8,000	3,500	B
Downwind Way			
East of La Jolla Shores Drive	8,000	2,960	B
West of Expedition Way	8,000	3,050	B
Shellback Way			
East of La Jolla Shores Drive	2,200	320	C
North of Downwind Way	2,200	440	C

Source: Final EIS/EIR for Replacement of NOAA SWFSC, La Jolla, California – Volume 1, April 2009.

LLG also conducted traffic counts during the AM and PM peak hours at 10 intersections in the vicinity of the existing and new SWFSC sites. Table 4.5-2 gives the existing LOS for these intersections. All of these intersections operate at LOS D or better during the AM and PM peak hours, which is considered acceptable. Although the intersection of La Jolla Shores Drive and Downwind Way operates at LOS A during peak hours, motorists turning left from westbound Downwind Way onto La Jolla Shores Drive experience delays. This turning movement operates at LOS B with 15.7 seconds of delay during the AM peak hour and LOS E with 36.7 seconds of delay during the PM peak hour.

The Proposed Actions of excavation, soil stabilization and grading at the existing SWFSC, as compared with the original Proposed Action as analyzed in the Final EIS/EIR, would increase the duration of construction/demolition activities at the existing site.

It should be noted that after few years of slight declines in overall traffic congestion – attributable to the economic downturn and high fuel prices, the traffic counts conducted in 2008 are considered conservative and still valid for analysis of traffic impacts. Finally, LLG compared vehicular accident rates for the segment of La Jolla Shores Drive between Biological Grade and Downwind Way to national averages for two-lane urban roads. The accident rate of this segment is well below the national average for similarly sized roads in urban environment.

Table 4.5-2
Existing Intersection Operations

Intersection	Control Type	Peak Hour	Average Delay (seconds/vehicle)	LOS
1. N. Torrey Pines Road/La Jolla Shores Drive	Signal	AM	23.6	C
		PM	29.0	C
2. N. Torrey Pines Road/Expedition Way	Signal	AM	16.8	B
		PM	25.6	C
3. La Jolla Shores Drive/Existing SWFSC Driveway	Two-Way Stop	AM	10.3	B
		PM	13.9	B
4. La Jolla Shores Drive/Biological Grade	Two-Way Stop	AM	10.8	B
		PM	12.8	B
5. La Jolla Shores Drive/Shellback Way	Two-Way Stop	AM	10.3	B
		PM	10.3	B
6. Shellback way/Project Driveway	Two-Way Stop	AM	7.4	A
		PM	7.3	A
7. La Jolla Shores Drive/Downwind Way	One-Way Stop	AM	2.6	A
		PM	5.9	A
8. Downwind Way/Shellback Way	One-Way Stop	AM	9.5	A
		PM	10.0	A
9. Downwind Way/Expedition Way	Two-Way Stop	AM	7.3	A
		PM	8.1	A
10. La Jolla Shores Drive/La Jolla Parkway	Two-Way Stop	AM	33.6	C
		PM	46.7	D

Source: Final EIS/EIR for Replacement of NOAA SWFSC, La Jolla, California – Volume 1, April 2009.

4.5.2 Impact – Proposed Action

The Final EIS/EIR document evaluated five separate impacts:

- Impact 1—Traffic Generation during Operation of the Proposed SWFSC Facility;
- Impact 2—Parking Availability;
- Impact 3—Construction Period Impacts to Traffic;
- Impact 4—Traffic Impacts Resulting from Demolition of Buildings B and C; and
- Impact 5—Impacts to Air Traffic.

This SEIS considers activities relevant to the existing SWFSC site discussed herein and included in Impact 4 from the Final EIS/EIR, which have been re-named below.

Impact 4—Traffic Impacts Resulting from Demolition of Buildings A, B and C and Soil Stabilization and Earthmoving Activities Surrounding the New Grading

Demolition of Buildings A, B and C would occur upon completion and occupancy of the new SWFSC building. The demolition period for all three buildings is estimated to last three to six months. During portions of that period, trucks would haul materials and debris to local landfills and

material handling facilities and workers would use private vehicles to commute to and from the demolition site.

Upon completion of demolition activities, activities associated with soil stabilization and other earthmoving activities would occur at the existing SWFSC for installation of a tie-back anchor and grade beam system. Approximately 2,800 CY of excavated material will be hauled away from the site. Soil stabilization, including installation of tie-backs, and earthmoving activities are scheduled over a period of approximately five months, while backfill and soil hauling to offsite locations are scheduled over a period of approximately 2 weeks. Additional site grading and contouring activities and architectural improvements will take place over the remainder of the ten months.

This analysis assumes a total of 16 trucks and 6 passenger cars per day for the duration of 2 months will be utilized for hard demolition of existing site. A Passenger Car Equivalence (PCE) of 4.0 was applied to large construction trucks due to the steep grades in the area. The calculations below show the anticipated number of average daily trips (ADT) generated as a result of the demolition:

Demolition Trips
(Assumed trips occur over a 2-month duration)

16 trucks/day * 2 trips/truck * 4 PCE	=	128 ADT
6 workers/day * 2 trips/worker	=	12 ADT
Total	=	**140 ADT**

In addition during the soil excavation activity approximately 28 trucks a day along with 20 construction workers are needed. It is estimated that 2,800 CY of excavated material will be exported in trucks that have a capacity of 10 CY. Given the 2 weeks or 10 working days schedule, there would be a total of about 280 loaded trucks or approximately 28 trucks per day leaving the site (2,800/10/10). The calculations below show the anticipated number of trips generated as a result of the excavation:

Excavation (2 weeks)

28 trucks/day * 2 trips/truck * 4 PCE	=	224 ADT
20 workers/day * 2 trips/worker	=	40 ADT
Total	=	**264 ADT**

As shown above, it is anticipated the peak traffic activity would occur during soil excavation. The excavation activity due to demolition of Buildings A, B and C at the existing site would generate less daily traffic than construction (928 ADT) of the new SWFSC. Since the construction activities at the new SWFSC does not result in any significant impacts, the demolition and excavation traffic would result in less than significant effect on local streets and intersections. Staging of demolition equipment and remaining material storage would occur within the boundaries of the existing NOAA property. No adjacent properties would be occupied during the demolition period and no closures or restrictions of local roads would be required. As a result, there would be no effects under NEPA (and no impact under CEQA).

4.5.3 Mitigation – Proposed Action

Tra-1: Does not apply to Impact 4.

Tra-2: NOAA would prepare and implement a traffic control plan for the demolition period. The traffic control plan would address lane and/or road closures, emergency access and egress, efficient traffic circulation, and use of flaggers to control traffic and avoid conflicts. The plan would include recommendations, such as signage, detours, and temporary traffic controls. The plan would prohibit construction vehicles from using Downwind Way or the north–south oriented section of Shellback Way (which passes in front of the Keck Center, Nierenberg Hall, Speiss Hall, and associated service yards).

4.5.4 Impact – No-Action Alternative

Impact 1—Traffic Generation

Under the No-Action alternative, the demolition of Buildings A and the soil stabilization and related earthmoving activities at the existing SWFSC facility would not occur. Therefore, no change from the transportation related effects analyzed for the Proposed Action in the Final EIS/EIR would occur.

Consequently, under the No-Action alternative, there would be no effects to transportation under NEPA (and no impact under CEQA).

4.5.5 Mitigation – No-Action Alternative

None required.

4.6 RECREATIONAL RESOURCES

4.6.1 Setting

No federal land subject to review of recreational resources under the National Park Service Organic Act (16 U.S.C. Sections 1–4) for administering areas of national significance or under the Wilderness Act (16 U.S.C. Sections 1131–1136) for federally designated “wilderness areas” are applicable to the Proposed Action. Consistency with recreational and athletic priorities established under UCSD’s 2004 LRDP was considered.

Recreational opportunities are not present at the existing SWFSC project area. The western boundary of the project area generally coincides with the crest of the coastal bluff face. UCSD owns and manages most of the bluff face. The beach at the base of the bluff is open for public recreational use; however, due to the steep slope of the bluff face, there is no access to the beach from the existing SWFSC property.

Public parking is available along La Jolla Shores Drive, and coastal access points, including stairs descending to the beach, are available at the Scripps campus (City of San Diego, 2004).

4.6.2 Impact – Proposed Action

As stated within the Final EIS/EIR, demolition activities to remove Buildings B and C at the existing SWFSC site would occur within the boundaries of the NOAA property. There are no recreational uses or recreational pathways at the NOAA property.

The Proposed Action includes the demolition of Building A at the existing site. Building A is also located within the boundaries of the existing NOAA-owned property. Similar to the demolition process of Buildings B and C, all staging and storage of materials would occur at the NOAA property. Although beach access from the UCSD/SIO campus would not be blocked, it is likely that use of the portion of the beach closest to the NOAA property would be restricted during portions of the demolition period for safety reasons. The demolition period would have an estimated duration of three to six months. Demolition noise effects would be a temporary, intermittent annoyance in adjacent areas, including beach

users. Demolition period impacts to recreational resources would be temporary and less than significant under NEPA (and less than significant under CEQA).

Excavation and soil stabilization, grading and drainage, and seismic retrofitting of Building D activities would occur within the existing NOAA property. Beach access from the UCSD/SIO campus at Scripps Pier would not be blocked; however portions of the beach closest to the NOAA property would be restricted during earthmoving activities for safety reasons. Construction equipment use would be the source of intermittent noise and may be a temporary annoyance to beach users. Project effects to recreational resources would be temporary and less than substantial under NEPA (and less than significant under CEQA).

The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).

4.6.3 Mitigation – Proposed Action

None required.

4.6.4 Impact – No-Action Alternative

There would be no change in demand for recreational resources or direct effects on recreational facilities. Indirectly, Building A would remain a potential safety hazard due to existing geological and structural conditions. Large-scale bluff failure could occur causing portions of the build to slide down the steep slope and onto the beach. The presence of this potential hazard may require restrictions on the use of the adjacent beach. This potential threat, or the physical presence of building debris on the beach, could limit recreational use. The duration of this effect could last indefinitely. Given the intensity and duration of this effect, the potential effect would be substantial under NEPA (and significant under CEQA) unless adequately mitigated through adequate geotechnical methods and means.

4.6.5 Mitigation – No-Action Alternative

NOAA would continue to monitor the rate of bluff retreat and signs of accelerating ground and building failure, such as increase tilting and expansion of tension cracks, at Building A. If warranted, NOAA would inform local authorities of the need to take measures to protect beach users.

4.7 FARMLANDS

4.7.1 Setting

To examine the effects of the Proposed Action on agricultural resources, this analysis considers whether the Proposed Action would be subject to the Farmland Protection Policy Act (FPPA) and similar state or local farmland protection goals. The FPPA sets forth federal policies to prevent the unnecessary and irreversible conversion of farmland to nonagricultural uses. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Prime farmland, as defined by the U.S. Department of Agriculture (USDA), is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forest land, or other land, but it is not urban or built-up land or water areas. Natural Resources Conservation Service (NRCS) regulations at 7 CFR Part 658, *Farmland Protection Policy Act*, are designed to implement those policies. Regulations at 7 CFR 658.2(a) exclude land from definition of farmland as those lands already in urban use or committed to urban development or water storage.

Soil at the existing site is mapped as HrE2, which does not support prime farmland, farmland of Statewide or local importance, or unique farmland.

Regulations at 7 CFR Part 658.2(a) exclude lands already in urban use, committed to urban development, or water storage from definition as farmland. Local land uses and zoning do not apply to UC. The existing SWFSC site is designated by UC for urban land uses, specifically academic uses (UCSD, 2004).

4.7.2 Impact – Proposed Action

No impacts to farmlands would occur. The existing SWFSC site is currently urbanized and not used for agricultural uses. Construction staging areas are not in agricultural use.

As the existing SWFSC project area is committed to urban uses and is not subject to FPPA regulations. Filing of a farmland conversion impact rating form (Form AD-1006) with the NRCS would not be required.

The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).

4.7.3 Mitigation – Proposed Action

None required.

4.7.4 Impact – No-Action Alternative

Under the No-Action Alternative, there would be no impacts to important farmlands.

4.7.5 Mitigation – No-Action Alternative

None required.

4.8 AIR QUALITY

This section focuses only on air pollutant emissions associated with additional demolition work, soil stabilization, and grading and drainage activities at the existing SWFSC facility. For purposes of simplification, emissions resulting from the demolition of Building A, B and C have been included in this analysis, while more minor emissions associated with building upgrades (other than surface coating) have not. Operational impacts associated with the Proposed Action were adequately addressed in the Final EIS/EIS and this Proposed Action does not change operational air quality effects.

Air quality effects associated with such a project should be looked upon as temporary impacts, as the activities surrounding demolition, soil stabilization and earthmoving are to occur over a period of approximately ten months. The following analysis is based on the results of URBEMIS2007 modeling prepared by URS Corporation, included in this document along with a list of key assumptions presented in Appendix C of this SEIS and Appendix F of the Final EIS/EIR. All predicted effects are compared to significance thresholds to determine if the Proposed Action has significant or less-than-significant air quality impacts.

4.8.1 Setting

Ambient air quality standards have been set by both the federal government and the State of California to protect public health and welfare with an adequate margin of safety. Pollutants for which National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) have been set are often referred to as “criteria” air pollutants. The term is derived from the comprehensive

health and damage effects review that culminates in pollutant-specific air quality criteria documents, which precede the establishment of NAAQS.

On the federal level, the USEPA is responsible for the federal Clean Air Act (CAA) of 1970, which established federal NAAQS in 40 CFR Part 50. The federal NAAQS include both primary and secondary standards for six criteria pollutants. These criteria pollutants are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM)—which consists of two classifications, particulate with diameters less than 10 and 2.5 microns (PM_{10} and $PM_{2.5}$, respectively), and lead (Pb). Primary standards have been established to protect human health, and secondary standards have been designed to protect property and natural ecosystems from the effects of air pollution. In addition, USEPA is responsible for the approval of the State Implementation Plan (SIP) to ensure that local districts continue to progress toward attainment status for all criteria pollutants.

On the state level, the California Air Resources Board (CARB) serves to help ensure that federal air quality requirements and guidelines are met. California also has promulgated air quality standards, the CAAQS, which are generally more stringent than the NAAQS. Each NAAQS or CAAQS specifies a concentration and an averaging time over which the concentration is measured. The use of different averaging times are to be protective against either short-term, high-dosage effects or long-term, low-dosage effects. The NAAQS and CAAQS relevant to the Proposed Action are summarized in Table 4.8-1.

At the local level, the San Diego Air Pollution Control District (SDAPCD) is responsible for administrating federal and state air quality regulations, permitting of stationary sources of air emissions, and monitoring of air quality in the San Diego Air Basin (SDAB). SDAPCD and CARB together have prepared and are implementing the SIP for San Diego County. SDAPCD also developed the Regional Air Quality Strategy (RAQS) to meet the attainment goal for the state air quality standards for O_3. Both the RAQS and SIP use future emissions and growth projections, and then determine strategies to reduce emissions through regulatory controls. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. As such, development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS or the SIP; thus, they would most likely have a less than significant impact on air quality.

The following are additional applicable regulatory requirements related to the removal of asbestos prior to building demolition, and to greenhouse gases and global climate change.

Asbestos - Limited interior demolition preparation is scheduled to take place and be followed by hazardous material removal beginning in April 2012. Removal of asbestos-containing building material (ACBM) during demolition of Buildings A, B and C on the Project site shall comply with SDAPCD Rule 361.145 that enforces the National Emission Standard for Hazardous Air Pollutants, 40 CFR 61, Subpart M. Such activity will be permitted by and overseen by the SDAPCD.

Greenhouse Gases and Global Climate Change - The Earth's atmosphere contains a number of naturally present gases that are collectively referred to as greenhouse gases (GHGs). Assembly Bill No. 32 (AB32) defines GHG emissions as all of the following gases: carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6). For the purposes of this analysis, GHG emissions are expressed quantitatively in terms of carbon dioxide equivalents (CO_2e). CO_2e represents CO_2 plus CH_4, N_2O, HFC, PFC and SF_6 with the latter components weighted by their respective global warming potentials. Respectively, CH_4, N_2O and SF_6 have 21, 310 and 23,900 times the warming potential of CO_2. Numerous gases compose the HFC and PFC categories, each having its own global warming potential.

The GHGs trap some portion of the long wave energy radiated from the Earth's surface, thus preventing it from passing through Earth's atmosphere and into space. GHGs are vital to life on earth; without them, the Earth would be an icy planet. For example, CO_2 is also a trace element that is essential to the cycle of life. However, increasing GHG concentrations are believed to be warming the planet.

Table 4.8-1
State and Federal Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		Federal Standards [2]		
		Concentration[3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as primary Standard	Ultraviolet Photometry
	8 Hour	0.070ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15.0 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3) (see footnote 8)	None	
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	—	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)9
	3 Hour	—		—	0.5 ppm (1300 µg/m^3) (see footnote 9)	
	1 Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3) (see footnote 9)	—	
Lead[10]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month	—		0.15 µg/m^3		

Table 4.8-1
State and Federal Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		Federal Standards [2]		
		Concentration[3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
	Average[11]					
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatogrxaphy			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence x			
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			
For more information please call ARB-PIO at (916) 322-2990 California Air Resources Board (09/08/10)						
Source: CARB, 2010.						
See footnotes, below.						

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

8. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

9. On June 2, 2010, the U.S. EPA established a new 1-hour SO2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO2 standard of 0.14 ppm and the annual primary SO2 standard of 0.030 ppm, effective August 23, 2010.

The secondary SO2 standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

National lead standard, rolling 3-month average: final rule signed October 15, 2008.

Human activities generate GHG emissions. Particularly, since the start of industrial times, there has been a buildup of GHG levels in the atmosphere. The human contribution to the increase in atmospheric CO_2e concentrations has resulted primarily from the burning of fossil fuels. Fossil fuel combustion accounts for approximately 98% of CO_2e emissions from human activities. Transportation is the largest category of sources for CO_2e emissions in California, accounting for approximately 41% of the statewide total. Electricity generation accounts for approximately 22% of CO_2e emissions in California, while the industrial sector accounts for approximately 20.5%. In addition, approximately 19% of all electricity, 30% of all natural gas, and 88 million gallons of diesel are used annually to convey, treat, distribute and use water and wastewater.

Currently, the federal, state, and local government agencies do not have GHG emission thresholds of significance, emission limits, or regulations specifically for the construction phase of land use projects. However, GHG emissions from mobile sources and those from operations are regulated by different federal, state, and local level agencies. Federal level "Smartway Truck Efficiency Plan" and the State level "In-use Offroad Diesel Vehicle" program both require and provide measures and activities to be used that will assist in minimizing vehicle emissions. The Federal Executive Order 13514 (EO 13514), "Federal Leadership in Environmental, Energy, and Economic Performance," established GHG emission reductions as an overarching, integrating performance metric for all federal agencies. California introduced AB32, which requires that it design and implement emission reporting, limits, regulations, and other feasible and cost-effective measures to ensure that statewide GHG emissions are reduced to 2000 levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050. After the project demolition, soil stabilization and seismic upgrades have been completed, and if operational GHG emissions are above thresholds, project operations will need to be comply with requirements and GHG reduction goals of EO13514, AB32, and other applicable regulations.

Existing Air Quality

This existing physical setting relative to air quality, including ambient air quality, attainment status and existing sources, are discussed below.

Ambient Air Quality Monitoring - The SDAPCD operates a network of ambient air quality monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of regulated pollutants and determine whether the ambient levels meet the CAAQS and the NAAQS. The nearest ambient monitoring station to the Project site is the San Diego-Overland Avenue station approximately 5.4 miles east-southeast inland of the Project site; this station measures all pollutants except CO and SO_2. The nearest monitoring station to the Project site that measured CO and SO_2 was the San Diego 12th Avenue station, which measured these from 1989 until 2005. In 2005, operations of the 12th Avenue station were moved to the San Diego-Beardsley Street ambient air quality monitoring station. This station has measured all the criteria pollutant concentrations since 2005. Due to its proximity, the San Diego-Overland Avenue station is the most representative station; however, it does not include monitoring for all of the air pollutants of interest. For this reason, the ambient air pollutant concentrations presented in Table 4.8-2 are taken from a combination of the three aforementioned monitoring stations. Lastly, air pollutant concentration data after 2008 for pollutants other than O_3, PM_{10} and $PM_{2.5}$ are not readily available.

Attainment Status - Based upon the results of ambient air quality monitoring in the SDAB, such as those provided and discussed above, areas of the State are classified by USEPA and CARB as attainment, non-attainment, maintenance, or unclassified for the various criteria pollutants. An attainment designation for an area indicates that the area has met the standard for the given pollutant. A non-attainment designation indicates that a measured pollutant concentration violated the standard. Maintenance areas are those that were recently in violation but are now in attainment. An unclassified designation indicates that the data are incomplete and do not support designation of either attainment or non-attainment. The NAAQS attainment status designations for the SDAPCD are shown in Table 4.8-3. San Diego County is classified

as non-attainment of NAAQS for O_3 (8-hour average) and in attainment or unclassified for all other NAAQS. San Diego County is classified as non-attainment of State standards for PM_{10} and $PM_{2.5}$, as well as for O_3 (1-hour and 8-hour averages) (CARB, 2011b).

Table 4.8-2
Ambient Air Pollutant Concentrations
(ppm, unless otherwise indicated)

Pollutant	Averaging Time	2004	2005	2006	2007	2008	Most Stringent Ambient Air Quality Standard	Any Year Above Most Stringent AAQS (Yes/No)
Ozone (O_3)	1-hour	0.105	0.084	0.108	0.088	0.097	0.09	Y
	8-hour	0.087	0.072	0.091	0.076	0.093	0.070	Y
CO	8-hour	3.6	3.9	3.5	5.2	2.5 [a]	9.0	N
	1-hour	5.3	5.3	10.8	8.7	3.1 [a]	20	N
NO_2	Annual Average	0.017	0.017	0.017	0.015	0.011	0.053	N
	1-hour	0.085	0.076	0.091	0.087	0.056	0.100	N
SO_2	24-hour	0.009 [b]	0.009 [a]	0.009 [a]	0.006 [a]	0.007 [a]	0.04	N
	3-hour	0.020 [b]	0.026 [a]	0.030 [a]	0.010 [a]	0.014 [a]	0.5	N
	1-hour	0.042 [b]	0.04 [b]	0.034 [a]	0.018 [a]	0.019 [a]	0.075	N
PM_{10} ($\mu g/m^3$)	24-hour	44	44	42	65	39	50	Y
	Annual Arithmetic Mean	25	22	22	22	24	20	Y
$PM_{2.5}$ ($\mu g/m^3$)	24-hour	28.5	29	26.3	30.6	22.4	35	N
	Annual Arithmetic Mean	10.9	10.15	11.05	10.44	11.75	12	N

Notes:
All values are presented in units of parts per million by volume (ppm), except where noted otherwise. $\mu g/m^3$ is micrograms per cubic meter Unless designated with superscript a or b, provided results are from the nearest monitoring site address to the Project: 5555 Overland Ave, San Diego, CA 92123. (approximately 5.3 miles east-southeast from the Project site)
[a.] Monitoring site address: San Diego-12th Avenue, 330a 12th Ave., San Diego, CA 92112. (approximately 9.4 miles south-southeast from the Project site)
[b.] Monitoring site address: San Diego-Beardsley Street, 1110A Beardsley St, San Diego CA 92112. (approximately 10 miles south-southeast from the Project site)
Source: CARB, 2011a and USEPA, 2007.

Federal Conformity - USEPA regulations at 40 CFR 51.853, *Applicability*, require a conformity determination for Federal transit and highway projects and other Federal actions located in designated non-attainment areas if they exceed thresholds for amount of emissions established by USEPA. Areas that comply with national standards but fail to meet more stringent State of California air quality standards are not subject to Federal conformity requirements (CARB, 2005).

According to SDAPCD Rule 1500, Section (b)(1) of §1551.853 – *Applicability*, the federal conformity threshold for SDAB of 100 tons per year of O_3 precursors (either ROG or NO_X) is based upon its current status as an "other ozone NAA (non-attainment area) outside an ozone transportation region." The SDAPCD is still awaiting a rule-making from USEPA based on a 2007 court decision which will result in

its classification as a "Serious" non-attainment area (with a Federal conformity threshold of 50 tons per year of O_3 precursors). Until that time, the 100 ton per year threshold applies (Carl Selnick, San Diego Air Pollution Control District, personal communication, 2011). Impacts from the Proposed Action are compared to this threshold.

Table 4.8-3
San Diego Attainment Designations

Pollutant	Attainment Status	
	State	Federal
CO	Attainment	Attainment
Lead	Attainment	Attainment
NO_2	Attainment	Attainment
O_3 (1-hour)	Non-attainment	No federal standard
O_3 (8-hour)	Non-attainment	Non-attainment
PM_{10}	Non-attainment	Unclassified
$PM_{2.5}$	Non-attainment	Unclassified
SO_2	Attainment	Attainment
Sulfates	Attainment	No federal standard
Hydrogen Sulfide	Unclassified	No federal standard
Visibility	Unclassified	No federal standard

Source: CARB, 2011b.

Existing Sources of Emissions - The existing SWFSC generates air emissions primarily from operation of Government and commute vehicles. Vehicle emissions include combustion pollutants $PM_{2.5}$, PM_{10}, NO_x, CO, and SO_2. In addition, the existing SWFSC has a backup diesel generator with capacity of 175 kilowatts (kW), which supplies electric power in case of failure of primary power. The generator burns natural gas and operates infrequently for backup and maintenance purposes only. Air pollutants emitted by the standby generator during its infrequent operation include the aforementioned combustion pollutants. The existing SWFSC site is completely covered by buildings, paved parking lots and walkways, and landscaping. There is very little exposed soil, and fugitive dust emissions are minimal.

4.8.2 Impact – Proposed Action

Based on Appendix G of the CEQA Guidelines, University of California CEQA Guidelines, and the City of San Diego Development Services Department's "Significance Determination Thresholds (City of San Diego, 2011)," the following criteria are used to determine whether potential impacts to air quality are considered significant or not significant:

- Would implementation of the Proposed Action result in a conflict with or obstruct implementation of an applicable air quality plan?
- Would implementation of the Proposed Action violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- Would implementation of the Proposed Action have the potential to expose sensitive receptors to increases in carcinogenic or non-carcinogenic pollutant concentrations?
- Would implementation of the Proposed Action produce objectionable odors affecting a substantial number of people?

- Would implementation of the Proposed Action have a cumulatively considerable contribution to a cumulative air quality impact considering past, present, and probable future projects?
- Does the project impede or conflict with the emissions reduction targets and strategies prescribed in or developed to implement AB 32?
- Does the project result in GHG emissions that would hinder or delay the ability of the campus to meet the UC climate change goals contained in the UC Policy on Sustainable Practices?

Specific numerical thresholds of significance for Conformity were obtained as discussed in the previous section, while CEQA thresholds were obtained from the City of San Diego's Development Services Department's January 2011 "Significance Determination Thresholds". While the City's CEQA thresholds are typically only applied to stationary emissions sources, they have been used here to evaluate demolition, soil stabilization, and earthmoving activities as a whole, including mobile sources. Once again, operational emissions associated with the completed Project are assumed to have been adequately addressed in the prior Final EIS/EIR. These aforementioned numerical thresholds are summarized in Table 4.8-4.

Table 4.8-4
Criteria Pollutant Significance Thresholds

Pollutant	City of San Diego CEQA Thresholds of Significance		Federal Conformity Thresholds
	(lbs/day)	(tons/year)	(tons/year)
PM_{10}	100	15	N/A
$PM_{2.5}$	--	--	N/A
NO_X (Ozone precursor)	250	40	100
ROG (Ozone precursor)	137	15	100
SO_X (Sulfur oxides)	250	40	N/A
CO	550	100	N/A
CO_2	N/A		N/A

NOTES:
lbs = pounds.
Federal conformity thresholds were obtained from SDAPCD Rule 1500.
As previously discussed, an expected USEPA rule-making will reduce the Federal conformity threshold to that for a "Serious" non-attainment area (that is, 50 tons per year NO_X or ROG).
CEQA thresholds source: City of San Diego, 2011.

The Final EIS/EIR document evaluated three separate impacts:

- Impact 1—Emissions of Air Pollutants during Construction of the Proposed SWFSC;
- Impact 2—Emissions of Air Pollutants during SWFSC Operation; and
- Impact 3—Emissions of Air Pollutants during Demolition of Buildings B and C.

This analysis addresses the changes proposed to activities contained in Impact 3 from the Final EIS/EIR.

Emissions of Air Pollutants - Demolition of the existing SWFSC Buildings A, B and C would occur after the new SWFSC is fully occupied. During demolition of Buildings A, B and C, crews would operate equipment on-site and haul recyclable materials and debris to local waste handling centers and landfills. This would include stripping of ACBMs from Buildings A, B and C prior to demolition of the three buildings. The demolition period for all three buildings is estimated to last approximately two months

plus one week. During that period, trucks would haul materials and debris to local landfills and material handling facilities, heavy equipment would operate on-site, and workers would use private vehicles to commute to and from the demolition site. These activities would emit criteria pollutants and GHGs.

Upon completion of demolition activities, activities associated with soil stabilization and other earthmoving activities would occur at the existing SWFSC. Soil stabilization will include the excavation of twin trenches to an average depth of approximately 15-20 ft for installation of a tie-back anchor and grade beam system. The excavation is estimated to involve a total soil volume of approximately 11,000 CY, and will encompass all or portions of the footprints of Building B, Building C, and the raised planter (that currently exists between the four buildings) of the existing SWFSC. Approximately 2,800 CY of excavated material will be removed from the site and legally disposed of; the remaining portion will be stockpiled behind Building D. Soil stabilization, including installation of tie-backs, and earthmoving activities are scheduled over a period of approximately five months, while backfill and soil hauling to offsite locations are scheduled over a period of approximately 2 weeks. Related activities will result in criteria pollutant emissions from ground disturbance, soil handling, heavy equipment and mobile source activity (including soil haul trucks and worker vehicles), as well as various fugitive dust sources. Proposed additional site grading and contouring activities, and architectural improvements (e.g., surface coating) will take place over the remainder of the ten months. Likewise, all combustion sources will contribute to the emission of GHGs.

Table 4.8-5 shows the total quantity of air pollutants estimated to be emitted during the demolition period and the soil stabilization and earthmoving activities. The quality of such results are subject to the completeness and accuracy of information provided about the Proposed Action; where necessary, conservative assumptions (e.g. regarding the number and/or types of heavy equipment to be used) may have been used to estimate the emissions that result from the Proposed Action.

