CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

PROJECT INFORMATION

PROJECT TITLE: Aerojet Chino Hills Corrective Measures Study and Statement of Basis for Munitions and Explosives of Concern in Management Area 1 and Management Area 2		SITE CODING: 22120, Site Code 400307
PROJECT ADDRSS: 3100 Woodview Road (end of Woodview Rd.)	CITY: Chino Hills	COUNTY: San Bernardino
PROJECT SPONSOR: Aerojet Rocketdyne	CONTACT: Scott Goulart	PHONE: (916) 355-5454
APPROVAL ACTION UNDER CONSIDERATION BY DTSC: ☐ Initial Permit Issuance ☐ Permit Re-Issuance ☐ Permit Modification ☐ Closure Plan ☐ Removal Action Workplan ☐ Remedial Action Plan ☐ Interim Removal ☐ Regulations ☒ Corrective Measure Study/Statement of Basis ☐ Other (specify):		
STATUTORY AUTHORITY: ☒ California H&SC, Chap. 6.5 ☐ California H&SC, Chap. 6.8 ☐ Other (specify):		
DTSC PROGRAM/ADDRESS: Cleanup / 5796 Corporate Ave., Cypress	CONTACT: Robert Romero	PHONE: (714) 484-5476

PROJECT DESCRIPTION:
The Department of Toxic Substances Control (DTSC) is considering approval of a Resource Conservation and Recovery Act (RCRA) Facility Investigation/Corrective Measure (RFI/CM) that would allow for location and removal of "residual" munitions and explosives of concern (MEC) at portions of Aerojet Rocketdyne's (Aerojet) former Chino Hills, California, facility (Facility) located at 3100 Woodview Road (also identified as the end of Woodview Road) (Figure 1, Property Location Map, Amec Foster Wheeler, 2015a; Figure 2, Property Plot Plan, Wood, 2020b). MEC items include unexploded ordnance (UXO) and ordnance and explosives (OE). Preparation and approval of the RFI/CM by DTSC is pursuant to the requirements of Division 20, Chapter 6.5, California Health & Safety Code (H&SC).

Aerojet previously completed MEC location and removal activities at the Facility or "Project Area" under DTSC oversight. However, because of constraints and limitations of the Corrective Measure (CM) technologies and access limitations that may not allow for location and removal of all MEC items, additional measures may be needed to address "residual" MEC if land use changes. To determine if additional measures are needed, Aerojet prepared two Corrective Measures Studies (CMS) to evaluate appropriate CMs to address residual MEC in the Project Area (which includes the Aerojet property and some abutting areas). To facilitate development of goals and objectives for management of residual MEC, the Project Area was subdivided into four Management Areas (MAs) based on various factors that could influence the selection and evaluation of CMs for residual MEC. (Figure 3, Management Area and Management Unit Designations, Amec Foster Wheeler, 2015a).

A phased CMS approach (AMEC, 2012b) was recommended to account for various factors influencing the selection and evaluation of appropriate CMs for residual MEC, including property ownership and use, MEC sources, and geographic location. Based on these factors, the Project Area was divided into four MAs:

- MA 1: Aerojet property excluding primary test areas and Open Burn/Open Detonation (OB/OD) Unit MEC influence zone;
- MA 2: Surrounding properties owned by others and beyond OB/OD Unit MEC influence zone;
- MA 3: Aerojet property primary test areas and OB/OD Unit MEC influence zone; and
- MA 4: Surrounding properties owned by others and within OB/OD Unit MEC influence zone.

MA 1 and MA 2 were further subdivided into Management Units to help achieve goals for management of residual MEC (Figure 3, Management Area and Management Unit Designations, Amec Foster Wheeler, 2015a).

This Initial Study is specific to MA 1 and MA 2. In 2016, the CMS for MA 1 and the CMS for MA 2 were provided for public review, along with the original version of this Initial Study. In response to comments received during the 2016 public comment period, DTSC required the preparation of a comprehensive site-wide risk assessment for both human and ecological receptors (Wood Environment & Infrastructure, Solutions Inc. [Wood], 2020a). Aerojet also prepared a summary of subsurface water conditions (Wood, 2020b). This updated Initial Study incorporates results from these recent studies. References are provided at the end of the Table of Contents. A list of acronyms is provided in Appendix A.

BACKGROUND:
Operations at the former Aerojet Facility included loading, assembly, and packing of munitions, as well as a limited amount of research and development and testing of explosives, propellants and proprietary organic chemicals. The Facility operated from 1954 through November 1995 when Aerojet ceased operations. The potentially hazardous substances released into the soil and/or surface or subsurface water include perchlorate, the explosives constituents known as HMX and RDX, 1,3,5-trinitrobenzene, tear gas, lead, dioxin, and MEC, some of which used depleted uranium (DU). Aerojet signed a Consent Agreement for Corrective Action with DTSC to implement the RFI/CMs at the Facility in 1994, with a January 5, 2001 modification.

In 1999, DTSC approved the RFI Report for chemical contamination, DU (as uranium metal), and MEC. Remediation of DU as a radionuclide was completed as part of the decommissioning and decontamination activities under oversight of the California Department of Health Services (DHS) and pursuant to Aerojet's Radioactive materials license. A risk assessment for DU following completion of the decommissioning and decontamination activities was submitted to DHS in 2003 and an Addendum was submitted in 2007. The risk assessment determined that residual radioactivity levels met the unrestricted use standard. Subsequently, in 2009, DHS terminated Aerojet's radioactive license and accepted the Facility for unrestricted use with respect to radioactivity.

DTSC approved a remedy for chemical contamination, DU, and partial MEC cleanup in 2000. MEC-containing soil was excavated from former test and treatment areas and transported to Test Range 1C where the soil was processed to remove MEC. The Corrective Measures Completion Report (CMCR) and CMCR Addendum (Geomatrix, 2006 and 2008, respectively) for chemical contamination and partial MEC cleanup were approved by DTSC in 2008. Closure for unrestricted use of the OB/OD Unit was approved in 2009 and included an Open House/Public Workshop hosted by DTSC. A data gap report for additional MEC cleanup was also approved in 2009, followed by the Corrective Measures Study Work Plan for MEC in 2011 (AMEC, 2011) and the updated Conceptual Site Model (CSM) in 2012 (AMEC, 2012a).

Through the RFI/CM process, significant MEC locating and removal activities have been implemented pursuant to DTSC-approved scopes of work and related project plans. Aerojet has been undertaking the RFI/CMs under the oversight of DTSC since 1994. A Geophysical Prove Out Study and Report (Geomatrix, 2005) and updated CSM (AMEC, 2012a) identified constraints and limitations of the CM technologies which may not allow for locating and removing all MEC items from the Project Area. Thus, a low probability of encountering residual MEC may remain in the Project Area following completion of previous MEC removal activities. The CMs evaluated herein would be implemented to further address residual MEC and to allow for safe (unrestricted) use of the Facility property.

In 2013, AMEC prepared the draft CMS for MEC for MA 1 and MA 2, which were subsequently reviewed and approved by DTSC (Amec Foster Wheeler, 2015a and 2015b, respectively). MA 1 included Aerojet property located outside the primary area of MEC impact (administration and controlled test areas) and MA 2 included surrounding adjacent properties located outside the primary area of MEC impact (Figure 3; Management Area and Management Unit Designations, Amec Foster Wheeler, 2015a). The primary objective of the CMS was to identify and evaluate appropriate CMs for known or suspected residual MEC. The proper implementation of CMs on portions of the Facility and surrounding properties described herein would allow for safe use of these portions of the Project Area, protecting human health and the environment.

Previous MEC location, removal, and management activities were completed safely and without incident. No unintended detonation of MEC occurred during implementation of the RFI/CMs or OB/OD Unit closure. These same proven techniques will be used when addressing portions of the Project Area with concerns of residual MEC.

PROJECT ACTIVITIES:
The focus of this Initial Study are the project activities detailed in the CMS for MA1 (Amec Foster Wheeler, 2015a). The potential presence of residual MEC within these portions of the Project Area is the only significant remaining matter of concern to be addressed as part of the ongoing corrective action process at the Facility. No CMs are necessary for MA 2 because clean closure (unrestricted use) was recommended (Amec Foster Wheeler, 2015b). Aerojet will begin evaluations of MA 3 and MA 4 upon approval of the proposed CMs described herein.

MA 1 includes the portions of the Aerojet-owned property located outside of the influence of the primary test areas (located in central portion of Facility) and the OB/OD Unit, the primary sources of MEC in the Project Area. Grasslands, which are prevalent in MA 1, are readily accessible and typically would not significantly affect the implementation of MEC CMs. Thus, MA 1 includes a portion of the Project Area where the likelihood of residual MEC is considered to be low or absent based on the updated CSM (AMEC, 2012a). Although the likelihood of MEC remaining in the area is considered low, the CMS for MA 1 was prepared to identify "suspect" areas where MEC may have been missed (residual MEC) during previous MEC locating and removal activities completed during the RFI/CMs because of limitations in the technologies used. Based on the CMS evaluation, additional surface or subsurface MEC locating and removal activities, as well as excavation of alluvial soil from areas where residual MEC may remain, are the recommended CMs for MA 1 to allow for a designation of clean closure (unrestricted use).

MEC cleanup standards are set by using the concept of "explosive hazard." Explosive hazards may exist when MEC are known or suspected to be present at a site and a receptor has access to and makes physical contact with MEC. A complete exposure pathway must include the presence of all the following fundamental elements:

- a source (presence of MEC items);
- a receptor; and
- a pathway (means for receptor to come into contact with MEC).

If one or more of these elements are absent, then the exposure pathway is incomplete.

The preferred cleanup standard is to remove MEC from MA 1 allowing for "unrestricted" use. This designation does not change property zoning or direct future use of the property. Access limitations in MEC location and removal activities based on topography, vegetation, and cultural features may not have allowed for removal of all MEC from MA 1 and residual MEC may remain undetected in portions of the Project Area. Thus, the cleanup standards for residual MEC focus on removing or limiting any of the three fundamental elements of the exposure pathway.

The administration area in MA 1 was subdivided into seven Subunits based on the likelihood of residual MEC within each Subunit. As noted on Figure 8 from the CMS for MA 1 (Figure 8, Administrative Area Subunit Designations, Amec Foster Wheeler, 2015a), additional surface or subsurface MEC locating and removal activities would be conducted in Subunits 4 and 6, and excavation of potential MEC-containing soil would be conducted in the Ordnance Fuze Test Unit/Area West of HEI Pond and Area 10 (hereafter referred to as the project site). Construction support provided by Explosive Ordnance Disposal (EOD) staff to observe for MEC in areas with known or suspected residual MEC during future land disturbance activities (e.g., removal of ground cover or underground structures that could provide complete pathway between MEC and a receptor) was recommended for Subunits 3, 5, and 7, while no further action was recommended for Subunits 1 and 2. The Management Area 1 Subunits are shown on Figure 1a (Wood, 2021) and Figure 8 (Administrative Area Subunit Designations, Amec Foster Wheeler, 2015a). Table 1 below provides a summary of the Subunits and proposed actions.

Table 1: MA 1 Subunits and Proposed Corrective Measures for Residual MEC [1]

Subunit Number and Description	Location	Size (acres)	Proposed MEC Corrective Measures
1. Undisturbed Area	Northeast portion of Admin Area	35	No further action
2. Nonoperational Eastern Area	Southeast portion of Admin Area		No further action
3. Undeveloped Western Area	Western portion of Admin Area	55	Construction support
	Ordnance Fuze Test Unit and Area West of HEI Pond	4.0	Excavation and confirmation sweeps
4. Operation Areas	Within undeveloped Western Area	10.5	Location and removal

5. Administration Building Area	Northcentral portion of site	4.0	Construction support
6. Unswept Area	Around Building 047	6.0	Location and removal
7. Woodland Area	South of Admin Area	5.5	Construction support
	Area 10	0.25	Excavation and confirmation sweeps

1. Initial MEC location and removal activities have been completed except at Subunits 4 and 6. Subunit 4 is covered by existing buildings and pavement. These CMs are being proposed to address concerns of residual MEC.

MEC location and removal activities, excavation and confirmation sweeps, construction support, and MEC management and treatment activities planned for MA 1 are described in the following subsections.

MEC Location and Removal Activities: As described in the updated CSM (AMEC, 2012a), approximately 614 acres of the Project Area have been swept for ordnance to date without incident or unintentional detonation of a munitions item. These same proven MEC location and removal techniques and methods will be used in MA 1 where necessary. Surface MEC locating activities will consist of qualified EOD staff locating and removing visible MEC and other metallic cultural debris items from the ground surface. Hand-held analog or digital geophysical detection equipment may also be used during surface clearance. Subsurface MEC locating activities will consist of using analog or digital geophysical detection equipment to evaluate portions of the project site with potential residual MEC (digital geophysical detection arrays may be pulled behind an all-terrain vehicle). All detected anomalies will be investigated by qualified EOD staff who will subsequently remove MEC or MEC-like materials from the project site (see MEC Excavation and Confirmation Sweeps below). MEC location and removal activities will not significantly disturb subsurface soil (excavations for individual items using hand tools could be as small as 1 cubic foot) or require extensive brush clearance (depending on time of year, some perennial grasses may need to be trimmed or cleared using hand tools/equipment if too high to allow effective use of MEC detection equipment). Results of the comprehensive site-wide risk assessment demonstrate that residual concentrations of chemicals remaining in Facility soil and surface water do not pose a risk to human health or ecological receptors, including EOD staff conducting this work.

MEC Excavation and Confirmation Sweeps: The project includes excavation of approximately 14,600 cubic yards (yd^3) of potential MEC-containing soil utilizing common earthmoving equipment (e.g., scraper, water truck, excavator, bulldozer, dump truck). Identical earthmoving equipment was safely used during the previous RFI/CM and OB/OD Unit closure to excavate and remove MEC from soil without incident or unintentional detonation of a munitions item. Shallow alluvial materials (estimated from 1 to 4 feet deep) will be removed from the approximate 4-acre Ordnance Fuze Test Unit/Area West of HEI Pond (estimated 13,000 yd^3) and 0.25-acre Area 10 (estimated 1,600 yd^3) exposing undisturbed native bedrock over approximately 185,000 square feet. Excavated soil would remain at the Facility and be transported to an on-site holding area located in Test Range 1C (Figure 1a, Wood, 2021). Because the project site consists of non-native grassland, no vegetation removal is anticipated during MEC excavation and confirmation sweeps (some low-hanging tree branches may need to be trimmed for access, but the trees will not be removed). EOD staff will provide construction support during MEC excavation activities (see Construction Support below).