The URBEMIS2007 model was used to quantify the emissions shown above, including exhaust emissions from all heavy equipment and vehicles, and dust emissions from ground disturbance. As shown in Table 4.8-5 below, the emissions results are well below the applicable emissions thresholds for all pollutants that have such thresholds. A list of key assumptions used in the analysis is provided in Appendix C of this SEIS and Appendix F of the Final EIS/EIR, along with the URBEMIS2007 modeling results (URBEMIS, 2007).

Based upon the temporary nature of anticipated activities, the Proposed Action would not trigger any of significance criteria discussed above. Therefore, effects due to the Proposed Action would not be substantial under NEPA (and less than significant under CEQA). Finally, since traffic flow changes associated with the Proposed Action would not worsen the Level of Service (LOS) below D at impacted intersections, an analysis of localized carbon monoxide concentrations was not necessary.

Table 4.8-5
Criteria Pollutant and GHG Emissions from Demolition, Soil Stabilization and Earthmoving Activities versus Applicable Significance Thresholds

Pollutant	Estimated Emissions		City of San Diego CEQA Thresholds of Significance		Federal Conformity Thresholds (tons/year)	Significant?
	(lbs/day)	(tons/year)	(lbs/day)	(tons/year)		
PM_{10}	53.9	1.4	100	15	N/A	No
$PM_{2.5}$	10.6	0.4	--	--	N/A	--
NO_X (Ozone precursor)	76.6	3.3	250	40	100	No
ROG (Ozone precursor)	10.2	0.7	137	15	100	No

Table 4.8-5
Criteria Pollutant and GHG Emissions from Demolition, Soil Stabilization and Earthmoving Activities versus Applicable Significance Thresholds

Pollutant	Estimated Emissions		City of San Diego CEQA Thresholds of Significance		Federal Conformity Thresholds (tons/year)	Significant?
	(lbs/day)	(tons/year)	(lbs/day)	(tons/year)		
SO_X (Sulfur oxides)	0.08	0.0	250	40	N/A	No
CO	34.5	1.8	550	100	N/A	No
CO_2	11,959	467	N/A	N/A	N/A	--

NOTES:

lbs = pounds.

Emissions provided in this table are estimates for the demolition of Buildings A, B and C and for soil stabilization and earthmoving activities as calculated using URBEMIS2007.

As previously discussed, an expected USEPA rule-making will reduce the Federal conformity threshold to that for a "Serious" non-attainment area (that is, 50 tons per year NO_X or ROG).

CEQA thresholds source: City of San Diego, 2011.

Federal conformity thresholds were obtained from SDAPCD Rule 1500.

4.8.3 Mitigation – Proposed Action

This section re-states the mitigation contained in the Final EIS/EIR that apply due to Impact 3. Where appropriate, a note has been provided indicating that the particular mitigation does not apply to this analysis. No further mitigation measures were found to be applicable to Impact 3.

Air-1: Does not apply the Impact 3.

Air-2: NOAA would request that construction and demolition contractors implement *SmartWay Truck Efficiency* and anti-idling practices to reduce the amount and effects of GHG emissions during the construction and demolition periods. These practices include retrofitting heavy-duty trucks and vehicles used during construction with the best available —SmartWay Transport and/or CARB-approved technology to reduce GHG. These technologies work by reducing aerodynamic drag and rolling resistance by using cab roof fairings, cab side gap fairings, cab side skirts, and on the trailer side, trailer side skirts, gap fairings, and trailer tail; and using single wide tires or low-rolling resistance tires and automatic tire inflation systems on both the tractor and the trailer.

Air-3: NOAA would prepare and implement Construction Emissions and Management Plan (CEMP) measures during the construction and demolition periods. The CEMP would identify detailed measures to minimize emissions of dust and other air pollutants, such as:

- Stabilization of unpaved roads at the construction and demolition sites using water, chemical dust suppressants, and/or other stabilization techniques;
- Pre-soaking and/or periodic sprinkling of areas to be cleared of vegetated and/or graded areas with water;
- Periodic sweeping of streets surrounding the construction and demolition sites, to minimize dust emissions;
- Limiting vehicle speeds on unpaved roads and areas to 15 mph;
- Prompt revegetation of areas of exposed soil as soon as construction/demolition activities are completed;

- Encouragement by NOAA for contractors to use alternate fuels and retrofit existing engines in construction equipment, to the extent that equipment is available and cost effective;
- Limiting idling time of construction and demolition equipment to 10 minutes when not in use; and
- Specify that contracts for demolition of Buildings A, B and C, soil stabilization and earthmoving activities at the existing SWFSC facility will require medium- and large-size construction fleets to comply with CARB regulations for in-use off-road diesel vehicles (California Code of Regulations, Title 13, Motor Vehicles, Article 4.8, Section 2449).

Air-4: Does not apply the Impact 3.

Air-5: Does not apply the Impact 3.

Air-6: Does not apply the Impact 3.

Air-7: Does not apply the Impact 3.

4.8.4 Impact – No-Action Alternative

Under the No-Action alternative, the demolition of Buildings A and the soil stabilization and earthmoving activities at the existing SWFSC facility would not occur. The air quality impacts identified in the Final EIS/EIR would result.

Impact 1, Emissions of Air Pollutants during Construction of the Proposed SWFSC, and Impact 2, Emissions of Air Pollutants during SWFSC Operation, are not applicable to the No-Action Alternative being analyzed in this SEIS.

Impact 3, Emissions of Air Pollutants during Demolition of Buildings B and C, found in the Final EIS/EIR are relevant to this analysis. Demolition of Buildings B and C would occur after the new SWFSC is fully occupied. During demolition of Buildings B and C, crews would operate equipment on-site and haul recyclable materials and debris to local waste handling centers and landfills. This would include stripping of ACMs from Buildings B and C prior to demolition of the two buildings. Demolition would require fewer trips and a smaller crew of workers than construction (60 vehicle trips per day are assumed). The demolition period is expected to last for three to six months. During that period, trucks would haul materials and debris to local landfills and material handling facilities, heavy equipment would operate on-site, and workers would use private vehicles to commute to and from the demolition site. These activities would emit criteria pollutants and GHGs as follows: $PM_{2.5}$ – 0.02 tons/year; PM_{10} – 0.02 tons/year; NO_X – 24.8 tons/year; and CO_2 – 0.75 tons/year.

4.8.5 Mitigation – No-Action Alternative

None required.

4.9 NOISE AND VIBRATION

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and that interferes with or disrupts normal activities. Although prolonged exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise; the perceived importance of the noise, and its appropriateness in the setting; the time of day and the type of activity during which the noise occurs; and the sensitivity of the individual.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by several variables, including frequency and intensity. Frequency describes the pitch of the sound and is measured in Hertz (Hz), while

intensity describes the sound's loudness and is measured in decibels (dB). Decibels are measured using a logarithmic scale. A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions (refer to Table 4.9-1). Normal speech has a sound level of approximately 60 dB. Sound levels above approximately 110 dB begin to be felt inside the human ear as discomfort and eventually pain at 120 dB and higher levels. The minimum change in the sound level of individual events that an average human ear can detect is about 1 to 2 dB. A 3 to 5 dB change is readily perceived. A change in sound level of about 10 dB is usually perceived by the average person as a doubling (or if -10 dB, halving) of the sound's loudness.

Due to the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically; however, some simple rules are useful in dealing with sound levels. For instance, if a sound's energy is doubled, the sound level increases by 3 dB, regardless of the initial sound level. By way of example: 60 dB + 60 dB = 63 dB, and 80 dB + 80 dB = 83 dB.

Sound level is usually expressed by reference to a known standard. This report refers to sound pressure level (SPL, or Lp) and sound power level (PWL, or Lw). In expressing sound pressure on a logarithmic scale, the sound pressure is compared to a reference value of 20 micropascals (µPa). SPL depends not only on the power of the source, but also on the distance from the source and on the acoustical characteristics of the space surrounding the source. PWL, on the other hand, is independent of these environmental factors. To help distinguish the two descriptors, one may use a lighting analogy: the wattage of a light bulb when turned on will be a constant 100 watts, but the brightness or intensity of the light changes with receiver distance and other parameters (e.g, are the room walls painted white, which is reflective, or an absorptive black color?).

Hertz (Hz) is a measure of how many times each second the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates a number of times per second. When the drum skin vibrates 100 times per second it generates a sound pressure wave that is oscillating at 100 Hz, and this pressure oscillation is perceived by the ear/brain as a tonal pitch of 100 Hz. Sound frequencies between 20 and 20,000 Hz are within the range of sensitivity of the best human ear.

Sound from a tuning fork contains a single frequency (a pure tone), but most sounds one hears in the environment do not consist of a single frequency and instead are composed of a broad band of frequencies differing in sound level. The method commonly used to quantify environmental sounds consists of evaluating all frequencies of a sound according to a weighting system that reflects the typical frequency-dependent sensitivity of average healthy human hearing. This is called "A-weighting," and the decibel level measured is called the A-weighted sound level (dBA). In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA "curve" of decibel adjustment per octave band center frequency (OBCF) to a "flat" or unweighted SPL.

Although sound level value may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a mixture of noise from distant sources that creates a relatively steady background noise in which no particular source is identifiable. A single descriptor called the equivalent sound level (Leq) may be used to describe sound that is changing in level. Leq is the energy-mean dBA during a measured time interval. It is the "equivalent" constant sound level that would have to be produced by a given source to equal the acoustic energy contained in the fluctuating sound level measured. In addition to the energy-average level, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum Leq (Lmax) and minimum Leq (Lmin) indicators that represent the root-mean-square maximum and minimum noise levels measured during the monitoring interval. The Lmin value obtained for a particular monitoring location is often called the acoustic floor for that location.

To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. They are the noise levels exceeded 10 percent, 50 percent, and 90 percent of the measured time interval. Sound levels associated with the L10 typically describe transient or short-term events. Half of the sounds during the measurement interval are softer than L50 and half are louder, so it is often called the "median" sound level. Levels associated with L90 often describe background noise conditions and/or continuous, steady-state sound sources.

Finally, a sound measure known as the Day-Night Average Noise Level (Ldn) is defined as the A-weighted average sound level for a 24-hour day with a 10-dB penalty added to nighttime sound levels (10:00 PM to 7:00 AM) in order to compensate for increased sensitivity to noise during usually quieter nighttime hours. The Community Noise Equivalent Level (CNEL) is also defined as the A-weighted average sound level for a 24-hour day. It is calculated by adding a 5-dB penalty to sound levels in the evening (7:00 PM to 10:00 PM) and a 10- penalty to sound levels at night (10:00 PM to 7:00 AM), thus providing somewhat greater compensation than Ldn for increased sensitivity during such time periods when a quiet environment is expected. The CNEL is used by various agencies to define acceptable land use compatibility with respect to environmental noise.

Sound levels of typical noise sources and environments are provided in Table 4.9-1 to provide the reader a frame of reference.

Table 4.9-1
Sound Pressure Levels of Typical Noise Sources and Noise Environments

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 1000 ft (300m)	110-100	Rock Band
Gas Lawn Mower at 3 ft (1 m)	100-90	
Diesel Truck at 50 ft (15m), at 50 mph (80km/hr)	90-80	Food Blender at 3 ft (1 m)
Commercial Area, Gas Lawn Mower at 100 ft (30m)	70	Vacuum Cleaner at 10 ft (3 m)
Heavy Traffic at 300 ft (90 m)	60	Normal Speech at 3 ft (1 m)
Quiet Urban Daytime	50-40	Large Business Office
Quiet Urban/Suburban Nighttime	40-30	Theater, Large Conference Room (Background)
Quiet Rural Nighttime	30-20	Library, Bedroom at Night, Concert Hall (Background)
	20-10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	

Source: Caltrans, 2009.

Vibration is also analyzed in this section. Unlike the case for gases and liquids, there are several types of wave motion in solids including compression, shear, and torsion and bending. The solid medium can be excited by forces, moments or pressure fields. This leads to the terminology "airborne" (pressure fields) or "structure-borne/ground-borne" (forces and moments) vibration.

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be comprised of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hz. Most environmental vibrations consist of a composite, or "spectrum" of many frequencies, and generally are classified as broadband or random vibrations. The normal frequency range of most ground-borne vibration, which can be felt, generally starts from a low frequency of less than 1 Hz to a high of about

200 Hz. Vibration information for this report has been described in terms of the peak particle velocity (PPV) measured in inches per second (in/sec).

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. High-frequency vibrations reduce much more rapidly than do low frequencies, so that in the far-field zone distant from a source, the low frequencies tend to dominate. Soil properties also affect the propagation of vibration. When ground-borne vibration interacts with a building, there is usually a ground-to-foundation coupling loss; but the vibration also can be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. The vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as ground-borne noise.

Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. If traffic, typically heavy trucks, does induce perceptible building vibration, it is most likely an effect of low-frequency airborne noise or ground characteristics.

Building structural components also can be excited by high levels of low-frequency airborne noise (typically less than 100 Hz). The many structural components of a building, excited by low-frequency noise, can be coupled together to create complex vibrating systems. The low-frequency vibration of the structural components can cause smaller items such as ornaments, pictures, and shelves to rattle, which can cause annoyance to building occupants.

Human sensitivity to vibration varies by frequency and by receiver. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes.

Construction/demolition activities can produce varying degrees of ground vibration, depending on the equipment and methods employed. Ground vibrations from construction/demolition activities very rarely reach levels high enough to cause damage to structures, although special consideration must be made in cases where fragile historical buildings are near the project site. The construction/demolition activities that typically generate the highest levels of vibration are blasting and impact pile driving - neither of which may be expected to occur as part of demolition activities associated with the Proposed Action.

Ground-vibration levels from construction/demolition activities vary considerably depending on soil conditions. Among the most important factors are the stiffness and internal damping properties of the soil and its depth to bedrock. Experience with ground-borne vibration suggests that vibration propagation is more efficient in stiff clay soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in ground-borne vibration problems at large distances from the source. Factors such as layering of the soil and depth to water table can have substantive effects on the propagation of ground-borne vibration. Table 4.9-2 presents PPV levels at a distance of 25 ft from measured data of various types of construction/demolition equipment (FTA, 2006). Although the table gives one level for each piece of equipment, it should be noted that there is a considerable variation in reported ground-vibration levels from construction/demolition activities. The data provides a reasonable estimate for a wide range of soil conditions.

Table 4.9-2
Vibration Source Levels for Construction/Demolition Equipment

Equipment		PPV at 25 Feet (inch per second)
Pile driver (impact)	Upper Range	1.518
	Typical	0.644
Pile driver (vibratory)	Upper Range	0.734
	Typical	0.170
Vibratory roller		0.210
Large bulldozer		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003

Source: FTA, 2006.

Vibration from construction/demolition can be evaluated for potential impacts at sensitive receivers. Typical activities evaluated for potential building damage due to construction/demolition vibration include demolition, pile driving, and drilling, or excavation in proximity to structures. The ground-borne vibration can also be evaluated for perception to reduce or eliminate annoyance or its likelihood. Vibration propagates according to the following expression, based on point sources with normal propagation conditions:

$$PPV_{equip} = PPV_{ref} (D_{ref}/D)^{1.5}$$

where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for distance

PPV_{ref} = the reference vibration level in in/sec at 25 ft

D_{ref} = the reference distance (25 ft if using data from Table 4.9-2)

D = the distance from the equipment to the receiver

4.9.1 Setting

As illustrated in the Final EIS/EIR, the NOAA and USCD are not subject to local noise ordinances; however, City of San Diego noise regulations are considered guidance for determining potential impacts to noise-sensitive receivers. The Final EIS/EIR describes such guidance, which includes the following summary:

- EPA – 55 dBA exterior noise, 45 dBA interior noise limits for communities.
- City of San Diego Noise Ordinance – 75 dBA Leq construction noise limit, at a residential receiver, during the 12-hour period from 7am to 7pm.

While the City of San Diego CEQA Significance Determination Thresholds document was updated in January 2011, no changes to applicable noise thresholds were made (City of San Diego, 2011). As the Proposed Action comprises demolition, excavation, and other temporary activities, the applicable significance criteria relate to the duration and intensity of the effect, including:

- Would implementation of the Proposed Action result in a substantial temporary or periodic increase in ambient noise levels in the project?

- Would implementation of the Proposed Action or No-Action alternative result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

Noise in the vicinity of the SWFSC new and existing sites are generally as described in the April 2009 Final EIS/EIR, but with the expected additional contribution of new SWFSC facility construction related activity noise to the ambient sound environment.

The increased extent of demolition (i.e., to now include the majority of Building A, as well as Buildings B and C) as compared with the original Proposed Action as analyzed in the Final EIS/EIR, and the added Proposed Actions of excavation, soil stabilization and grading at the existing SWFSC as described in the Proposed Action narrative (see Section 3.1), will increase the intensity and duration of construction / demolition activities at the existing site where there are nearby noise-sensitive receivers immediately to the north of the site boundary. The Final EIS/EIR, in contrast, analyzed impacts at these receivers with respect to construction activity at the "preferred" site on the south side of La Jolla Shores Drive—where construction of the new facility is taking place. Thus, the distance between these northern receivers and the demolition and construction activities proposed to occur as close as the northern end of the existing SWFSC site (i.e., at Building A and the northern parking lot) is considerably less than the 185 ft studied in the Final EIS/EIR and, from a noise and vibration perspective, an important physical parameter in the impact assessment of the Proposed Action.

4.9.2 Impact – Proposed Action

Completion of the Proposed Action would have no more than a minor change to the operations at the remaining Building D and the existing site and the new facility at the preferred site. Noise associated with building HVAC and traffic flows would be comparable to what is described in the Final EIS/EIR.

Consistent with the approach adopted by the Bureau of Land Management (BLM, 2005), construction/demolition noise can reasonably be estimated from the two loudest equipment types generally operating at a site. As these types may differ with phase or activity, Table 4.9-3 below presents the anticipated loudest two types for each distinct phase/activity of the Proposed Action. The composite site noise level represents the logarithmic sum of the indicated equipment, adjusted by acoustical usage factor (i.e., the percentage of time during which the equipment is actually operating and thus producing sound). For purposes of predictive analysis conservatism, 3 dBA is then algebraically added to this result.

The concrete pump truck listed for soil stabilization is assumed to be part of constructing the tie-back anchors, as described in Section 3.1. The difference between the composite site noise level at 50 ft and a level at some greater distance away is due largely to naturally occurring sound attenuation as noise propagates away from a source (a.k.a., geometric divergence). Conservatively, attenuation from linearly-occluding terrain, and acoustical absorption from ground effects is ignored. In general, and although affected by temperature and humidity, atmospheric acoustical absorption offers attenuation at a rate of about 1 dBA per thousand feet of horizontal distance that a sound travels.

As the Proposed Action includes both buildings being demolished and activity near the site boundaries, predicted demolition noise is evaluated at a noise-sensitive receiver from four potential generalized aggregate sound sources having "acoustic centers" as follows:

- The geographic central point of the building to be demolished (C, B, and A).
- An existing site property boundary location nearest to the receiver at which sawcuts may occur (see Miscellaneous), near the northern parking lot of the existing site.

Table 4.9-3
Typical Construction Phases and Composite Noise Levels Expected for Project

Construction Phase or *Special Activity*	Anticipated Loudest Construction Equipment *	Equipment Noise Level (Lmax, dBA) at 50 feet **	Acoustical Usage Factor (%) **	Composite Site Noise Level (hourly Leq, dBA) at 50 feet
Structure Demolition	Dump truck Excavator (qty = 2)	84 85	40 40	88
Site Removal	Dump truck Backhoe	84 80	40 40	84
Trenching/Backfill/Grading	Dump truck Compactor	84 80	40 20	84
Miscellaneous	Concrete saw Pneumatic tools	90 85	20 50	89
Soil stabilization	Rock drill Concrete pump truck	85 82	20 20	83

Sources: * URS, 2011; ** FHWA, 2006.

With these conditions in mind, anticipated demolition noise that might be measured at the closest northern noise-sensitive receivers can be estimated for reasonable worst cases and are presented in the following paragraphs and depicted as noise contours in Appendix B, Noise Data.

Predicted Results

Using the afore-described methodology, Table 4.9-4 presents the estimated demolition noise levels for each of the anticipated phases shown in Table 4.9-3 at the nearest northern representative noise-sensitive receiver under consideration. Aggregate noise associated with each of the buildings (Building A, Building B, and Building C) are shown separately, as their construction is not expected to be concurrent.

Table 4.9-4
Estimated Daytime Construction Noise per phase (average hourly Leq)

Phase	Northern Parking Lot		Building C		Building B		Building A	
	Distance to Rcvr. (feet)	Est. Noise (dBA)	Distance to Rcvr. (feet)	Est. Noise (dBA)	Distance to Rcvr. (feet)	Est. Noise (dBA)	Distance to Rcvr. (feet)	Est. Noise (dBA)
Structure Demolition	n/a	n/a	320	72	200	76	136	80
Site Removal	n/a	n/a	320	68	200	72	136	76
Trenching/ Grading	n/a	n/a	320	67	200	72	n/a	n/a
Miscellany	50	88	320	72	200	76	136	80
Soil Stabilization	n/a	n/a	320	66	200	71	n/a	n/a

Source: URS, 2011.

Depending on activity as shown in Table 4.9-4, the anticipated average hourly Leq ranges from 66 to 88 dBA at the nearest residential receiver. With terrain and ground effects applied, which could include the presence of one or more of the SWFSC existing buildings awaiting structural demolition, the range of expected noise values at the same receiver location could be different (47 to 84 dBA, largely due to barrier effect afforded by standing buildings) as shown in Table 4.9-5, and as illustrated by predicted noise contours shown in Appendix B, Noise Data. In these displays, the colored contours represent locations having the same sound pressure level (i.e., much like contour lines of like-elevation on a topographical map), with the inner-most contour at 90 dBA, and the outer-most at 60 dBA. For purposes of clarity, these contours are shown at a resolution of 5 dBA decrements, and SPL contours lower than 60 dBA are omitted.

Table 4.9-5
Estimated Daytime Construction Noise per selected phase, including ground and terrain effects (average hourly Leq)

Estimated Noise (dBA)	Phase Scenario Description	Figure
84.3	Miscellaneous (concrete saw noise) at north parking lot with all buildings intact	1
47.4	Structural Demolition of Bldg. C, with Bldgs. A, B and D intact	3
53.9	Structural Demolition of Bldg. B, with Bldgs. A and D intact	4
77.3	Structural Demolition of Bldg. A, with Bldg. D intact	5
68.4	Trenching/Grading at the area of Bldg. B, with Bldg. D intact	6

Source: URS, 2011.

As noted in the Final EIS/EIR, the structure of the nearby residence (with windows closed) might be expected to provide an additional 25 dBA of attenuation, which would then result in interior noise levels, adjusted from Table 4.9-5, of 22 to 59 dBA. Above 45 dBA, these noise levels could interfere with normal communication and thus be considered a potentially significant impact. To mitigate this potentially significant impact, construction noise abatement measures contained in the UCSD 2004 LRDP EIR would be applied to demolition of Buildings A, B and C at the existing SWFSC. These measures would reduce this effect to less than substantial under NEPA (and less than significant under CEQA).

Vibration

In summary, the Final EIS/EIR refers to California Department of Transportation (Caltrans) and Federal Railway Administration (FRA) guidance for vibration thresholds as follows:

- Human perception, in terms of peak particle velocity (PPV), as 0.006 inch per second (ips).
- Annoyance due to continuous vibrations = 0.010 ips.
- Potential architectural damage to conventional structures = 0.2 ips.

The proposed demolition activity at the existing SWFSC site using conventional construction/demolition equipment (Table 4.9-2) is considered to be a continuous, aggregate steady-state vibration source. (In contrast, controlled explosive demolition techniques—which are not part of the Project—would be considered transient or infrequent during the same period.) Vibration annoyance and building/structure damage thresholds for continuous sources are less than those for single-event or transient sources. Table 4.9-6 summarizes results from studies conducted to assess human response to steady-state (continuous) and transient vibration.

Table 4.9-6
Guideline Criteria for Potential Vibration Annoyance to Humans

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

Source: Caltrans, 2004.

The American National Standards Institute (ANSI) guide for human exposure to vibration (ANSI S3.29-1983) bases the threshold of complaint (i.e., annoyance) at the level of perception (Dowding, 1996). On this basis, the PPV value of 0.015 ips, as defined by the Federal Transit Administration, describes "feelable vibration" and could reasonably be considered the impact criterion for ground-borne vibration (FTA, 2006). This vibration level also falls within the 0.01 to 0.04 ips range shown in Table 4.9-6 above for continuous vibration sources, but is somewhat less conservative than the 0.006 value described in the Final EIS/EIR.

To assess the building damage potential from ground vibration induced by demolition equipment, a synthesis of various vibration criteria is presented in Table 4.9-7. This synthesis of criteria essentially assumes that the threshold for continuous sources is about half of the threshold for transient sources (Caltrans, 2004).

Table 4.9-7
Guideline Criteria for Potential Vibration Damage to Structures

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Steady-state/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Source: URS, 2011.

The 0.3 ips maximum PPV value for "older residential structures" is greater than the 0.2 ips value used in the Final EIS/EIR, but still seems conservatively appropriate for the nearby residences to the north of the existing site.

Assuming the greatest expected magnitude of vibration from equipment is 0.2 ips at 40 ft, per the Final EIS/EIR and using the previously presented vibration propagation expression, one can estimate PPV at the nearest receiver. If the same acoustic centers are used as from the noise analysis, Table 4.9-8 presents predicted results.

Compared to the 0.015 ips annoyance threshold, only when activity takes place in the vicinity of Building B is vibration considered insignificant at the nearest residential receiver. All predicted levels are below the threshold for potential building damage.

Table 4.9-8
Predicted Vibration Peak Particle Velocity At Nearest Receiver

Source Location	Northern Parking Lot	Building C	Building B	Building A
Distance to Receiver (feet)	50	320	200	136
Estimated PPV (ips)	0.143	0.009	0.018	0.032

Source: URS, 2011.

As observed in the Final EIS/EIR, the Keck Center for Ocean Atmospheric Research houses a number of scientific research activities that may be more sensitive to vibrations than buildings or people and is located to the south of the existing SWFSC site area where the demolition, trenching and soil stabilization activities of the Proposed Action are expected to occur. However, ground-borne vibrations tend to dissipate rapidly with distance, and are likely to do so to PPV levels that would not impact these research activities significantly, as recent construction vibration monitoring results at the Keck Center (from activities at the new SWFSC site) suggest (Wieland, 2010). Effects due to vibration would not be substantial under NEPA (and less than significant under CEQA).

4.9.3 Mitigation – Proposed Action

The anticipated noise and vibration mitigation measures are essentially similar to those presented in the Final EIS/EIR, and as applicable to the activities of the Proposed Action, are recommended as follows.

Noi-1: NOAA would require construction and demolition contractors to comply with the construction noise abatement measures contained in the UCSD 2004 LRDP EIR, which are listed below.

- Construction or demolition activities would be implemented in a manner that prevents the 12-hour average sound level from exceeding 75 dBA between 7:00 AM and 5:00 PM on Monday through Friday at the following noise sensitive land uses: residences located north of the existing SWFSC site and the Keck Center for Ocean Atmospheric Research.
- Construction and demolition vehicles and equipment would be properly outfitted with manufacturer-recommended noise-reduction devices maintained in good working order.
- Stationary construction and demolition equipment, such as generators, pumps, and batch plants, would be located as far as possible (at least 100 ft) from the residences located north of the existing and preferred SWFSC sites and the Keck Center for Ocean Atmospheric Research.
- Laydown and staging areas for construction and demolition activities would be located as far as feasible from the residences located north of the existing and preferred SWFSC site and the Keck Center for Ocean Atmospheric Research.
- Residents of houses located north of the existing and preferred SWFSC site and occupants of the Keck Center for Ocean Atmospheric Research would be informed at least two weeks prior to the start of SWFSC demolition of Buildings A, B and C.

4.9.4 Impact – No-Action Alternative

As described in the Final EIS/EIR for actions proposed in 2009, demolition of Buildings B and C at the existing site would require use of heavy equipment and trucks. No use of explosives is proposed. Impact equipment would be used and would intermittently generate noise levels of 81 to 104 dBA. The nearest sensitive receptor is a private residence located 160 ft north of Building B. At that distance, demolition noise would attenuate by about 9 dB, resulting in exterior noise levels of 72 to 95 dBA. The residential structure (with windows closed) would provide an additional 25 dBA of attenuation, reducing interior noise levels to 47 to 70 dBA. These noise levels could interfere with normal communication. Although demolition noise events would be intermittent during the roughly six-month demolition period, demolition noise could be a significant impact.

4.9.5 Mitigation – No-Action Alternative

To mitigate this potentially significant impact, construction noise abatement measures contained in the UCSD 2004 LRDP EIR would be applied to demolition of Buildings B and C at the existing SWFSC. In addition, the noise mitigation measures described for the Proposed Action should be implemented. Implementation of these mitigation measures would reduce this effect to a less than significant level under NEPA (and an impact less than significant under CEQA).

4.10 VISUAL AESTHETICS

4.10.1 Setting

Neither NEPA nor any federal agency provides specific impact criteria or standards for determining the significance of visual/aesthetic resources impacts. However, of the ten issues listed in NEPA as being important to consider, three appear relevant to visual resource impact assessment: the unique character of the affected resource, the potential for controversy, and the potential to violate laws and regulations. A framework for analysis of visual effects on federal lands was developed by the Bureau of Land Management in 1978 and USDA (National Forest Service) in 1974. These frameworks are applicable to large federal landholdings and actions evaluated under an environmental impact statement. However, concepts from these methodologies can be applied to provide a basis for assessing effects within an EA for lesser federal actions proposed on non-federal land parcels. The concepts include actions to:

- Identify those views potentially affected and for which the public may express concern.
- Describe the existing visual conditions and potentially affected critically sensitive views.
- Estimate the intensity of possible adverse visual impacts on those views.
- Evaluate the significance of the possible impacts.
- Mitigate, as needed, using measures to lessen the impact to a level that is less than significant.

This analysis considers the visual resources and condition of potentially affected views. These resources may include landforms, vegetation, water surfaces, and cultural modifications (physical changes caused by human activities) that give the landscape a visually aesthetic quality. This impression is referred to as "visual character," a point of reference to assess whether a given project would appear compatible with the setting or would contrast unfavorably with them. Potentially significant visual impacts are those that:

- Cause a perceptibly substantial reduction of visual quality, including the degree of public sensitivity, the intensity of the impacts, and the duration of the impact.
- Be inconsistent with specific laws, ordinances, regulations or standards pursuant to general planning policies or objectives for the protection of the quality of aesthetics and visual resources.

In this case, a level of impact beyond negligible may occur to important landscapes with moderate or high visual sensitivity. This sensitivity is assumed to exist where landscapes, particular views, or the visual characteristics of certain features are protected through policies, goals, objectives, and design controls in public planning documents or where critical views are subject to sensitive public interest and concern.

The existing SWFSC facility consists of four three- to four-story buildings constructed in the mid-1960s. The buildings are connected and surround an interior courtyard. The buildings have bare concrete façades with prominent balconies and open-air walkways on each level on all sides of the buildings. These buildings are similar in height and bulk to other large buildings on the SIO campus.

Views of the buildings are available primarily from La Jolla Shores Drive, a two-lane paved arterial street located east of the buildings. La Jolla Shores Drive is fairly steep and climbs upward from south to north as it passes the existing SWFSC. The entrance drive to SWFSC curves sharply and descends into the NOAA site. SWFSC buildings are set back roughly 200 ft from La Jolla Shores Drive. To the south of the

SWFSC site, northbound motorists, bicyclists, and pedestrians on La Jolla Shores Drive obtain partially obstructed views of SWFSC buildings, due to intervening SIO buildings and mature trees and landscaping. Because of the sharp curve of the entrance drive, clear views of SWFSC buildings are generally not available from the intersection of the entrance drive with La Jolla Shores Drive. To the north of SWFSC, La Jolla Shores Drive continues to climb uphill and makes a broad "S" curve, turning to the east, to the south, and then back east and northward. An eastern berm on the southern shoulder of the road prevents southbound travelers from seeing to the south and east until they clear the "S" curve and are almost adjacent to SWFSC.

The existing SWFSC buildings are located at the crest of a 180 ft high coastal bluff. Due to the steepness of the bluff, views of the buildings are difficult to obtain from the relatively narrow beach at the base of the bluff. Persons boating or surfing on the Pacific Ocean west of the SWFSC site would see the existing SWFSC building at the crest of the bluff. Because the bluff is about three times taller than the buildings, the buildings would appear as subdued visual elements at the top of the bluff.

The LCP states that "La Jolla is a community of significant visual resources." La Jolla Shores Drive in the vicinity of the SIO campus is classified as a road from which coastal waters are visible and the viewshed from this segment of road is considered an important visual resource (City of San Diego, 2008b).

The California Coastal Commission, within its authority under the California Coastal Act, places a high value and importance on view corridors and affording the public access to ocean views. This review authority is discussed in Section 4.1, Land Use and Coastal Zone Management.

The City and County of San Diego have adopted light pollution or "dark sky" policies to protect astronomical observations that occur in the area, UCSD has similarly developed outdoor lighting polices to prevent unnecessary nighttime lighting; UCSD lighting design guidelines recommend exterior lighting with emissions characteristics that allow filtering by astronomical observatories (UCSD, 2004b).

4.10.2 Impact – Proposed Action

As analyzed in the Final EIS/EIR, demolition and removal of Buildings B and C at the existing SWFSC project area would result in the removal of two large visual elements. However, when viewed from La Jolla Shores Drive, a primary public viewing area, Buildings B and C are primarily behind Buildings A and D. Demolition of Buildings B and C would have little effect on views from La Jolla Shores Drive. In views from the Pacific Ocean, the removal of Buildings B and C from the bluff top would reduce the visual prominence of the exiting SWFSC. Building D is the farthest from the bluff crest and would generally not be visible to viewers on the ocean.

The Proposed Action would remove Building A in addition to Buildings B and C. Demolition of Building A would provide additional, brief unobstructed ocean views to southbound motorists on a limited portion of La Jolla Shores Drive, and potentially to some residences to the northeast. A cement stairwell at the north of Building D would remain as a noticeable visual element. An observation area will be installed that is accessible to the public and would provide greater visual amenities. The effect of proposed additional parking and landscaping to replace Building A following demolition would be minor. The Proposed Action would result in a minor positive effect upon visual resources.

Excavation and soil stabilization, grading and drainage, and seismic retrofitting of Building D would create minimal construction impacts to visual aesthetics. The impacts to the surrounding area would be temporary. No new vertical elements would be introduced and other permanent features would be below ground and not obstruct views of the ocean from La Jolla Shores Drive or adjacent properties.

The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).

4.10.3 Mitigation – Proposed Action

Existing mature trees at the existing SWFSC would be retained to the maximum extent feasible during demolition of Buildings A, B, and C.

4.10.4 Impact – No-Action Alternative

Under the No-Action Alternative, the proposed demolition of Building A, excavation and soil stabilization, grading and drainage, and seismic retrofit of Building D would not occur. Therefore, no change from the visual aesthetics related effects analyzed for the Proposed Action in the Final EIS/EIR would occur.

4.10.5 Mitigation – No-Action Alternative

None required.

4.11 HISTORIC AND CULTURAL RESOURCES

4.11.1 Setting

Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) requires Federal agencies to consider the effects of their actions on historic places and to seek comments from the State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation. Section 106 requirements are set forth in 36 CFR Part 800, *Protection of Historic and Cultural Properties.* Additional NOAA compliance procedures for managing places of cultural, historical, and scientific importance are contained in NAO 216-6. In consideration of NOAA's requirements under NHPA Section 106, places listed or eligible for listing on the National Register of Historic Places (NRHP) at or near current SWFSC sites, were identified in a cultural survey (Hector, 2008). The State of California requires evaluations of the significance of prehistoric and historic resources within the State per California PRC Section 5020. The California Registry of Historical Resources (CRHR) is maintained by the SHPO and contains resources listed on the NRHP.

A Phase I Cultural Survey was conducted for the existing SWFSC project area. Phase I Cultural Survey results and historical database searches are outlined in *Cultural Resource Report for Proposed NOAA SWFSC Relocation* (Hector, 2008) contained in the Final EIS/EIR, and were prepared in conformance with NHPA and NEPA. A records search for the area within 0.25 mi of the existing SWFSC project area was conducted at the National Register Information System (NRIS) and the South Coastal Information Center (SCIC). In addition, a Sacred Lands search request was submitted to the Native American Heritage Commission.

SIO was established in 1903 as the San Diego Marine Biological Institution at the Coronado Boat House. In 1905, the Institution purchased 170 acres at La Jolla Cove to be used for constructing a permanent facility. The George H. Scripps Laboratory, designed by noted San Diego architect Irving Gill, was completed in 1910 and is listed on the NRHP. The laboratory building represents the first permanent structure of any of the shore side marine biological stations in the western hemisphere and is an architectural landmark – one of the first monolithic concrete buildings (Shor et al., 1979). The UCSD 2004 LRDP EIR identified several other structures at the UCSD/SIO campus that may be historic. The Director's House was built in 1914 by Prof. William E. Ritter, the first director of the SIO. Twelve wood-framed cottages were built in 1915 and 1916 and four of those cottages are still standing. Ritter Hall, the Driving Facility, and Service Yard Buildings were built between 1930 and 1950 and are still standing. These structures range in distance from 800 to 1,500 ft from the preferred site (UCSD, 2004b).

Field investigations, consisting of above-ground surface inspections for archaeological features or artifacts, were conducted for the existing site. ASM Affiliates concluded "no cultural artifacts or features were found" at the existing site.

4.11.2 Impact – Proposed Action

The area of potential effect (APE) to historic or cultural resources includes the existing SWFSC site and lands within a 0.25 mile radius. The existing SWFSC buildings (Buildings A, B, C, and D) were built in the 1960s. The Proposed Action includes the demolition of Building A, in addition to the demolition of Buildings B and C. The affected buildings were built less than 50 years ago, and are not likely to be considered eligible for listing to the Federal or California Register. Impacts to historic or potentially historic structures would be less than significant.

No archaeological sites are known to occur at the existing SWFSC site. Based on the developed nature of the site, it is unlikely that intact archaeological resources are present. Although demolition of Building A, excavation and soil stabilization, grading and drainage, and retrofitting activities are proposed, it is unlikely, but not impossible, that human remains could be uncovered during excavation activities during soil stabilization activities. If human remains are found, NOAA and UCSD would comply with State requirements contained in PRC 5097.98.

No impacts to archaeological resources are expected to result from the demolition of Building A and subsequent stabilization and retrofitting activities.

The Final EIS/EIR indicated that Native American monitors would be on-site during all ground disturbing activities; however, this recommendation is relevant to areas not previously disturbed, such as the site of the new SWFSC facility and would not be necessary in previously disturbed areas, such as the existing SWFSC property.

The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).

4.11.3 Mitigation – Proposed Action

NOAA will implement the following mitigation measures:

NOAA and UCSD will comply with PRC 5097.98 in the case where human remains are found. Any uncovered human remains would be treated with respect. This code section requires that excavations cease if potential human remains are uncovered and the County Medical Examiner/Coroner be notified. The Coroner must contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will contact the most likely descendant to determine the appropriate manner of handling the remains.

If human remains are uncovered during any phase of the Proposed Action, soil associated with the remains should not be removed from the area.

4.11.4 Impact – No-Action Alternative

Under the No-Action Alternative, proposed demolition of Building A and subsequent stabilization and retrofitting activities would not occur. Therefore, the findings of the Final EIS/EIR would apply; there would be no impacts to historic and cultural resources.

4.11.5 Mitigation – No-Action Alternative

None required.

4.12 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

4.12.1 Setting

Executive Order (E.O.) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, requires Federal agencies to identify and address, as appropriate, disproportionately high and adverse environmental or human health effects on minority populations and low income populations. Federal agencies, programs, and policies should not exclude people and populations of people based on race, color, or nationality from Federal activities or benefits of such activities. Minority communities and low income communities must also have access to public information on matters related to human health and the environment (President, 1994).

Effects associated with environmental justice require that a significant adverse impact not be predominately borne by a minority population and/or a low-income population and that the impact not be appreciably more severe or greater in magnitude than would be suffered by the non-minority population and/or non-low-income population. This evaluation considers federal, regional, and campus area population and economic data to assess affected populations and the potential for disproportionately high adverse effects to occur to minority or low-income populations.

The existing SWFSC site is located in Census Tract 83.12 in the community of La Jolla, which is part of the City of San Diego in San Diego County, California. According to the 2000 U.S. Census, San Diego County had a population of about 2.8 million persons and Census Tract 83.12 had a population of 3,890 persons. Average household sizes are 2.83 and 2.31 persons in the County and Tract respectively, and the per capita income for Census Tract 83.12 is nearly three times that of the County as a whole. The percentage of minorities, unemployed persons, and persons living in poverty are lower in Census Tract 83.12 than in the County (U.S. Census Bureau, 2000).

4.12.2 Impact – Proposed Action

As previously analyzed in the Final EIS/EIR, the demolition of Buildings B and C would occur after the new SWFSC is occupied. No dislocation of persons or businesses would occur. Scientific research activities conducted at the existing SWFSC would continue and additional research capacity would be afforded to SIO. No substantial increase in employment or change in the nature and intensity of SWFSC operations would result.

Demolition of Building A would occur simultaneously with and similarly to the demolition of Buildings B and C. Demolition activities would not result in emissions of hazardous air pollutants that could adversely affect neighboring populations.

Upon demolition completion, excavation and soil stabilization would occur at Building D, grading and drainage activities would occur at the former Building A site, and Building D would be seismically retrofitted. Soil stabilization includes the excavation of two trenches to install two rows of tieback anchors to provide lateral load stabilization beneath Building D. A soil nail wall will be installed at the north end of the two trenches to support the existing Building A retaining wall and floor slab. Upon completion, the excavated trenches will be backfilled and the stabilization system buried. The Proposed Action includes grading and installation of pavement and drainage curbs to create a parking area west of Building D, at the former site of Building B. Seismic retrofitting of Building D includes strengthening the transverse concrete shearwalls and the footings and providing a longitudinal bracing scheme which will be primarily confined within the building envelope and at adjacent corridors and stairwells. These construction and earthmoving activities would not result in emissions of hazardous air pollutants that could adversely affect neighboring populations.

The effect of the Proposed Action would not create substantial socioeconomic impacts under NEPA (and less than significant under CEQA).

4.12.3 Mitigation – Proposed Action

None required.

4.12.4 Impact – No-Action Alternative

Building A would not be demolished and soil stabilization and retrofitting would not occur to Building D, therefore no socioeconomic or environmental justice impacts would occur.

4.12.5 Mitigation – No-Action Alternative

None required.

4.13 PUBLIC SERVICES AND UTILITIES

4.13.1 Setting

The anticipated use of utility resources and infrastructure is evaluated for effects associated with utility access and capacity of services. Effects that would require substantially new infrastructure or acquisition of natural, non-renewable resources to support the Proposed Action are identified. EO 12185, Conservation of Petroleum and Natural Gas (44 Federal Register Section 75093) encourages additional conservation of petroleum and natural gas by recipients of federal financial assistance.

The Energy Independence and Security Act of 2007 contain performance requirements for Federal buildings. The Act sets a goal of 30% reduction in energy use, compared with 2005 consumption, for Federal buildings. This goal is to be achieved by 2015. One method for reducing energy use and increasing energy efficiency is incorporation of LEED principles into building design.

The UCSD Police Department provides law enforcement services for the UCSD campus. However, the City of San Diego Police Department provides law enforcement services for the existing SWFSC. The City Police Department also provides support to the UCSD Police upon request (UCSD, 2004a).

The City of San Diego Fire Department is responsible for fighting fires on the UCSD campus. UCSD has a Fire Marshal who implements fire safety, warning, and prevention programs, including building and plans inspections (UCSD, 2004a).

The San Diego Unified School District operates public elementary, middle, and secondary schools serving the La Jolla area. The school nearest to the existing site is the Elkhorn Elementary School, located at 2235 Elkhorn Road, approximately two miles to the south (UCSD, 2004a).

San Diego Gas & Electric (SDG&E) provides electric and natural gas service to the existing SWFSC. SDG&E transmission grid also delivers electricity to the campus via 69 kilovolt (kV) transmission lines connecting to the east campus substation. From that substation, power steps down to 12 kV for distribution throughout the campus (UCSD, 2004a).

SWFSC consumed 986,000 kilowatt hours of electricity during 2007. The existing SWFSC is equipped with a standby generator fueled by natural gas. The standby generator provides electric power during loss of primary power. It is also operated periodically for maintenance purposes. The total hours of operation of the standby generator is estimated at less than 200 per year.

The existing SWFSC uses natural gas for space and water heating. SDG&E provides natural gas to the SWFSC from existing gas mains serving the local area.

The City of San Diego Water Utilities Service Department, a member of the San Diego County Water Authority (SDCWA), provides water service to SWFSC and UCSD. SDCWA receives approximately 90% of its water from the Colorado River via the Metropolitan Water District of Southern California. The remaining 10% of water is supplied by local resources of surface and groundwater. The Miramar Reservoir and filtration plant distributes water to the local distribution system via 16- and 18-inch water mains. Within SIO are two metered connections, the Upper Vault and the Lower Vault, which connect to the 30-inch City main (UCSD, 2004a).

The City of San Diego Metropolitan Wastewater Department provides wastewater treatment services for SWFSC and UCSD. Wastewater from the UCSD campus is collected by four major trunk sewer lines. Wastewater generated on the SIO campus flows into the Rose Canyon Trunk Sewer through three on-campus connections, and is then transported for treatment at the Point Loma Wastewater Treatment Plant. The Point Loma Wastewater Treatment Plant uses chemically assisted primary treatment, which removes about 80% of solids before discharge of the treated wastewater to the Pacific Ocean. Sludge remaining after treatment is disposed of via aerobic and anaerobic digestion, and wet sludge is disposed of at landfills or is used for soil treatment. For irrigation purposes, UCSD uses recycled water that has undergone tertiary treatment (UCSD, 2004a). However, use of treated wastewater to irrigate landscaping can lead to potentially harmful accumulation of salts in soil. Therefore, the amount of irrigation needed at the SIO campus is being reduced through conversion of landscaping to plants with low water usage, including coastal sage scrub vegetation (Ingram, 2008).

4.13.2 Impact – Proposed Action

During demolition, soil stabilization, grading and drainage, and seismic retrofitting activities, a modest economic stimulus to the local economy would results from construction expenditures, which would be temporary and small compared with the size of the local economy. Demolition and earthmoving activities would be temporary in nature. Little change in the local population would result, and changes in demand for police services and enrollment in local public schools would be negligible. Consumption of water would be unchanged and generation of wastewater would be minimal. Effects on public services, water supplies, and wastewater treatment capacity would be less than significant.

The City of San Diego would be expected to provide police and fire protection services. Increase in demand for police and fire services would be minimal during demolition and earthmoving activities. The minimal increase in demand would be mitigated by adherence to the current codes, which contain requirements for fire prevention, notification of occupants, and fire resistant design and construction measures.

The effect of the Proposed Action would not create substantial public services and utilities impacts under NEPA (and would be less than significant under CEQA).

4.13.3 Mitigation – Proposed Action

None required.

4.13.4 Impact – No-Action Alternative

Under the No-Action Alternative, the proposed demolition of Building A, excavation and soil stabilization, grading and drainage, and seismic retrofit of Building D would not occur. Therefore, no change from the population or demand for public services, including education, police, utility and fire protection services, analyzed for the Proposed Action in the Final EIS/EIR would occur.

4.13.5 Mitigation – No-Action Alternative

None required.

4.14 POPULATION AND HOUSING

4.14.1 Setting

The existing SWFSC site is on the campus of UCSD/SIO, within the community of La Jolla, which is part of the City of San Diego. San Diego is within San Diego County. Based on the 2000 U.S. Census, San Diego County has a total population of 2,813,833 persons living in 994,677 households. The existing site is in Census Tract 83.12, which includes the UCSD/SIO campus and residential areas to the north and south of the campus. The Tract had a population of 3,890 persons residing in 1,686 households in the year 2000. There are no housing units at the existing SWFSC site. Total employment in the County and Tract were 1,328,893 and 1,719, respectively, in Year 2000.

4.14.2 Impact – Proposed Action

The Proposed Action would not require the relocation of or displacement of homes. There would be no substantial change in the population of the area. The Proposed Action includes demolition, excavation and soil stabilization, grading and drainage, and seismic retrofitting of Building D which is not expected to increase population or impact local housing. The existing SWFSC site is not a housing unit. Proposed Action activities would not obstruct local evacuation routes or interfere with the ability of emergency service providers to respond to incidents. Effects of the Proposed Action to population and housing would not be substantial under NEPA (and would be less than significant under CEQA).

Please refer to Section 4.12, Socioeconomics and Environmental Justice, above for a related analysis.

4.14.3 Mitigation – Proposed Action

None required.

4.14.4 Impact – No-Action Alternative

Under the No-Action Alternative, proposed demolition of Building A, excavation and soil stabilization, grading and drainage, and seismic retrofitting would not occur. Therefore, there would be no impacts to population and housing from the No-Action Alternative.

4.14.5 Mitigation – No-Action Alternative

None required.

4.15 SOLID WASTE AND HAZARDOUS MATERIALS

4.15.1 Setting

The term *hazardous material* is defined in different ways for different regulatory programs. This SEIS uses the definition given in California Health and Safety Code Section 25501(n) and (o), which defines hazardous material as:

> *"…any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous wastes, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment."*

By convention, most hazardous materials are thought to be hazardous chemicals, but certain asbestos containing materials and lead based paint are also hazardous.

As indicated for removal of Building B and Building C in the Final EIS/EIR, the anticipated demolition and waste removal activities associated with the demolition of Building A and soil excavation at Building D requires compliance with the Occupational Safety and Health Administration (OSHA) asbestos standard, as defined in 29 CFR 1926.1101, 29 CFR 1926.58 and Title 8 California Code of Regulation (CCR) 1932.1. These requirements ensure that employees, subcontractors, and the general public are not exposed to asbestos and lead hazards during the course of and after the conclusion of the Proposed Action. In addition, DOT requirements at 49 CFR105 through 110 address the safe transportation of hazardous materials. Finally, federal RCRA and California Hazardous Waste Control Law (HWCL), administered by the California Environmental Protection Agency Department of Toxic Substances Control (DTSC), address the characterization and disposal of hazardous wastes.

NOAA prepared a Phase 1 Environmental Site Assessment (ESA) of the existing and proposed SWFSC project areas in conformance with American Society for Testing and Materials Standard 1527-05 (SRI International, 2006). This Phase 1 noted that one underground storage tank for oil, with a capacity of 2,500 gallons was present at the existing SWFSC site area. A document dated February 12, 1992 has been subsequently identified that indicates that the tank was appropriately removed and closed as of December 17, 1990 (Moore, 1992). A professional inspection was performed at the existing SWFSC site and reported in a May 10, 2010, survey update report to determine the presence of ACMs, LBP, and polychlorinated biphenyls (PCBs) (Ninyo & Moore, 2010). The findings and recommendations are summarized below.

- ACMs were identified in various building components at Building A, Building B, Building C, and Building D at the existing SWFSC project area.
- Several surfaces within these four structures were found to contain LBP with lead concentrations exceeding thresholds adopted by the Department of Housing and Urban Development and California Department of Health Services.
- Several items potentially qualifying as Universal Waste due to the presence of mercury, PCBs, Freon, or other components, were identified.

Executive Order (EO) 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," was signed on October 5, 2009, to expand on the energy reduction and environmental performance requirements for Federal agencies identified in EO 13423. The goal of EO 13514 is "to establish an integrated strategy towards sustainability in the Federal Government and to make reduction of greenhouse gas emissions a priority for Federal agencies." In response to EO 13514, the Department of Commerce selected its Deputy Assistance Secretary for Administration as their Senior Sustainability Officer to the CEQ Chair and OMB Director and prepared a January 2010 *Strategic Sustainability Performance Plan.*

Among other goals, the Plan commits DOC to reducing energy intensity in affected facilities by 30% by 2015, relative to an FY 2003 baseline. The Plan also provides for a 2% annual reduction in potable water use, as well as from industrial and landscaping water uses, by Fiscal Year 2020 for a 20% total reduction from a Fiscal Year 2010 baseline. For solid waste diversion, the goal is to attain a 50% or higher diversion rate for non-hazardous solid. Also, contracts for products and services would require at least 15% of existing buildings and leases (>5,000 gross sq ft) to meet DOC Guiding Principles associated with energy-efficient, water-efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled-content, non-toxic or less-toxic alternatives.

4.15.2 Impact – Proposed Action

Impact 1 – Generation of Solid/Hazardous Waste by Construction Activities

The effects of generating solid and hazardous waste during demolition activities would have a moderate impact unless adequately mitigated. Demolition of Building A will slightly increase the volume of solid wastes anticipated for Building B and Building C, including scraps of cement, lumber, piping, wiring, sheetrock, and so on. Solid wastes would be recycled to the maximum extent practical and hazardous wastes would be removed for off-site disposal at a licensed disposal facility. It is estimated that approximately 75% of the waste would be recycled. Waste materials will be collected for off-site transport and recycling or disposal. These wastes will be transported to the following landfills and recycling centers:

- Vulcan Materials San Diego
- Lakeside Landfill
- Pacific Steel
- Miramar Landfill
- Miramar Recycling

NOAA has prepared a Hazardous Waste Abatement Plan to abate hazardous materials, including ACM and LBP, for the Proposed Action, including the demolition of Building B and Building C (WPC, 2011b). ACM and LBP would be identified and removed prior to dismantlement of each building, including Building A, and prior to performing upgrades to Building D. These hazardous materials would be transported off-site for recycling or proper disposal. The demolition work plan specifies the following phases:

- Perform written notifications.
- Adhere to all required federal and CAL-OSHA worker safety requirements.
- Establish site and work zone controls.
- Stabilize LBP where possible to allow for demolition of construction materials and disposal of materials as non-hazardous demolition debris, according to applicable regulations.
- Mitigation of ACM.
- LBP removal and disposal (if necessary).

Removal of universal wastes, including but not necessarily limited to potentially mercury-containing fluorescent bulbs and thermostats, potentially PCB-containing ballasts, and Freon-containing air conditioning units, is not covered in the WPC plan. These materials should be included in the Hazardous Waste Abatement Plan or other contract specifications or documents, as they require appropriate removal and recycling or disposal as universal wastes prior to demolition.

Impacts associated with solid wastes and hazardous materials associated with the demolition and renovation phase of the project would be moderate; however, disposal of hazardous materials, including those containing mercury, PCB and Freon, to recycling and disposal facilities approved to receive these materials will be performed. This abatement will reduce impacts be less than significant under NEPA (and would be less than significant under CEQA).

Excavation and soil stabilization would be performed associated with the reuse of Building D. Approximately 11,000 CY of material would be excavated, of which approximately 7,900 CY would be backfilled. Approximately 2,800 CY of the excavated material will be removed from the site to an authorized disposal site. The 2004 UCSD LRDP EIR identifies multiple hazardous materials sites on the greater UCSD campus. As of the publication 2004 date of the LRDP EIR, a known Leaking Underground Storage Tank (LUST) site with impacts to soil and groundwater was located at 8602 La Jolla Shores

Drive, over 1000 ft south and down-gradient from the existing SWFSC site boundary. The LRDP EIR also identified the potential for unknown Underground Storage Tanks (USTs) at the campus due to historical military activities associated with the former U.S. Marine Corps Camp Calvin B. Matthews (Camp Matthews) located approximately 5,000 ft east-northeast of the existing SWFSC project area, and identified potential impacts to the soil due to lead from military activities. A former burn ash site is known to have been located approximately 3,000 ft east of the existing SWFSC project area. The effects of generating solid and hazardous waste (if identified) during soil excavation and drilling activities could have a moderate impact unless adequately mitigated. The LRDP mitigation measure identified for work throughout the campus included performance of soil and groundwater sampling. In order to mitigate the potential impacts of excavation and disposal of soil or groundwater contamination, a sampling plan should be implemented for the Proposed Action. Through this mitigation and a proper evaluation of the data obtained, this potential impact would be less than substantial under NEPA (and would be less than significant under CEQA).

The Phase I ESA prepared for the subject property indicates there are no indications of development prior to NOAA occupation and no evidence of existing hazardous materials on or adjacent to the existing SWFSC property.

The effect of the Proposed Action would not create substantial impacts associated with hazardous waste and hazardous materials under NEPA (and would be less than significant under CEQA).

The Proposed Action would contribute to the DOC Plan goals for compliance under EO 13514. The proposed SWFSC building is designed to meeting U.S. Green Building Council Leadership in Energy and Environmental Design Silver-level standards, including use of a partial green roof, low-emissivity glass, day-lighting work spaces, solar panels, efficient lighting, natural ventilation, water-conservation plumbing, native landscaping, and transportation alternatives.

As stated in the FEIS/EIR, solid wastes would be recycled to the maximum extent practical. Demolition of buildings and foundations would separate rebar for recycling and process concrete, using spoils to backfill when possible. While demand for water would remain relatively unchanged, reductions would be obtained through the use of more efficient fixtures and drought-tolerant landscaping and the proposed SWFSC facility, as well as for water demand for remaining facilities and open space at the existing SWFSC property. Reduction in construction period air emissions and use fuels would be achieved through implementation of the project's proposed *SmartWay* plan for construction vehicle handling and use.

4.15.3 Mitigation – Proposed Action

Removal of ACMs during demolition of Building A and additional renovation at Building D would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division.

Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity.

Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.

4.15.4 Impact – No-Action Alternative

Under the No-Action alternative, the demolition of Building B and Building C would occur as previously analyzed in the Final EIS/EIR. Hazardous materials or solid waste generation, transport and disposal would occur. Impacts to solid waste and hazardous materials would be less than significant provided that

the NOAA Hazardous Waste Abatement Plan is revised to include the disposal of materials containing mercury, PCBs and Freon.

The No-Action alternative would contribute to the DOC Plan goals for compliance under EO 13514. Under the No-Action alternative, the Proposed Action analyzed in the FEIS/EIR would occur, which includes the energy, waste, and resource efficiencies discussed above for the range of actions proposed.

4.15.5 Mitigation – No-Action Alternative

Removal of ACMs during demolition of Building A and additional renovation at Building D would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division.

Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity.

Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.

4.16 WILD AND SCENIC RIVERS

4.16.1 Setting

The Wild and Scenic Rivers Act of 1968 protects free flowing rivers of the U.S. These rivers are protected under the Act by prohibiting water resource projects from adversely impacting values of the river: protecting outstanding natural, cultural, or recreational values; maintaining water quality; and implementing river management plans for these specific rivers.

The nearest river protected under the Wild and Scenic Rivers Act of 1968 is Sespe Creek, located 160 miles north from the Proposed Action (National Wild and Scenic Rivers System, 2008).

4.16.2 Impact – Proposed Action

Due to the existing SWFSC site's distance to Sespe Creek, implementation of the Proposed Action will have no impact on Sespe Creek or any other designated wild and scenic rivers under NEPA (and no impact would occur under CEQA).

4.16.3 Mitigation – Proposed Action

As there are no impacts to Sespe Creek or wild and scenic rivers, no mitigation measures are warranted.

4.16.4 Impact – No-Action Alternative

Under the No-Action Alternative, proposed demolition of Building A, excavation and soil stabilization, grading and drainage, and seismic retrofitting of Building D would not occur. Therefore, no change from the Wild and Scenic Rivers related effects analyzed for the Proposed Action in the Final EIS/EIR would occur.

4.16.5 Mitigation – No-Action Alternative

None Required.

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5 OTHER ENVIRONMENTAL CONSIDERATIONS

The Final EIS/EIR evaluated other environmental considerations, primarily associated with the CEQA analysis performed for that joint NEPA/CEQA document. For the purposes of informing any subsequent CEQA document associated with the Proposed Action, effects associated with Growth-inducing Impacts, Significant and Unavoidable Impacts, and Irreversible or Irretrievable Commitments of Resources have been assessed.

5.1 GROWTH-INDUCING IMPACTS

5.1.1 Proposed Action

The Proposed Action at the existing SWFSC project area would not increase the demand for demolition or excavation workers in the general area, hence, the demolition phase of the project would not foster population growth. Analogous to the similar effects described in the Final EIS/EIR, the added cost of proposed activities would not have a substantial economic effect regionally or locally. During use of the property, including upgraded Building D by up to 66 occupants, remaining utility support facilities and additional parking areas, the intensity of educational and research activities and ancillary support services would not change substantially from historic levels. No substantive growth-inducing effects would occur.

5.1.2 No-Action Alternative

Under the No-Action Alternative, the analysis prepared in the Final EIS/EIR would apply. The rationale is similar to that discussed above for the Proposed Action Alternative. No substantive growth-inducing effects would occur.

5.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following impacts would result in significant and unavoidable effects, even after the application of mitigation measures considered in this SEIS.

5.2.1 Proposed Action

None.

5.2.2 No-Action Alternative

None.