Newly exposed land surfaces would be subject to surface/subsurface MEC locating and removal (described above) to confirm no residual MEC items remain. Subsequently, best management practice (BMP) controls would be placed in and around disturbed areas to minimize potential erosion and movement of sediment. The BMPs could include installation of the following:

- Silt fence; temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site.
- Sediment trap; temporary containment area that allows sediment in collected storm water to settle out before the runoff is discharged through a stabilized spillway. Sediment traps are formed by excavating or constructing an earthen or other embankment across a waterway or low drainage area.
- Sandbag/straw bale barrier; temporary linear sediment barrier consisting of sandbags and/or straw bales, designed to intercept and slow sediment-laden sheet flow runoff. These barriers allow sediment to settle from runoff before water leaves the construction site.

Before any land disturbance begins, a pre-construction survey will be conducted to search for sensitive biological resources that could be impacted by project activities. Following excavation and grading, a City of Chino Hills-approved hydroseed mixture consisting of wood fiber, seed, fertilizer, and stabilizing emulsion will be applied to the disturbed areas to temporarily protect exposed soils from erosion by water and wind (hydroseeding). Additional BMPs may be used pursuant to City of Chino Hills grading permit requirements.

Construction Support: MEC construction support will be provided during future construction activities in areas with known or suspected residual MEC. Construction support includes use of EOD staff to observe disturbed areas for MEC and ensure that construction personnel follow appropriate safety precautions. EOD staff may also use hand-held analog or digital geophysical detection equipment to assist with MEC location during construction support.

MEC Management and Treatment Activities: Recovered MEC items will be managed and treated following methods and protocols previously implemented in the Project Area. As discussed above, these same MEC management and treatment activities were completed during the RFI/CM and OB/OD Unit closure safely and without incident. MEC items determined by EOD staff as safe for transport will be secured in permitted bunkers/magazines at the Facility pending disposition. Once CMs are complete or sufficient quantities of stored MEC are reached, MEC will be evaluated for proper offsite management or treated (destroyed) at the Facility using consolidated or contained detonations. During previous MEC removal activities, recovered items were destroyed in Area 16 by placing them in shallow pits surrounded by donor explosives, then covering the pits with soil and detonating the explosives (shot). Because each shot was limited to 10 pounds of net explosives, affected soil and dust generated from the shot was confined to the detonation area. Subsequently, EOD staff inspected the area before setting up a new shot. As part of the OB/OD Unit closure, MEC items were destroyed onsite inside an enclosed steel vault called the Controlled Detonation Chamber. In addition, some MEC was transported offsite for thermal treatment. These same processes that will be followed for MEC items identified during the project activities described here. During previous MEC removal activities, a few sensitive MEC items located in the field and determined by EOD staff to be unsafe for transport were blown in place. No blow in place activities are anticipated for the project.

Because previous MEC removal activities have already been completed in the Project Area and the CMs described herein are to address the concern of residual MEC, it is anticipated that only a limited number of MEC items, if any, would be located in the project site. Thus, detonation activities should be completed at the Facility in one day (one shot) or alternatively MEC items will be removed from the Aerojet property for offsite destruction in one truck. All shot areas will be inspected and cleared by EOD staff, and the topography of the areas will be restored to match surrounding natural areas by replacing the excavated soil into the excavated areas. The selected MEC management option would depend on safety, scale of project, logistics, and cost-effectiveness. MEC removals may also include independent third-party Quality Assurance (QA) oversight to document and verify the quality of the MEC locating and removal activities, as specified within a DTSC-approved Quality Assurance Project Plan. This service would be provided by, or on behalf of, DTSC. The QA-related activities would be conducted in a planned and controlled manner. The third-party QA oversight would validate that any MEC removal response action was completed in accordance with the project goals and objectives.

Project remedial activities are expected to begin in late 2021/early 2022 and continue for one month. Some construction support and MEC location and removal activities may be conducted later pending removal of buildings/structures.

In response to comments received during the 2016 public comment period, DTSC required the preparation of a comprehensive site-wide risk assessment for both human and ecological risk. The contaminants analyzed in the risk assessment included specific metals (barium, beryllium, copper, strontium, zinc), uranium (both as a metal and radionuclide), dioxins, perchlorate, pesticides, explosive munition constituents, and total petroleum hydrocarbons in the diesel and motor oil range. The risk assessment report concluded that the total incremental cancer risks and total hazard indices at MA 1, MA 2, and MA 3 are all below the de minimis level of 1 E-06 (one-in-a-million) and the threshold level of 1, respectively. No historical Aerojet activities were conducted in MA 4 that may have resulted in chemicals or radionuclides in soil and thus MA 4 was not quantitatively evaluated in the human and ecological risk assessment. Therefore, concentrations of residual chemicals in soil and surface water meet the regulatory requirements for closure to the unrestricted use standard, with the exception of land use restrictions on installation of production wells for extraction of subsurface water in the area of the former Redwater Pond and Upper A-12 Test Area. The Redwater Pond and Upper A-12 Test Area land use restriction areas are shown on Figure 1a (Wood, 2021).

The Aerojet property is currently unused (except for grazing). The western area is zoned R-R (Rural Residential) and the eastern area is zoned R-A (Agriculture-Ranches). While the RFI/CMs described herein are based on assigning an unrestricted use to portions of the Aerojet property (MA 1 and MA 2), there are no current plans to change the use of the property; consequently, the analysis is consistent with the current use. The City of Chino Hills Planning Department has general governmental powers over the Facility (CEQA Section 15051), while DTSC is an agency with a single or limited purpose; therefore, DTSC does not have standing in any determination of future land use. Zoning and permitting related to use of the property are under the authority of the City of Chino Hills.

Although the proposed remediation activities are as technologically advanced as currently possible, DTSC recognizes that potential future development activities may inadvertently uncover additional MEC items. Therefore, DTSC and Aerojet have developed a Community Engagement Plan to keep the community and future workers informed about the proper protocols to follow in the event such MEC is uncovered, including public safety information. The Community Engagement Plan also identifies community concerns, interests and stakeholders that together will maintain an open channel and process for community input and information on MEC and public safety.

Additional remediation activities are expected for the other areas of the former Aerojet Facility (MA 3), as well as portions of the surrounding area (MA 4). Aerojet will also evaluate the status of processed soil currently stockpiled in Test Range 1C as part of the evaluation of MA 3. Aerojet will begin evaluations of MA 3 and MA 4 upon approval of the proposed CMs described herein.

PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED:
Implementation of the CMs proposed for MA 1 will likely require the following permits and/or approvals:

- DTSC approval of Corrective Measures Workplan
- Grading permit from City of Chino Hills
- Trenching/excavation permit from the California Division of Occupational Safety & Health
- Storm Water Pollution Prevention Plan submittal to the State Water Resources Control Board, Storm Water Section

For onsite MEC management and treatment, project activities may require an explosives permit from the San Bernardino County Sheriff's Department and a burn permit from the Chino Hills Fire Department. DTSC granted to Aerojet the authority to detonate ordnance items found during MEC locating and removal activities onsite without need for an emergency permit.

While a streambed alteration permit from the California Department of Fish and Wildlife (CDFW) is not anticipated because land disturbances will not extend into streambed areas, project staff will invite CDFW staff to review the project site before project activities begin for concurrence and to address any concerns they may have.

NATIVE AMERICAN CONSULTATION:

DTSC's outreach to the Tribes identified by the Native American Historic Commission as potentially interested in the Facility did not yield any interest nor did it generate any additional cultural or historic information about the Facility.

Note: Please see the Tribal Cultural Resources Section (Section 18) for additional information.

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Figure 2. Property Plot Plan
Figure 3. Management Area and Management Unit Designations
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Figure 8. Administration Area Subunit Designations.
Figures 1, 3, 4 and 8 Source: Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1 (Amec Foster Wheeler, 2015a).
Figure 2 Source: Revised Summary of Subsurface Water Conditions (Wood, 2020b).

APPENDICES

Appendix A. List of Acronyms
Appendix B. CalEEMod Air Emission Calculations

REFERENCES

AMEC Environment & Infrastructure, Inc. (AMEC), 2011, Corrective Measures Study Work Plan for Munitions and Explosives of Concern, Aerojet Chino Hills Property, Chino Hills, California, January 26.

AMEC, 2012a, Updated Conceptual Site Model for Munitions and Explosives of Concern, Aerojet Chino Hills Property, Chino Hills, California, September 20.

AMEC, 2012b, Phased Corrective Measures Study, Aerojet Chino Hills Property, California, November 12.

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1, Aerojet Chino Hills Property, Chino Hills, California, July 23.

Amec Foster Wheeler), 2015b, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 2, Aerojet Chino Hills Property, Chino Hills, California, July 23.

California Emissions Estimator Model (CalEEMod), 2013, User's Manual, Appendix D, Default data tables, Tables 3.3 and 3.4, September.

City of Chino Hills General Plan, 2015, Adopted February 24.

ECORP Consulting Inc. (ECORP), 2016, Biological Reconnaissance Survey for the Aerojet Rocketdyne Chino Hills Project, City of Chino Hills, San Bernardino County, California, December 5.

Geomatrix Consultants, Inc. (Geomatrix), 2005, Geophysical Prove-Out Report, Aerojet Chino Hills Facility, Chino Hills, California, October 5.

Geomatrix, 2006, Corrective Measures Completion Report, Aerojet Chino Hills Facility, Chino Hills, California, Volumes 1 through 4, February 21.

Geomatrix, 2008, Corrective Measures Completion Report Addendum, Aerojet Chino Hills Facility, Chino Hills, California, October 15.

GMU Geotechnical, Inc. (GMU), 2011, Geotechnical Conditions Update for City of Chino Hills General Plan, March 14.

Wood Environment & Infrastructure Solutions, Inc. (Wood), 2020a, Human Health and Ecological Risk Assessment Report, February 28.

Wood, 2020b, Revised Summary of Subsurface Water Conditions, Former Aerojet Rocketdyne Facility, Chino Hills, California, December 15.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist beginning on page 6. Please see the checklist beginning on page 6 for additional information.

☐	Aesthetics	☐	Agriculture and Forestry	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☒	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached documentation, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Preparer's Signature		Date
		10-13-2021
Robert Romero	**Hazardous Substances Engineer**	**714-484-5476**
Preparer's Name	**Preparer's Title**	**Phone #**

	October 15, 2021
Branch or Unit Chief Signature	**Date**

A. Edward Morelan	Branch Chief	(714) 484-5440
Branch or Unit Chief Name	**Branch or Unit Chief Title**	**Phone #**

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

ENVIRONMENTAL IMPACT ANALYSIS

1. AESTHETICS				
Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Project Area is located in an area with gently to moderately sloping, rolling terrain and steep canyon walls. The Facility consists primarily of open grasslands and oak forest lands, interspersed with abandoned structures dating back to the 1950s. Portions of the Facility are visible from the residential area to the west (Vellano development) and the farm to the east (Hozen property)(Figure 2, Property Plot Plan, Wood, 2020b). The Facility is also visible to recreational users at the Chino Hills State Park (State Park) situated south of the Facility. The City of Chino Hills General Plan identifies prominent ridgelines as a scenic resource. As shown on Figure 8 (Administration Area Subunit Designations; Amec Foster Wheeler, 2015a), a prominent ridgeline in located within the Facility property approximately 500 feet east and north of the project site. The top of the ridgeline east of the project site was previously graded and served as a fire break during historical facility operations. However, project activities will not impact the ridgelines. Additionally, the areas of land disturbance are not visible to the public.

MAs 1 and 2 consist of the northern and southern portions of the former Aerojet Facility and several adjacent properties (Figure 3; Management Area and Management Unit Designations, Amec Foster Wheeler, 2015a). The majority of the Aerojet property and other surrounding properties remain undeveloped (non-urbanized) and access to these areas is restricted at the Facility entrance. The undeveloped areas consist of open grasslands, sage scrub/mixed chaparral, and woodlands in rolling hills and canyons. Portions of the administration area in MA 1 were developed in the 1950s for use during Facility operations; however, these buildings are currently vacant and have been for some time. Multiple unoccupied buildings and numerous roadways are present in the administration area. The adjacent Vellano development is located west and north of the Facility (Figure 1; Property Location Map, Amec Foster Wheeler, 2015a). It consists of single-family residences, a golf course, and clubhouse (the golf course and clubhouse closed in 2018). Some portions of the Facility are visible from the Vellano development; however, the project site is not visible to residences at the Vellano development or City of Chino Hills. The administration area of the Facility, including areas adjacent to the Vellano development, is surrounded by cyclone-type security fencing to prohibit unauthorized access to the Facility (Figure 1a, Management Area 1 Subunits and Subsurface Water Land Use Restriction Areas, Wood, 2021).

The topography generally consists of gently to moderately sloping, rolling terrain and steep canyon slopes (i.e., hills and canyons) within the City of Chino Hills. In order to maintain the natural features of Chino Hills' ridgelines, the City of Chino Hills Municipal Code contains General Design Regulations intended to protect ridgelines in Chino Hills. The code designates Exceptionally Prominent and Prominent Ridgelines, both of which are present in the Project Area. An Exceptionally Prominent Ridgeline is located south and east of the Aerojet Facility, along and near the boundary of the State Park. Several Prominent Ridgelines are located within the Aerojet Facility, including one within MA 1 (Figure 8; Administrative Area Subunit Designations, Amec Foster Wheeler, 2015a). However, implementation of proposed CMs would not disturb these ridgelines, including the ridgeline in MA 1.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect on a scenic vista?

   Impact Analysis: Although portions of the State Park and City of Chino Hills are visible from higher ridge tops in the Facility, the project site is not located in close proximity to a scenic vista. The project site is located within the former administration area of the Facility and is out of view from neighboring developments and the public in the City of Chino Hills. The fieldwork is short term and temporary; therefore, the project is not expected to have any adverse effect on a scenic vista.

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

   Impact Analysis: The project site is not located in proximity to a state scenic highway that contains scenic resources.

   Conclusion: Implementation of the project would have no impact relative to this issue.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the Facility and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

   Impact Analysis:

   Portions of the project site are located within the previously disturbed/developed portions of the administration area. Access to the Facility is controlled and these areas are not available to public view. The proposed CMs include excavating and removing the upper 1 to 4 feet of loose topsoil down to bedrock that could potentially contain MEC. This short term remedial action is not expected to adversely affect the visual quality of the Facility or surrounding area. The exposed undisturbed native bedrock would remain in place. BMP features (e.g., silt fence, sandbag/straw barriers) will be installed around excavated areas to minimize potential movement of eroded sediment during storm events and, thus, avoid any unsightly change to the visual character.