5.3 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

5.3.1 Proposed Action

No significant irreversible or irretrievable impacts would result from the Proposed Action provided that recommended mitigation measures, or equivalent measures, are implemented.

5.3.2 No-Action Alternative

No significant irreversible or irretrievable impacts would result from the No-Action Alternative provided that recommended mitigation measures, or equivalent measures, are implemented.

5.4 SHORT-TERM AND LONG-TERM ENVIRONMENTAL GOALS

5.4.1 Proposed Action

The Proposed Action would further the short- and long-term goals of both NOAA and UCSD by providing additional education and research facilities and parking to the SIO campus and added collaborative opportunities with adjacent marine research facilities operated by NOAA and SIO. LEED, hazardous materials management and seismic safety goals would also be met.

5.4.2 No-Action Alternative

The No-Action Alternative would not further the short- or long-term hazardous materials management and seismic safety goals of NOAA and UCSD.

6 CUMULATIVE IMPACTS

6.1 PROPOSED ACTION

Cumulative impacts are changes in the environment that result from the combined effects of the Proposed Action or alternatives and other past, present, and reasonably foreseeable future actions, no matter which agencies implement the action. For the purposes of the SEIS, the environmental setting describes the environmental effects of past human actions. In most topical areas addressed in the SEIS, build-out of the UCSD 2004 LRDP is the basis for identifying foreseeable future development activity within the local area. Future UCSD projects include those identified for the build-out of the UCSD campus (see Figure 6-1) and the proposed Marine Ecosystem Sensing, Observation and Modeling (MESOM) Laboratory, planned immediately southeast of the existing SWFSC project area (see Figure 6-2). These projects may have a cumulative effect when considered in combination with implementation of the Proposed Action or No-Action Alterative. The Final EIS/EIR concluded that a significant cumulative impact would result from emissions of NO_X within a federally designated non-attainment area for ozone during construction of the proposed SWFSC facility. The Proposed Action at the existing SWFSC would occur following construction of the proposed SWFSC. The incremental change in anticipated NO_X emissions from the Proposed Action relative to the No-Action Alternative is minor. However, the cumulative effect of implementing either alternative would result in a cumulatively substantial and potentially significant impact, even with implementation of mitigation measures to reduce air emissions of any criteria pollutant from all sources.

In addition to actions anticipated in the UCSD LRDP, one foreseeable development project has since been proposed in close proximity to the existing SWFSC project area and would have the potential to contribute to cumulative impacts when considered with the Proposed Action and the No-Action Alterative. The proposed MESOM at SIO is an approximately 40,000 sq ft building for research and education in marine ecosystems, climate variability and change, and marine ecosystem forecasting. The project will facilitate coordination of interrelated marine ecosystem research in various disciplines in one centralized location. The proposed MESOM site is located on parking lots P012 and P013 directly southeast of the existing SWFSC project area between Biological Grade and La Jolla Shores Drive, and immediately north of SIO's Isaacs Hall.

The proposed MESOM project site is located on and between parking lots P012 and P013, which currently provides 84 parking spaces under UCSD control. The 84 parking spaces have historically been permitted to NOAA employees working in four main buildings at the SWFSC. The MESOM project would consist of only 20 parking spaces to directly serve that facility.

The proposed SWFSC building under construction will provide more than 200 underground parking spaces for NOAA employees. This additional parking capacity would alleviate the 64 parking space loss resulting from the proposed MESOM project site. This cumulative effect would not be significant.

6.2 NON-ACTION ALTERNATIVE

Implementation of the No-Action Alternative would result in similar environmental effects. In addition, there would be an ongoing hazard to the public due to the presence of inadequately supported portions of Building A located at the crest of the unstable, eroding bluff, and the seismic hazard Building D presents to occupants in the case of an earthquake.

These hazards would be a potentially significant individual impact, but would not add to a cumulative significant impact caused by past, present, or probable future projects.

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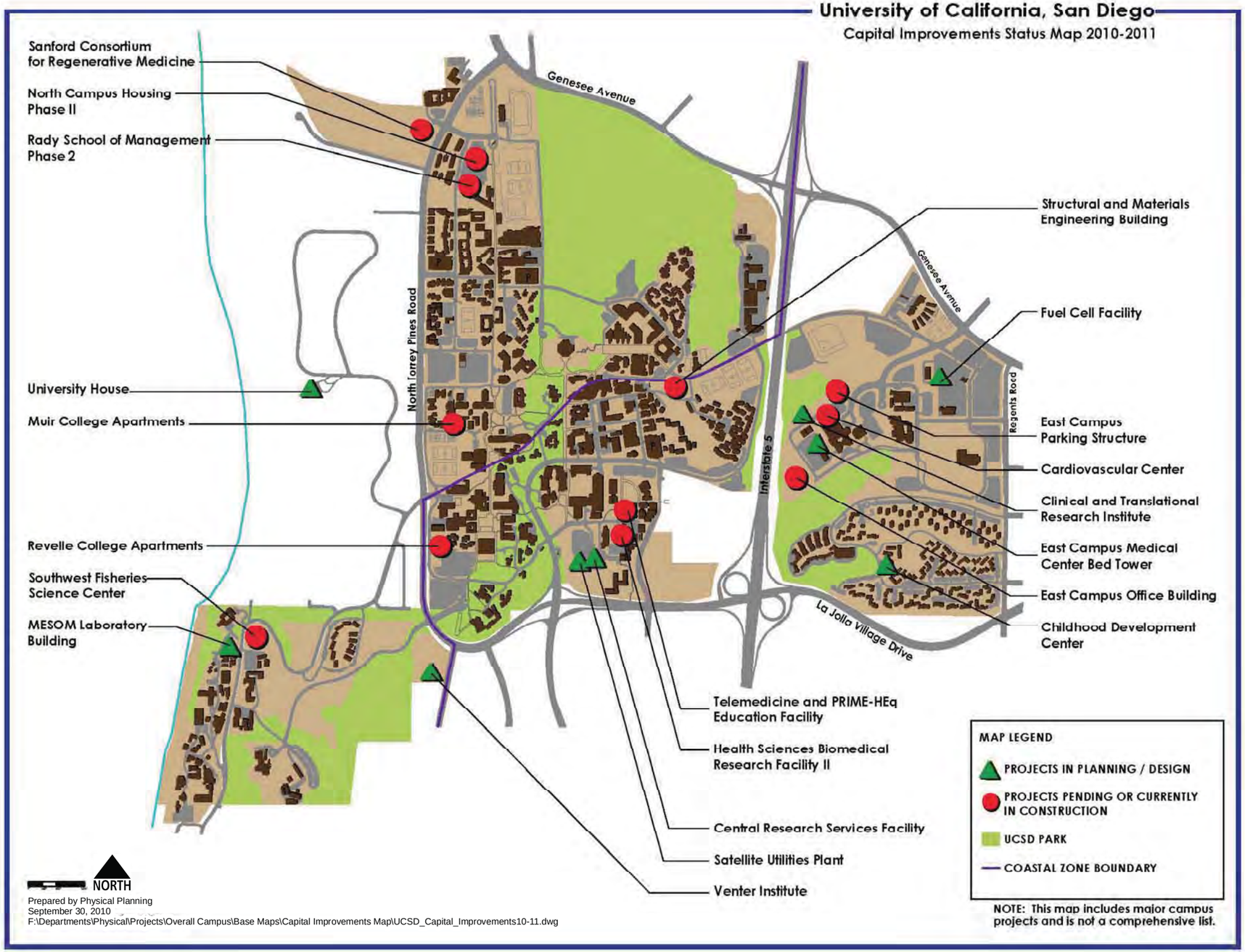

Source: UCSD, Physical Planning Department, http://physicalplanning.ucsd.edu/projects/map.html, September 30, 2010.

Figure 6-1
Capital Improvements Status Map 2010-2011

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Source: UCSD, *Marine Ecosystem Sensing, Observation, and Modeling (MESOM) Laboratory Project*, Draft IS/MND, March 4, 2011.

Figure 6-2
Proposed MESOM Building

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7 CONCLUSION

7.1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
Land Use and Coastal Zone Management		
Proposed Action		
Impacts to Land Use and Coastal Zone Management	See Proposed Action mitigation measures listed for each resource below	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to Land Use and Coastal Zone Management	See No-Action mitigation measures listed for each resource below	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
Geology, Soils, and Geologic Hazards		
Proposed Action		
Impact 1 – Vegetation Clearing and Soil Erosion	• This measure was previously identified and includes preparation and implementation of a SWPPP and BMPs (see CEQA impact identified in the Final EIS/EIR as Geo-1). • This measure was previously identified for use of straw mats and reseeding after construction/demolition activities are completed (see CEQA impact identified in the Final EIS/EIR as Geo-2).	Implementation of Mitigation Measures Geo-1 and Geo-2, as identified in the Final EIS/EIR and included below would result erosion effects that are less than substantial under NEPA (and less than significant under CEQA).
Impact 2 – Seismic and Bluff Retreat Hazards	• Previous Geo-3 is modified to also include UCOP's Seismic Safety Policy and ASCE 41-6 guidelines (see CEQA impact identified in the Final EIS/EIR as Geo-3). • A Noise and Vibration Monitoring Plan will also be in effect during construction which would limit vibrations to 0.2 inch/second PPV within 40 ft of the source (see CEQA impact identified in the Final EIS/EIR as Noi-4). • The existing Bluff Erosion Monitoring System will continue to be operated. The construction specifications will include	By implementing mitigation measures, construction impacts related to bluff instability hazards would be reduced to less than significant levels under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	specific provisions to protect the existing slope inclinometers, and repair or replace these instruments if damaged (new measure). An up-to-date emergency response plan would be maintained including training managers and staff to implement the plan, as necessary (see CEQA impact identified in the Final EIS/EIR as Geo-4).	
Impact 3 – Impact to Mineral Resources	None required.	Impacts to mineral resources would be less than significant under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impact 1 – Vegetation Clearing and Soil Erosion	None required.	There would be no increased impacts resulting from exposure of soil to wind and water erosion, beyond those identified in the Final EIS/EIR.
Impact 2 – Seismic and Bluff Retreat Hazards	Buildings A and D would be left as-is. A hazardous geologic condition would exist and occupants would be at risk. The continued use of the buildings would not be consistent with the University's Seismic Safety policies	Without geotechnical stabilization, the existing structures could still be damaged. This would be a significant impact.
Impact 3 – Impact to Mineral Resources	None required.	There would be no impacts to mineral resources.
Drainage and Water Quality		
Proposed Action		
Permitting Discharge of Stormwater during Construction and Demolition	Hyd-1 *(Impact 1)*: NOAA will prepare an SWPPP and submit required notices of intent and termination to the RWQCB. The following BMPs will be incorporated into the SWPPP and implemented during and after construction and demolition activities: • The area of land disturbance will be kept to a minimum and existing vegetative cover will be retained as much as possible. • Disturbed areas will be stabilized with temporary placement of woven mesh or netting until vegetation becomes established. • Controls (silt fences, hay bales, and so on) will be placed at the perimeters of the construction and demolition areas.	Effects due to the change in regulation would be negligible under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	• The sites will be sloped and graded to direct runoff away from steep hillsides or denuded areas. • Disturbed areas will be replanted with native coastal sage scrub vegetation.	
Changes in Impervious Surfaces and Runoff	None required.	The effects to runoff resulting from the decrease in impervious surfaces would be negligible under NEPA (and less than significant under CEQA).
Flood Hazards	None required.	The Proposed Action would be consistent with policies contained in E.O. 11988 and therefore impacts would be negligible under NEPA (and less than significant under CEQA).
Water Quality Effects of Storm Runoff	Hyd-2 *(Impacts 3 and 5)*: The new SWFSC will incorporate the design features listed below to retain storm water on-site, thereby mitigating any increase in storm runoff rates: • Landscaping using native species will be planted adjacent to foundations to reduce the velocity of runoff flow and prevent erosion. • Storm water from roofs will be directed to water retention areas. • A new drainage trough will help to further reduce the projected increase in runoff. • Permeable pavement will be used where appropriate for walkways and parking areas. Hyd-3 *(Impact 5)*: All storm drain inlets and catch basins at the SWFSC site will be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCSD standards. Hyd-4 *(Impact 7)*: Outdoor storage areas for materials that may affect water quality will be covered and protected by secondary containment. Hyd-5 *(Impact 7)*: All trash container areas will be enclosed to prevent off-site transport of trash and drainage will be directed to the sanitary sewer system or the covered containers to prevent exposure of trash to precipitation (SRI	If properly maintained, effects to stormwater quality from the parking lots at the existing SWFSC during operation of the project would be negligible under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	International, 2009).	
Use and Discharge of Seawater	None required.	Effects from the use and discharge of seawater would be negligible under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to drainage and water quality	None required.	Under the No-Action Alternative, the environmental effects and associated mitigation measures described for the Proposed Action would remain the same. The primary difference would be a further reduction in impervious surfaces under the No-Action Alternative, since the newly proposed parking areas would not be built and water quality treatment would not occur for these areas.
Biological Resources (Threatened and Endangered Species) and Wetlands		
Proposed Action		
Demolition Impacts	None required.	The effects resulting from removal of ornamental vegetation and the replacement of landscaping with species not requiring irrigation would be negligible under NEPA (and less than significant under CEQA).
Excavation and soil stabilization impacts	None required.	No substantial effects to biological resources would result either during proposed demolition of structures and stabilization or restoration actions, or during long-term use of the subject property for research and education purposes under NEPA (and would be less than significant under CEQA).
Construction impacts to birds	If demolition and/or other project-related activities at the existing SWFSC site are expected to occur during the raptor breeding season, February 1 through August 31, a qualified biologist would conduct raptor nest surveys within 500 ft of the project area prior to	With incorporation of mitigation, potential impacts would be less than significant.

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	start of such activities. If active raptor nests are observed, demolition activities within 500 ft of the nests would be suspended until the biologist determines that the nests are no longer active or upon further coordination and agreement with the USFWS.	
Impacts to wetlands	None required.	There would be no impact under NEPA (and no impact under CEQA).
No-Action Alternative		
Impacts to biological resources	None required.	There would be no impacts to biological resources.
Transportation		
Proposed Action		
Traffic Impacts Resulting from Demolition of Buildings A, B and C and Soil Stabilization and Earthmoving Activities Surrounding the New Grading	Tra-2 NOAA would prepare a traffic control plan covering the demolition periods for review by UCSD. The traffic control plan would address lane and/or road closures, emergency access and egress, efficient traffic circulation, and use of flaggers to control traffic and avoid conflicts. The plan would include recommendations, such as signage, detours, and temporary traffic controls. The plan would prohibit construction vehicles from using Downwind Way or the north–south oriented section of Shellback Way (which passes in from of the Keck Center, Nierenberg Hall, Speiss Hall, and associated service yards). (*Impacts 4)*	There would be no impact under NEPA (and no impact under CEQA).
No-Action Alternative		
Traffic Generation Impacts	None required.	There would be no impacts to transportation under NEPA (and no impact under CEQA).
Recreational Resources		
Proposed Action		
Demolition of Building A Impacts	None required.	Demolition period impacts to recreational resources would be temporary and less than significant under NEPA (and less than significant under CEQA).
Excavation and soil stabilization impacts	None required.	Project impacts to recreational resources would be temporary and less than significant under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
No-Action Alternative		
Impacts to recreational resources	NOAA would continue to monitor the rate of bluff retreat and signs of accelerating ground and building failure, such as increased tilting and expansion of tension cracks, at Building A. If warranted, NOAA would inform local authorities of the need to take measures to protect beach users.	The potential impact would be substantial under NEPA (and significant under CEQA) unless adequately mitigated through adequate geotechnical methods and means.
Farmlands		
Proposed Action		
Impacts to farmlands	None required.	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to farmlands	None required.	Under the No-Action Alternative, there would be no impacts to important farmlands.
Air Quality		
Proposed Action		
Emissions of Air Pollutants during Demolition of Buildings B and C.	Air-2 NOAA would request that construction and demolition contractors implement *SmartWay Truck Efficiency* and anti-idling practices to reduce the amount and effects of GHG emissions during the construction and demolition periods. These practices include retrofitting heavy-duty trucks and vehicles used during construction with the best available —SmartWay Transport and/or CARB-approved technology to reduce GHG. These technologies work by reducing aerodynamic drag and rolling resistance by using cab roof fairings, cab side gap fairings, cab side skirts, and on the trailer side, trailer side skirts, gap fairings, and trailer tail; and using single wide tires or low-rolling resistance tires and automatic tire inflation systems on both the tractor and the trailer. *(Impact 3).* Air-3 NOAA would prepare and implement Construction Emissions and Management Plan (CEMP) measures during the construction and demolition periods. The CEMP would identify detailed measures to minimize emissions of dust and other air pollutants, such as: • Stabilization of unpaved roads at the construction and demolition sites using	The effects of the Proposed Action would be less than substantial under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	water, chemical dust suppressants, and/or other stabilization techniques; • Pre-soaking and/or periodic sprinkling of areas to be cleared of vegetated and/or graded areas with water; • Periodic sweeping of streets surrounding the construction and demolition sites, to minimize dust emissions; • Limiting vehicle speeds on unpaved roads and areas to 15 mph; • Prompt revegetation of areas of exposed soil as soon as construction/demolition activities are completed; • Encouragement by NOAA for contractors to use alternate fuels and retrofit existing engines in construction equipment, to the extent that equipment is available and cost effective; • Limiting idling time of construction and demolition equipment to 10 minutes when not in use; and • Specify that contracts for demolition of Buildings A, B and C, soil stabilization and earthmoving activities at the existing SWFSC facility will require medium- and large-size construction fleets to comply with CARB regulations for in-use off-road diesel vehicles (California Code of Regulations, Title 13, Motor Vehicles, Article 4.8, Section 2449). (*Impact 3*)	
No-Action Alternative		
Impacts to Air Quality	None required.	The air quality impacts identified in the Final EIS/EIR would result.
Noise and Vibration		
Proposed Action		
Noise Impacts	Noi-1: NOAA would require construction and demolition contractors to comply with the construction noise abatement measures contained in the UCSD 2004 LRDP EIR, which are listed below. • Construction or demolition activities would be implemented in a manner that prevents	This impact would be reduced to a less than significant level under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
	the 12-hour average sound level from exceeding 75 dBA between 7:00 AM and 5:00 PM on Monday through Friday at the following noise sensitive land uses: residences located north of the existing SWFSC site and the Keck Center for Ocean Atmospheric Research. • Construction and demolition vehicles and equipment would be properly outfitted with manufacturer-recommended noise-reduction devices maintained in good working order. • Stationary construction and demolition equipment, such as generators, pumps, and batch plants, would be located as far as possible (at least 100 ft) from the residences located north of the existing and preferred SWFSC sites and the Keck Center for Ocean Atmospheric Research. • Laydown and staging areas for construction and demolition activities would be located as far as feasible from the residences located north of the existing and preferred SWFSC site and the Keck Center for Ocean Atmospheric Research. • Residents of houses located north of the existing and preferred SWFSC site and occupants of the Keck Center for Ocean Atmospheric Research would be informed at least two weeks prior to the start of SWFSC demolition of Buildings A, B and C.	
Vibration Impacts	None required.	Impacts due to vibration would be less than significant under NEPA (and less than significant under CEQA).
No-Action Alternative		
Demolition of Buildings B and C impacts	To mitigate this potentially significant impact, construction noise abatement measures contained in the UCSD 2004 LRDP EIR would be applied to demolition of Buildings B and C at the existing SWFSC. In addition, the noise mitigation measures described for the Proposed Action should be implemented.	Implementation of these mitigation measures would reduce this impact to a less than significant level under NEPA (and less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
Visual Aesthetics		
Proposed Action		
Impact to visual setting	Existing mature trees at the existing SWFSC would be retained to the maximum extent feasible during demolition of Buildings A, B, and C.	The overall effect of the Proposed Action would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impact to visual setting	None required.	No changes to the visual setting would result.
Historic and Cultural Resources		
Proposed Action		
Impacts to historic or potentially historic structures		Impacts to historic or potentially historic structures would be less than significant.
Impacts to archaeological resources	NOAA and UCSD will comply with PRC 5097.98 in the case where human remains are found. Any uncovered human remains would be treated with respect. This code section requires that excavations cease if potential human remains are uncovered and the County Medical Examiner/Coroner be notified. The Coroner must contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will contact the most likely descendant to determine the appropriate manner of handling the remains. If human remains are uncovered during any phase of the Proposed Action, soil associated with the remains should not be removed from the area.	Impacts to archaeological resources would not be substantial under NEPA (and less than significant under CEQA).
No-Action Alternative		
Impacts to historic and cultural resources	None required.	There would be no impacts to historic and cultural resources.
Socioeconomics and Environmental Justice		
Proposed Action		
Socioeconomic and environmental justice impacts	None required.	The effect of the Proposed Action would not create substantial socioeconomic impacts under NEPA (and less than significant under CEQA).
No-Action Alternative		
Socioeconomic and environmental justice impacts	None required.	No socioeconomic or environmental justice impacts

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
		would occur.
Public Services and Utilities		
Proposed Action		
Impacts of Proposed Action to public services and utilities	None required.	The effect of the Proposed Action would not create substantial public services and utilities impacts under NEPA (and would be less than significant under CEQA).
No-Action Alternative		
Impacts of Proposed Action to public services and utilities	None required.	Impacts to public services and utilities would be less than significant.
Population and Housing		
Proposed Action		
Impacts to population and housing	None required.	Proposed Action activities would not obstruct local evacuation routes or interfere with the ability of emergency service providers to respond to incidents (impacts to population and housing would be less than significant under CEQA).
No-Action Alternative		
Impacts to population and housing	None required.	There would be no impacts to population and housing from the No-Action Alternative.
Solid Waste and Hazardous Materials		
Proposed Action		
Generation of Solid/Hazardous Waste by Construction Activities – Impacts associated with solid wastes and hazardous materials associated with demolition and renovation	Removal of ACMs during demolition of Building A and additional renovation at Building D would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division. Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity. Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.	The effect of the Proposed Action would not create substantial impacts associated with hazardous waste and hazardous materials under NEPA (and would be less than significant under CEQA).

Table 7-1
Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Significance
No-Action Alternative		
Impacts associated with hazardous wastes and hazardous materials	Removal of ACMs during demolition of Building A and additional renovation at Building D would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division. Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity. Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.	Impacts to solid waste and hazardous materials would be less than significant provided that the NOAA Hazardous Waste Abatement Plan is revised to include the disposal of materials containing mercury, PCBs and Freon.
Wild and Scenic Rivers		
Proposed Action		
Impacts to wild and scenic rivers	None Required.	The Proposed Action will have no impact on Sespe Creek or designated wild and scenic rivers under NEPA (and no impact would occur under CEQA).
No-Action Alternative		
Impacts to wild and scenic rivers	None Required.	There would be no impacts to wild and scenic rivers from the No-Action Alternative.

An updated Mitigation Monitoring and Reporting Plan encompassing measures accepted in the Final EIS/EIR and presented in this Draft SEIS is provided in Appendix E.

7.2 PUBLIC COMMENTS ON THE DRAFT SEIS

Input of public and agency comments received by NOAA during a formal 45-day public comment period are presented in Appendix F, *Comments on the Draft SEIS and Responses to Comments,* as are any associated NOAA responses to comments or, if appropriate, a summary of subsequent changes to the Draft EIS that are incorporated into this Final SEIS.

No substantive change in the findings of the Draft SEIS, and associated mitigation and monitoring measures, were identified.

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8 LIST OF PREPARERS

John Chamberlain	Mr.Chamberlain served as Project Manager for this SEIS.
Michelle M. Dunn	Ms. Dunn provided analysis of multiple resources sections and quality control.
Elizabeth Nielsen	Ms. Nielsen prepared the water quality and drainage section evaluation.
David Schug	Mr. Schug prepared the geology, soils and geologic hazards section evaluation.
Eric Carlson	Mr. Carlson prepared the air quality section evaluation.
Mark Storm	Mr. Storm prepared the noise and vibration section analysis.
Sorouch Khadem	Mr. Khadem prepared the transportation section analysis.
Patrick Walz	Mr. Walz prepared the hazardous materials section analysis.
Christian Raumann	Mr. Raumann prepare figures and graphics for this SEIS.
Michelle Macer	Ms. Macer provided word processing and report coordination.
Rema Chazbek	Ms. Chazkek provided word processing support.
Tina Garg	Ms. Garg provided detailed data check.

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10 INDEX

Term	Section Number
Anchors	Section 2.5, paragraph 6; Section 3.1.2, paragraphs 1 and 3; Section 4.1.2, paragraph 10; Section 4.2.2, Impact 2; Section 4.9.2, paragraph after table 4.9-3; Section 4.12.2, paragraph 3
Ardath Shale	Section 2.5, paragraph 2; Section 4.2.1, paragraph 2
Asbestos	Section 3.1.1, paragraph 2; Section 4.8.1; Section 4.15.1, paragraphs 3 and 4; Section 4.15.3; Section 4.15.5; Table 7-1
CEQ Regulations	Section 1.1, paragraph 4
Coastal bluff	Section 2.5, paragraphs 1 and 3; Section 4.2.1, paragraphs 2, 3 and 5; Section 4.2.2; Section 4.2.4; Section 4.3.1, 'groundwater'; Section 4.6.1; Section 4.10.1
Code	Section 4.1.1, paragraph 1; Section 4.2.4, Impact 2; Section 4.11.3; Section 4.13.2; Table 7-1
Comment period	Section 1.4
Demolition	Section 1.1, paragraph 2; Section 3.1, paragraph 4; Section 3.1.1, paragraphs 1, 3 and 4; Section 3.1.2, paragraph 1; Section 3.2, paragraph 4; Section 4.1.1, paragraph 4; Section 4.1.2, paragraphs 1, 2, 8 and 12; Section 4.1.4, paragraphs 2, 6 and 9; Section 4.2.2, Impact 1 and Impact 2; Section 4.2.3, bullet 2; Section 4.2.4, paragraph 1 and Impact 2; Section 4.2.5, paragraph 1; Section 4.3.1, paragraph 1; Section 4.3.3; Section 4.4.2; Section 4.4.3; Section 4.4.4; Section 4.5; Section 4.5.1; Section 4.5.2, Impact 4; Section 4.5-3; Section 4.5.4, Impact 1; Section 4.6.2; Section 4.8; Section 4.8,1; Section 4.8.2; Section 4.8.3; Section 4.8.4; Section 4.9; Section 4.9.1; Section 4.9.2; Section 4.9.3; Section 4.9.4; Section 4.9.5; Section 4.10.2; Section 4.10.3; Section 4.10.4; Section 4.11.2; Section 4.11.4; Section 4.12.2; Section 4.13.2; Section 4.13.4; Section 4.14.2; Section 4.14.4; Section 4.15.1, paragraph 4; Section 4.15.2; Section 4.15.3; Section 4.15.4; Section 4.15.5; Section 4.16.4; Section 5.1-1; Table 7-1
Drainage	Section 3.1, paragraph 4; Section 3.1.3, paragraphs 1, 2 and 3; Section 4.1.2, paragraph 11; Section 4.1.4, paragraph 9; Section 4.3.2, Impact 2; Section 4.3.1; Section 4.3.2; Section 4.3.3; Section 4.4.2, paragraph 2; Section 4.4.4; Section 4.5, paragraph 1; Section 4.6.2, paragraph 3; Section 4.8; Section 4.10.2; Section 4.11.2, paragraph 2; Section 4.12.2, paragraph 3; Section 4.13.2, paragraph 1; Section 4.14.2; Section 4.14.4; Section 4.16.4; Table 7-1
Federal Register	Section 1.1, paragraph 4; Section 1.3; Section 3.1.4; Section 4.13.1, paragraph 1
Filters	Section 3.1.3, paragraph 3; Section 4.1.2, paragraph 11; Section 4.1.4, paragraph 9; Section 4.3.2; Section 4.3.4; Table 7-1
Soil stabilization	Section 1.1, paragraph 2; Section 2.5, paragraph 4; Section 3.1, paragraph 4; Section 3.1.1, paragraph 4; Section 3.1.2, paragraph 1; Section 3.1.3, paragraph 1; Section 3.2, paragraphs and 3; Section 4.1.2, paragraphs 2, 9 and 10; Section 4.1.4, paragraph 8; Section 4.2.2, Impact 2, 11 and 13; Section 4.2.3, paragraph 4; Section 4.4.2, paragraph 2; Section 4.4.4; Section 4.5; Section 4.5.1, paragraph 2 after Table 4.5-1; Section 4.5.2, Impact 4; Section 4.5.4, Impact 1; Section 4.6.2, paragraph 3; Section 4.8, paragraphs 1 and 2; Section 4.8,1, paragraph 10; Section 4.8.2; Section 4.8.3, last bullet; Section 4.84. paragraph 1; Section 4.2.3, paragraph 4; Section 4.9.1, last paragraph; table 4.9-3; Section 4.9.3 paragraph 3 and 18; table 4.9-4; Section 4.10.2, paragraph 3; Section 4.11.2, paragraph 1; Section 4.12.2, paragraph 3; Section 4.12.4; Section 4.13.2; Section 4.14.2;

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Impervious	Section 3.1.3, paragraphs 1 and 2; Section 4.1.2, paragraphs 6 and 7; Section 4.1.4, paragraphs 5 and 6; Section 4.3.2; Section 4.3.4; Table 7-1
Landscaping	Section 3.1, paragraph 4; Section 3.1.3, paragraphs 1 and 2; Section 4.1.2, paragraph 8; Section 4.1.4, paragraph 7; Section 4.3.2; Section 4.4.1; Section 4.4.2; Section 4.10.1; Section 4.10.2; Section 4.13.1, last paragraph; Table 7-1
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Risk	Section 2.5, paragraphs 4 and 5; Section 4.2.2, Impact 2; Section 4.2.4, paragraph 3 and Impact 4; Section 4.3.1, 'NPDES'; Section 4.5.1, 4th bullet; Section 4.10.1
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Standard(s)	Section 3.1.2, paragraph 3; Section 3.1.4; Section 4.2.2, Impact 2; Section 4.3.1, paragraph 3; Section 4.3.2; Section 4.3.3, 'HYD-3'; Section 4.8.1; Section 4.8.2, 2nd bullet; Section 4.9.2, paragraph 4; Section 4.10.1; Section 4.15.1, paragraph 4; Table 7-1
SWFSC Headquarters	Section 1.1, paragraph 4; Section 2.2
UCOP	Section 1.1, paragraphs 2 and 4; Section 1.2; Section 3.1.4; Section 4.1.1, paragraph 2; Section 4.1.4, paragraph 8; Section 4.2.3, bullet 3; Section 4.2.4, paragraph 2; Section 4.2.5; Section 4.3.2, paragraph 10; Section 5.2.2
Vibration	Section 3.1.1, paragraph 3; Section 4.2.2, Impact 2; Section 4.2.3, bullet 4; Section 4.9, paragraph 2; Section 4.9.1; Section 4.9.2; Section 4.9.3; Table 7-1

Appendices

Appendix A – Demolition Plan

Appendix B – Noise Data

Appendix C – Air Quality Data

Appendix D – DSEIS Distribution List

Appendix E – Mitigation Monitoring and Reporting Plan

Appendix F – Comments on the Draft SEIS and Responses to Comments

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Appendix A

Demolition Plan

WPC, LLC

P.O. Box 1728
Gig Harbor, Washington 98335
(253) 851-9309 / (253) 851-6475 fax
www.wpconstruction.com

LETTER OF TRANSMITTAL

Date:	**July 8, 2011**	WPC Job No. :	**30105**
Project:	SW Fisheries, La Jolla, California		
	Demolition, Restoration & Upgrades		
	Buildings "A", "B", "C" and "D"		
Attention:	**Robb Gries, PM COTR**		
Submittal			

To: **NOAA** / Western Acquisition Division
7600 Sand Point Way, NE
Seattle, Washington 98115-6349
(206) 526-6479

WE ARE SENDING YOU ■ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change Order ☐ _____

Hard COPIES	DATE	NO. PAGES	DESCRIPTION
			Submittal for Approval
6		-	Waste Management Plan
6		-	**Demolition Plan**
6		-	Hazardous Material Removal Plan
6		-	Preliminary CPM Schedule

THESE ARE TRANSMITTED as checked below:

■ For Approval ☐ Approved as Submitted ☐ Resubmit _____ Copies for Approval
☐ For your use & Distribution ☐ Approved as Noted ☐ Submit _____ Copies for Distribution
☐ As Requested ☐ Returned for Corrections ☐ Return _____ Corrected Prints
☐ For Review and Comments ☐ _____
☐

REMARKS Robb, we must have some form of signed approval on the submittals we are sending you in order to proceed with this work. Please return 2 approved sets of these submittals as soon as possible. Approval Can be either hand written and dated or stamped and dated.

Copy to: File:

Signed: *Ed Band*

Email: edband@wpconstruction.com

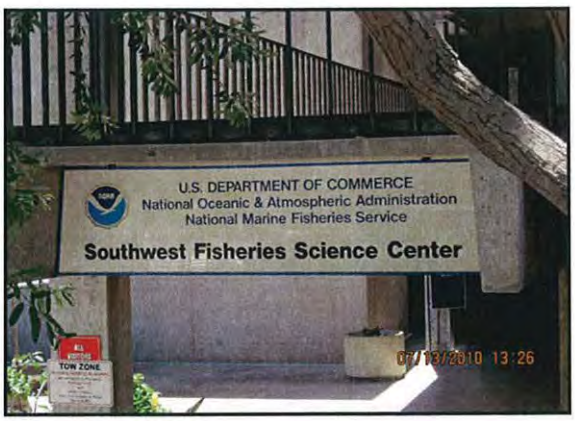
If enclosures are not as noted, kindly notify us at once.

SUBMITTALS FOR APPROVAL:

- WASTE MANAGEMENT PLAN
- DEMOLITION PLAN
- HAZARDOUS MATERIAL REMOVAL PLAN
- PRELIMINARY CPM SCHEDULE

for

Design-Build
Demolition, Restoration & Upgrades of
Southwest Fisheries Science Center
La Jolla, California



MATOC IDIQ Contract: #AB133A-06-CQ-0078
Task Order: T0010

Wade Perrow Construction LLC
P. O. Box 1728, Gig Harbor, WA 98335 • 253-851-9309 / Fax 253-851-6475 • www.wpconstruction.com

DEMOLITION AND DECONSTRUCTION PLAN FOR BUILDINGS A, B, C & D

U.S. Department of Commerce
National Oceanic and Atmospheric Administration – Southwest Fisheries Science Center
La Jolla, California

June 2011

Prepared for:

Wade Perrow Construction (WPC)
P.O. Box 1728
Gig Harbor, WA 98335

Prepared by:

Allied Industries, Inc.
5725 Kearny Villa Road, Suite A
San Diego, CA 92123
Phone: (619) 955-6811
Fax: (619) 955-7935

MATOC IDIQ Contract: #AB133A-06-CQ-0078
Task Order: T0010

Jim Bolt
Project Manager; _____

Ron Haro
Plan Reviewer; _____
Operations Manager

Aaron Renner
Health & Safety Review _____
QA/QC

DEMOLITION & DECONSTRUCTION PLAN

Demolition activities shall be performed in accordance with ANSI Standard A10.6, Safety Requirements for Demolition. Surveys and planning shall meet the following:

Prior to initiating demolition activities the following survey and plans shall be accomplished: > See lead and asbestos removal plan.

(1) A survey of the structure to determine the structural layout, the condition of the framing, floors, walls, the possibility of unplanned collapse of any portion of the structure (any adjacent structure where employees or property may be exposed shall be similarly checked), and the existence of other potential hazards to falling debris at cliff side of project will be conducted prior to the start of any Hazardous removal or Demolition.

a. If Demolition occurs between Feb. 1 and Aug. 31 a Raptor survey within 500 ft. of the existing site will be supplied by others and reviewed prior to the start of any demolition activities.

(2) Mobilization Heavy Equipment, storage containers, eye wash stations, and materials shall be brought onsite and staged as far as feasible from the residences located north of the existing SWFC site.

a. Eye wash station will be as close as possible to the abatement and demolition project.

(3) SOP & Engineering Controls and Safe Work Practices shall be developed to minimize hazards and taking action to correct hazards where necessary. Site rules and safe work practices shall be discussed and shall include such topics as material handling of operating and control equipment along with HVAC items for identification and storage. Common topics include attention to overhead distribution lines and utility poles, smoking restrictions, excavation safety and soils stockpiling and crane safety.

A01. Demolition plan - based on the engineering and lead and asbestos surveys - for the safe dismantling and removal of all building components and debris.

b. The Owners designated authority and the GC's designated authority shall be provided a copy of the demolition plan.

c. All employees engaged in demolition activities shall be instructed in the demolition plan so that they may conduct their work activities in a safe manner.

d. All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled outside the building line before demolition is started. (GC)

e. In each case, any utility company that is involved shall be notified in advance.

f. Allied and the Contractor's designated authority will review all engineering drawing (e.g., site plans, utility plans) that indicates the location of all service lines, and coordinate the means for their control (ie. relocation, capping, abandonment ect.)

g. In the case of bldg. A, it will be necessary to maintain power and other utilities during demolition, such lines shall be temporarily relocated and or protected.

h. Where the project includes the abandonment or demolition of existing gas lines, confirmation will be submitted that the existing lines are accurately located and that procedures and installations are accomplished in accordance with applicable sections of 29 CFR 1926.850.

A02. It shall be determined if any hazardous building materials not identified in the survey dated May 10th 2010 by Nino & Moore or hazardous chemicals, gases, explosives, flammable materials, or dangerous substances have been stored and left onsite.

a. When such hazards are identified, testing shall be conducted to determine the type and concentration of the hazardous substance and test results shall be provided to the Owner and the Contractor's designated authority.

b. Such hazards shall be controlled or eliminated before demolition is started.

A03. Work progression summary

Hazmat removal will start in bldg. C at the 1st and 2nd floors down thru the basement. Removal of thermal insulation, ceiling tiles and other ACM materials as depicted in the supplied May 10th survey. Demolition of the roofing material at bldg. C will also start. Upon completion of the hazmat removal in bldg. C, remediation will start at the utility room in bldg. A. Fencing will start at the furthest most point of the edge cliff starting at the end of bldg. C and extending north approx. 175 ft. to the furthest most end of bldg. B from C. General demolition waste generated from the roofs and interior demolition will be temporarily stored in roll-off containers until loaded and switched out for transport to the disposal facility. See Waste Management and Offsite Disposal submitted under a separate cover.
Upon completion of the roof strip at bldg. C, interior soft demolition in bldg. C will start at the 2nd level working down thru the 1st and basement levels removing any electrical, wall partitions and wall or floor coverings and remediation at bldg. A will complete and start in bldg. B. After the interior soft demolition at C, hand separation of bldg. C & B shall start at the 3rd level roof of the connecting canopy from bldg. B. Separation shall be made using gas operated demo saws utilizing concrete diamond blades. Then repeating at the 2nd level connecting walkway then the first level connecting walkway from bldg. C. A separation of approx. 10ft. wide between the connecting walkways will be cut by hand and carefully removed by using a Hitachi 350 excavator equipped with a bucket and thumb so as to grab the cut panels and carefully lower them from a height of 32' ft., 22' ft. and 12 ft.
Concurrently with the separation of bldg. C from D, demolition of the roof at bldg. B will start as the completion of bldg. A's utility room abatement finishes.
Precautionary shoring of the walls and roof will start in the utility room located at the basement level of bldg. A slated to stay and remediation will start in bldg. B at the 3rd level working down thru to the first. After the separation of bldg. C & D, systematic demolition can then begin of bldg. C and will start at the cliff's edge using an excavator equipped with a shear and a second excavator equipped with a thumb and bucket starting at the 3rd level floor weakening any shear supports and then shearing the floors consequently bringing the bldg. down within itself.
Roof demolition of bldg. B upon completion will move down and then start on the interior soft demo of bldg. B working from the 3rd level down as the hazmat completes in bldg. B then moving and starting back for final ACM removal at bldg. A.
Bldg. C structural demolition upon completion will move into the court yard to clear and grub along with demolition of any above grade planters or appurtenances utilizing the Hitachi 350 and a bobcat

(skidsteer). A truck route will then be leveled for the loading of C & D material into lowside dump trucks. A truck route will be established so as to insure that entry will be from the north off of La Jolla drive and exit will be south on la Jolla dr. A rumble plate with ¾" rock lined and bermed with straw waddle will be constructed at the entry / exit area and the tires washed upon exiting so as to not carry dirt and or mud offsite onto any public access ways. During load out of the stockpiled material and the completion of the interior soft demolition of bldg. B, structural demolition will start at bldg. B starting at the southern end working towards the middle bringing the building in on itself so as to minimize any potential debris falling to cliff side. A 963 loader will then clear any demo debris generated as it progresses' to source separate for recycling and load out.
Interior soft demolition of Bldg. A will begin and Hazmat removal will complete. Concrete cutting of the 2" topping slab above the utility room located in bldg. A will begin at the roof and proceed down through the 3rd and 2nd level exposing the precast panels at their cold joint for removal by crane. A flagger and a spotter will assist in the rigging and hoisting of the precast panels for deconstruction of the upper 4 levels directly above the utility room. During hoisting of any panels all personnel shall avoid the radius of the crane and low side semi trucks shall be pre-positioned for live loading and disposal offsite to a recycling facility.

A04. Hazards to anyone from the fragmentation of glass shall be controlled.

A05. Mechanical equipment shall not be used on floors or working surfaces unless such floors or surfaces are of sufficient strength to support the imposed load.

A06. Only those stairways, and passageways designated as means of access to the structure shall be used.

a. The stairwell shall be covered at a point no less than two floors below the floor on which work is being performed.

c. Access to a floor where work is in progress shall be through a separate lighted, protected passageway.

A07. During demolition, continuing inspections by Allied's competent person shall detect hazards resulting from weakened or deteriorated floors, walls, or loosened material. No employee shall be permitted to work where such hazards exist until they are corrected by shoring, bracing, or other means.

B01. Debris removal at any chute opening into which debris is dumped shall be protected by a guardrail 42 in (1.1 m) above the floor or other surface on which personnel stand to dump the material. Any space between the chute and the edge of openings in the floors through which it passes shall be covered.

B02. When debris is dropped through openings in the floors without chutes, the openings and the area onto which the material is dropped shall be enclosed with barricades not less than 42 in (1.1 m) high and not less than 2 ft (.6 m) back from the projected edge of the opening above.

a. Signs warning of the hazard of falling materials shall be posted at each side of the debris opening at each floor.

b. Debris removal shall not be permitted in lower areas until debris handling ceases on the floors above.

c. Any opening cut in a floor for the disposal of materials shall be not be longer in size than 25% of the aggregate of the total floor area, unless the lateral supports of the removed flooring remain in place. Floors weakened or otherwise made unsafe by demolition shall be shored to carry safely the intended imposed load for demolition.

d. Such openings, when not in use, shall be kept closed at all floors below the top floor.

B04. Allied shall appoint a competent employee to control operation of the backing and loading of trucks.

B05. When operations are not in progress, the area surrounding the discharge end of a chute shall be barricaded.

B06. Where material is dumped from mechanical equipment or wheelbarrows, a toe board or bumper, not less than 4 in (10 cm) thick and 6 in (15 cm) high, shall be attached at each chute opening.

B07. Chutes shall be designed and constructed of such strength as to eliminate failure due to impact of materials or debris discarded therein.

B08. At no time will the storage of waste and debris on any floor exceed the allowable floor loads.

C01. Wall removal, or sections of masonry, shall not be permitted to fall upon the floors of the building in such masses as to exceed the safe carrying capacities of the floors.

C02. No wall section that is more than 6 ft (1.8 m) in height shall be permitted to stand without lateral bracing, unless such wall was designed and constructed to stand without such lateral support and is in a condition safe enough to be self-supporting. No wall section shall be left standing without lateral bracing any longer than necessary for removal of adjacent debris interfering with demolition of the wall. Exception to this requirement will be allowed for such wall sections that are designed and constructed to stand without lateral support.

C03. Employees shall not be permitted to work on the top of a wall when weather constitutes a hazard.

C04. Structural or load-supporting members on any floor shall not be cut or removed until all stories above such a floor have been demolished and removed. This shall not prohibit the cutting of floor beams for the disposal of materials or for the installation of equipment.

C05 Walls that serve as retaining walls to support earth or adjoining structures shall not be demolished until the adjoining structure has been substantially demolished or demolished.

FLOOR REMOVAL

D01. Openings cut in a floor shall extend the full span of the structural supports.

D02. When floor openings are being removed, employees shall not be allowed in the area directly underneath. The area shall be barricaded to prevent access and signed to warn of the hazard.

E01. Steel construction shall be mechanically dismantled column-by-column and tier-by-tier (columns may be in two-story lengths).

a. Any structural member being dismembered shall not be overstressed.

F01. During Mechanical demolition no person shall be permitted in any area that can be affected by demolition when wrecking or clamming is being performed. Only those persons necessary for the operations shall be permitted in this area at any other time.

F03. When pulling over walls or portions of walls, all steel members affected shall have been cut free.

a. All roof cornices or appendices shall be removed prior to pulling walls over.

G01. Allied will procure a traffic control haul permit from the city of San Diego in which all vehicles carrying soils or demolition debris off site will have a copy of onboard at all times.

a. Unless specifically approved, truck load out will be scheduled to avoid peak traffic hours (7 am & 4:30 pm – 6 pm)
b. The access rights of the public shall be maintained at all times.

G04. Allied shall notify the following agencies a minimum of two (2) working days prior to any excavation affecting the agencies listed below;

a. Fire Dept. dispatch (858) 573-1300
b. Police Dept. dispatch (619) 531-2000
c. Environmental Services (858) 492-5060
d. Street Division (Traffic Signals) (619) 527-7500
e. San Diego Transit (Bus Stops) (619)238-0100 ext. 424
f. Underground Service Alert (Any Excavation) (800) 422-4133

G05. Allied shall coordinate with tenants to provide reasonable ingress/egress to the existing loading dock for deliveries and trash pickup.

H01. Allied shall incorporate and help maintain the water quality BMPS included as part of this contract, as well as any additional requirements incorporated herein by present conditions and with the Construction General Permit Order 2009-00029-DWQ adopted on Sept 2,2009, in order to avoid any degradation of water quality during demolition.

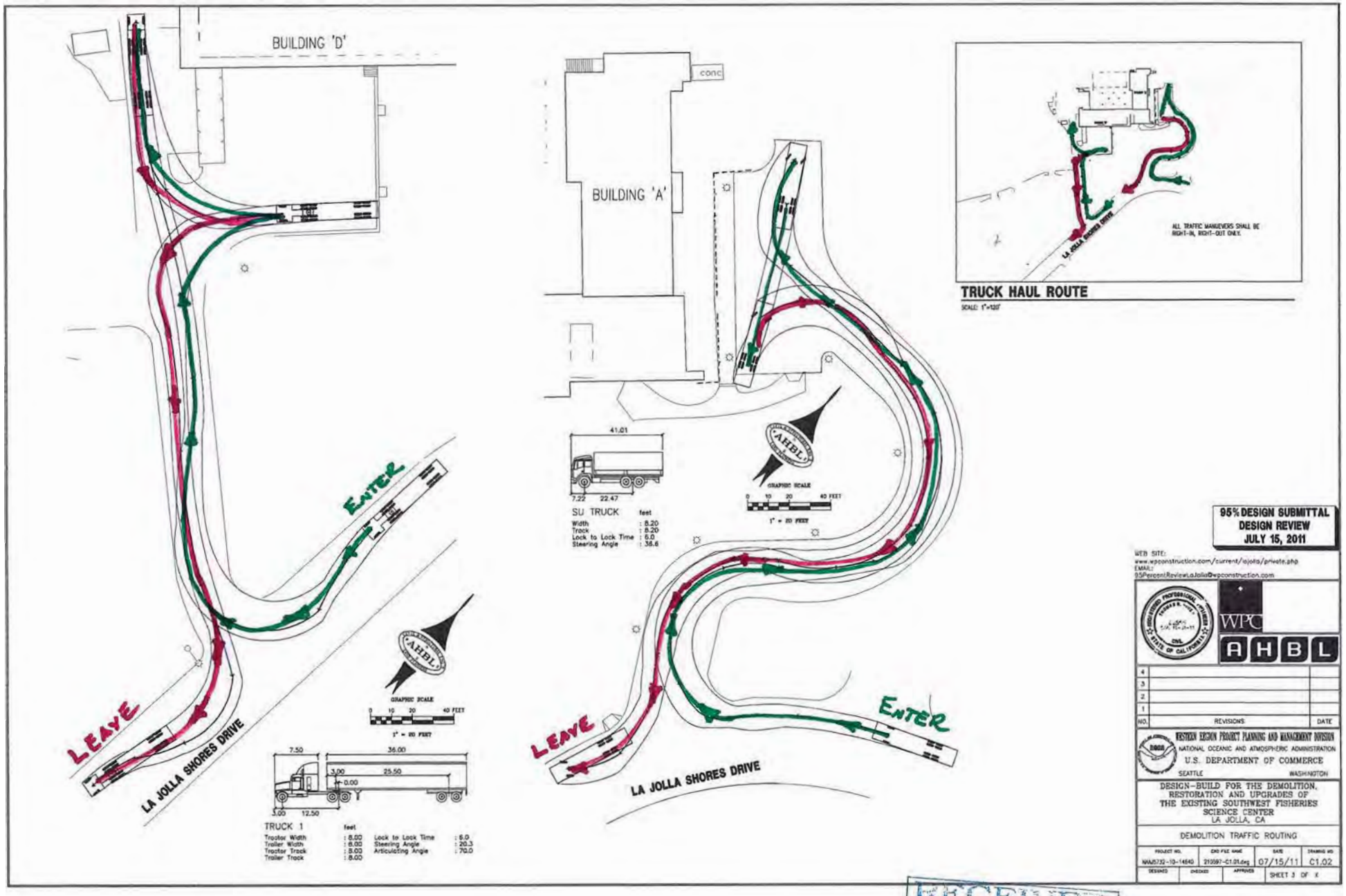
a. The area of land disturbance will be kept to a minimum and existing vegetative cover will be retained as much as possible.

I01. A permanent – temporary fence with jute wrap or green screen will be placed at the west perimeter to provide protection of the beach below from demolition debris.

J01. Demolition and noise vibration will be reduced by all vehicles and equipment being properly outfitted with manufacturer-recommended noise-reduction devices and maintained in good working order.

a. Any loud activity located within 100ft. of a residential structure will be restricted to the hours of 7:00am and 7:00pm Mon thru Fri.

b. Demolition activities and activities reports shall show compliance with the noise abatement measures contained in the UCSD 2004 LRDP EIR (Environmental Impact Report).



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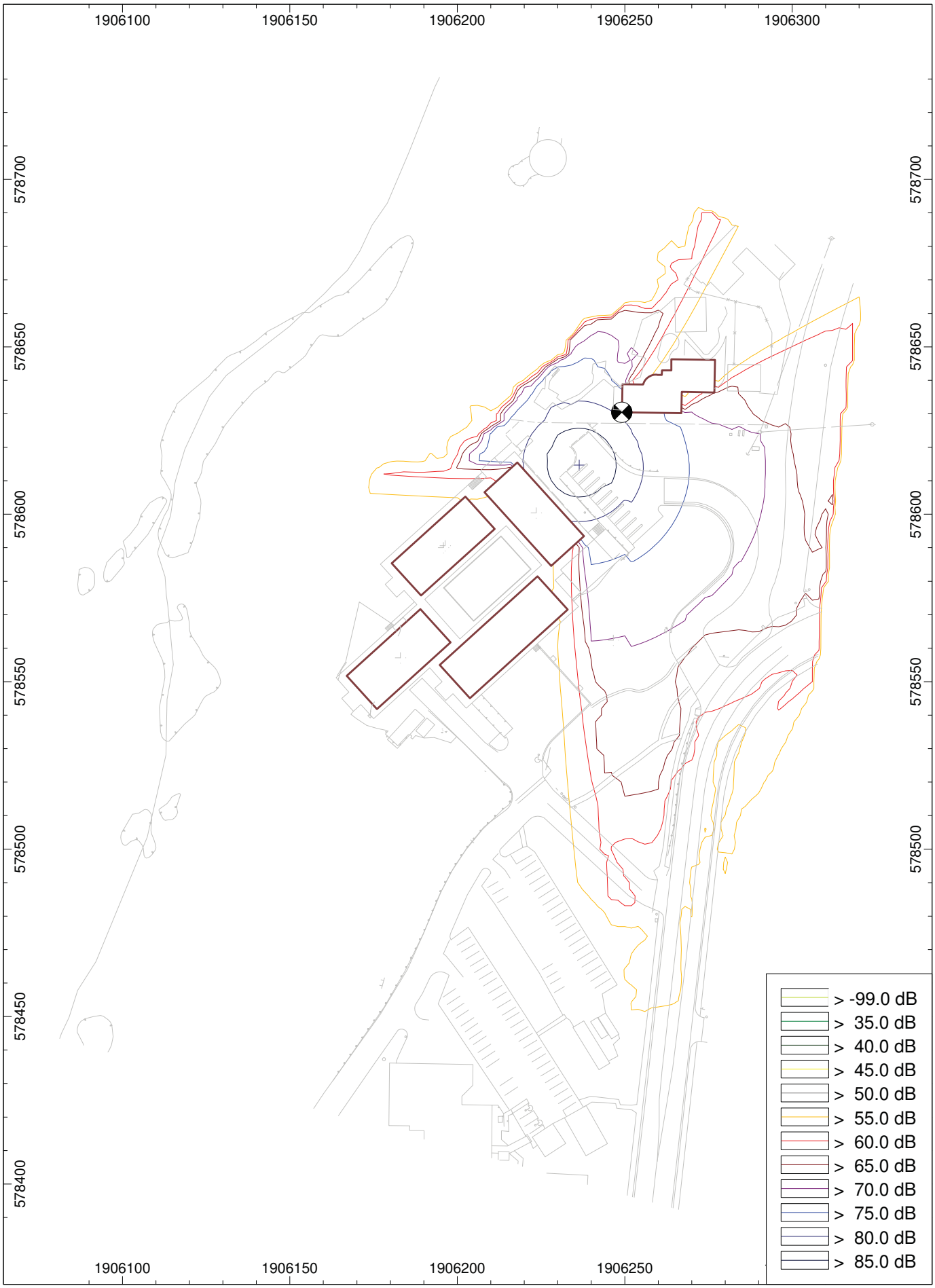
Appendix B

Noise Data

dBA	
84.3	Saw noise at north parking lot with all buildings
73.2	Saw noise at east parking lot with all buildings
47.4	Demolition of C Bldg, A/B buildings are standing
53.9	Demolition of B Bldg, A building is standing
77.3	Demolition of A Bldg, no building
68.4	Tranch at B Building, with no building