   Conclusion: Implementation of the project would have no impact relative to this issue.

d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Impact Analysis: No full-time Aerojet employees are currently present at the Aerojet property and only three buildings have electrical power. The Facility is under surveillance 24 hours per day, 7 days a week (including holidays). The majority of the property and other surrounding properties remain undeveloped and are not a source of light or glare. Therefore, minimal sources of light exist at the Facility, including the project site. Only the adjacent Vellano development provides residential sources of light to the north and west of the project site. No activities are planned that would generate additional light and project activities will be limited to daylight hours.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.
The City of Chino Hills Municipal Code Title 16, Chapter 16.08.

2. AGRICULTURE AND FORESTRY RESOURCES				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Facility property, including the project site area, is used for cattle grazing. It has not been used for agriculture. The property to the east (Hozen) is currently used for pasture and grasslands, as well as an avocado and lemon orchard. The majority of the Aerojet property, including the project site and the adjacent Vellano development, are zoned Rural Residential. The other surrounding properties and eastern portion of the Aerojet property (formerly known as the McDermont property), are zoned Agriculture-Ranches. The Facility does not contain farmland or forest land. A "unique farmland" is mapped east of the Facility and appears to be located on the Lee Property (Lee and Hozen properties are shown on Figure 2, Property Plot Plan, Wood, 2020b).

Analysis as to whether or not project activities would:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

   Impact Analysis: The project areas are not located within Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The adjacent Hozen property is currently used for pasture, avocado and lemon trees, and grassland. These areas have been classified as "other land" or grazing land" by the California Department of Conversation. The owners of the adjacent property have an access easement across the Aerojet property and the proposed action will be implemented so as not to interfere with access to the adjacent property or the owner's agricultural use of the property. There will be no changes to the use or zoning of the property as part of this project.

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

   Impact Analysis: The majority of the Aerojet property, including the project site and the adjacent Vellano development, are zoned Rural Residential. The other surrounding properties and eastern portion of the Aerojet property (formerly known as the McDermont property), are zoned Agriculture-Ranches and are not under Williamson Act contract. The adjacent Hozen property is currently used for pasture, avocado and lemon trees, and grassland. The owners of the adjacent property have an access easement across the Aerojet property and the proposed action will be implemented so as not to interfere with access to the adjacent property or the owner's agricultural use of the property. There will be no changes to the use or zoning of the property as part of this project.

   Conclusion: Implementation of the project would have no impact relative to this issue.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

   Impact Analysis: The Facility is not located on forest land, timberland, or timberland zoned Timberland Production land. The project will not conflict with existing zoning or cause rezoning of these types of lands.

   Conclusion: Implementation of the project would have no impact relative to this issue.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

   Impact Analysis: The Facility is not located on forest land. The project will not result in the loss of forest land or conversion of forest land to non-forest use.

   Conclusion: Implementation of the project would have no impact relative to this issue.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses?

   Impact Analysis: Implementation of the proposed project would not result in conversion of Farmland to non-agricultural uses and access to the adjacent agricultural property will be maintained.

   Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

California Department of Conservation, California Important Farmlands: 1984-2018.
California Department of Fish and Wildlife, Habitat Conservation Planning Branch, California Forests and Timberlands.
City of Chino Hills General Plan Land Use
Farm Land Mapping and Monitoring Program
Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.

3. AIR QUALITY				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

ENVIRONMENTAL SETTING (BASELINE):

The project site is located in the South Coast Air Basin region under the responsibility of the South Coast Air Quality Management District (SCAQMD). The part of the Basin within which Chino Hills is located is nonattainment for both federal and state standards for ozone, particulate matter (PM10 and PM2.5), as well as the state standard for nitrogen dioxide. Because the Facility is currently vacant and unused, air emissions associated with the Facility are minimal. Likewise, because project activities are short term and temporary, air emissions associated with the project will be minimal.

The project includes excavation of approximately 14,600 cubic yards (yd^3) of potential MEC-containing soil (13,000 yd^3 from the Ordnance Fuze Test Unit/Area West of HEI Pond and 1,600 yd^3 from Area 10) and transport to a holding area (Test Range 1C) located in the central portion of the Facility where it will remain. This would require the use of scrapers, a water truck, an excavator, and a crawler tractor (bulldozer) over a 16-day period as noted below:

- Project site preparation - crawler tractor for 2 days;
- Excavation of Ordnance Fuze Test Unit/Area West of HEI Pond – 3 scrapers, a crawler tractor, and a water truck for 10 days;
- Excavation of Area 10 – 3 scrapers, a crawler tractor, an excavator, and a water truck for 2 days.
- Equipment demobilization and project site restoration (BMP installation and restoration depending on City of Chino Hills grading permit requirements, as appropriate) for 2 days.

Alternatively, dump trucks loaded by excavator could be used to transport materials to Test Range 1C. Table 2 below shows the daily emissions as well as the SCAQMD significance thresholds for project emissions:

Table 2: Project Emissions (pounds/day) and SCAQMD Standards

	ROG	CO	NOx	SOx	PM10	PM2.5
Project Emissions	4.81	34.97	59.47	0.05	2.52	2.32
Threshold	75.00	550.00	100.00	150.00	150.00	55.00

Above Threshold	No	No	No	No	No	No

Project emissions would not exceed the significance thresholds for any priority pollutants.

Analysis as to whether or not project activities would:

a. Conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis: As detailed below, implementation of the proposed project would generate less than significant air emissions for a short time and these activities are not expected to conflict with or obstruct implementation of the applicable air quality plan for the South Coast Air Quality Management District (SCAQMD).

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard

Impact Analysis: The part of the Basin within which Chino Hills is located is nonattainment for both federal and state standards for ozone, particulate matter (PM10 and PM2.5,) as well as the state standard for nitrogen dioxide. As shown on Table 2 above, implementation of the proposed project would result in a minor, temporary increase in criteria pollutants for which the region is in non-attainment; however, this increase would not result in a cumulatively considerable net increase in air pollution.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis: Table 2 above provides a summary of applicable threshold air emission calculations. The emission factors, equipment horsepower (HP), and load values were taken from the California Emissions Estimator Model (CalEEMod) User's Manual, Appendix D, Default data tables, Tables 3.3 and 3.4 (dated September 2013). As noted on Table 2, implementation of CMs would not result in exceedance of any of the applicable project emission thresholds. The project is not expected to expose sensitive receptors to substantial pollutant concentrations. The nearest receptors to the project site are residents in the adjacent Vellano development, the nearest of whom is located at least 340 feet from the Aerojet property boundary, and there are no known sensitive receptors (such as schools, hospitals, nursing homes or day care facilities) within one-quarter mile of the Facility. Sensitive receptors will not be exposed to substantial pollutant concentrations from implementation of the proposed project. The CalEEMod calculations are includes in Appendix B.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact Analysis: Project activities are not expected to generate objectionable odors. In the event that MEC is found requiring onsite detonation, the item would likely be destroyed in Area 16 following procedures described in previous sections (Project Activities). Experience has shown that properly conducted MEC detonations do not generate objectionable odors. In addition, detonations in Area 16, if necessary, would be limited and completed in one day. The nearest residences are located in the Vellano development approximately one-quarter mile on the opposite ridgeline west of Area 16.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

References Used:

California Air Resources Board, Area Designations Maps/State and National, May 2012.
California Emissions Estimator Model (CalEEMod) Users Manual, Appendix D, Default data tables, Tables 3.3 and 3.4 (dated September 2013).
South Coast Air Quality Management District Air Quality Analysis Handbook.

California Geological Survey,
http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/asbestos/Pages/index.aspx.

4. BIOLOGICAL RESOURCES				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The majority of the Aerojet property and other surrounding properties (Project Area) remain undeveloped, and human access to these areas is restricted at the Facility entrance. The vegetation habitats mapped in the Project Area consist of open grasslands, sage scrub/mixed chaparral, and woodlands in rolling hills and canyons. The Soquel Canyon Creek streambed corridor is considered a riparian habitat. It is mapped as an intermittent blue line stream on the United States Geological Survey map. Because future land disturbances in the southern portion of the administration area, which serves as a headland to Soquel Canyon Creek, will not extend into riparian habitat or streambed areas, a streambed alteration permit from the California Department of Fish and Wildlife (CDFW) is not anticipated. However, project staff will invite CDFW staff to review the work area before project activities begin to confirm a permit is not necessary.

Rainfall runoff in the central portion of the Facility collects in two primary tributaries to Soquel Canyon Creek, informally referred to as the north-south and central tributaries of Soquel Canyon Creek (Figure 2, Property Plot Plan, Wood, 2020b). The north-south tributary captures southerly runoff from the administration area and primary test areas in the western portion of the Facility (including the project site), while the central tributary captures westerly runoff from the eastern portion of the Facility (Figure 1a, Wood, 2021). The project site is located above the head of the north-south tributary to Soquel Canyon Creek.

Several biological surveys that examined botanical species, sensitive habitats, and special-status wildlife were conducted in the Project Area prior to implementing previous CMs at the Facility. The San Diego horned lizard was the only special-status wildlife species observed and the California black walnut was the only special-status plant species observed. In 2016, ECORP Consulting, Inc. (ECORP) conducted a Biological Reconnaissance Survey in response to comments from the California Department of Fish and Wildlife. No special-status wildlife or plant species were observed in the project site (a few California Live Oak and California Black Walnut are located near Area 10). The City of Chino Hills General Plan identifies a portion of Soquel Canyon Creek in the Project Area as potential habitat for the Southwestern Pond Turtle, a state-designated species of concern. As described below, supplemental biological surveys will be conducted in the project site before land disturbances begin.

The Project Area provides a large quantity of natural habitat opportunities for wildlife. The Chino Hills State Park located south and east of the Facility provides additional wildlife habitat. The Soquel Canyon Mitigation Bank is located approximately 700 feet west of the Aerojet Facility along Soquel Canyon Creek (identified as the Land Veritas I Property on Figure 4, Aerojet Property and Surrounding Properties, Amec Foster Wheeler, 2015a). While the Project Area is located within the approximate 30,000-acre Puente-Chino Hills wildlife corridor, the project site activities should not impact wildlife movement at the Facility.

The Ordnance Fuze Test Unit/Area West of HEI Pond portions of the project site are topographically located at the base of the small slope, except to the west/southwest along a topographic drainage. The drainage continues approximately 400 feet generally southward where it enters the upper reach of the north-south tributary of Soquel Canyon Creek (Figure 8; Administration Area Subunit Designations, Amec Foster Wheeler, 2015a). Area 10 is topographically bounded by steep slope, except to the west. Drainage from Area 10 enters a paved area on the east side of the upper reach of the north-south tributary of Soquel Canyon Creek. Access to the project site will be over an existing paved road located above the streambed and CMs will not disturb riparian habitat.

The project site consists primarily of open grassland habitat, while some woodland habitat areas are located in Area 10 (Figure 8; Administration Area Subunit Designations, Amec Foster Wheeler, 2015a). No vegetation removal is anticipated during implementation of project activities (some low-hanging tree branches may need to be trimmed for access, but the trees will not be removed). Some weed trimming or clearing using hand-held tools/equipment may be necessary during parts of the year when weeds are high and may interfere with MEC detection equipment (see nesting bird survey requirements below).

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

   Impact Analysis: In response to comments from the California Department of Fish and Wildlife, DTSC requested a new biological survey for the Aerojet Facility. Subsequently, Aerojet retained ECORP to perform a Biological Reconnaissance Survey (ECORP, 2016). In summary, the biological survey found a total of 27 native and 7 non-native plant species at the Facility, including one special-status species, the California walnut (Juglans californica). No other sensitive plant species were observed during the survey (ECORP, 2016). The biological survey also found a total of 47 avian species (birds were the most abundant taxa observed). In addition, five butterflies, one reptile, one amphibian, and six mammal species were observed at the Facility. According to ECORP (2016), the wildlife species occurring within the project site are characteristic of those typically found in the vegetation communities identified on the Facility property.

   The biological survey found that of the estimated 14.12 acres where disturbance from the project (including the stockpile area in Test Range 1C) may occur, 10.01 acres consists of areas that are currently considered already disturbed or developed, 3.70 acres are covered by non-native grasslands, and a combined 0.41 acres consist of native vegetation. The area of native vegetation includes 0.06 acres of coast live oak woodland and 0.35 acres of black sage scrub and blue elderberry (ECORP, 2016). The biological survey recommends a list of avoidance measures to ensure that no impacts occur to special status species, even though impacts to special-status plant and wildlife species are not anticipated (ECORP, 2016). These avoidance measures included:

- Pre-construction surveys. Qualified biological monitor(s) will conduct a search for sensitive biological resources, including special-status plants and special status wildlife species, within all areas of potential permanent and temporary disturbance a maximum of 14 days prior to the start of ground disturbing activities. The wildlife survey will focus on ground-dwelling and fossorial wildlife within the project site impact areas.

- Excavation. Biological monitors should be present during the initiation of ground disturbing activities and their presence should continue as necessary to maintain protective measures and to monitor for species in harm's way.

- Nesting Bird Survey. Qualified biological monitor(s) will conduct nesting bird surveys prior to the start of ground disturbing activities if project activities are scheduled to occur during the nesting bird season (February 15 through September 1).

- Worker Environmental Awareness Program (WEAP) Training. Prior to the start of project activities, all construction crews and contractors will participate in WEAP training to review sensitive species and other biological resources that could exist in the project site area and measures to be implemented for avoidance of these sensitive resources.

The biological survey concluded that with appropriate avoidance and minimization (e.g., biological monitoring and BMPs described earlier), impacts to all sensitive habitats, waterways, plants, wildlife, and other resources are avoided during project activities (ECORP, 2016).

This project does not involve nor result in any significant change to any animal life or animal habitat. As described above, no special-status wildlife or plant species have been observed in the project site (a few California Live Oak and California Black Walnut are located near Area 10). A 2014 search of the California Natural Diversity Database (CNDDB) of the project site did not identify any sensitive or special status species within the project footprint. However, the search identified the presence of the least Bell's vireo (Vireo bellii pusillus) within a one-mile buffer of the project site. A search of the US Fish and Wildlife Service database identified the presence of California gnatcatcher (Polioptila california) to the east of the project site outside the project footprint but within the one-mile project buffer. Given the limited scope of the project and limited duration, the project is expected to have a less than significant impact to wildlife or special status species.