NOTE: Eastern building standing in all cases.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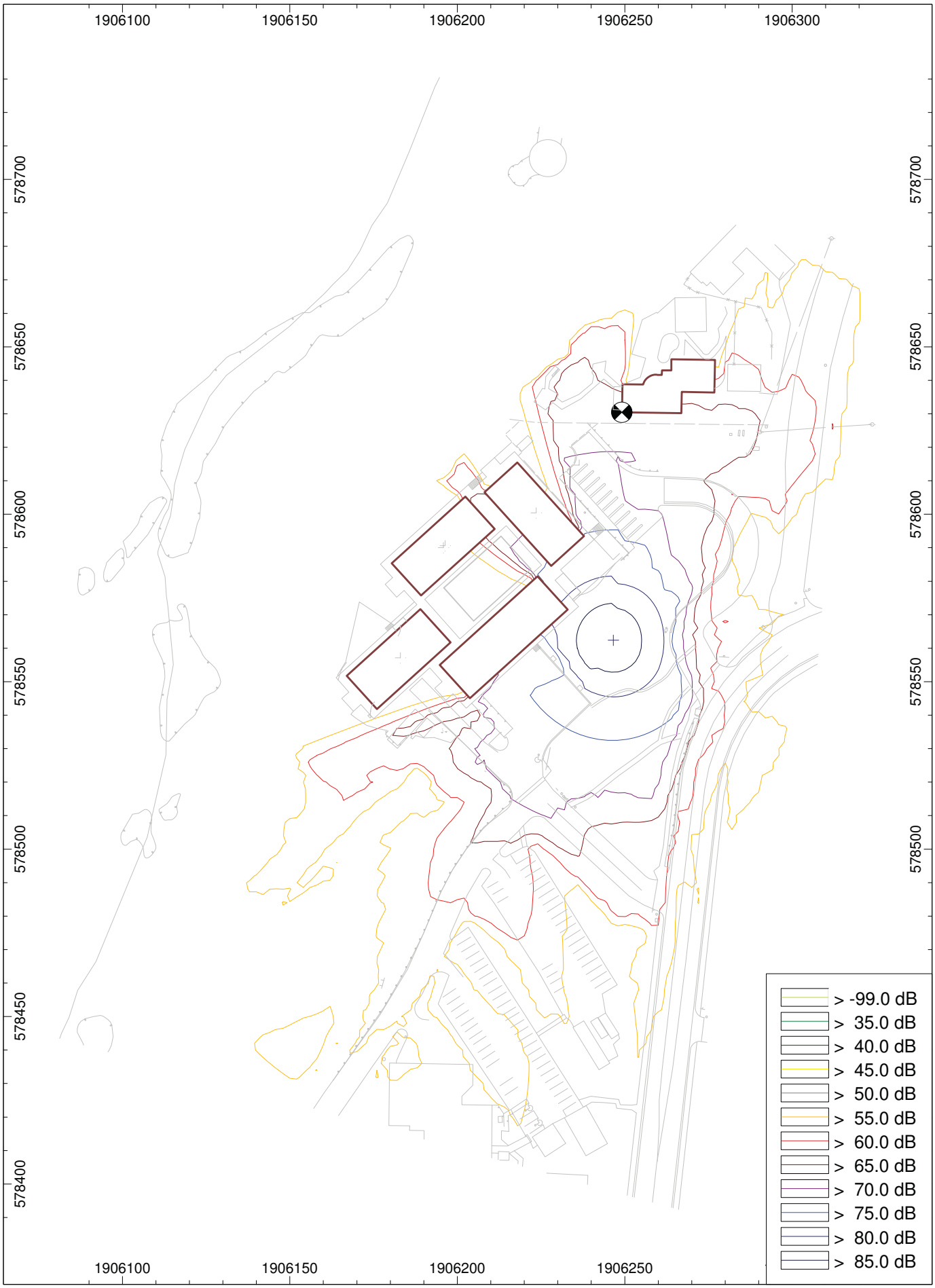
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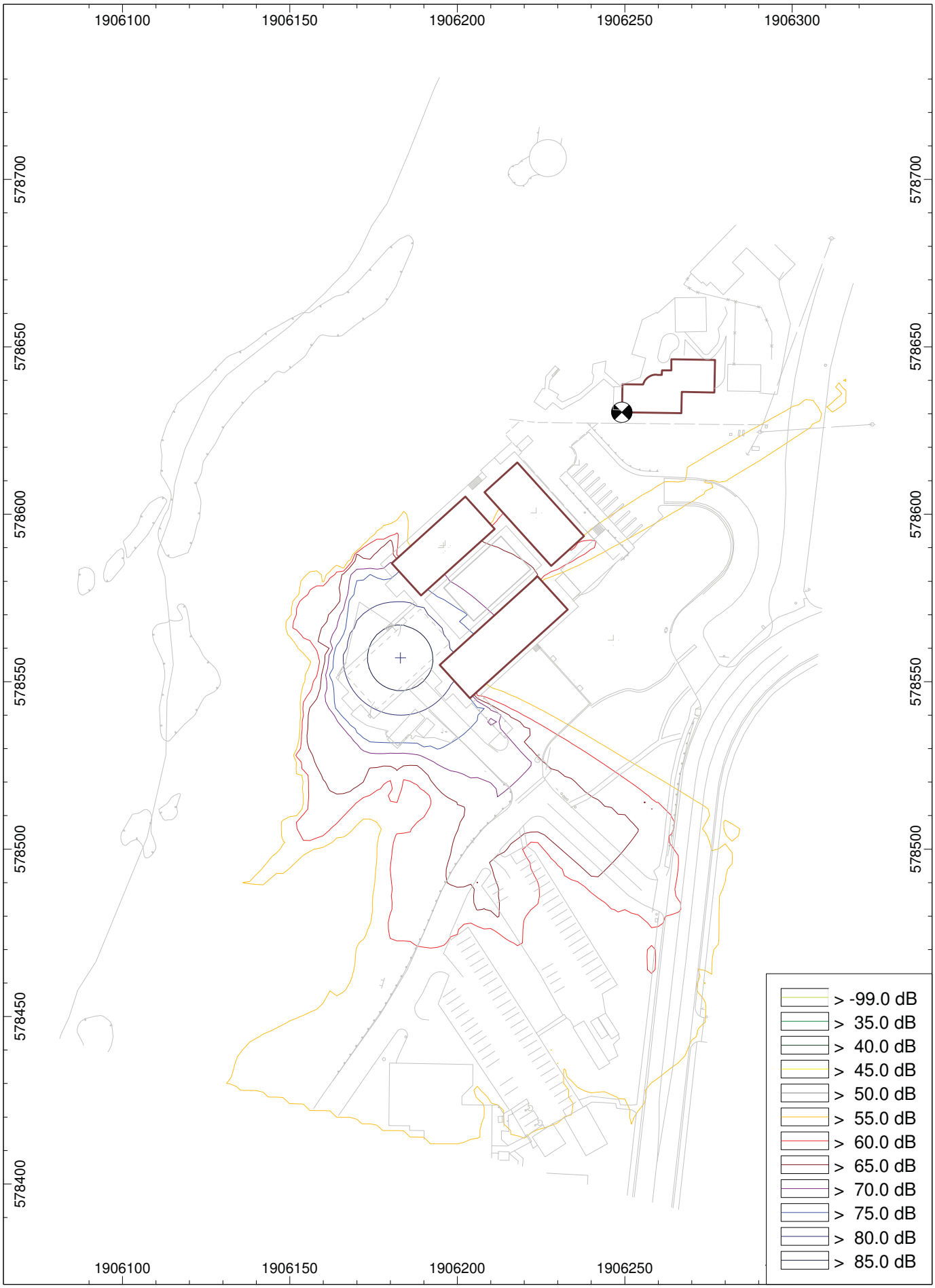
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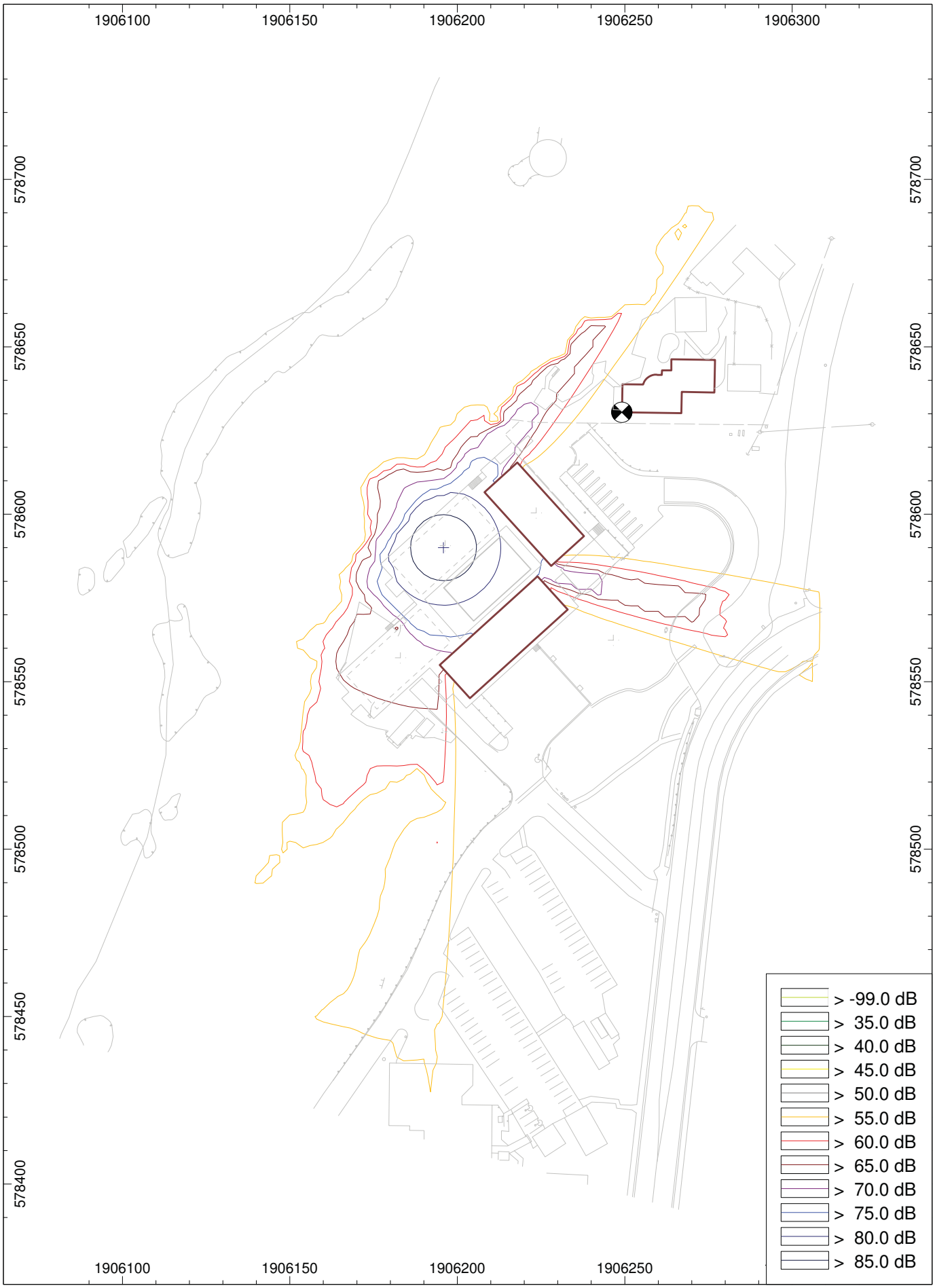
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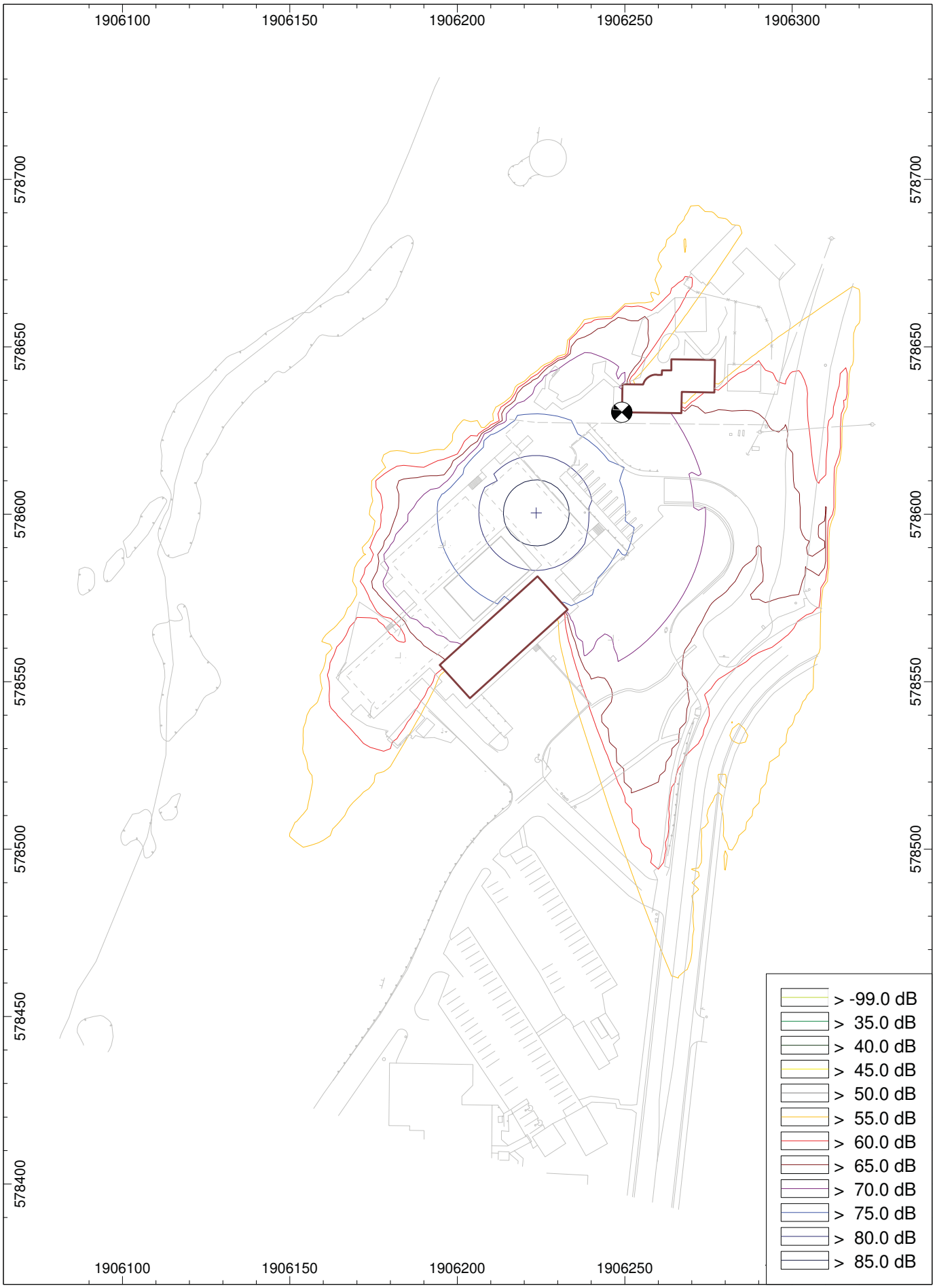
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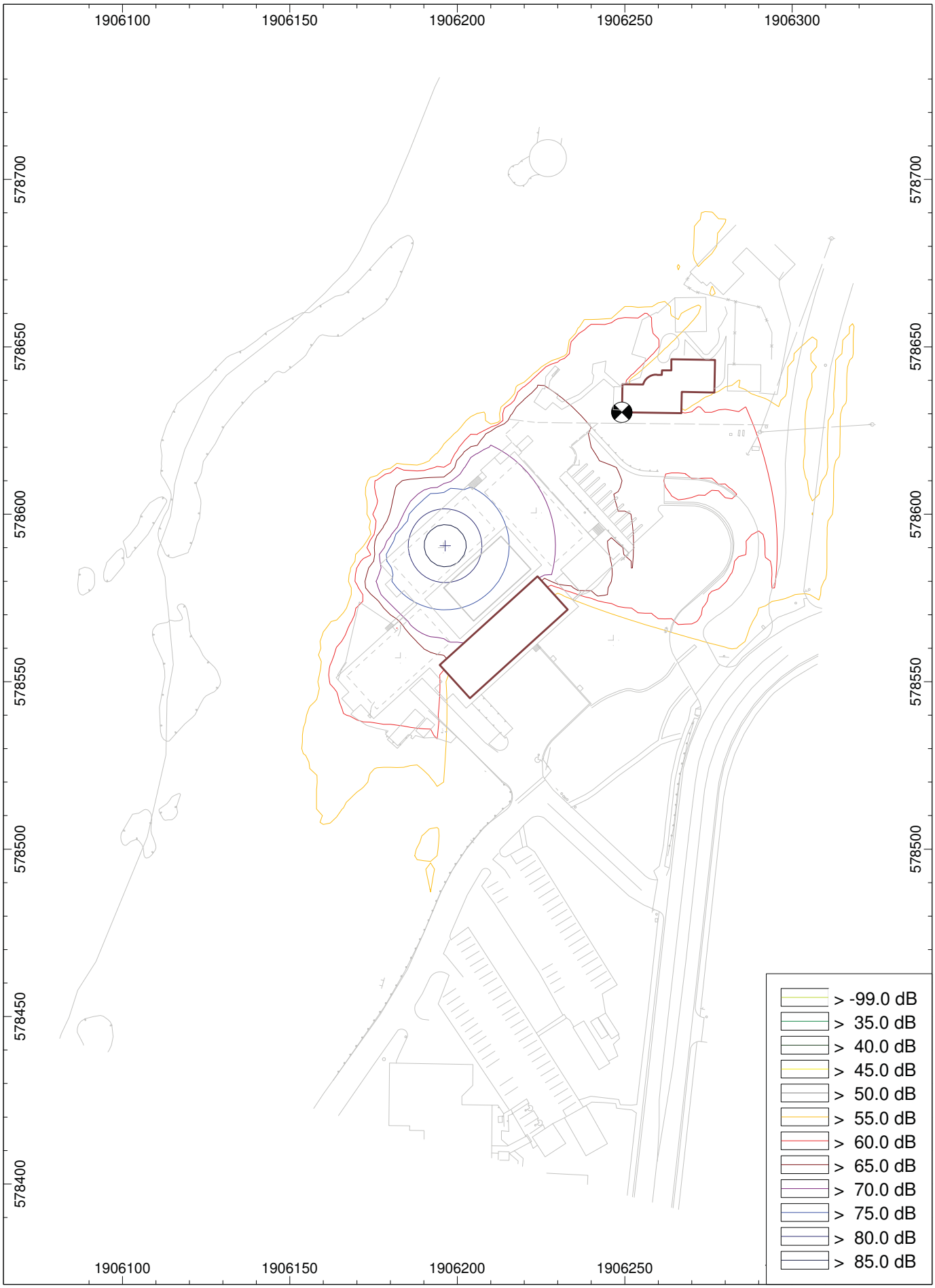
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Appendix C

Air Quality Data

Air Quality Key assumptions:

1. Emissions from internal demolition and hazardous material removal activities from Buildings A, B and C (all of which are scheduled to take place between 4/2/11 and 6/22/11) will be minimal and have not been included in the inventory. Likewise, due to their relatively small contribution and based upon our professional judgement, the emissions from the following tasks (other than painting associated with Architectural & Misc. Improvements) have not been included:

- Seismic Upgrade - Bldg 'D' - Shear Walls
- Architectural & Misc. Improvements (except surface coating [painting])
- Site Storm Water Management
- Site Accessibility Upgrades
- Site Landscape Restoration

2. For purposes of determining ground disturbance emissions, approximately 2 acres of the total 2.5-acre existing SWFSC site may be disturbed during demolition activities. And, a maximum of approximately 0.5 acre will be disturbed on any given day.

3. The areas to be paved include the entirety of the increased impervious area, estimated at 10,240 square feet. Anticipated paving equipment not included in the URS memorandum dated July 27, 2011 has been included (using defaults within URBEMIS model).

4. Remaining building floor space equals 44,200 square feet; balance is assumed demolished (includes B [20,000 sq ft], C [20,000 sq ft] and portion of A [15,800 sq ft] = 55,800 sq ft demolished). Assume 12 feet between floors in order to calculate total demolished volume.

5. Assume the maximum daily building demolition activities result in 10,000 sq ft of floorspace (again, 12 feet between floors).

6. Assumed default demolition/soil haul truck capacity of 20 cu yd and an estimate of 40 miles per round trip. Based on approximately volume to be hauled and the time period, URBEMIS estimates the number of round trips and mileage per day.

7. Generally followed the July 27, 2011 URS memorandum on estimated equipment used, as follows:

- Demolition equipment used: 1 skid steer, 1 water truck, 3 excavators (all 10 hrs/day, using default load factors)
- Site Stabilization/Trenching equipment used: 1 excavator, 1 rubber-tired loader (in place of compactor), 1 tractor/loader/backhoe, 1 water truck (all 10 hrs/day, using default load factors)
- Mass Site Grading (Backfill & Export) equipment used: 1 excavator, 1 rubber-tired loader (in place of compactor), 1 grader, 1 water truck (all 10 hrs/day, using default load factors)
- Fine Site Grading (Site Grading & contours) equipment used: 1 excavator, 1 roller (in place of compactor), 1 grader, 1 water truck (all 10 hrs/day, using default load factors)
- Paving (Site New Parking Areas) equipment used: default equipment (used default operating hours and load factors in URBEMIS).

In addition, used the corresponding dates from the 100% complete WPC Construction Schedule for each of the phases.

8. Mitigation measures used within URBEMIS included watering exposed surfaces twice (2x) per day in both the Mass Site Grading and Fine Site Grading phases.

9. Used URBEMIS default Architectural coating values.

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Users\eric_carlson\Desktop\NOAA SW Fisheries Science Center La Jolla_20110824.urb924

Project Name: NOAA SW Fisheries Science Center, La Jolla, CA

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	10.21	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
2012 TOTALS (lbs/day mitigated)	10.21	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
2013 TOTALS (lbs/day unmitigated)	14.18	56.56	32.89	0.02	20.09	2.88	22.97	4.21	2.65	6.85	7,780.20
2013 TOTALS (lbs/day mitigated)	14.18	56.56	32.89	0.02	11.40	2.88	14.28	2.39	2.65	5.04	7,780.20

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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Time Slice 4/16/2012-6/22/2012 Active Days: 50	6.97	**76.63**	**34.50**	**0.08**	**50.67**	**3.27**	**53.94**	**10.58**	**3.00**	**13.58**	**11,958.73**
Demolition 04/16/2012-06/22/2012	6.97	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
Fugitive Dust	0.00	0.00	0.00	0.00	50.35	0.00	50.35	10.47	0.00	10.47	0.00
Demo Off Road Diesel	3.33	24.63	15.34	0.00	0.00	1.32	1.32	0.00	1.21	1.21	2,893.21
Demo On Road Diesel	3.59	51.93	17.98	0.08	0.31	1.95	2.26	0.10	1.79	1.89	8,937.74
Demo Worker Trips	0.04	0.06	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.78
Time Slice 6/25/2012-9/7/2012 Active Days: 55	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23
Time Slice 9/10/2012-12/31/2012 Active Days: 81	10.21	20.99	13.06	0.00	0.01	1.20	1.21	0.00	1.10	1.11	2,478.33
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23

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Time Slice 1/1/2013-1/7/2013 Active Days: 5	10.04	19.48	12.90	0.00	0.01	1.08	1.08	0.00	0.99	0.99	2,478.37
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Trenching 06/25/2012-01/07/2013	2.58	19.48	12.82	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,469.47
Trenching Off Road Diesel	2.55	19.43	11.95	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,367.21
Trenching Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 1/8/2013-1/18/2013 Active Days: 9	11.27	34.77	19.00	0.02	10.08	1.63	11.72	2.12	1.50	3.62	5,134.79
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	10.08	1.63	11.71	2.12	1.50	3.62	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/21/2013-1/21/2013 Active Days: 1	**14.18**	56.56	32.89	0.02	20.09	2.88	22.97	4.21	2.65	6.85	7,780.20
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	10.00	1.25	11.25	2.09	1.15	3.24	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	10.08	1.63	11.71	2.12	1.50	3.62	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/22/2013-1/31/2013 Active Days: 8	12.06	32.01	22.30	0.00	10.01	2.09	12.10	2.09	1.92	4.01	3,826.22
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	10.00	1.25	11.25	2.09	1.15	3.24	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 2/1/2013-2/18/2013 Active Days: 12	9.15	10.23	8.42	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,180.80
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

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Time Slice 2/19/2013-3/4/2013 Active Days: 10	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

Phase Assumptions

Phase: Demolition 4/16/2012 - 6/22/2012 - Building removal (preceded by ltd internal demo/hazmat removal)

Building Volume Total (cubic feet): 669600

Building Volume Daily (cubic feet): 119880

On Road Truck Travel (VMT): 2220

Off-Road Equipment:

3 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Fine Grading 1/21/2013 - 1/31/2013 - Site Grading & contours.

Total Acres Disturbed: 2

Maximum Daily Acreage Disturbed: 0.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 10 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Mass Grading 1/8/2013 - 1/21/2013 - Backfill and export.

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Total Acres Disturbed: 2

Maximum Daily Acreage Disturbed: 0.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 560

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 10 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Trenching 6/25/2012 - 1/7/2013 - Trench 1 and 2 and tie-backs.

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 10 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Paving 1/22/2013 - 2/18/2013 - Site new parking areas (incl. 10, 250 sq ft) of paving.

Acres to be Paved: 0.23

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Architectural Coating 9/8/2012 - 3/4/2013 - Arch & Misc. Improvements

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/16/2012-6/22/2012 Active Days: 50	6.97	**76.63**	**34.50**	**0.08**	**50.67**	**3.27**	**53.94**	**10.58**	**3.00**	**13.58**	**11,958.73**
Demolition 04/16/2012-06/22/2012	6.97	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
Fugitive Dust	0.00	0.00	0.00	0.00	50.35	0.00	50.35	10.47	0.00	10.47	0.00
Demo Off Road Diesel	3.33	24.63	15.34	0.00	0.00	1.32	1.32	0.00	1.21	1.21	2,893.21
Demo On Road Diesel	3.59	51.93	17.98	0.08	0.31	1.95	2.26	0.10	1.79	1.89	8,937.74
Demo Worker Trips	0.04	0.06	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.78
Time Slice 6/25/2012-9/7/2012 Active Days: 55	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23
Time Slice 9/10/2012-12/31/2012 Active Days: 81	10.21	20.99	13.06	0.00	0.01	1.20	1.21	0.00	1.10	1.11	2,478.33
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23

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Time Slice 1/1/2013-1/7/2013 Active Days: 5	10.04	19.48	12.90	0.00	0.01	1.08	1.08	0.00	0.99	0.99	2,478.37
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Trenching 06/25/2012-01/07/2013	2.58	19.48	12.82	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,469.47
Trenching Off Road Diesel	2.55	19.43	11.95	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,367.21
Trenching Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 1/8/2013-1/18/2013 Active Days: 9	11.27	34.77	19.00	0.02	5.74	1.63	7.37	1.21	1.50	2.71	5,134.79
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	5.74	1.63	7.37	1.21	1.50	2.71	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/21/2013-1/21/2013 Active Days: 1	**14.18**	56.56	32.89	0.02	11.40	2.88	14.28	2.39	2.65	5.04	7,780.20
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	5.66	1.25	6.91	1.18	1.15	2.33	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	5.74	1.63	7.37	1.21	1.50	2.71	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/22/2013-1/31/2013 Active Days: 8	12.06	32.01	22.30	0.00	5.67	2.09	7.76	1.19	1.92	3.11	3,826.22
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	5.66	1.25	6.91	1.18	1.15	2.33	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 2/1/2013-2/18/2013 Active Days: 12	9.15	10.23	8.42	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,180.80
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

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Time Slice 2/19/2013-3/4/2013 Active Days: 10	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/21/2013 - 1/31/2013 - Site Grading & contours.

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 1/8/2013 - 1/21/2013 - Backfill and export.

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Users\eric_carlson\Desktop\NOAA SW Fisheries Science Center La Jolla_20110824.urb924

Project Name: NOAA SW Fisheries Science Center, La Jolla, CA

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	10.21	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
2012 TOTALS (lbs/day mitigated)	10.21	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
2013 TOTALS (lbs/day unmitigated)	14.18	56.56	32.89	0.02	20.09	2.88	22.97	4.21	2.65	6.85	7,780.20
2013 TOTALS (lbs/day mitigated)	14.18	56.56	32.89	0.02	11.40	2.88	14.28	2.39	2.65	5.04	7,780.20

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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Time Slice 4/16/2012-6/22/2012 Active Days: 50	6.97	**76.63**	**34.50**	**0.08**	**50.67**	**3.27**	**53.94**	**10.58**	**3.00**	**13.58**	**11,958.73**
Demolition 04/16/2012-06/22/2012	6.97	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
Fugitive Dust	0.00	0.00	0.00	0.00	50.35	0.00	50.35	10.47	0.00	10.47	0.00
Demo Off Road Diesel	3.33	24.63	15.34	0.00	0.00	1.32	1.32	0.00	1.21	1.21	2,893.21
Demo On Road Diesel	3.59	51.93	17.98	0.08	0.31	1.95	2.26	0.10	1.79	1.89	8,937.74
Demo Worker Trips	0.04	0.06	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.78
Time Slice 6/25/2012-9/7/2012 Active Days: 55	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23
Time Slice 9/10/2012-12/31/2012 Active Days: 81	10.21	20.99	13.06	0.00	0.01	1.20	1.21	0.00	1.10	1.11	2,478.33
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23

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Time Slice 1/1/2013-1/7/2013 Active Days: 5	10.04	19.48	12.90	0.00	0.01	1.08	1.08	0.00	0.99	0.99	2,478.37
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Trenching 06/25/2012-01/07/2013	2.58	19.48	12.82	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,469.47
Trenching Off Road Diesel	2.55	19.43	11.95	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,367.21
Trenching Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 1/8/2013-1/18/2013 Active Days: 9	11.27	34.77	19.00	0.02	10.08	1.63	11.72	2.12	1.50	3.62	5,134.79
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	10.08	1.63	11.71	2.12	1.50	3.62	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/21/2013-1/21/2013 Active Days: 1	**14.18**	56.56	32.89	0.02	20.09	2.88	22.97	4.21	2.65	6.85	7,780.20
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	10.00	1.25	11.25	2.09	1.15	3.24	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	10.08	1.63	11.71	2.12	1.50	3.62	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/22/2013-1/31/2013 Active Days: 8	12.06	32.01	22.30	0.00	10.01	2.09	12.10	2.09	1.92	4.01	3,826.22
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	10.00	1.25	11.25	2.09	1.15	3.24	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	10.00	0.00	10.00	2.09	0.00	2.09	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 2/1/2013-2/18/2013 Active Days: 12	9.15	10.23	8.42	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,180.80
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

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Time Slice 2/19/2013-3/4/2013 Active Days: 10	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

Phase Assumptions

Phase: Demolition 4/16/2012 - 6/22/2012 - Building removal (preceded by ltd internal demo/hazmat removal)

Building Volume Total (cubic feet): 669600

Building Volume Daily (cubic feet): 119880

On Road Truck Travel (VMT): 2220

Off-Road Equipment:

3 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Fine Grading 1/21/2013 - 1/31/2013 - Site Grading & contours.

Total Acres Disturbed: 2

Maximum Daily Acreage Disturbed: 0.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 10 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Mass Grading 1/8/2013 - 1/21/2013 - Backfill and export.

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Total Acres Disturbed: 2

Maximum Daily Acreage Disturbed: 0.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 560

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 10 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Trenching 6/25/2012 - 1/7/2013 - Trench 1 and 2 and tie-backs.

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 10 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Paving 1/22/2013 - 2/18/2013 - Site new parking areas (incl. 10, 250 sq ft) of paving.

Acres to be Paved: 0.23

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Architectural Coating 9/8/2012 - 3/4/2013 - Arch & Misc. Improvements

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/16/2012-6/22/2012 Active Days: 50	6.97	**76.63**	**34.50**	**0.08**	**50.67**	**3.27**	**53.94**	**10.58**	**3.00**	**13.58**	**11,958.73**
Demolition 04/16/2012-06/22/2012	6.97	76.63	34.50	0.08	50.67	3.27	53.94	10.58	3.00	13.58	11,958.73
Fugitive Dust	0.00	0.00	0.00	0.00	50.35	0.00	50.35	10.47	0.00	10.47	0.00
Demo Off Road Diesel	3.33	24.63	15.34	0.00	0.00	1.32	1.32	0.00	1.21	1.21	2,893.21
Demo On Road Diesel	3.59	51.93	17.98	0.08	0.31	1.95	2.26	0.10	1.79	1.89	8,937.74
Demo Worker Trips	0.04	0.06	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.78
Time Slice 6/25/2012-9/7/2012 Active Days: 55	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23
Time Slice 9/10/2012-12/31/2012 Active Days: 81	10.21	20.99	13.06	0.00	0.01	1.20	1.21	0.00	1.10	1.11	2,478.33
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.89
Trenching 06/25/2012-01/07/2013	2.76	20.99	12.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,469.44
Trenching Off Road Diesel	2.73	20.94	12.04	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,367.21
Trenching Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23

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Time Slice 1/1/2013-1/7/2013 Active Days: 5	10.04	19.48	12.90	0.00	0.01	1.08	1.08	0.00	0.99	0.99	2,478.37
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Trenching 06/25/2012-01/07/2013	2.58	19.48	12.82	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,469.47
Trenching Off Road Diesel	2.55	19.43	11.95	0.00	0.00	1.08	1.08	0.00	0.99	0.99	2,367.21
Trenching Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 1/8/2013-1/18/2013 Active Days: 9	11.27	34.77	19.00	0.02	5.74	1.63	7.37	1.21	1.50	2.71	5,134.79
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	5.74	1.63	7.37	1.21	1.50	2.71	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/21/2013-1/21/2013 Active Days: 1	**14.18**	56.56	32.89	0.02	11.40	2.88	14.28	2.39	2.65	5.04	7,780.20
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	5.66	1.25	6.91	1.18	1.15	2.33	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Mass Grading 01/08/2013-01/21/2013	3.82	34.77	18.93	0.02	5.74	1.63	7.37	1.21	1.50	2.71	5,125.89
Mass Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Mass Grading Off Road Diesel	2.96	23.14	13.98	0.00	0.00	1.20	1.20	0.00	1.10	1.10	2,769.07
Mass Grading On Road Diesel	0.83	11.58	4.08	0.02	0.08	0.43	0.51	0.03	0.40	0.42	2,254.56
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 1/22/2013-1/31/2013 Active Days: 8	12.06	32.01	22.30	0.00	5.67	2.09	7.76	1.19	1.92	3.11	3,826.22
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Fine Grading 01/21/2013-01/31/2013	2.91	21.78	13.89	0.00	5.66	1.25	6.91	1.18	1.15	2.33	2,645.42
Fine Grading Dust	0.00	0.00	0.00	0.00	5.66	0.00	5.66	1.18	0.00	1.18	0.00
Fine Grading Off Road Diesel	2.88	21.74	13.01	0.00	0.00	1.24	1.24	0.00	1.14	1.14	2,543.16
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 2/1/2013-2/18/2013 Active Days: 12	9.15	10.23	8.42	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,180.80
Asphalt 01/22/2013-02/18/2013	1.69	10.23	8.34	0.00	0.01	0.84	0.85	0.00	0.77	0.78	1,171.91
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.61	10.07	6.79	0.00	0.00	0.83	0.83	0.00	0.77	0.77	979.23
Paving On Road Diesel	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.73
Paving Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

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Time Slice 2/19/2013-3/4/2013 Active Days: 10	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Coating 09/08/2012-03/04/2013	7.46	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90
Architectural Coating	7.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.90

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/21/2013 - 1/31/2013 - Site Grading & contours.

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 1/8/2013 - 1/21/2013 - Backfill and export.

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Users\eric_carlson\Desktop\NOAA SW Fisheries Science Center La Jolla_20110824.urb924

Project Name: NOAA SW Fisheries Science Center, La Jolla, CA

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (tons/year unmitigated)	0.66	3.34	1.75	0.00	1.27	0.16	1.43	0.26	0.15	0.41	467.25
2012 TOTALS (tons/year mitigated)	0.66	3.34	1.75	0.00	1.27	0.16	1.43	0.26	0.15	0.41	467.25
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013 TOTALS (tons/year unmitigated)	0.22	0.42	0.27	0.00	0.10	0.02	0.12	0.02	0.02	0.04	55.63
2013 TOTALS (tons/year mitigated)	0.22	0.42	0.27	0.00	0.05	0.02	0.08	0.01	0.02	0.03	55.63
Percent Reduction	0.00	0.00	0.00	0.00	43.20	0.00	34.27	43.04	0.00	20.09	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2012	0.66	3.34	1.75	0.00	1.27	0.16	1.43	0.26	0.15	0.41	467.25
Demolition 04/16/2012-06/22/2012	0.17	1.92	0.86	0.00	1.27	0.08	1.35	0.26	0.08	0.34	298.97
Fugitive Dust	0.00	0.00	0.00	0.00	1.05	0.00	1.05	0.22	0.00	0.22	0.00
Demo Off Road Diesel	0.08	0.62	0.38	0.00	0.00	0.03	0.03	0.00	0.03	0.03	72.33
Demo On Road Diesel	0.09	1.30	0.45	0.00	0.01	0.05	0.06	0.00	0.04	0.05	223.44
Demo Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.19
Trenching 06/25/2012-01/07/2013	0.19	1.43	0.88	0.00	0.00	0.08	0.08	0.00	0.08	0.08	167.92
Trenching Off Road Diesel	0.19	1.42	0.82	0.00	0.00	0.08	0.08	0.00	0.07	0.07	160.97
Trenching Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.95
Coating 09/08/2012-03/04/2013	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Architectural Coating	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
2013	0.22	0.42	0.27	0.00	0.10	0.02	0.12	0.02	0.02	0.04	55.63
Coating 09/08/2012-03/04/2013	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Trenching 06/25/2012-01/07/2013	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.17
Trenching Off Road Diesel	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.92
Trenching Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26

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Mass Grading 01/08/2013-01/21/2013	0.02	0.17	0.09	0.00	0.05	0.01	0.06	0.01	0.01	0.02	25.63
Mass Grading Dust	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.01	0.12	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	13.85
Mass Grading On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.27
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
Fine Grading 01/21/2013-01/31/2013	0.01	0.10	0.06	0.00	0.05	0.01	0.05	0.01	0.01	0.01	11.90
Fine Grading Dust	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.01	0.00	0.01	0.00
Fine Grading Off Road Diesel	0.01	0.10	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	11.44
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
Asphalt 01/22/2013-02/18/2013	0.02	0.10	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	11.72
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.02	0.10	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.79
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79

Phase Assumptions

Phase: Demolition 4/16/2012 - 6/22/2012 - Building removal (preceded by ltd internal demo/hazmat removal)

Building Volume Total (cubic feet): 669600

Building Volume Daily (cubic feet): 119880

On Road Truck Travel (VMT): 2220

Off-Road Equipment:

3 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

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Phase: Fine Grading 1/21/2013 - 1/31/2013 - Site Grading & contours.

Total Acres Disturbed: 2

Maximum Daily Acreage Disturbed: 0.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 10 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Mass Grading 1/8/2013 - 1/21/2013 - Backfill and export.

Total Acres Disturbed: 2

Maximum Daily Acreage Disturbed: 0.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 560

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 10 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 10 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Trenching 6/25/2012 - 1/7/2013 - Trench 1 and 2 and tie-backs.

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 10 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 10 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 10 hours per day

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1 Water Trucks (189 hp) operating at a 0.5 load factor for 10 hours per day

Phase: Paving 1/22/2013 - 2/18/2013 - Site new parking areas (incl. 10, 250 sq ft) of paving.

Acres to be Paved: 0.23

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Architectural Coating 9/8/2012 - 3/4/2013 - Arch & Misc. Improvements

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2012	0.66	3.34	1.75	0.00	1.27	0.16	1.43	0.26	0.15	0.41	467.25
Demolition 04/16/2012-06/22/2012	0.17	1.92	0.86	0.00	1.27	0.08	1.35	0.26	0.08	0.34	298.97
Fugitive Dust	0.00	0.00	0.00	0.00	1.05	0.00	1.05	0.22	0.00	0.22	0.00
Demo Off Road Diesel	0.08	0.62	0.38	0.00	0.00	0.03	0.03	0.00	0.03	0.03	72.33
Demo On Road Diesel	0.09	1.30	0.45	0.00	0.01	0.05	0.06	0.00	0.04	0.05	223.44
Demo Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.19
Trenching 06/25/2012-01/07/2013	0.19	1.43	0.88	0.00	0.00	0.08	0.08	0.00	0.08	0.08	167.92
Trenching Off Road Diesel	0.19	1.42	0.82	0.00	0.00	0.08	0.08	0.00	0.07	0.07	160.97
Trenching Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.95
Coating 09/08/2012-03/04/2013	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Architectural Coating	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
2013	0.22	0.42	0.27	0.00	0.05	0.02	0.08	0.01	0.02	0.03	55.63
Coating 09/08/2012-03/04/2013	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Trenching 06/25/2012-01/07/2013	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.17
Trenching Off Road Diesel	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.92
Trenching Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26

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Mass Grading 01/08/2013-01/21/2013	0.02	0.17	0.09	0.00	0.03	0.01	0.04	0.01	0.01	0.01	25.63
Mass Grading Dust	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.01	0.12	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	13.85
Mass Grading On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.27
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
Fine Grading 01/21/2013-01/31/2013	0.01	0.10	0.06	0.00	0.03	0.01	0.03	0.01	0.01	0.01	11.90
Fine Grading Dust	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.01	0.00	0.01	0.00
Fine Grading Off Road Diesel	0.01	0.10	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	11.44
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
Asphalt 01/22/2013-02/18/2013	0.02	0.10	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	11.72
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.02	0.10	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.79
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/21/2013 - 1/31/2013 - Site Grading & contours.

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 1/8/2013 - 1/21/2013 - Backfill and export.

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Appendix E

Mitigation Monitoring and
Reporting Program (MMRP)

MITIGATION MONITORING AND REPORTING PROGRAM FOR REPLACEMENT OF NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL MARINE FISHERIES SERVICE SOUTHWEST FISHERIES SCIENCE CENTER (SWFSC) – DEMOLITION, SOIL STABILIZATION AND SEISMIC IMPROVEMENTS, LA JOLLA, CALIFORNIA

Note to Reader: The terms "construction" and "demolition" are not used synonymously in this table and should not be confused. Construction refers to construction of the replacement SWFSC building at the preferred site, planned for fall 2009 through fall 2011. The term demolition refers to dismantling and removal of Buildings A, B and C at the existing SWFSC site, which is scheduled to occur within six years after NOAA occupies the replacement SWFSC building. Measures with a small d after the number (e.g. Geo-1d) are applicable to the demolition of Buildings A, B and C only.

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
LAND USE AND COASTAL ZONE MANAGEMENT						
Lan-1	Prepare a Federal Consistency Determination and submit it to the California Coastal Commission (CCC) for concurrence.	Prepare and submit a Federal Consistency Determination to the CCC	NOAA Project Planning & Management Division (PPMD)	Prior to start of construction activities	Obtain CCC approval of the Federal Consistency Determination and include in project file. Provide copy to University of California at San Diego (UCSD) environmental planner (EP).	
Lan-2	UCSD Design Review Board (DRB) and UCSD Physical Planning (PP) Department will review the SWFSC design plans to evaluate the extent to which the proposed SWFSC would be integrated into the campus neighborhood and would be compatible with nearby uses. The review will evaluate edge effects, site connections to adjacent on-and off-campus land uses, pedestrian and bicycle circulation, landscaping, and alternative transportation facilities (for example, bike racks and shuttle stops).	Submit plans for UCSD DRB and UCSD PP review	NOAA PPMD	DRB review at schematic design stage. PP review throughout plan development	NOAA to incorporate plan review comments in plans. Include DRB and PP review findings in project file.	
Lan-3	Demolition of Buildings B and C at the existing SWFSC site would occur in a manner that avoids disturbance of adjacent restoration lands. Staging of demolition activities, parking of vehicles, and storage of supplies and equipment would occur at existing developed areas at the property and not on restoration lands.	Incorporate mitigation measures into demolition bid documents	NOAA PPMD	Prior to issuance of demolition bid documents	Confirm inclusion of measures during final review of demolition bid documents.	
		Delineate limits of work in the field	NOAA PPMD	Prior to construction, confirm inclusion of measures during final review of demolition bid documents	Inspect site at inception of demolition work to ensure adequate fencing and signage has been placed to protect restoration lands.	
		Demolition work to occur within delineated areas and implement mitigation measure	Demolition contractor	During demolition period	NOAA to include in demolition inspection a checklist and pro-vide final checklist to UCSD EP.	
GEOLOGY, SOILS, AND GEOLOGIC HAZARDS						
Geo-1	Prepare an SWPPP (Stormwater Pollution Prevention Plan) containing Best Management Practices (BMPs) to minimize soil erosion during construction of the new SWFSC (see Hyd-1). The BMPs would be implemented during the construction period. The mitigation measures will include grading of the construction site to direct storm water to existing drainages and minimize the length and velocity of overland flow, placement of silt fences or equivalent sediment barriers at the boundaries of the construction areas, and covering of	Contract for preparation of SWPPP	NOAA PPMD	At least 90 days prior to issuance of construction bid documents	Confirm inclusion in construction bid documents.	**Yes**
		Include BMPs contained in the SWPPP	NOAA PPMD	Prior to issuance of construction bid	NOAA to inspect construction area on a weekly basis and within 24 hours after	**Yes**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
	stockpiles of earth materials when not in use.	in construction bid document		documents and during construction period	precipitation events to confirm implementation and effectiveness of BMPs.	
Geo-1d	Prepare an SWPPP containing BMPs to minimize soil erosion during demolition of Buildings B and C (see Hyd-1d). The BMPs would be implemented during demolition period.	Contract for preparation of SWPPP	NOAA PPMD	At least 90 days prior to issuance of demolition bid documents	Confirm inclusion in demolition bid documents.	**Yes**
		Include BMPs contained in the SWPPP in demolition bid document	NOAA PPMD	Prior to issuance of demolition bid documents and during demolition period	Inspect demolition area on a weekly basis and within 24 hours after precipitation events to confirm implementation and effectiveness of BMPs.	**Yes**
Geo-2	Denuded areas at the preferred site would be promptly covered with straw mats or similar materials and seeded or planted in conformance with project landscape plans to promote native revegetation after construction activities are complete.	Stabilize ground and install landscaping as soon as feasible following construction	NOAA PPMD & construction contractor	During construction or as soon as feasible following construction	Inspect site monthly after landscaping is installed at construction site and document percent of plants thriving for one year. Provide compliance report to UCSD EP.	**Yes**
Geo-2d	Denuded areas at the existing SWFSC site would be promptly covered with straw mats or similar materials and seeded or planted in conformance with project landscape plans to promote native revegetation after activities are complete.	Stabilize ground and install landscaping as soon as feasible following demolition	NOAA PPMD & demolition contractor	During demolition or as soon as feasible following demolition	Inspect site monthly after landscaping is installed at demolition site and document percent of plants thriving for one year. Provide compliance report to UCSD EP.	**Yes**
Geo-3	Design and construction of the new SWFSC will conform to seismic safety standards of the 2007 California Building Code.	Compare design plans to 2007 California Building Code	NOAA PPMD	At 95% design	Obtain review report from project engineers and place in project file. Provide compliance report to UCSD EP.	**Yes** - Previous Geo-3 is modified to also include UCOP's Seismic Safety Policy and ASCE 41-6 guidelines.
Geo-4	NOAA would maintain an up-to-date emergency response plan and would train managers and staff to implement the plan as necessary. NOAA would continue to operate the sensor network at the existing SWFSC to alert staff of dangerous geologic conditions and ensure the safety of staff and visitors	NOAA prepare an Emergency Response Plan and prepare a training for managers to implement plan	NOAA	Prior and during construction	Provide Emergency Response Plan to staff and train managers. Continue to operate the Bluff Erosion Monitoring System	**Yes -** The construction specifications will include specific provisions to protect the existing slope inclinometers, and repair or replace these instruments if damaged (new measure).
DRAINAGE AND WATER QUALITY						
Hyd-1	Implement the SWPPP for construction activities and submit required notices of intent (NOI) and termination (NOT) to the Regional Water Quality Control Board (RWQCB) (also see Geo-1). The following BMPs will be incorporated into the SWPPP and implemented during and after construction activities: The area of land disturbance will be kept to a minimum and existing vegetative cover will be retained as much as possible. Disturbed areas will be stabilized with temporary placement of woven mesh or netting until vegetation becomes established.	Submit SWPPP NOI to RWQCB	NOAA PPMD	Within 7 days prior to start of construction	Document RWQCB receipt of NOI and provide copy of NOI to UCSD EP.	**Yes**
		Submit SWPPP NOT to RWQCB	NOAA PPMD	Within 7 days after construction site achieves stabilization	Document RWQCB receipt of NOT and provide copy of NOT to UCSD EP.	**Yes**
		NOAA to ensure SWPPP and BMPs developed and implemented to	NOAA PPMD	During construction	Include measures in construction inspection checklist and provide	**Yes**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
	Controls (silt fences, hay bales, etc.) will be placed at the perimeters of the construction and demolition areas. The sites will be sloped and graded to direct runoff away from steep hillsides or denuded areas. Disturbed areas will be replanted with native coastal sage scrub vegetation.	satisfaction of UCSD inspectors			compliance report to UCSD EP.	
Hyd-1d	Implement the SWPPP for demolition activities and submit required NOI and NOT to the RWQCB. The SWPPP will include BMPs as described above in Hyd-1.	Same as for Hyd-1 above	NOAA PPMD	Submit NOI within 7 days prior to start of demolition and NOT within 7 days after stabilization of demolition site	Document RWQCB receipt of NOI and NOT and provide copies of NOI to UCSD EP. Include measures in demolition inspection checklist and provide compliance report to UCSD EP.	**Yes**
Hyd-2	The new SWFSC will incorporate the design features listed below to retain storm water on-site, thereby mitigating any increase in storm runoff rates: Landscaping using native species will be planted adjacent to foundations to reduce the velocity of runoff flow and prevent erosion. Storm water from roofs will be directed to water retention areas. A new drainage trough will help to further reduce the projected increase in runoff. Permeable pavement will be used where appropriate for walkways and parking areas.	Incorporate drainage design plans into building plans	NOAA PPMD to satisfaction of UCSD PP	During design phase	Review drainage plans at 95% stage and document results of review in project file.	**Yes**
		Implement design features to retain storm water on-site	Construction contractor to satisfaction of NOAA/ UCSD construction inspectors	During construction	Include in NOAA construction inspection checklist. Provide record of compliance to UCSD EP.	**Yes**
Hyd-3	All storm drain inlets and catch basins at the SWFSC site will be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCSD standards.					**Yes**
Hyd-5	Outdoor storage areas for materials that may affect water quality will be covered and protected by secondary containment					**Yes**
Hyd-6	All trash container areas will be enclosed to prevent off-site transport of trash and drainage will be directed to the sanitary sewer system or the covered containers to prevent exposure of trash to precipitation.					**Yes**
BIOLOGICAL RESOURCES AND WETLANDS						
Bio-1	Comply with requirements of UCSD Habitat Conservation Program outlined in UCSD 2004 Long Range Development Plan (LRDP) EIR.	UCSD to prepare maps of preservation area; NOAA to fund UCSD mitigation program	UCSD and NOAA PPMD	Prior to start of construction	Include preservation information in project files. NOAA to document transfer funds to UCSD.	**No**
Bio-2	To prevent damage or destruction of San Diego sea dahlia plants occurring off site to the south of the preferred site, those plants would be fenced and posted prior to the start of construction and construction workers would be directed to avoid harming those plants.	Include plant identification and protection in construction bid documents	NOAA PPMD to satisfaction of UCSD EP	Prior to the issuance of construction bid documents	Provide record of compliance to UCSD EP.	**No**
		Demarcate limits of work in field with fencing and instruct construction workers to avoid harm to plants	NOAA PPMD & construction contractor	After the pre-construction meeting but before construction starts	Include in NOAA construction inspection checklist.	**No**
Bio-3	Additional coastal California gnatcatcher surveys would be conducted at the preferred site prior to start of SWFSC construction. If the gnatcatcher is found to occupy the Diegan coastal sage scrub vegetation at the preferred site, removal of that vegetation would not occur during	Contract for gnat-catcher surveys at SWFSC construction site; if necessary due to presence of gnatcatchers, delay	NOAA PPMD	Within 30 days before start of construction	Obtain biological report and include in project file. Provide report to UCSD EP.	**No**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
	the February 1 through August 31 breeding season.	vegetation clearing until after August 31				
Bio-4	If coastal California gnatcatchers are not observed at the preferred site but are observed within 500 ft. of the preferred site, construction noise would be limited so that it does not exceed equivalent energy noise level 60 A-weighted decibels (dBA) per hour during the gnatcatcher breeding season.	Contract for gnat-catcher surveys of area within 500 ft. of SWFSC construction site	NOAA PPMD	Within 30 days before start of construction	If gnatcatchers are present within 500 ft., conduct noise monitoring near gnatcatcher locations during the period February 1 through August 31. Document results of gnat-catcher studies and noise monitoring and provide copies to UCSD EP.	**No**
Bio-5	A qualified biologist would conduct raptor nest surveys within 500 ft. of the preferred site prior to start of construction and during the raptor breeding season, February 1 through August 31. If active raptor nests are observed, construction activities within 500 ft. of the nests would be suspended until the biologist determines that the nests are no longer active.	Contract for raptor nest surveys at SWFSC construction site and within 500 ft.; if necessary due to presence of raptor nests, suspend construction activities until the nests are inactive	NOAA PPMD	Within 30 days prior to start of construction and every week during February 1 through August 31	Obtain survey reports from biologist and include in project file. Provide reports to UCSD EP.	**No**
Bio-6	If demolition activities at the existing SWFSC site are expected during the raptor breeding season, February 1 through August 31, a qualified biologist would conduct raptor nest surveys within 500 ft. of the existing site prior to start of demolition activities. If active raptor nests are observed, demolition activities within 500 ft. of the nests would be suspended until the biologist determines that the nests are no longer active.	Contract for raptor nest surveys at existing SWFSC site and area within 500 ft.; if demolition activities at the existing SWFSC site are expected during the raptor breeding season, February 1 through August 31, suspend demolition activities within 500 ft. of active raptor nests	NOAA PPMD	Prior to start of demolition activities and every week during February 1 through August 31 if demolition is occurring	Obtain survey reports from biologists. Provide reports to UCSD EP.	**Yes**
TRANSPORTATION						
Tra-1	To improve the flow of traffic and reduce safety hazards to local motorists, bicyclists, and pedestrians, NOAA and UCSD would cooperate in implementing the following mitigation measures: Add an additional 50 to 100 ft. red curb to northbound La Jolla Shores Drive south of Shellback Way. Widen the Shellback Way approach to the intersection with La Jolla Shores Drive to accommodate 20 ft. wide east-and west-bound traffic lanes and a 12 ft. wide median. Remove existing sign prohibiting left turns from eastbound Shellback Way onto southbound La Jolla Shores Drive. Install bollard seats on Shellback Way near right angle turn south of the preferred site. This will allow bollards to be placed diverting traffic when the portion of Shellback Way in front of the Keck Center is used to stage large equipment, which occurs infrequently.	Include measures in construction bid documents	NOAA PPMD and UCSD	During design	Include measures in construction inspection checklist.	**No**
Tra-2	Prepare a traffic control plan covering the construction period for review by UCSD. The traffic control plan would address lane and/or road closures, emergency access and egress, efficient traffic circulation, and use of flaggers to control traffic and avoid conflicts. The plan would include recommendations, such as signage, detours, and temporary traffic controls. The plan would prohibit construction vehicles from using Downwind Way or the north–south oriented section of Shellback Way (which passes in front of the Keck Center, Nierenberg Hall, Speiss Hall, and associated service yards).	Prepare traffic control plan and submit to UCSD Fire Marshall, UCSD FD&C (Facility Design and Construction) and SIO for approval	NOAA PPMD	At least 30 days prior to issuance of construction bid documents	Obtain UCSD approval and include in project file. Confirm receipt of approval to UCSD EP.	**Yes**
		Incorporate traffic control plan into construction bid documents	NOAA PPMD to satisfaction of UCSD	Prior to issuance of construction bid documents	Confirm inclusion in construction bid documents.	**Yes**
		Implement traffic control plans	Demolition con-tractors to	During construction	Include traffic controls in construction	**Yes**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
			satisfaction of NOAA/UCSD demolition inspectors	activities	inspection checklists.	
Tra-2d	Prepare a traffic control plan covering the demolition period for review by UCSD. The traffic control plan would address lane and/or road closures, emergency access and egress, efficient traffic circulation, and use of flaggers to control traffic and avoid conflicts. The plan would include recommendations, such as signage, detours, and temporary traffic controls.	Prepare demolition traffic control plan and submit to UCSD Fire Marshall and UCSD FD&C for approval	NOAA PPMD	At least 30 days prior to issuance of demolition bid documents	Obtain UCSD approval and include in project file. Confirm receipt of approval to UCSD EP.	**No**
		Incorporate traffic control plan into demolition bid documents	NOAA PPMD to satisfaction of UCSD	Prior to issuance of demolition bid documents	Confirm inclusion in demolition bid documents.	**No**
		Implement traffic control plans	Demolition con-tractors to satisfaction of NOAA/ UCSD demolition inspectors	During demolition activities	Include traffic controls in demolition inspection checklists.	**No**
RECREATIONAL RESOURCES						
Rec -1	The existing meander path at the preferred site would be replaced with a path of similar quality and the public would be allowed to use the replacement path.	Include path design plans in construction bid documents	NOAA PPMD to satisfaction of UCSD PP	During design phase	Include path in construction inspection checklist.	**No**
SEIS MM Rec-2	NOAA would continue to monitor the rate of bluff retreat and signs of accelerating ground and building failure, such as increase tilting and expansion of tension cracks, at Building A. If warranted, NOAA would inform local authorities of the need to take measures to protect beach users.					**SEIS Specific Mitigation Measure**
AIR QUALITY						
Air-1	To comply with Federal regulations at 40 CFR (Code of Federal Regulations) Parts 51 and 93, NOAA would prepare a Federal Air Quality conformity determination and submit to Environmental Protection Agency (EPA)	Include measures to reduce emissions of ozone pre-cursors during the construction period Federal conformity determination and submit for approval	NOAA PPMD	After issuance of ROD and prior to issuance of construction bid documents	Include EPA receipt in project file and provide copy to UCSD EP.	**No**
Air-2	NOAA would request that construction contractors implement SmartWay Truck Efficiency and anti-idling practices to reduce the amount and effects of Green House Gas (GHG) emissions during the construction period. These practices include retrofitting heavy duty trucks (trucks/trailers) and vehicles used during construction with the best available "SmartWay Transport" and/or California Air Resources Board (CARB)-approved technology to reduce GHG.	Incorporate SmartWay Truck Efficiency and anti-idling measures into construction bid documents	NOAA PPMD	Prior to issuance of construction bid documents	Confirm inclusion in construction bid documents.	**Yes**
		Inspect construction vehicles and measure idling times in periodic inspection during construction activities	NOAA PPMD	During construction	Include measures in construction inspection checklist.	**Yes**
Air-2d	NOAA would request that demolition contractors implement SmartWay Truck Efficiency and anti-idling practices to reduce the amount and effects of GHG emissions during the demolition period. These practices include retrofitting heavy duty trucks (trucks/trailers) and vehicles used during construction with the best available "SmartWay Transport" and/or CARB-approved technology to reduce GHG.	Incorporate SmartWay Truck Efficiency and anti-idling measures into demolition bid documents	NOAA PPMD	Prior to issuance of demolition bid documents	Confirm inclusion in demolition bid documents.	**Yes**
		Inspect demolition vehicles and measure idling times in periodic	NOAA PPMD	During demolition	Include measures in demolition inspection	**Yes**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
		inspection during demolition activities			checklist.	
Air-3	Develop and implement Construction Emissions Management Plan (CEMP) measures during the construction period. The CEMP would identify detailed measures to minimize emissions of dust and other air pollutants, such as stabilization of unpaved roads at the construction site using water, chemical dust suppressants, and/or other stabilization techniques; pre-soaking and sprinkling of areas to be cleared of vegetated and/or graded areas with water at least daily; sweeping of streets surrounding the construction site, to minimize dust emissions at least daily; limiting vehicle speeds on unpaved roads and areas to 15 mph; prompt revegetation of areas of exposed soil as soon as construction activities are completed; encouragement by NOAA for contractors to use alternate fuels and retrofit existing engines in construction equipment, to the extent that equipment is available and cost effective; limiting idling time of construction equipment to 10 minutes when not in use; and specify that contracts for construction of the new SWFSC facility at the existing facility will require medium- and large-size construction fleets to comply with CARB regulations for in-use off-road diesel vehicles (California Code of Regulations, Title 13, Motor Vehicles, Article 4.8, Section 2449).	Contract for preparation of CEMP and incorporate CEMP measures into construction bid documents	NOAA PPMD	During preparation of construction bid documents	Confirm inclusion in construction bid documents; include CEMP measures in construction inspection checklist. Provide CEMP plan to UCSD EP. Ensure enforcement during construction via regular field checks	**Yes -** specify that contracts for demolition of Buildings A, B and C, soil stabilization and earthmoving activities at the existing SWFSC facility will require medium- and large-size construction fleets to comply with CARB regulations for in-use off-road diesel vehicles
Air-3d	Develop and implement CEMP measures during the construction and demolition periods. (see Air-3 for list of typical measures).	Contract for preparation of CEMP and incorporate CEMP measures into demolition bid documents	NOAA PPMD	During preparation of demolition bid documents	Confirm inclusion in demolition bid documents; include CEMP measures in demolition inspection checklist. Provide CEMP plan to UCSD EP. Ensure enforcement during demolition inspections.	**Yes**
Air-4	Obtain authority to install and obtain an operating permit from San Diego Air Pollution Control District (SDAPCD) for the standby generator at the new SWFSC. The permits would include detailed conditions to ensure that the generator operates at peak efficiency, minimizing emissions of air pollutants.	Complete application to install and operate and submit to SDAPCD	NOAA PPMD	At least 90 days prior to installation of generator	Include permit documents received from SDAPCD in project files. Provide copy of SDAPCD approval to install/operate to UCSD EP.	**No**
Air-5	Achieve Leadership in Energy and Environmental Design (LEED) Silver standards for energy efficiency and environmental sustainability.	Apply for LEED certification for the new SWFSC	NOAA PPMD	Within two years after construction is complete	Include LEED documentation in project file. Provide LEED score sheet and copy of final LEED certification to UCSD EP.	**No**
Air-6	SWFSC would implement a Transportation Demand Management System (TDMS) to reduce the amount of vehicle trips by staff. The TDMS would identify opportunities (for example, vanpools, public transit, bicycling) for alternatives to single-occupancy cars and assist staff in employing those alternatives.	Develop and implement a TDMS	SWFSC Management	Prior to occupancy of new SWFSC	Document TDMS and make available to SWFSC staff. Provide copy of TDMS to UCSD EP.	**No**
Air-7	SWFSC would include facilities to support bicycle commuters, including convenient racks for securing bicycles, and showers for use by	Include bicycle facilities in construction bid documents	NOAA PPMD	Prior to issuance of construction bid documents	Confirm inclusion in bid documents; include bicycle facilities in construction	**No**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
NOISE AND VIBRATION						
Noi-1	NOAA would require construction contractors to comply with the construction noise abatement measures contained in the UCSD 2004 LRDP EIR, which are listed below. Construction activities would be implemented in a manner that prevents the 12-hour average sound level from exceeding 75 dBA between 7:00 AM and 7:00 PM on Monday through Saturday at the following noise sensitive land uses: residences located north of the preferred SWFSC site and the Keck Center for Ocean Atmospheric Research. Construction vehicles and equipment would be properly outfitted with manufacturer-recommended noise-reduction devices maintained in good working order. Stationary construction and demolition equipment, such as generators, pumps, and batch plants, would be located as far as possible (at least 100 ft.) from the residences located north of the preferred SWFSC site and the Keck Center for Ocean Atmospheric Research. Laydown and staging areas for construction activities would be located as far as feasible from the residences located north of the existing and preferred SWFSC site and the Keck Center for Ocean Atmospheric Research. Residents of houses located north of the preferred SWFSC site and occupants of the Keck Center for Ocean Atmospheric Research would be informed a month in advance when practical but not less than two weeks prior to the start of SWFSC construction. Loud construction activity such as jack hammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations occurring within 100 ft. of an academic building will be coordinated with SIO and should not be scheduled during any finals week of classes to the extent feasible. Loud construction activity such as jack hammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations occurring within 100 ft. of an academic building will be scheduled during holidays, class breaks, and/or summer session to the extent feasible. Loud construction activity located within 100 ft. of a residential building will be restricted to occur between the hours of 7:00 AM and 7:00 PM Monday through Friday.	Incorporate mitigation measures into construction bid documents	NOAA PPMD	Prior to issuance of construction bid documents	Confirm inclusion in bid documents; conduct noise monitoring program during construction and report results to construction inspectors weekly. Provide documentation of success to EP.	**Yes-** Residents of houses located north of the existing and preferred SWFSC site and occupants of the Keck Center for Ocean Atmospheric Research would be informed at least two weeks prior to the start of SWFSC demolition of Buildings A, B and C
Noi-1d	NOAA would require demolition con-tractors to comply with the demolition noise abatement measures contained in the UCSD 2004 LRDP EIR (Environmental Impact Report), which are listed below. Demolition activities would be implemented in a manner that prevents the 12-hour average sound level from exceeding 75 dBA between 7:00 AM and 7:00 PM on Monday through Saturday at the following noise sensitive land uses: residences located north of the SWFSC site. Demolition vehicles and equipment would be properly outfitted with manufacturer-recommended noise-reduction devices maintained in good working order. Stationary demolition equipment would be located as far as possible (at least 100 ft.) from the residences located north of the existing SWFSC site. Laydown and staging areas for demolition activities would be located as far as feasible from the residences located north of the existing SWFSC site. Residents of houses located north of the existing and preferred SWFSC site would be informed a month in advance when practical but not less than two weeks prior to the start of demolition of Buildings B and C. Loud demolition activity such as jack hammering or concrete sawing, occurring within 100 ft.	Incorporate mitigation measures into demolition bid documents	NOAA PPMD	Prior to issuance of demolition bid documents	Confirm inclusion in bid documents; conduct noise monitoring program during demolition and report results to demolition inspectors weekly. Provide documentation of success to UCSD EP.	**Yes -** Residents of houses located north of the existing and preferred SWFSC site would be informed a month in advance when practical but not less than two weeks prior to the start of demolition of Buildings A, B and C.