Although the project site is primarily disturbed or developed and covered by non-native grasslands, a qualified biologist will conduct a search for sensitive biological resources before project activities begin as described above. This will include at least one nesting bird survey if any vegetation removal, grading, or other Facility disturbance occurring between February 1 and August 31 has the potential to impact nesting birds. All vegetation and suitable nesting habitat (including open ground) on the project site, whether or not it will be removed or disturbed, will be surveyed for nesting birds. If active nests of any native birds are found on the project site, they will be avoided until after the young have fledged. If there are no nests present, ground disturbance activities can move forward.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Impact Analysis: The project will not have an adverse effect on any riparian habitat or other sensitive natural communities. While the Soquel Canyon Creek streambed corridor is considered a riparian habitat, access to the project site will be over existing paved roads located above the streambed and away from any riparian habitats. California black walnut was the only special-status plant species observed near Area 10. However, CMs are not expected to impact any trees in the project site. Implementation of avoidance and minimization activities (e.g., biological monitoring and BMPs described earlier) will avoid impacts to all sensitive habitats, waterways, plants, wildlife, and other resources during Project activities.

The State of California Fish and Wildlife Services expressed concerns of potential impact to the Soquel Canyon Mitigation Bank (Mitigation Bank) located approximately 700 feet west of the Facility along Soquel Canyon Creek (about one mile downstream along Soquel Canyon Creek from the project site). The Mitigation Bank is identified as the Land Veritas I Property on Figure 4 (Aerojet Property and Surrounding Properties, Amec Foster Wheeler,

2015a). While project activities will have no direct impact to the Mitigation Bank because of its distance from the project areas, ECORP (2016) recommended the following general measures to prevent indirect impacts to the Mitigation Bank and surrounding environment:

- Artificial Lights. To avoid indirect impacts to the Mitigation Bank resulting from an increase in artificial light, project activities will be limited to daylight hours. The installation and operation of artificial lighting is not expected to occur.

- Ambient Noise. Ambient noise is not expected to impact the Mitigation Bank. However, an onsite biological monitor will monitor noise levels and ensure that they do not reach levels that would be audibly disruptive to wildlife within the Mitigation Bank.

- Human Presence. Increased human presence is not expected to have indirect impacts to the Mitigation Bank as ground-disturbing activities proposed in MAs 1 and 2 will take place approximately 2,000 feet (linear distance) from the closest property boundary of the Mitigation Bank.

The projects limits will be clearly delineated by the biological monitor using flagging or fencing, which will remain in place throughout the duration of project activities. Personnel will not be allowed to operate equipment or to congregate outside of the project limits. In addition, personnel and equipment will not be allowed to enter the Mitigation Bank property.

As described above, CDFW staff will be invited to review the work area before project activities begin to discuss avoidance and minimization activities and confirm a permit is not necessary.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact Analysis: The head of the north-south tributary of Soquel Canyon Creek is located near the southern end of the administration area in MA 1 (Figure 1a, Wood 2021). Soquel Canyon Creek may contain wetlands as defined by Section 404 of the Clean Water Act. Although the implementation of CMs will not have an adverse effect of wetlands through direct removal, filling, or hydrological interruptions, BMPs described earlier (e.g., silt fence, sediment trap, sandbag/straw bale barrier, hydroseeding) will be installed in and around work areas to minimize potential movement of eroded sediments from the disturbed areas from entering Soquel Canyon Creek.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Impact Analysis: Portions of the Facility are located adjacent to the Chino Hills State Park. As shown on Figure 3 (Management Area and Management Unit Designations, Amec Foster Wheeler, 2015a), the State Park is located approximately 1,300 feet from the eastern Facility boundary and the State Park abuts the southern Facility property boundary. Species may use the Aerojet property when crossing through barbed wire fences around the State Park. The cyclone-type security fencing surrounding the administration area, located approximately 4,400 feet from the nearest State Park boundary (Figure 3), may inhibit movement of some species through this portion of the property.

Implementation of proposed CMs in the project site will not interfere with the movement of native resident or wildlife species. Project impact areas make up only two percent of the entire Facility and are primarily concentrated in already disturbed areas. The project site consists primarily of disturbed or developed areas covered by non-native grasslands. While Area 10 is located in a woodlands area, it is limited to a relatively small area at the base of a relatively steep slope and thus would not impede migratory wildlife corridors or native nursery sites.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact Analysis: The City of Chino Hills has a Tree Preservation policy that is intended to preserve and protect certain species of trees and certain mature trees within the City of Chino Hills. The following specific native trees must be protected, if they are at least four inches in diameter or greater at breast height (DBH; defined as four feet six inches above the finish grade):

- California Sycamore
- California Live Oak
- California Black Walnut
- Coastal Scrub Oak

This regulation also covers heritage trees. A heritage tree includes any species of tree (excluding invasive trees or trees susceptible to breaking or falling) having a cumulative diameter of forty-four inches or greater at DBH, and of significant age, health, and quality to be deemed valuable to the aesthetics of the community by a certified arborist.

No trees are located in the project site areas of soil excavation; thus, implementation of CMs are not anticipated to impact or disturb any trees in the project site, including heritage trees. While some trees are located near Area 10, they will not be significantly disturbed during CMs. A couple of trees located along roads may need to have low-hanging branches trimmed to allow equipment access. If any trees are identified that need to be removed to complete CMs, Aerojet will notify DTSC before any trees are damaged or removed.

Conclusion: Implementation of the project would have no impact relative to this issue.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Impact Analysis: No adopted conservation plans are present at the project site; implementation of the proposed remedial actions would not affect any approved habitat conservation plan, including the Soquel Canyon Mitigation Bank located about one mile downstream of the project site or the Chino Hills Habitat Restoration project covering portions of the State Park.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

The City of Chino Hills Municipal Code Title 16, Chapter 16.90.
Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.
ECORP Consulting, Inc. Biological Reconnaissance Survey for the Aerojet Rocketdyne Chino Hills Project, City of Chino Hills, San Bernardino County, California. December 5, 2016.
Wood Environment & Infrastructure Solutions, Inc., 2020b. Revised Summary of Subsurface Water Conditions.

5. CULTURAL RESOURCES				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

A record search was conducted for the proposed project site and within a one-mile buffer. The results of this search found no known historical resources present at the project site, although historic resources were identified within the one-mile buffer. The majority of the identified historic areas were located west of the project site, although a few areas were identified south of the project site in the Chino Hills State Park. These historic resources consisted of a cattle watering station, steel waterline pipes, an electrical line right of way, a historic period road, and remnants of a large home to include an outhouse well, carved stone and wagon road. One area was identified east of the project site, the McDermont Ranch which was identified as a 1920s era ranch. It was destroyed during a brush fire in 2009.

Outreach to the Tribes identified by the Native American Historic Commission as potentially interested in the Facility did not yield any interest nor did it generate any additional cultural or historic information about the Facility.

Analysis as to whether or not project activities would:

a. Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?

Impact Analysis: Because of the limited scope of the proposed project and the absence of currently identified historic resources within the area to be excavated, implementation of the proposed project is not expected to result in any impact to any historic resource.

Conclusion: Implementation of the project would have no impact relative to this issue.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Impact Analysis: A record search was conducted of the proposed project site and within a one-mile buffer. No archaeological resources were present within the project site. Prehistoric and historic archaeological resources were found within the one-mile buffer area. These areas were generally located to the south and west of the project site including the State Park. The archeological resource areas were shown to contain a variety of artifacts including mano fragments, metate fragments, pestles, and lithic scatter including flakes and cores. Because there exists a potential for an inadvertent discovery of an archaeological resource during project activities, implementation of the proposed project may result in an impact to archaeological resources that is deemed less than significant. If archeological resources are identified during project activities, all work within 50 feet of the point of discovery will be immediately halted and the area secured. The DTSC project manager will be notified and coordinate with appropriate parties to evaluate the resource and potential impacts.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

Impact Analysis: No human remains have been identified within or in close proximity to the project site. If human remains are inadvertently discovered during project activities, the project manager will implement standard protocols for handling these remains in an appropriate manner. This protocol includes stopping work within 50

feet of the discovery and notifying the County Coroner. The coroner will examine the human remains. If the remains are recent, then the matter becomes the responsibility of law enforcement officials. If the remains are determined to be from a Native American, the coroner will notify the Native American Heritage Commission and all assessment activities in the area of discovery will cease for 30 days pursuant to the Native American Graves Protection and Reparation Act (NAGPRA) and appropriate response actions established to protect the remains.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

City of Chino Hills General Plan, 2015.
Geological Survey Professional Paper 420-B, 1964.
Native American Heritage Commission Response Letter, September 2014.
Archaeological Information Center, September 2014.

6. ENERGY				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

Project activities are short term and temporary. They will not impact or require construction of any new or existing energy facilities. The proposed project requires the use of heavy equipment (e.g., scrapers, water truck, excavator, crawler tractor or bulldozer).

Analysis as to whether or not project activities would:

a. Result in potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

   Impact Analysis: The proposed project requires the short term use of heavy equipment (e.g., dump trucks/scrapers, water truck, excavator, crawler tractor or bulldozer) to excavate and transport suspect MEC-containing soil. More recent and energy-efficient diesel engines will be used where available.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

   Impact Analysis: The project is short term in nature and will not conflict with or obstruct any state or local plan for renewable energy or energy efficiency.

   Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.

7. GEOLOGY AND SOILS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

ENVIRONMENTAL SETTING (BASELINE):

The Facility is located within the Chino Hills, a subdivision of the larger Puente Hills. The three primary types of geological materials encountered at the Project Area are marine sedimentary bedrock, alluvium, and artificial fill. Top soil at the project site is shallow alluvium that extends to a depth of between 0.5 to 4 feet. This top soil is underlain by sedimentary bedrock with low permeability characteristics. The strata comprising the bedrock are generally thin and discontinuous and are approximately 0.5 to 20 feet thick. These bedrock characteristics cause the majority of the precipitation occurring at the Facility to drain away as surface water runoff rather than infiltrating into the bedrock.

In 2011, GMU Geotechnical, Inc. (GMU, 2011) prepared a baseline geotechnical conditions update report to be used in the preparation of the planned City of Chino Hills General Plan update. GMU's findings relevant to the Aerojet Facility and the project site included: The Facility is located in an area of minimal flooding; near-surface soils have a low to moderate shrink-swell potential (not expansive); the area is generally susceptible to landslides (some steeper slope

areas are identified as most susceptible landside area); the area has low liquefaction potential; and the area is susceptible to moderate seismic shaking with very light damage.

Analysis as to whether or not project activities would:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

   ii) Strong seismic ground shaking?

   iii) Seismic-related ground failure, including liquefaction?

   iv) Landslides?

   Impact Analysis: The project site is located in proximity to two known earthquake faults as delineated on the most recent Alquist Priolo Earthquake Fault Zoning Map. The Chino fault is located approximately 2.5 to 3 miles northeast of the project site, west of State Route 71. The Whittier fault is located 2.5 to 3 miles south/southwest of the project site and is located just south of the Chino Hills State Park. Because proposed CM activities are limited in scope, do not include construction of any temporary or permanent structure, and likely would not extend to a depth greater than four feet, these activities have no potential to rupture a fault or cause seismic disturbances, be disturbed or fail during strong seismic ground shaking, or cause landslides.

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Result in substantial soil erosion or the loss of topsoil?

   Impact Analysis: The project site has already been disturbed and removal of shallow alluvium will expose native bedrock. While topsoil will be removed during excavation, BMPs described earlier (e.g., silt fence, sediment trap, sandbag/straw bale barrier, hydroseeding) will be placed in and around disturbed areas to reduce potential for unintended or uncontrolled loss of sediments into nearby streambeds.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

   Impact Analysis: No known unstable geologic unit or soils were located in the project site during previous Facility assessment activities. The project site has already been disturbed and removal of shallow alluvium will expose competent native bedrock. The project will not cause landslides, lateral spreading, subsidence, liquefaction or collapse.

   Conclusion: Implementation of the project would have no impact relative to this issue.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

   Impact Analysis: No known expansive soils were located in the project site by GMU (2011). The project site has already been disturbed and removal of shallow alluvium for MEC removal will expose native bedrock.

   Conclusion: Implementation of the project would have no impact relative to this issue.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Impact Analysis: The project does not require the disposal of wastewater and would not affect any septic tank or alternative wastewater disposal system.

Conclusion: Implementation of the project would have no impact relative to this issue.

f. Directly or indirectly destroy a unique paleontological resources or site unique feature?

Impact Analysis: Within the City of Chino Hills, two geological formations are present. The older of the two is the Monterey formation which is from the middle Miocene. The younger of the two, the Puente formation, is from the late Miocene. Pleistocene age alluvium is also present. Known unique paleontological resources may be present at the Facility or in close proximity to the project site. The resources consist of Miocene and Pleistocene fossils. Miocene fossils represent the time period when the area of Chino Hills was the ocean floor and may include many kinds of marine life and leaves from terrestrial plants that were washed into the ocean by streams and rivers. Given these types of formations, there is a potential for paleontological resources to be present at the project site. However, because excavation is limited to alluvium materials, bedrock formation should not be disturbed. However, if paleontological resources are identified during project activities, all work within 50 feet of the point of discovery will be immediately halted and the area secured. The DTSC project manager will be notified and coordinate with appropriate parties to evaluate the resource and potential impacts.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

References Used:

Archaeological Information Center, September 2014.
California Geological Survey, http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm.
Geological Survey Professional Paper 420-B, 1964.
GMU Geotechnical, Inc., 2011, Geotechnical Conditions Update for City of Chino Hills General Plan, prepared for Comprehensive Planning Services.
Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.
AMEC Environment & Infrastructure Inc., 2012a, Updated Conceptual Site Model for Munitions and Explosives of Concern.
Wood Environment & Infrastructure Solutions, Inc., 2020b, Revised Summary of Subsurface Water Conditions.

8. GREENHOUSE GAS EMISSIONS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

ENVIRONMENTAL SETTING (BASELINE):

The project site is located in the South Coast Air Basin region under the responsibility of the South Coast Air Quality Management District (SCAQMD), which regulates emission of Greenhouse Gases (GHG). Because the Facility is currently vacant and unused, GHG emissions associated with the project are minimal. Likewise, because project activities are short term and temporary, greenhouse gas emissions associated with the project will be minimal.

Analysis as to whether or not project activities would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Analysis: The project includes excavation of approximately 14,600 cubic yards (yd^3) of potential MEC-containing soil (13,000 yd^3 from the Ordnance Fuze Test Unit/Area West of HEI Pond and 1,600 yd^3 from Area 10) and transport to a holding area (Test Range 1C) located in the central portion of the Facility pending final determination (part of future MA 3 evaluation). MEC detonation operations, if any, would use a limited amount of explosive (anticipated to be less than 10 pounds) and thus is not considered a source of GHG. The proposed project would require the use of scrapers, water truck, excavator, and a crawler tractor (bulldozer) over a 16-day period as noted below:

- Project site preparation - crawler tractor for 2 days;
- Excavation of Ordnance Fuze Test Unit/Area west of HEI Pond – 3 scrapers, crawler tractor, and water truck for 10 days;
- Excavation of Area 10 – 3 scrapers, crawler tractor, excavator, and water truck for 2 days.

Alternatively, dump trucks loaded by excavator could be used to transport materials to Test Range 1C.

The current SCAQMD threshold standard for GHG emissions from industrial facilities is 10,000 metric tons per year (MT/yr) of carbon dioxide equivalents (CO_2e). An analysis of GHG emissions using the CalEEMod model found that expected GHG emissions associated with implementation of CMs in MA 1 would be less than 40 tons of CO_2e (carbon dioxide and methane).

Conclusion: Implementation of the proposed CMs would generate a less than significant increase in GHG emissions.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis: In 2014, the San Bernardino Association of Governments adopted the Greenhouse Gas Reduction Plan. The City of Chino Hills is a member of this Association. The Reduction Plan summarizes the actions that each city has selected in order to reduce GHG emissions, state-mandated actions, GHG emissions avoided in 2020 associated with each local and state action, and each city's predicted progress towards its selected GHG reduction goal. This Reduction Plan is intended as a foundation on which the Partnership cities

can develop individual city-specific Climate Action Plans (CAPs) to be adopted and enacted according to their own internal procedures. The City of Chino Hills is included in the overall Greenhouse Gas Reduction Plan. At this time, the City of Chino Hills has not adopted a specific CAP. Thus, the thresholds of significance for GHG are based on the 2014 CEQA Guidelines Appendix G. No specific mitigation measures have been identified in the adopted Greenhouse Gas Reduction Plan.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

References Used:

San Bernardino County Regional Greenhouse Gas Reduction Plan 2014.
California Emissions Estimator Model (CalEEMOD) Users Manual, Appendix D, Default data tables, Tables 3.3 and 3.4 (dated September 2013).
South Coast Air Quality Management District Air Quality Significance Thresholds, 2015.
2014 CEQA Guidelines Appendix G.

9. HAZARDS AND HAZARDOUS MATERIALS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

ENVIRONMENTAL SETTING (BASELINE):

The Aerojet Facility began operations in 1954 as a small ordnance-testing Facility. Beginning around 1974, operations primarily involved research, development, assembly, and testing of high explosive projectiles, armor piercing projectiles composed in part of depleted uranium (DU), and fuzes. Aerojet is in the process of completing remediation of the Facility, which has included the removal of chemical and radioactive or DU impacted materials and MEC. A Comprehensive Risk Assessment completed in 2020 pursuant to DTSC request demonstrated that the presence of residual chemicals and DU in the soil and surface water in the Project Area does not pose a risk to human health or ecological receptors. Likewise, through the RFI/CM process, significant MEC locating and removal activities have been implemented pursuant to DTSC-approved scopes of work and related project plans. To date, approximately 614 acres of the Project Area have been swept for MEC and approximately 87,000 tons of excavated soil was processed through an on-site screening plant in Test Range 1C to remove MEC. These efforts were documented in the Corrective Measures Completion Report and CMCRA Addendum (Geomatrix, 2006 and 2008, respectively) and updated CSM (AMEC, 2012a).

One of the primary objectives of the work completed to date in the Project Area has been to locate and remove MEC. Significant MEC location, removal, and management activities were previously completed safely and without incident and these same proven techniques will be used during implementation of the proposed CMs in MA 1. However, because of

constraints and limitations of the completed CM technologies and access limitations, which may not allow for locating and removing all MEC items from the Project Area, a low probability of encountering residual MEC may remain in the Project Area following completion of the initial removal activities. Thus, the CMSs for MA 1 and MA 2 were conducted to evaluate concerns of residual MEC in these portions of the Project Area. The CMs proposed herein would be implemented to address concerns of residual MEC in the upper four feet of loose topsoil and to allow for appropriate reuse(s) of the Facility. Other than MEC, no other hazardous materials should be encountered.

Analysis as to whether or not project activities would:

a. Create a significant hazard to the public or the environment throughout the routine transport, use, or disposal of hazardous materials?

   Impact Analysis: The project proposes CMs for residual MEC at MA 1 of the closed Aerojet Facility. The upper four feet of loose topsoil in the project site will be transported to a holding area (Test Range 1C) located in the central portion of the Facility where it will remain. Any MEC recovered and removed from the project site will either be destroyed at the Facility or will be moved to another offsite location for destruction if safe to transport.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

   Impact Analysis: In 1999, DTSC prepared a CEQA Initial Study for implementing CMs at various Solid Waste Management Units and Areas of Concern identified in the Aerojet Project Area to address potentially hazardous substances detected in soil above human health-based cleanup levels and MEC. DTSC determined that the project would not have a significant effect on the environment and prepared a CEQA Negative Declaration. The CMs were implemented without upset or accident conditions that involved the release of hazardous materials into the environment. Similar CMs will now be implemented in MA 1 where there is only a concern of residual MEC.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

   Impact Analysis: No schools, hospitals, nursing homes or day care facilities are within one-quarter mile of the project site. A portion of the Vellano golf course is located approximately 500 feet to the west of the project site, but the course closed in 2018. No residential houses are located within one-quarter mile of the Ordnance Fuze Test Unit/Area West of HEI Pond or Area 10 where excavation of potential MEC-containing soil would occur.

   Conclusion: Implementation of the project would have no impact relative to this issue.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

   Impact Analysis: The Facility is not included on the Cortese list. It is undergoing corrective action pursuant to a Consent Agreement with DTSC, Site number 800001476; the Facility RCRA United States Environmental Protection Agency's identification number is CAD981457302. The proposed CMs would not create a significant hazard to the public or the environment.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

   Impact Analysis: The Project Area is not located within an airport land use plan or within two miles of a public airport or public use airport.

Conclusion: Implementation of the project would have no impact relative to this issue.

f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

Impact Analysis: No adopted emergency response plan or emergency evacuation plan would be required during proposed project implementation. Pursuant to the Consent Agreement, Aerojet is authorized to detonate MEC discovered during ordnance (MEC) investigation activities performed as part of the corrective action and an emergency detonation permit is not needed. MEC management and destruction processes established with DTSC during implementation of previous MEC locating and removal activities would continue to be implemented for the proposed activities. Aerojet will notify DTSC at least one week in advance of any detonation (except if a blown in place action is necessary). If an ordnance item is to be blown in place, Aerojet will notify DTSC as soon as possible and shall provide an opportunity for a DTSC representative to be present to witness the detonation.

Conclusion: Implementation of the project would have no impact relative to this issue.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Impact Analysis: Previous MEC location, removal, and management activities were completed in the Project Area safely and without incident. These previous actions did not cause any instances of wildlands fire and implementation of the project is not expected to cause such instances.

To reduce wildfire risk, the City established and enforces policies to minimize the risk from fire hazards and continue to reduce fire risk through City development and operation policies. Some actions/policies applicable to project implementation include:

- Ensure adequate fire flow capabilities (onsite access to water using a fire hydrant located at the nearby Vellano development).
- Avoid work during strong wind conditions.
- Onsite staff/worker awareness of fire safety, including the storage of flammable materials, use of fire extinguisher and onsite water truck in event of fire, and vegetation management in and around disturbed areas.
- Onsite evacuation plans in event of fire.

While no new roads will need to be constructed to access the project areas, some regrading improvements may be necessary to allow access. In the event of fire (or other emergency), onsite workers will rally and take shelter near the former administration building shown on Figure 2 (Property Plot Plan, Wood, 2020b) to avoid cross-traffic with emergency response vehicles. This area provides sufficient setback from a wildfire for workers to safety remain in the area.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.
AMEC Environment & Infrastructure Inc., 2012a, Updated Conceptual Site Model for Munitions and Explosives of Concern.
Geomatrix, Corrective Measures Completion Report, 2006.
Geomatrix, Corrective Measures Completion Report Addendum, 2008.
Wood Environment & Infrastructure Solutions, Inc., 2020a, Human Health and Ecological Risk Assessment Report.
Wood Environment & Infrastructure Solutions, Inc., 2020b, Revised Summary of Subsurface Water Conditions.

10. HYDROLOGY AND WATER QUALITY				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Chino Hills are characterized as consisting of non-water-bearing sedimentary rocks. The potential for these sedimentary rocks to provide groundwater is considered fair to poor because of their low to moderate permeability. There is no defined water table beneath the hills, but localized subsurface water has been encountered along contacts between various geologic materials (Wood, 2020b). However, these occurrences of subsurface water at the Facility are localized and lack lateral and vertical continuity. As discussed earlier, land use restrictions will be placed on installation of production wells for extraction of subsurface water in the area of the former Redwater Pond and Upper A-12 Test Area (Figure 1a, Wood, 2021).

The Aerojet property is located at and near the head of three drainage areas. Surface water flow in the two tributaries of Soquel Canyon Creek at the Facility is intermittent. The north-south tributary of Soquel Canyon Creek is the main drainage feature within the Facility. It is located just south of the project area. Initially, surface water flow was completely dependent upon precipitation events. Since the Vellano development and golf course were constructed along the northern and northwestern Facility boundary, surface water flow in the north-south tributary of Soquel Canyon Creek has increased where outflow from the Vellano development enters the Aerojet property (sustained surface water flow has also been observed after the golf course closed). Intermittent surface water flow in the north-south tributary of

Soquel Canyon Creek at the Facility above (upstream) from where the outflow from the Vellano development enters the north-south tributary, if any, is typically limited. Results of the comprehensive site-wide risk assessment demonstrate that residual concentrations of chemicals remaining in surface water do not pose a risk to human health or ecological receptors (Wood, 2020a).

Analysis as to whether or not project activities would:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

   Impact Analysis: Because the project does not involve any groundwater or surface water investigation or remediation, there is no anticipated water quality standard associated with the project. The Project does not include waste discharge of any kind that could substantially degrade surface or groundwater quality. However, a Storm Water Pollution Prevention Plan (SWPPP) will need to be submitted to the State Water Board because the proposed area of excavation exceeds one acre. The Santa Ana Regional Water Quality Control Board (RWQCB) would be responsible for project oversight involving wastewater discharge. However, as noted above, wastewater discharge is not expected to be generated during implementation of CMs in MA 1, including equipment cleaning with water, so no involvement from the RWQCB is expected.

   The proposed cleanup plans for MA 1 will include measures to prevent runoff during the soil excavation activities so that disturbed sediment will not enter the drainages at the Aerojet Facility. Areas with historic chemical and depleted uranium impacts to soil have been previously remediated, as DTSC explained in its March 2016 Fact Sheet.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin?

   Impact Analysis: The Facility is not located over a known groundwater aquifer and the project does not require the extraction of groundwater nor will it interfere with groundwater recharge.

   Conclusion: Implementation of the project would have no impact relative to this issue.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   (i) result in substantial erosion or siltation on or off-site;

   Impact Analysis: Several drainage features within the Project Area, including Soquel Canyon Creek, are designated as blue line streams on the U.S. Geological Survey map (Soquel Canyon Creek near the project site is mapped as an intermittent stream). The CMs involve removing potential MEC-containing soil from the project site, which is not located along the course of any stream or river. While the excavated areas will not be backfilled, some clean borrow material from areas adjacent to the excavation may be used to fill in low-lying areas to maintain the existing drainage patterns. The CMs would not involve the discharge of any water to drainage features. The SWPPP would identify appropriate BMP controls described earlier (e.g., silt fence, sediment trap, sandbag/straw bale barrier, hydroseeding, etc.) to be installed around disturbed area to minimize potential movement of eroded sediment from the project site into Soquel Canyon Creek drainage. Other BMP measures may be implemented depending on grading permit requirements from the City of Chino Hills.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

   (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite;

   Impact Analysis: Several drainage features within the Project Area, including Soquel Canyon Creek, are designated as blue line streams on the U.S. Geological Survey map (Soquel Canyon Creek near the project site is mapped as an intermittent stream). The CMs involve removing potential MEC-containing soil from the project site and will not substantially alter existing drainage patterns (some clean borrow material along the excavation border may be used to fill in low-lying areas in the excavation to maintain the existing drainage patterns), nor

would they involve the discharge of any water to a stream or river. The SWPPP would identify appropriate BMPs described earlier (e.g., silt fence, sediment trap, sandbag/straw bale barrier, hydroseeding) to be installed around disturbed area to minimize surface water runoff and potential movement of eroded sediment from the project site into Soquel Canyon Creek drainage or would result in flooding on- or off-site. Other BMP measures may be implemented depending on grading permit requirements from the City of Chino Hills.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Impact Analysis: Because the project does not involve addition of any impervious surface, the proposed project would not create or contribute runoff water that could exceed the capacity of any existing or planned stormwater drainage system. A SWPPP will need to be submitted to the State Water Board because the proposed area of excavation exceeds one acre. If needed, the RWQCB would also provide project oversight to ensure that wastewater discharge does not contribute polluted runoff. However, since no wastewater discharge is expected, involvement from the RWQCB is not expected.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

(iv) impede or redirect flood flows?

Impact Analysis: According to the FEMA FIRM map, the project site is not located within a 100-year flood hazard area and the Chino Hills General Plan identifies the area a minimal flood hazard. While all canyons are prone to flooding, project activities would not impede or redirect flood flow in the project site.

Conclusion: Implementation of the project would have no impact relative to this issue.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Impact Analysis: The project site is not located within a 100-year flood hazard area, nor is it located near an inland body of water and would not be subject to a sieche. The project is located in the foothills approximately 50 miles from the Pacific Ocean and is not subject to inundation by a tsunami.
Conclusion: Implementation of the project would have no impact relative to this issue.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Impact Analysis: The Project Area is not located within a water quality control plan or sustainable groundwater management plan.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.
AMEC Environment & Infrastructure Inc., 2012a, Updated Conceptual Site Model for Munitions and Explosives of Concern.
FEMA Flood Insurance Rate Map Panel 9330H.
U.S. Geological Survey, Streamstats, 2014.
Wood Environment & Infrastructure Solutions, Inc., 2020a, Human Health and Ecological Risk Assessment Report.
Wood Environment & Infrastructure Solutions, Inc., 2020b, Revised Summary of Subsurface Water Conditions.