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
	of an academic building will be coordinated with SIO and should not be scheduled during any finals week of classes to the extent feasible. Loud construction activity such as jack hammering, concrete sawing, or asphalt removal, occurring within 100 ft. of an academic building will be scheduled during holidays, class breaks, and/or summer session to the extent feasible. Loud construction activity located within 100 ft. of a residential structure will be restricted to occur between the hours of 7:00 AM and 7:00 PM Monday through Friday.					
Noi-2	A person qualified in construction noise and vibration assessment would prepare construction vibration mitigation plans, which would be reviewed for adequacy by SIO, UCSD EP and FD&C Departments. The plans will describe measures to reduce construction vibrations to the maximum extent possible. Vibration monitoring will be performed during construction activities occurring in proximity to the Keck Center to establish the maximum level of vibration. If vibrations reach levels that disrupt research activities being performed at the Center, alternative work methods and/or equipment would be employed to reduce vibration levels to non-harmful levels.	Contract for preparation of construction vibration mitigation plans and submit them to UCSD/SIO for review	NOAA PPMD	Prior to issuance of construction bid documents	Obtain UCSD/Scripps Institution of Oceanography (SIO) approval and include in project file. Provide copy of plans to UCSD EP.	**No**
		Contract for vibration monitoring during construction activities	NOAA PPMD	During construction activities	Obtain periodic reports on vibration monitoring during the construction period. Provide documentation of successful compliance to UCSD EP	**No**
Noi-2d	A person qualified in demolition noise and vibration assessment would prepare demolition vibration mitigation plans, which would be reviewed for adequacy by SIO, UCSD EP and FD&C Departments. The plans will describe measures to reduce demolition vibrations to the maximum extent possible.	Contract for preparation of demolition vibration mitigation plans and submit them to UCSD/SIO for review	NOAA PPMD	Prior to issuance of demolition bid documents	Obtain UCSD/SIO approval and include in project file. Provide copy of plans to UCSD EP.	**No**
VISUAL AESTHETICS						
Vis-1	The proposed SWFSC would undergo design review by UCSD DRB and UCSD PP Department to ensure that the visual features of the new SWFSC are consistent with UCSD design policies. The design review process will evaluate building mass and form; building proportion; roof profile; architectural detail and fenestration; texture, color, type and quality of building materials; landscaping; and other elements as deemed necessary.	Submit SWFSC design plans to UCSD DRB and PP for review	NOAA PPMD	During design review process	Include DRB and PP review comments in project file/plans.	**No**
Vis-2	Existing large vegetation (that is, trees and large shrubs) at the preferred site would be retained as much as possible to provide visual screening for the new SWFSC building.	Identify and mark vegetation to be retained in coordination with UCSD PP, and place on landscape plans	NOAA PPMD	Prior to start of construction	Include inspection of vegetation to be preserved in construction inspection checklist.	**No**
Vis-3	The proposed SWFSC would be located in a visually sensitive zone. To minimize glare generated by reflective building elements, exterior surfaces would be comprised of non-reflective materials to the maximum extent possible and windows would use non-mirrored window glass (that is, high technology and/or low emissivity glass).	Incorporate visual elements into SWFSC design	NOAA PPMD	During design review process	Include analysis of visual elements in design review documents.	**No**
Vis-4	Trees would be planted along the western boundary of the new SWFSC site, between the new building and La Jolla Shores Drive, providing visual screening of the new SWFSC building.	Include trees (landscape plans) in design package/ construction bid documents	NOAA PPMD	During design review process	Confirm landscape installed per approved plans construction inspection checklist.	**No**
Vis-5	Exterior lights on the new building would be shielded and/or pointed downward as necessary to minimize the amount of light spilling onto residential properties to the north. Additionally, low intensity lighting would be used wherever possible and lights would be directed to illuminate the specific feature to be lit and shielded to prevent spillover of light onto unintended areas. SWFSC exterior lighting plans would be reviewed by the UCSD DRB to	Submit exterior lighting plans to UCSD FD&C for review in conformance with outdoor lighting policy	NOAA PPMD	Prior to issuance of construction bid documents	Include comments from UCSD FD&C review of exterior lighting in project file/plans.	**No**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
	ensure that they comply with the UCSD Outdoor Lighting Policy and Outdoor Lighting Design Guideline.					
Vis-6	Existing mature trees at the existing SWFSC would be retained to the maximum extent feasible during demolition of Buildings B and C.	Identify and mark trees to be saved	NOAA PPMD	Prior to start of demolition	Include trees in demolition inspection checklist.	**Yes -** Existing mature trees at the existing SWFSC would be retained to the maximum extent feasible during demolition of Buildings A, B, and C.
HISTORIC AND CULTURAL RESOURCES						
Cul-1	To investigate the significance of archaeological site CA-SDI-18610 at the preferred site, a qualified archaeologist will prepare a treatment plan for archaeological testing. The treatment plan would identify the area of potential effect (APE), taking into consideration the horizontal and vertical extent of proposed ground-disturbing construction activities. The plan will describe how archaeological data would be scientifically collected and how these data will be used to address important research issues and to determine site significance under the California Environmental Quality Act. A Native American would monitor subsurface excavation and grading activities.	Contract with archaeologist for preparation of treatment plan	NOAA PPMD	At least 120 days prior to start of construction	Include archeological treatment plan in project file; provide copy to UCSD EP.	**No**
		Submit treatment plan to UCSD EP for review and concurrence	NOAA and Qualified Archeologist	Between issuance of Notice of Determination and ROD and at least 90 days prior to start of construction	Include UCSD approval letter in project file.	**No**
Cul-2	A qualified archaeologist will conduct testing of archaeological site CA-SDI-18610. Testing would consist of systematic excavation of the sample area to determine the integrity and vertical and horizontal extent of the deposit, the quality and diversity of artifacts, and the potential for human remains. A Native American would monitor the testing activities.	Contract with archaeologist to perform testing and a Native American to monitor testing	NOAA PPMD	At least 60 days prior to start of construction	Obtain test report from archeologist and monitoring report from Native American and include in project file. Provide test and monitoring reports to UCSD EP.	**No**
Cul-3	If archaeological site CA-SDI-18610 is recommended as eligible for the National Register of Historic Places or the California Register of Historic Resources, data recovery would occur. The data recovery phase would be based on results of the test phase, and will focus on recovering archaeological data sufficient to mitigate the destruction of all or a portion of the archaeological site within the APE.	If necessary, based on results of testing, contract with archaeologist for data recovery at CA-SDI-18610	NOAA PPMD	At least 45 days prior to start of construction	Obtain data recovery report form archaeologist and place in project file. Provide copy of report to UCSD EP.	**No**
Cul-4	NOAA and UCSD will comply with PRC 5097.98 in the case where human remains are found. Any discovery of human remains would be treated with respect. This code section requires that excavations cease if potential human remains are discovered and the County Medical Examiner/Coroner be notified. The Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will contact the most likely descendant to determine the appropriate manner of handling the remains.	If necessary, due to discovery of human remains, notify NOAA, UCSD FD&C and EP, and County Medical Examiner/ Coroner	NOAA PPMD and qualified consultant	During construction	Document communication with UCSD, County Medical Examiner/Coroner and NAHC for project file.	**Yes**
Cul-5	Permanently curate artifacts found at archaeological site CA-SDI-18610 at the San Diego Archaeological Center.	Include transport of artifacts found to San Diego Archaeological Center under contract with archaeologist, as necessary	NOAA PPMD	At conclusion of data recovery when extent of collections to be curated is known	Obtain receipt for artifacts from San Diego Archaeological Center and place in project file. Provide curation documentation to UCSD EP.	**No**
Cul-6	Archaeological and Native American monitors would be present on site during all ground disturbing activities in the construction phase of the project, keeping daily logs and preparing a monitoring report at the conclusion of each phase. Ground-disturbing activities include	Contract with archaeologist and Native American to monitor geotechnical testing	NOAA PPMD	Prior to start of geotechnical testing and prior to start of	Obtain periodic monitoring reports from archeologist and Native American and place in project file. Provide regular	**Yes**

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
	building construction, installation of underground utility lines, landscaping, and paving.			construction	reports to UCSD EP.	
Cul-7	If human remains are discovered during any phase of the proposed action, soil associated with the remains should not be removed from the area.	Include prohibition in construction contracts	NOAA PPMD	Prior to issuance of construction bid documents	Confirm inclusion in bid documents.	**Yes**
SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE – No mitigation required						**Yes**
PUBLIC SERVICES AND UTILITIES						
Ser-1	Submit design plans for the new SWFSC to the UCSD Fire Marshal for review and approval.	Submit design plans to Fire Marshal and revise to address comments received	NOAA PPMD	At 95% design phase	Revise per UCSD Fire Marshal comments and place approval in project file.	**No**
POPULATION AND HOUSING						
Pop-1	In the event that the construction of the SWFSC requires closure of a road or traffic lane, the UCSD Fire Marshal and SIO would be notified of the planned closure. If determined necessary, the UCSD Fire Marshal would warn local emergency service providers of the road closure.	Notify the UCSD Fire Marshal and SIO of road closures or traffic lane closures	NOAA PPMD	At least 24 hours prior to closure of roads or traffic lanes during the construction period	Document communications with UCSD Fire Marshal and SIO and place in project file.	**No**
		Notify local emergency service providers of road or traffic lane closures	UCSD Fire Marshal	During construction, as determined necessary by the Fire Marshal	Obtain copy of communication records between Fire Marshal and Emergency Service Providers and place in project file.	**No**
SOLID WASTE AND HAZARDOUS MATERIALS						
SW-1	Removal of asbestos-containing materials (ACMs) during demolition of Buildings B and C would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs would occur in conformance with applicable regulations of the Division	Include removal of ACMs in demolition bid documents	NOAA PPMD	Prior to issuance of demolition bid documents	Obtain manifests for transport of ACMs to disposal facility and place in project file. Confirm successful compliance to EP.	Yes - Removal of ACMs during demolition of Building A and additional renovation at Building D would be performed by an asbestos abatement contractor licensed by the California Division of Safety and Health. Removal of ACMs shall conform to applicable regulations of the Division.
		Check qualifications of bidders to confirm they are licensed by California Division of Safety and Health	NOAA PPMD	During bid review	Document qualifications of selected contractor for project file	**Yes**
SW-2	Loose and peeling lead-based paint (LBP) of Buildings B and C would be removed and remaining paint stabilized prior to demolition activity.	Include removal of loose and peeling LBP from Buildings B and C and stabilization of remaining LBP in demolition bid documents	NOAA PPMD	Prior to issuance of demolition bid documents	Obtain manifest for transport of LBP to disposal facility and place in project file. Confirm successful compliance to UCSD EP.	**Yes** - Loose and peeling LBP at Building A and affected portions of Building D shall be removed or stabilized prior to demolition activity.

Number	Mitigation Measure	Mitigation Procedure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure	Applicable to SEIS? (Yes/No)
SEIS MM – SW-3	Universal wastes, including potentially mercury, PCB, or Freon containing products shall be removed from all buildings prior to demolition, and recycled or disposed as an appropriately profiled universal waste.					**SEIS Specific Mitigation Measure**
WILD AND SCENIC RIVERS – No mitigation required.						**Yes**

Appendix F

Comments on DSEIS and
Response to Comments

Response to Comments on the Draft SEIS

Four submittals containing written comments on the Draft SEIS were received by NOAA during the 45-day formal public comment period held between September 19, 2011, and October 31, 2011. Provided below for each submittal is the comment preparer, comment date, a summary for each of these submittals, and a NOAA response. Full copies of comment letters and emails received are provided in subsequent pages.

Comment Submittal #1:

Preparer: Ms. Patricia Sanderson Port, Regional Environmental Officer
Organization: U.S. Department of Interior, Office of Environmental Policy and Compliance, Pacific Southwest Region
Date: November 7, 2011

Summary of Comments: The Department of the Interior has received and reviewed the subject document and has no comments to offer.

NOAA Response: No NOAA response to this comment is warranted.

Comment Submittal #2:

Preparer: Ms. Kathleen Goforth, Manager, Environmental Review Office
Organization: U.S. Environmental Protection Agency, Region IX, Communities and Ecosystems Division
Date: October 31, 2011

Summary of Comments: The U.S. EPA reviewed the Draft SEIS pursuant to the NEPA, CEQA regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. The U.S. EPA mentioned their review of the original DEIS and FEIS with comments submitted to NOAA on January 12, 2009. The EPA's comments at that time included asking NOAA to provide advanced notice of construction to residents along the truck haul route to be used during construction. The purpose is to provide adequate notice to those wishing to take measures to avoid or minimize exposure to air emissions such as dust and diesel exhaust. The EPA saw no mention of this topic in the 2009 NOAA Record of Decision or the 2011 Draft SEIS.

NOAA Response: During site development, construction and hauling activities associated with the proposed SWFSC, advance notice was provided to key individuals at UCSD/SIO. Weekly coordination calls were held with contractors and UCSD/SIO to discuss and resolve issues, such as dust or other emissions that may be a concern. During that time, concerns were raised regarding dust on vehicles at UCSD and dirt residue deposited in the public roadway near the entry to the SWFSC construction site.

In response, NOAA's construction contractor took measures to reduce fugitive dust emissions by increasing the frequency of roadway washing and sweeping. Because the proposed action in the Draft SEIS involves a smaller volume of dirt and debris removal off-site and less frequent haul trips, the extent and duration of fugitive dust emissions is expected to be less than that experienced during excavation, construction and hauling for the proposed SWFSC facilities.

Using adaptive measures taken in response to coordination with UCSD/SIO, it is expected that student, faculty and neighborhood concerns can and will be ascertained and addressed for the project as proposed in the Draft SEIS. NOAA also intends to implement the following relevant mitigation measures identified in the Draft SEIS.

For air quality and traffic in the project area, mitigation measures include implementation of *SmartWay Truck Efficiency* and anti-idling practices, and preparation of a Construction Emissions and Management Plan (CEMP). The CEMP would detail measures to minimize emissions of dust and other air pollutants though actions such as:

- Stabilization of unpaved roads at the construction and demolition sites using water, chemical dust suppressants, and/or other stabilization techniques;
- Pre-soaking and/or periodic sprinkling of areas to be cleared of vegetated and/or graded areas with water;
- Periodic sweeping of streets surrounding the construction and demolition sites, to minimize dust emissions;
- Limiting vehicle speeds on unpaved roads and areas to 15 mph;
- Prompt revegetation of areas of exposed soil as soon as construction/demolition activities are completed;
- Encouragement by NOAA for contractors to use alternate fuels and retrofit existing engines in construction equipment, to the extent that equipment is available and cost effective;
- Limiting idling time of construction and demolition equipment to 10 minutes when not in use; and
- Specify that contracts for demolition of Buildings A, B and C, soil stabilization and earthmoving activities at the existing SWFSC facility will require medium- and large-size construction fleets to comply with CARB regulations for in-use off-road diesel vehicles (California Code of Regulations, Title 13, Motor Vehicles, Article 4.8, Section 2449).

NOAA finds these measures would adequately minimize public exposure to dust and other emissions, and provide adequate response to concerns brought to the attention of its contractors by UCSD/SIO or members of the public. No notice of construction, beyond that provided to UCSD/SIO, will be added to the proposed action or list of mitigation measures to be taken.

Comment Submittal #3

Preparer: Mr. James W. Royle, Jr., Chairperson, Environmental Review Committee
Organization: San Diego County Archaeological Society, Inc.
Date: October 13, 2011

Summary of Comments: The San Diego County Archaeological Society, Inc. states that it would be prudent for NOAA to include archaeological and Native American monitoring during soil disturbing operations on the existing SWFSC parcel, as human remains would likely not be noticed by equipment operators. The Society argues that human remains are important whether they are part of an intact resource or not.

NOAA Response: The 2009 Final EIS/EIR indicated that it was unlikely that intact archaeological resources would occur within the existing SWFSC site. But, given the presence of a known archaeological site in the vicinity of that proposed activity, NOAA included Native American monitoring of all ground disturbing activities at the proposed SWFSC location to mitigate the potential for adverse effects. This activity was performed for the proposed SWFSC building location and documented in a report to NOAA. No substantive resources, including human remains, were observed during monitoring.

Although the 2009 Final EIS/EIR indicated that Native American monitors would be on-site during all ground disturbing activities, this recommendation would not be necessary in previously disturbed areas, such as the existing SWFSC property. Thus, for the existing SWFSC property and proposed excavation at that location, the extent of prior surface/subsurface disturbances, and the geometry of the proposed subsurface disturbance suggests that material predating human occupation would be affected and is unlikely to yield human remains.

In any case, under Section 4.11.3 Mitigation – Proposed Action, the commitment exists for excavation work to cease at and near human remains that are found during construction or demolition work. Specifically, NOAA and UCSD will comply with PRC 5097.98 in the case where human remains are found. Soil associated with the remains shall not be removed from the area and any uncovered human remains would be treated with respect. The County Medical Examiner/Coroner will be notified who would then contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will contact the most likely descendant to determine the appropriate manner of handling the remains.

Comment Submittal #4

Preparer: "jean public" (via email from jeanpublic@yahoo.com)
Organization: Individual
Date: September 19, 2011

Summary of Comments: Via email, "jeanpublic" commented in response to the September 19, 2011, Notice of Availability (NOA) of a Draft Supplemental Environmental Impact Statement for Replacement of NOAA Southwest Fisheries Science Center in La Jolla, CA. The NOA appeared in Federal Register Volume 76, Number 181[FR Doc No: 2011-23987]. These comments are provided verbatim below. "public comment on fedearl register Fw: spending on a new noaa building in ca when they can rent commercial space this project shows no recognition of the call by americans for smaller, cheaper, more productive govt. it is simply power and money spending by an agency operating under l950 practices.i donot approve of this spending. let noaa lease a building. much commercial space is available to lease so prices will be much cheaper for taxpayers. sto pburdening taxpayers with this out of control spending by noaa. i see no reason why noaa has to be on the grounds of teh university of califronia at all. these are harsh economic times. the mgt at noaa seems to have no understanding of the need called for by the americna citizenry for their bureaucrats to get smaller and cheaper and more productive. noaa just spends and spends and spends like a drunken sailor. its time to say no to this project. i am completely opposed to this spending. we want smaller, cheaper govt, find a way to house your employees in a leased building. jean public address if required or stay where you are if that is cheaper."

NOAA Response: The Draft SEIS focuses on actions to effectively reuse existing facilities and property at the existing SWFSC. The portion of the project associated with construction of a replacement facility was analyzed in the 2009 Final EIS/EIR, and that portion of the proposed action is near completion.

In the 2009 Final EIS/EIR and in the Draft SEIS at Section 2.3, *Scientific Collaboration by UCSD/SIO and SWFSC*, it states:

"SWFSC benefits from a broad range of strategic and functional relationships with local research and education organizations. Key among these relationships is interaction with UCSD/SIO. SWFSC's existing site is located on the campus of UCSD/SIO. The Center and UCSD/SIO strategically share research facilities, staff, students, and faculty. The synergies are highly complementary and cost efficient. SWFSC's 40-year relationship with SIO has provided numerous mutual benefits and efficiencies identified in the Final EIS/EIR."

Because of the value of the above-mentioned collaborative efforts and shared resources between SWFSC and UCSD/SIO research organizations, including access to seawater, the ability to productively and effectively work from other commercial office buildings away from the SIO campus were dismissed early in the project.

Comment Submittal #5

Preparer: Mr. William Joel King, AIA, Senior Director for Campus Project Management
Organization: University of California, San Diego
Date: March 27, 2012

Summary of Comments: The comment letter states that the NOAA 100% design submittal received by his office is 'deemed approved' by The Regents of the University of California. This design scheme was analyzed in the Final SEIS and is considered a worst-case scenario regarding site disturbance and associated stormwater management. The University has stated, however, it is considering an undefined "Low Impact Design" stormwater management system as part of a follow-on project it may initiate with the Scripps Institution of Oceanography.

NOAA Response: No NOAA response to this comment is warranted.

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Pacific Southwest Region
333 Bush St., Suite 515
San Francisco, CA 94104

IN REPLY REFER TO:
ER# 11/860

Electronically Filed

7 November 2011

Mr. Robb Gries
Project Engineer, NOAA
Project Planning and Management—Western Region
7600 Sand Point Way NE., BIN C15700
Seattle, WA 98115

Subject: National Oceanic and Atmospheric Administration (NOAA), Draft Supplemental Environmental Impact Statement (SEIS) for Replacement of NOAA Southwest Fisheries Science Center in La Jolla, CA

Dear Mr. Gries,

The Department of the Interior has received and reviewed the subject document and has no comments to offer.

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

OCT 31 2011

William F. Broglie
NOAA Chief Administrative Officer
c/o Robb Gries, P.E.
Office of the Chief Administrative Officer
National Oceanic and Atmospheric Administration
7600 Sand Point Way NE, BIN C15700
Seattle, WA 98115

Subject: Draft Supplemental Environmental Impact Statement (DSEIS) for Replacement of NOAA Southwest Fisheries Science Center (SWFSC) – Demolition, Soil Stabilization and Seismic Improvements, La Jolla, California [CEQ# 20110319]

Dear Mr. Broglie,

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The DSEIS evaluates newly proposed demolition, excavation, construction and structural upgrade activities not previously analyzed in the Draft or Final Environmental Impact Statements (DEIS and FEIS). The National Oceanic and Atmospheric Administration's preferred alternative would result in the implementation of these expanded activities, while the No Action alternative would result in the implementation of the Proposed Action as analyzed in the FEIS.

EPA reviewed the DEIS and FEIS and submitted comments to NOAA on January 12, 2009 and June 29, 2009, respectively. We rated the DEIS as Environmental Concerns-Insufficient Information (EC-2) and expressed concerns regarding impacts to air quality from construction emissions. In response to the FEIS, we commended NOAA for its proposed air quality mitigation measures, and recommended that NOAA include commitments to identified air quality mitigation in the Record of Decision. In addition, we suggested that NOAA provide advanced notice of construction to residents along the truck haul route to be used during construction. This notification would serve to inform residents of the potential health risks and possible exposure avoidance measures they should consider, such as closing their windows while diesel-powered equipment and vehicles are operating near their homes.

We have rated the DSEIS as Lack of Objections (LO) (see enclosed "Summary of Rating Definitions"). EPA commends NOAA for its continued commitment to reducing the impacts of

construction-related emissions of dust and other air pollutants. That said, we have not found, in the Record of Decision nor the DSEIS, a response to our previous recommendation that NOAA provide advanced notice of construction to residents along the truck haul route. We continue to suggest that NOAA implement this action in order help to mitigate potential impacts to residential receptors.

EPA appreciates the opportunity to review this DSEIS. When the Final SEIS is released for public review, please send one copy to the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Carter Jessop, the lead reviewer for this project, at 415-972-3815 or jessop.carter@epa.gov.

Sincerely,

Kathleen Goforth, Manager
Environmental Review Office
Communities and Ecosystems Division

Enclosure: Summary of EPA Rating Definition

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

San Diego County Archaeological Society, Inc.

Environmental Review Committee

13 October 2011

To: William F. Broglie
NOAA Chief Administrative Officer
c/o Robb Gries, P.E.
Office of the Chief Administrative Officer
National Oceanic and Atmospheric Administration
7600 Sand Point Way NE, BIN C15700
Seattle, Washington 98115

Subject: Draft Supplemental Environmental Impact Statement
Replacement of NOAA Southwest Fisheries Science Center (SWFSC) -- Demolition, Soil Stabilization and Seismic Improvements in La Jolla, California

Dear Mr. Broglie:

I have reviewed the cultural resources aspects of the subject DSEIS on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the DSEIS, we have the following comments:

1. Section 4.11.2 states that "...it is unlikely, but not impossible, that human remains could be uncovered during excavation activities during soil stabilization activities." Given that acknowledgement, the sensitivity of the general area, and the fact that Native American sensitivity is with any potentially Native American human remains and not just those found in "intact archaeological resources", it would be prudent to include archaeological and Native American monitoring during soil disturbing operations on this parcel. Human remains encountered could be small pieces that would likely not be noticed by equipment operators.
2. We do agree that, if human remains are encountered, soil associated with the remains should stay on-site.

Thank you for the opportunity to participate in the public review for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 • San Diego, CA 92138-1106 • (858) 538-0935

Subject: public comment on fedearl register Fw: spending on a new noaa building in ca when they can rent commercial space
Date: Mon, 19 Sep 2011 06:27:31 -0700 (PDT)
From: jean public <jeanpublic@yahoo.com>
To: americanvoices@mail.house.gov, comments@whitehouse.gov, info@taxpayer.net, media@cagw.org, letters@newsweek.com, foe@foe.org, info@sieeraclub.org, Robb.Gries@noaa.gov
CC: today@nbc.com, speakerboehner@mail.house.gov, comments@whiteouse.gov

this project shows no recognition of the call by americans for smaller, cheaper, more productive govt. it is simply power and money spending by an agency operating under l950 practices.i donot approve of this spending. let noaa lease a building. much commercial space is available to lease so prices will be much cheaper for taxpayers. sto pburdening taxpayers with this out of control spending by noaa. i see no reason why noaa has to be on the grounds of teh university of califronia at all. these are harsh economic times. the mgt at noaa seems to have no understanding of the need called for by the americna citizenry for their bureaucrats to get smaller and cheaper and more productive. noaa just spends and spends and spends like a drunken sailor. its time to say no to this project. i am completely opposed to this spending. we want smaller, cheaper govt, find a way to house your employees in a leased building.
jean public address if required or stay where you are if that is cheaper.

[Federal Register Volume 76, Number 181 (Monday, September 19, 2011)]
[Notices]
[Page 57957]
From the Federal Register Online via the Government Printing Office
[www.gpo.gov]
[FR Doc No: 2011-23987]

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XL85

Notice of Availability of a Draft Supplemental Environmental Impact Statement for Replacement of NOAA Southwest Fisheries Science Center in La Jolla, CA

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of availability of the Draft Supplemental Environmental Impact Statement (SEIS); Request for comments.

SUMMARY: NOAA announces the public release of the Draft SEIS in accordance with the National Environmental Policy Act of 1969, the Council on Environmental Quality Regulations, and NOAA Administrative Order 216-6 Environmental Review Procedures for Implementing the National Environmental Policy Act. Since completion of the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) in April of 2009, substantial changes to the proposed action are being considered by NOAA within portions of the project area containing the 2.5-acre property currently occupied by Southwest Fisheries Science Center (SWFSC) and managed by NOAA under long-term lease from the University of California Office of the President (UCOP). These newly proposed actions were not previously analyzed in the Final EIS/EIR and involve additional demolition activities, substantial excavation and grading, installation of a geohazard soil stabilization system, structural upgrade to remaining structures, and other site alterations. These proposed actions were deemed necessary by NOAA based on additional geotechnical information and design recommendations received since approval of the Final EIS/EIR. The SEIS evaluates each environmental topic addressed in the Final EIS/EIR, and focuses on the newly proposed action and its potential effects to the human environment. The No-Action Alternative was analyzed and assumes the newly proposed actions would not be implemented.

DATES: Written comments and input will be accepted on or before October 31, 2011.

ADDRESSES: Written comments should be sent to Robb Gries, Project Engineer, NOAA, Project Planning & Management--Western Region, 7600 Sand Point Way NE., BIN C15700, Seattle, WA 98115; e-mail robb.gries@noaa.gov.

FOR FURTHER INFORMATION CONTACT: Contact Mr. Robb Gries, NOAA Project Engineer, at the address provided above. A copy of the Draft SEIS can be viewed or downloaded at http://www.seco.noaa.gov/HTML_Blue/OCAO_NEPA.html.

SUPPLEMENTARY INFORMATION: The proposed action evaluated in the April 2009 Final EIS/EIR consisted of the demolition of Buildings B and C and the construction of a new SWFSC building on a property across La Jolla Shores Drive from the existing NOAA facilities. Currently, construction of the SWFSC building at the preferred site is underway. Demolition of Buildings B and C at the existing NOAA property would not occur until construction of the new SWFSC building has been completed.

A Notice of Intent to prepare SEIS was published in the Federal Register on June 30, 2011. Consistent with 40 CFR 1502.9(c)(1)(i), this SEIS focuses on the environmental effects of the proposed changes and feasible alternatives including the no-action alternative, and analyzes the potential effects to affected resources such as: geological conditions, hydraulic processes, construction noise, traffic/pedestrian circulation, air emissions, and protected wildlife. Separately, the University of California--San Diego (UCSD) and UCOP intend to determine what additional CEQA documentation is necessary, such as an Addendum to the Final EIS/EIR, based on the findings of the SEIS and other factors.

NOAA has submitted the Draft SEIS to the U.S. Environmental Protection Agency for review and comment, in conformance with NEPA implementing regulations. Copies of this document have been made available to persons who participated in the Final EIS/EIR scoping

process, to other individuals expressing interest, and to local libraries in order to be accessible to the general public. NOAA is accepting comments on the Draft SEIS during a 45-day official comment period beginning September 19, 2011, and ending on October 31, 2011.

Dated: August 26, 2011.

William F. Broglie,

Chief Administrative Officer, National Oceanic and Atmospheric Administration.

[FR Doc. 2011-23987 Filed 9-16-11; 8:45 am]

BILLING CODE 3510-22-P

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CAMPUS ARCHITECT – FACILITIES DESIGN & CONSTRUCTION
TEL: (858) 534-2177
FAX: (858) 534-4363

9500 GILMAN DRIVE # 0916
LA JOLLA, CALIFORNIA 92093-0916

March 27, 2012

Daniel R. Strandy
Director, Project Planning and Management Division – Western Region
UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER
7600 Sand Point Way NE
Seattle, Washington 98115

Project: Demolition, Restoration & Upgrade of the Southwest Fisheries Science Center, La Jolla

Dear Mr. Strandy:

Thank you for your letters, dated January 24, 2012, and March20, 2012, in response to my letter to you, dated October 5, 2011.

We have reviewed your letters with the University of California Office of the President Real Estate Services Group, and Office of General Counsel.

In order for NOAA to proceed with its construction project at this time, pursuant to paragraph 4.7.2.2 of the First Amendment to Ground Lease dated July 30, 2010, the 100% design submittal by Tenant (The Department of Commerce, National Oceanic and Atmospheric Administration (NOAA)) shall be deemed approved by Landlord (The Regents of the University of California).

Landlord plans to continue to seek a solution, in collaboration with NOAA's contractor, WPC, to implement a construction change, which "sets the table" for subsequent implementation of a Low Impact Design (LID) stormwater management system as part of Landlord's follow-on project with Scripps Institution of Oceanography.

Feel free to contact me if you have any questions.

Sincerely,

Wm. Joel King, AIA
Senior Director, Campus Project Management
Facilities Design and Construction
UC San Diego

CC: Nancy E. Kossan