11. LAND USE AND PLANNING				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Project Area is located in the City of Chino Hills. According to the City of Chino Hill's General Plan, the Aerojet property and surrounding properties are currently zoned as Rural Residential or Agriculture-Ranches. The Facility is currently vacant and unused. The surrounding areas are either rural/open space (including the closed Vellano golf course and public parks). The Vellano development, which includes single-family residences on large suburban lots, is located northwest of the Facility. The Hozen property located east of the Facility is currently used for pasture, avocado and lemon trees, and grassland. The Chino-Soquel Oil Field operated by Padre Oil is located approximately northeast of the Facility (Figure 8, Administration Area Subunit Designations, Amec Foster Wheeler, 2015a). Implementation of the proposed project would not affect either land use or planning. DTSC does not determine land use; such determinations are made by the City of Chino Hills.

Analysis as to whether or not project activities would:

a. Physically divide an established community?

   Impact Analysis: The Facility is located an undeveloped, rural/open space setting. There is no established community in the project area.

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

   Impact Analysis: No land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect was identified for the Aerojet Facility. Implementation of the proposed project would not affect land use or planning.

   Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

City of Chino Hills General Plan, 2015.
City of Chino Hills Municipal Code Title 16, Chapter 16.08.
Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.

12. MINERAL RESOURCES				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Facility and surrounding areas are not used for mineral extraction. According to the California Division of Mines and Geology, no significant mineral deposits are known to exist in Chino Hills. The property immediately northeast of the Aerojet property is an active oil field. The Chino-Soquel Oil Field operated by Padre Oil is located approximately 0.3 miles east of the project site. (Figure 8; Administrative Area Subunit Designations, Amec Foster Wheeler, 2015a).

Analysis as to whether or not project activities would:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

   Impact Analysis: According to the California Division of Mines and Geology, no significant mineral deposits are known to exist in Chino Hills. While the project site is located approximately 0.3 miles west of the active Chino-Soquel Oil Field operated by Padre Oil (Figure 8; Administrative Area Subunit Designations, Amec Foster Wheeler, 2015a), the project will not impact oil production. No mineral resources are located on or in proximity to the project site that would be of value to the region and the residents of the state.

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

   Impact Analysis: The project includes shallow excavation of topsoil. No locally important mineral resource exists at the site or would be used. The potential for mineral exploitation in the region, if any, would not be affected by implementation of the proposed project.

   Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

City of Chino Hills General Plan, 2015.
California Division of Mines and Geology, Mineral Resources and Mineral Hazards Mapping Program.

13. NOISE				
Would the project result in:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Facility is currently vacant and unused and does not generate noise. The surrounding areas are either rural/open space (including the closed Vellano golf course and public parks) or single-family residences on large suburban lots. There are no industrial sources of noise or traffic noise from freeways.

Analysis as to whether or not project activities would result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Impact Analysis: MEC locating and removal, including any additional surface or subsurface locating and removal activities and/or excavation of potential MEC-containing soil, may generate noise at the project site. The nearest residence, however, is located approximately one-quarter mile from the project site and thus noise levels during project activities are not anticipated to impact nearby residences. The proposed project would require the use of scrapers, water truck, excavator, and a crawler tractor (bulldozer) over a 16-day period as noted below:

- Project site preparation - crawler tractor for 2 days;
- Excavation of Ordnance Fuze Test Unit/Area West of HEI Pond – 3 scrapers and water truck for 12 days;
- Excavation of Area 10 – 3 scrapers, excavator, and water truck for 2 days.

The following are the standard a-weighted, maximum, sound level (Lmax levels) 50 feet from the loudest side of the equipment for the proposed equipment to be used at the project site:

Scraper – 85 a-weighted decibels (dBA)
Water Truck – 85 dBA
Crawler tractor (bulldozer) – 85 dBA
Excavator – 85 dBA

The following are the noise standards established by the City of Chino Hills (Section 16.48.020):

1. The noise standards contained in Table N-1 “Noise/Land Use Compatibility Matrix” in the Noise Element of the General Plan shall apply to land uses citywide and shall be used to define acceptable and unacceptable noise levels.

2. No person shall operate or cause to be operated any source of sound at any location or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level, when measured on any other property, either incorporated or unincorporated, to exceed:
   a) The "Zone C" noise standard for that receiving land use specified in Table N-1 of the General Plan Noise Element for a cumulative period of more than thirty (30) minutes in any hour; or
   b) The noise standard plus 5 dBA for a cumulative period of more than five minutes in any hour; or
   c) The noise standard plus 10 dBA for a cumulative period of more than five minutes in any hour; or
   d) The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour; or
   e) The noise standard plus 20 dBA for any period of time.

3. If the measured ambient level exceeds any of the first four noise limit categories above, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.
4. If the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels in subsection (B) (2) (a) of this section shall be reduced by 5 dBA.

MEC demolition activities will also generate noise. As described in the Introduction section, any MEC found during project activities will be destroyed in Area 16 by placing them in a shallow pit surrounded by donor explosives, then covering the pit with soil and detonating the explosives (shot). Because each shot will be limited to 10 pounds of net explosives and shot holes covered with soil, noise levels will be significantly reduced. MEC demolition associated with project activities, if necessary, is expected to be completed in one shot.

Noise is regulated under the Chino Hills Code of Ordinances, Title 8, Chapter 8.08, restricts construction noise to the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and between 8:00 a.m. and 6:00 p.m. on Saturdays, excluding federal holidays. Although the project noise levels are not anticipated to impact nearby residences because of their distance from the project site, project activities will be conducted in compliance with the City's ordinance limiting construction noise hours.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Generation of excessive groundborne vibration or groundborne noise levels?

Impact Analysis: The project should not generate noise excessive groundbourne vibration or groundbourne noise levels given the type of activity and distance to the closest potential receptor. Conducting MEC demolition in shallow pits covered by soil will also temper potential generation of excessive vibration or noise.

Conclusion: Implementation of the project would have no impact relative to this issue.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Impact Analysis: The Project Area is not located within vicinity of a private airstrip or an airport land use plan, or within two miles of a public airport or public use airport.
Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

City of Chino Hills General Plan, 2015.
Chino Hills Code of Ordinances, Title 16 - Development Code Section 16.48.020.
Federal Highways Administration Construction Noise Handbook.

14. POPULATION AND HOUSING				
Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Facility is currently vacant and does not provide any housing. The areas to the west and north of the Facility are used for single-family housing.

Analysis as to whether or not project activities would:

a. Induce substantial unplanned population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

   Impact Analysis: The project proposes remediation activities in the project site at the former Aerojet Facility. It will not directly induce population growth in the area. However, the project may indirectly induce population growth in the area if future reuse includes residential development of the Aerojet property. All future uses would be done in compliance with local zoning codes and ordinances with approval from the City of Chino Hills.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

   Impact Analysis: The project proposes remediation activities in the project site at the former Aerojet Facility and would not displace any existing people or housing because there are no full-time employees/workers or housing on the project site.

   Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

City of Chino Hills General Plan, 2015.
City of Chino Hills Zoning Code, 2001.

15. PUBLIC SERVICES				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Facility is currently served with electrical power and the Chino Valley Independent Fire District and the Chino Hills Police/Sherriff's Department provide service to the Facility and surrounding areas. No other utilities or public services are currently provided or used at the Facility. No full-time employees are currently present, the Facility is secured, and Aerojet provides 24/7 surveillance.

The Aerojet property consists of the vacant former Facility; therefore, the Aerojet property currently generates no demand for school services to the project site or the Facility. Chino Hills State Park (State Park) is located to the east and south of the project site. However, access across the project site to the State Park is currently not allowed due to safety concerns; therefore, the area of the State Park closest to the Facility is rarely used. Also, there are no hiking or bike trials present on the portion of the State Park located east of the Aerojet property.

Analysis as to whether or not project activities would:

Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

i. Fire protection?
ii. Police protection?
iii. Schools?
iv. Parks?
v. Other public facilities?

Impact Analysis: Implementation of the CMs would result in a minor and temporary increase in the need for fire and police protection while workers are active on-site.

Conclusion: Implementation of the project would have a less than significant impact on fire and police protection, no impact on schools, parks, or other public facilities.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc. 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.

AMEC Environment & Infrastructure Inc. 2012a, Updated Conceptual Site Model for Munitions and Explosives of Concern.

16. RECREATION				
	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Aerojet Facility is closed to the public and undeveloped; therefore, the Aerojet property does not include recreational facilities or provide any recreational opportunities, nor does it contribute to the demand for recreation. The surrounding areas provide recreational opportunities via the Chino Hills State Park (State Park) and local public parks (the Vellano golf course is closed).

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the Facility would occur or be accelerated?

   Impact Analysis: Although the Aerojet property is a large expanse of open space, access is limited because of safety concerns and the property owner does not allow recreation of any type at the Facility. Implementation of the proposed CMs would not increase the use of existing parks or other recreational facilities.

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Does the project include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

   Impact Analysis: The State Park is located both east and south of the Aerojet property (Figure 1; Property Location Map, Amec Foster Wheeler, 2015a). However, these areas of the State Park are remote and rarely used. No hiking or bike trials are present on the portion of the State Park located east of the Aerojet property. There is no access to the State Park from the Aerojet property. The Vellano development located north and west of the Aerojet property (Figure 1) includes the closed Vellano Country Club and golf course, and two local parks (Overlook Park and Vellano Park) with recreation centers and outdoor tennis and basketball courts. A small hiking trail is present at the Vellano Park. Implementation of the CMs would not require construction or expansion of any recreational Facility.

   Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern for Management Area 1.
AMEC Environment & Infrastructure Inc., 2012a, Updated Conceptual Site Model for Munitions and Explosives of Concern.

17. TRANSPORTATION				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

ENVIRONMENTAL SETTING (BASELINE):

The Facility currently generates minimal traffic onto the local roadways from security personnel or Aerojet staff entering and exiting the Aerojet property. The Facility has no measurable effect on the level of service (LOS) or roadway conditions. Access to the Aerojet property via Woodview Road is restricted by a gate at the Facility entrance (the City of Chino Hill also maintains a gate at the bottom of Woodview Road that is commonly locked at night and over weekends). No other route to the project site exists. Implementation of project activities is short term and will have minimal impact on the existing transportation system. All work in the project site would be conducted on private roads.

Analysis as to whether or not project activities would:

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

   Impact Analysis: The Facility is located at the end of Woodview Road and access to the property is controlled by locked gates. No other accessible roadway to the Facility exists. The Facility does not contain any circulation system, including transit, roadways, or bicycle and pedestrian facilities.

   Conclusion: Implementation of the project would no impact relative to this issue.

b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

   Impact Analysis: Implementation of CMs is expected to have short term and minimal impact on the existing transportation system. All work in the project site would be conducted on private roads. Minimal car trips (up to 10 vehicles for equipment operators and oversight personnel) would occur before and after each workday as workers enter and leave the project site over the estimated 16-day project duration. Transportation of earth moving equipment to and from the Facility could temporarily but not substantially affect the existing transportation system at and in the vicinity of the project site, specifically between Peyton Drive and Medlar Lane where project traffic turns east onto Woodview Road to access the Aerojet Facility (Figure 1; Property Location Map, Amec Foster Wheeler, 2015a). All excavated soil would be stored on-site (in Test Range 1C) and no soil would be transported off-site. Depending on the number and types of MEC found, if any, it is likely these materials will be destroyed onsite. Alternatively, recovered items may be transported to an approved offsite disposal facility for thermal treatment and destruction. Only one offsite truck and trip is expected to be used if MEC is removed from the Facility.

   Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact Analysis: No hazards due to design features or incompatible uses of roads or highways exist in the vicinity of the Facility. However, heavy truck traffic to and from the Facility along Woodview Road may require safety briefing or possibly lead vehicle escort because of the winding and narrow nature of the road.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

d. Result in inadequate emergency access?

Impact Analysis: Access to the project Facility is at 3100 Woodview Road (end of Woodview Road). Truck traffic and emergency vehicles can access the Facility through Woodview Road. While general public access is restricted by a gate at the Facility entrance, emergency staff (Chino Valley Independent Fire District and the Chino Hills Police/Sherriff's Department) have access through the gate. No other route to the project site exists.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

References Used:

City of Chino Hills General, 2015.

18. TRIBAL CULTURAL RESOURCES				
Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

Outreach to the Tribes identified by the Native American Historic Commission as potentially interested in the Aerojet property did not yield any interest nor did it generate any additional cultural or historic information about the Facility.

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

   i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

   Impact Analysis: No tribal cultural resources were identified at the Facility.

   Conclusion: Implementation of the project would have no impact relative to this issue.

   ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

   Impact Analysis: Outreach to the Tribes identified by the Native American Historic Commission as potentially interested in the Facility did not yield any interest nor did it generate any additional cultural or historic information about the Facility.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Native American Heritage Commission Response Letter, September 2014.

19. UTILITIES AND SERVICE SYSTEMS				
Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

Besides electrical service, the Facility is not currently served by any other utilities or service systems. Project activities are short term and temporary and will not disrupt utilities or service systems. No new or existing utilities or service systems will be required or impacted during the implementation of project activities.

Analysis as to whether or not project activities would:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?

   Impact Analysis: The project proposes remediation activities at the project site of the former Aerojet Facility. The Facility is closed is not serviced by any wastewater treatment, water, natural gas, or telecommunication provider other than electric power. The project does not require wastewater treatment because portable toilets will be brought in during field activities and emptied to an approved wastewater system for treatment and disposal. Therefore, no wastewater treatment approvals are required from the Santa Ana Regional Water Quality Control Board. Temporary stormwater drainage BMPs described earlier will be installed following excavation activities

   Conclusion: Implementation of the project would have no impact relative to this issue.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

   Impact Analysis: The project proposes remediation activities at the project site of the former Aerojet Facility. The Facility is closed and does not have a water provider. The short-term use of water may be necessary for

dust suppression and a fire hydrant located at the nearby Vellano development may be used to supply water for this purpose. A permit to tap into the fire hydrant would be obtained from the City of Chino Hills prior to project implementation.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Impact Analysis: The project proposes short term remediation activities at the project site of the former Aerojet Facility. The Facility is closed and does not have a wastewater treatment provider. Wastewater treatment is not required for the proposed project. Temporary toilet facilities would be brought to the Facility for workers.
Conclusion: Implementation of the project would have no impact relative to this issue.

d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Impact Analysis: The project proposes remediation activities at the project site of the former Aerojet Facility which would not generate solid waste or impair the attainment of solid waste reduction goals. Depending on number and types of MEC found, if any, these materials will be destroyed onsite or may be transported to an approved offsite disposal facility for thermal treatment and destruction.

Conclusion: Implementation of the project would have no impact relative to this issue.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Impact Analysis: All activities will be conducted in accordance with federal, state, and local management and reduction statutes and regulations related to solid waste.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.

20. WILDFIRE				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

ENVIRONMENTAL SETTING (BASELINE):

The Facility is located within the City of Chino Hill's (City) designated Fire Hazard District. The high risk posed by fires is due to the combined effects of climate (dry summers with Santa Ana wind conditions), rugged terrain (limiting accessibility to fire-fighting vehicles and personnel), vegetation (highly combustible chaparral and similar plant communities that contain high concentrations of volatile oils), and development patterns (wildland and urban areas intermixed in the foothills and near canyon bottoms where development is located adjacent to highly flammable vegetation). To reduce wildfire risk, the City established and enforces policies to minimize the risk from fire hazards and continue to reduce fire risk through City development and operation policies. Some actions/policies applicable to project implementation include:

- Ensure adequate fire flow capabilities (onsite access to water using a fire hydrant located at the nearby Vellano development).
- Avoid work during strong wind conditions.
- Onsite staff/worker awareness of fire safety, including the storage of flammable materials, use of fire extinguisher and onsite water truck in event of fire, and vegetation management in and around disturbed areas.
- Onsite evacuation plans in event of fire.

While no new roads will need to be constructed to access the project areas, some regrading improvements may be necessary to allow access. In the event of fire (or other emergency), onsite workers will rally and take shelter near the former administration building shown on Figure 2 (Property Plot Plan, Wood, 2020b) to avoid cross-traffic with emergency response vehicles. This area provides sufficient setback from a wildfire for workers to safety remain in the area.

Analysis as to whether or not project activities would:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

   Impact Analysis: The project will not impair an adopted emergency response plan or emergency evacuation plan.

Conclusion: Implementation of the project would have no impact relative to this issue.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Impact Analysis: The majority of the project area is wide open and easily accessible from all sides. While some portions of the project area are located at the base of the small slope, workers can still exist in the event of uncontrolled spread of a wildfire. Prevailing wind conditions and evacuation procedures will be discussed with workers each day before work begins and updated throughout the day if conditions change.

Conclusion: Implementation of the project would have a less than significant impact relative to this issue.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Impact Analysis: The project does not require the installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water sources, power lines or other utilities.

Conclusion: Implementation of the project would have no impact relative to this issue.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Impact Analysis: The project area includes the headland to Soquel Canyon Creek. Soquel Canyon Creeks flows through undeveloped native habitats for approximately 3 miles before entering into Carbon Canyon Creek, which includes several smaller development areas. Downstream people or structures are not at risk from flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes at the Facility.

Conclusion: Implementation of the project would have no impact relative to this issue.

References Used:

Amec Foster Wheeler Environment & Infrastructure Inc., 2015a, Corrective Measures Study for Munitions and Explosives of Concern, Management Area 1.
City of Chino Hills General Plan Land Use

21. MANDATORY FINDINGS OF SIGNIFICANCE

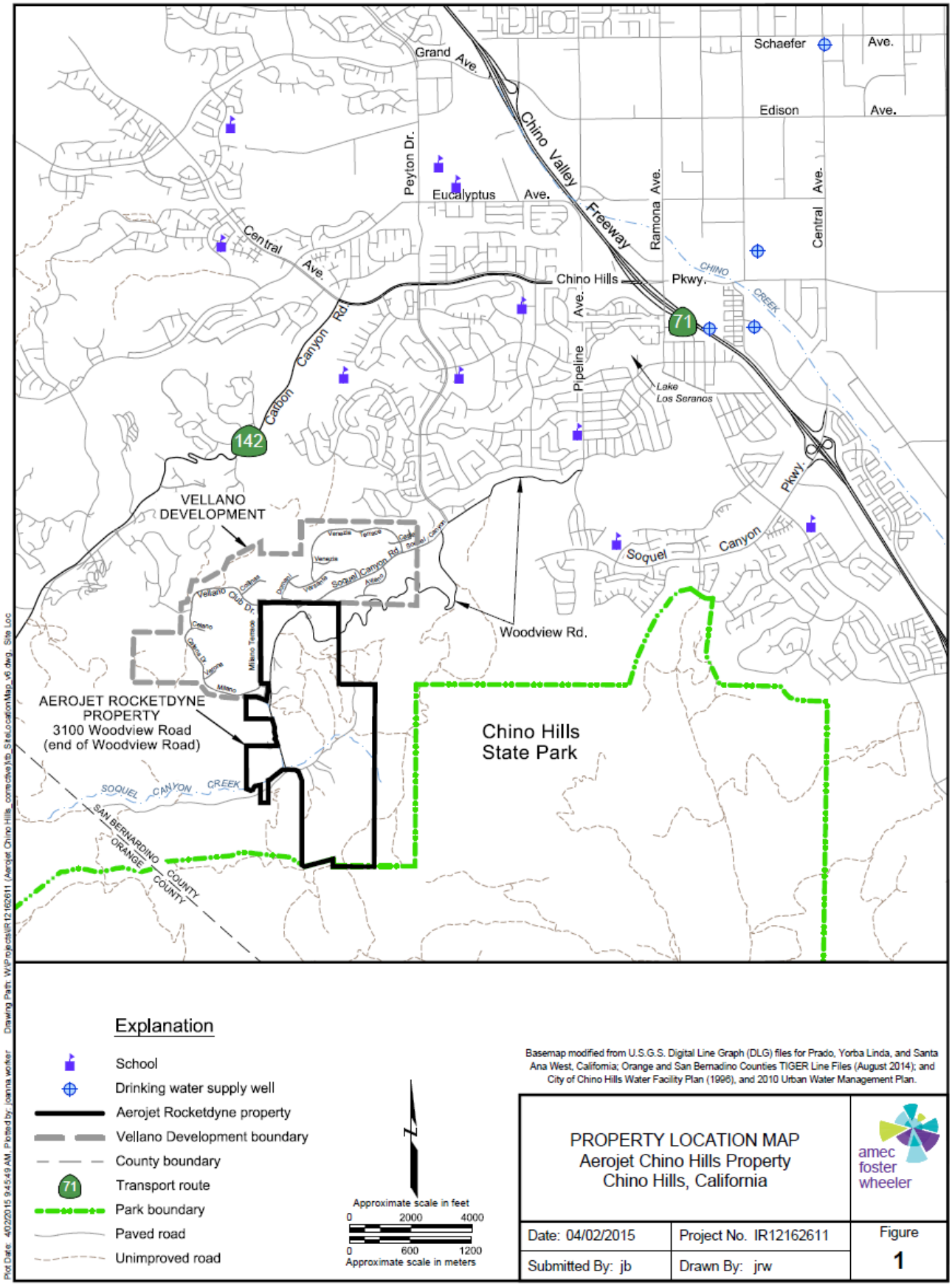
Based on evidence provided in this Initial Study, DTSC makes the following findings:

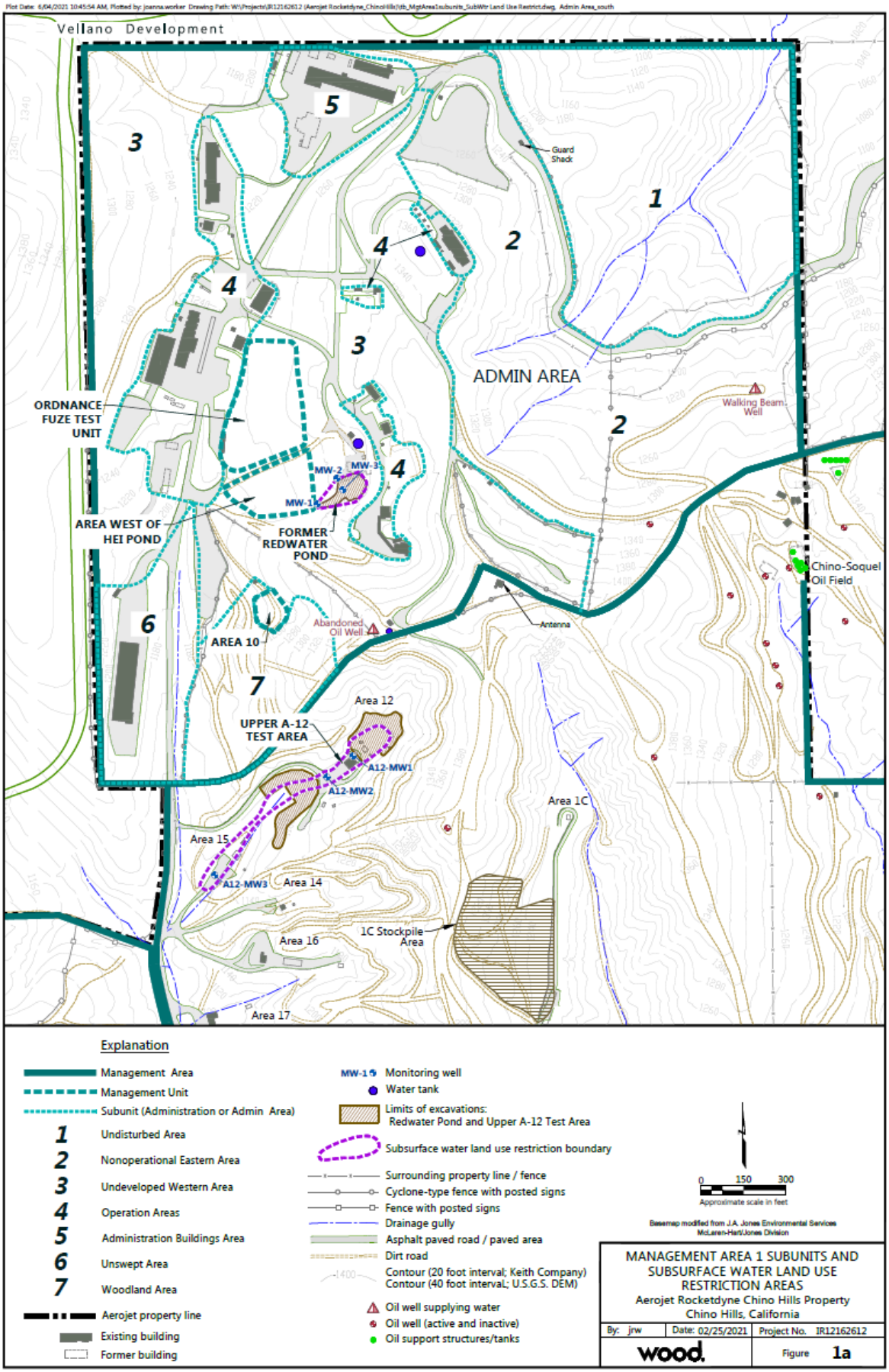
a. The project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

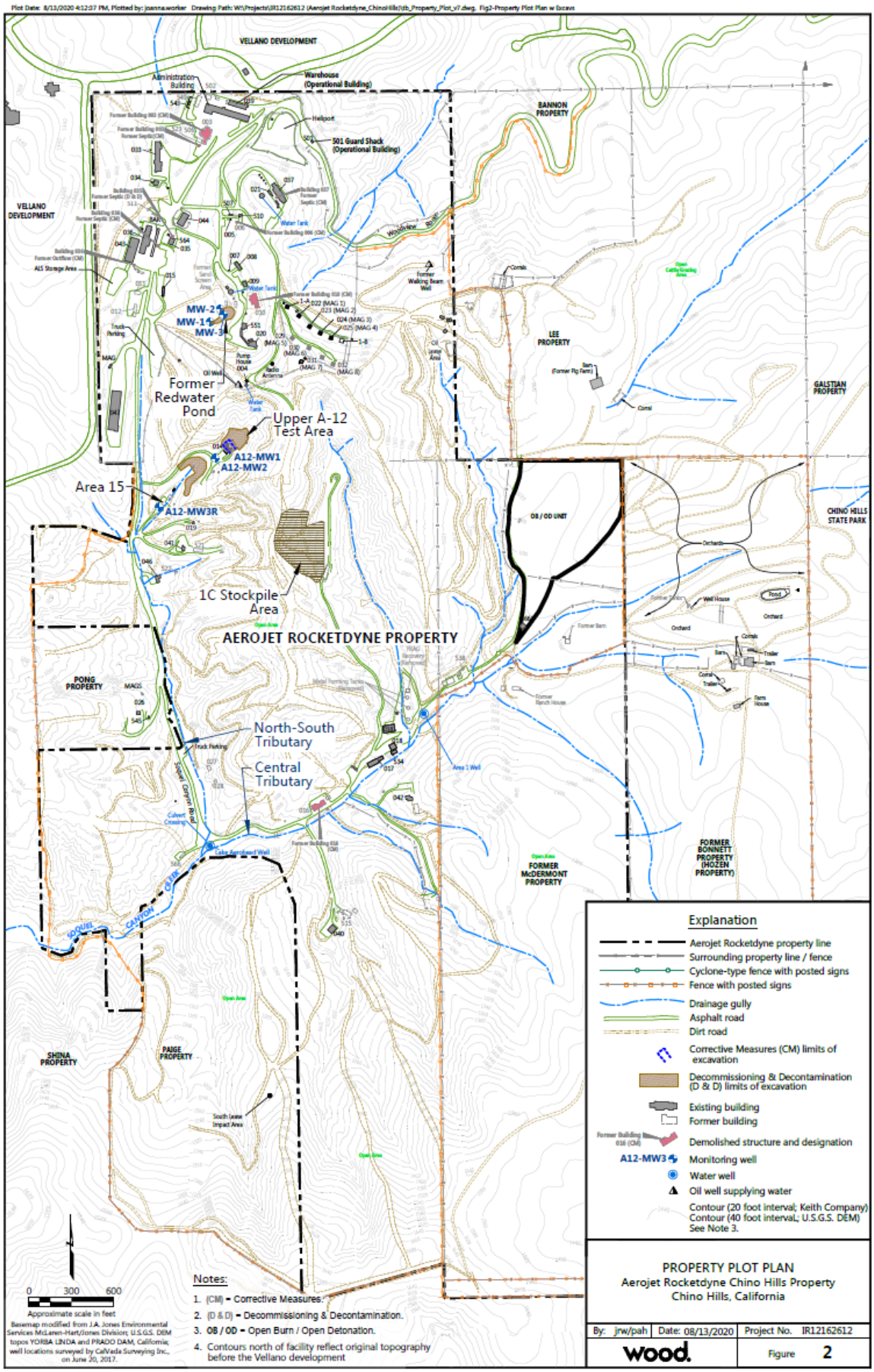
b. The project does not have impacts that are individually limited but cumulatively considerable. ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

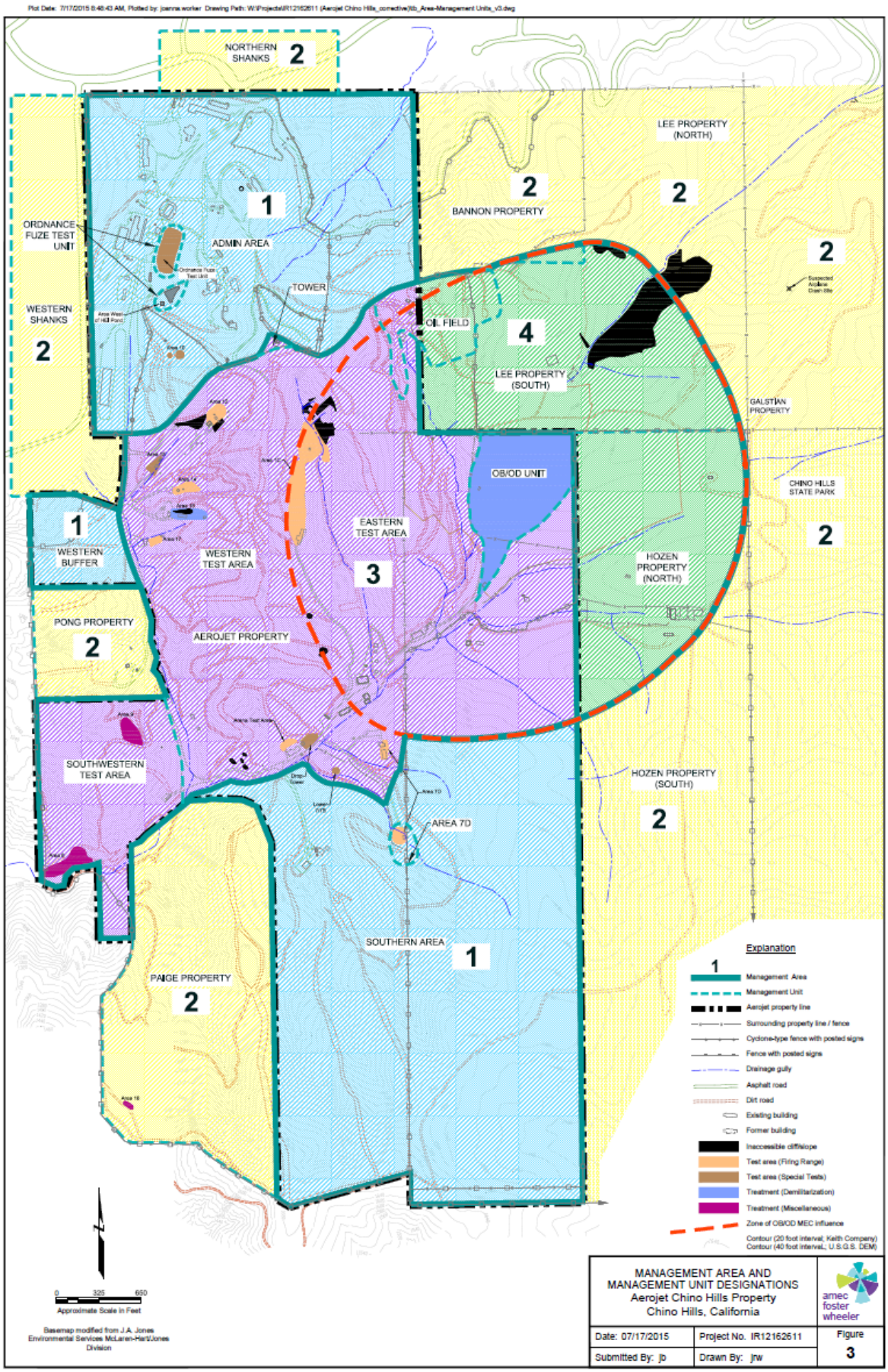
c. The project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

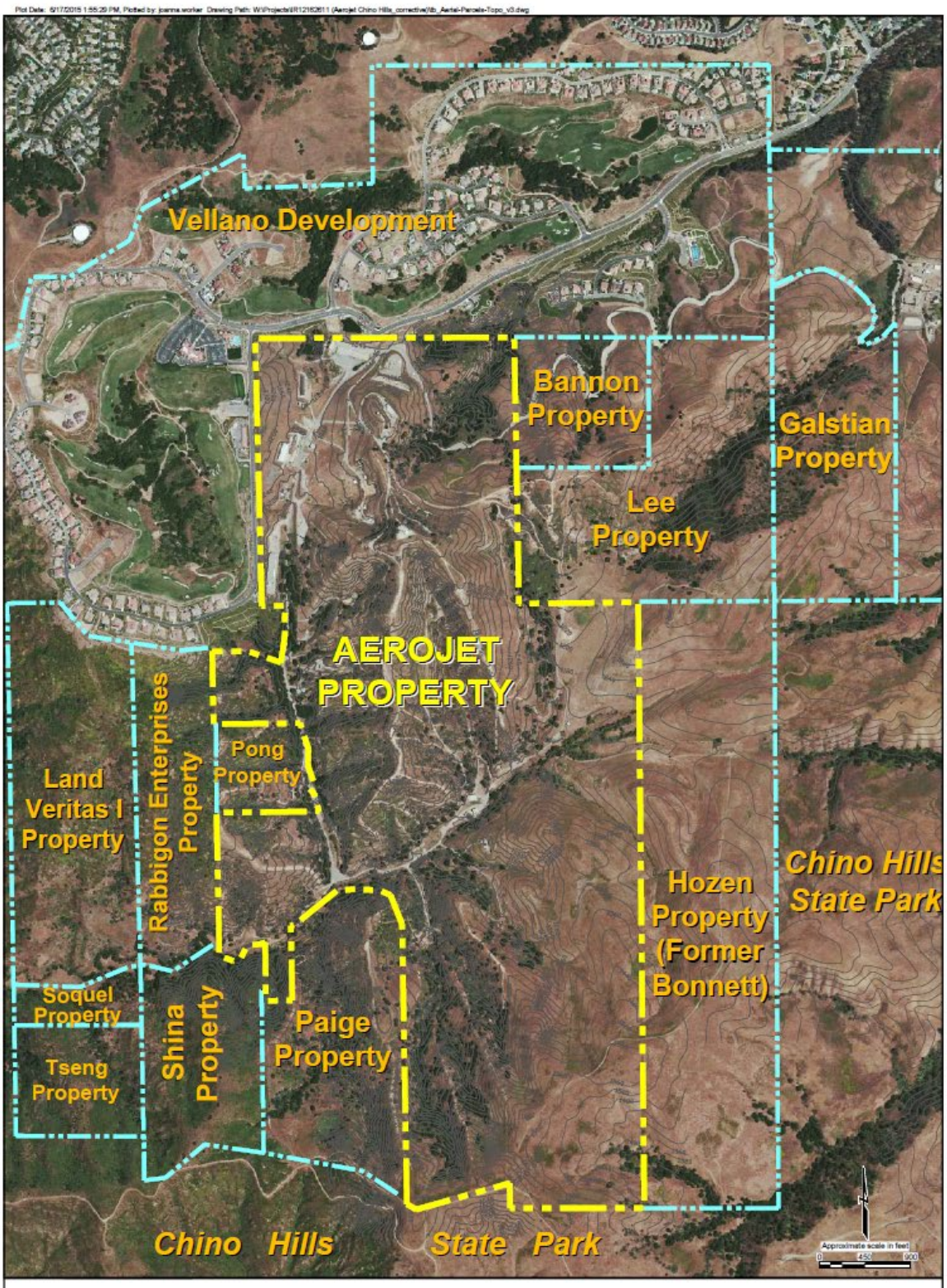
Authority: Public Resources Code 21083, 21094.5.5
Reference: Public Resources Code Sections 21094.5 and 21094.5.5

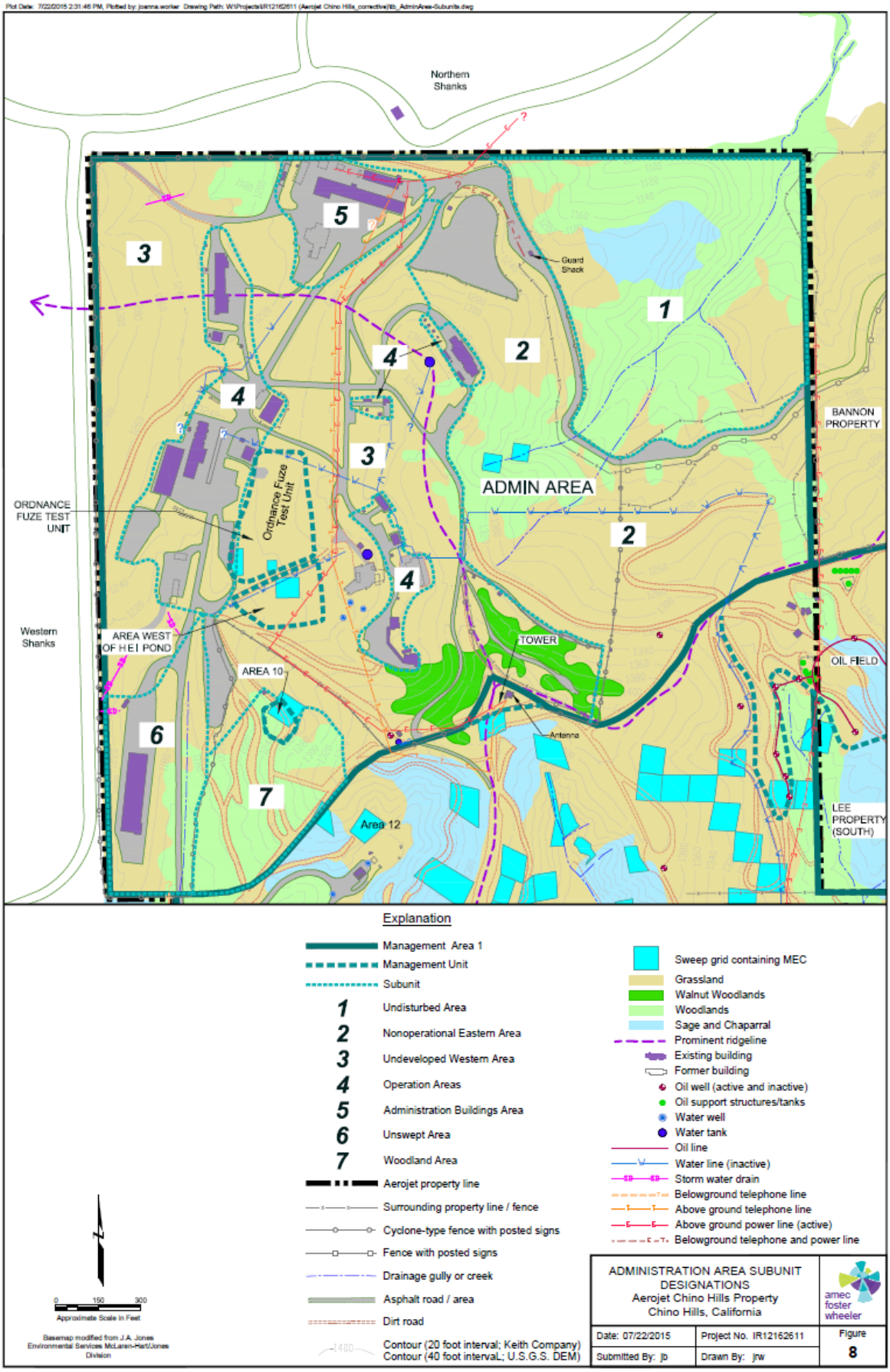

Grand Ave.
Schaefer Ave.
Edison Ave.
Chino Valley Freeway
Peyton Dr.
Eucalyptus Ave.
Ramona Ave.
Central Ave.
Central Ave.
Chino Hills Pkwy.
CHINO CREEK
Canyon Rd.
Carbon
142
71
Pipeline Ave.
Lake Los Serranos
Pkwy.
VELLANO DEVELOPMENT
Soquel Canyon
Woodview Rd.
AEROJET ROCKETDYNE PROPERTY
3100 Woodview Road
(end of Woodview Road)
Chino Hills State Park
SOQUEL CANYON CREEK
SAN BERNARDINO COUNTY
ORANGE COUNTY
Explanation
School
Drinking water supply well
Aerojet Rocketdyne property
Vellano Development boundary
County boundary
Transport route
Park boundary
Paved road
Unimproved road
N
Approximate scale in feet
0 2000 4000
0 600 1200
Approximate scale in meters
Basemap modified from U.S.G.S. Digital Line Graph (DLG) files for Prado, Yorba Linda, and Santa Ana West, California; Orange and San Bernadino Counties TIGER Line Files (August 2014); and City of Chino Hills Water Facility Plan (1996), and 2010 Urban Water Management Plan.
PROPERTY LOCATION MAP
Aerojet Chino Hills Property
Chino Hills, California
amec foster wheeler
Date: 04/02/2015
Project No. IR12162611
Figure 1
Submitted By: jb
Drawn By: jrw
Plot Date: 4/22/2015 9:45:49 AM Posted by: joanna.worker Drawing Path: W:\Projects\IR12162611 (Aerojet Chino Hills, corrective\tb_SiteLocationMap_v6.dwg Site Loc


Vellano Development
ADMIN AREA
ORDNANCE FUZE TEST UNIT
AREA WEST OF HEI POND
FORMER REDWATER POND
AREA 10
UPPER A-12 TEST AREA
Area 12
Area 1C
Area 15
Area 14
Area 16
Area 17
1C Stockpile Area
Guard Shack
Walking Beam Well
Chino-Soquel Oil Field
Antenna
Abandoned Oil Well
MW-1
MW-2
MW-3
A12-MW1
A12-MW2
A12-MW3
Explanation
Management Area
Management Unit
Subunit (Administration or Admin Area)
1 Undisturbed Area
2 Nonoperational Eastern Area
3 Undeveloped Western Area
4 Operation Areas
5 Administration Buildings Area
6 Unswept Area
7 Woodland Area
Aerojet property line
Existing building
Former building
Monitoring well
Water tank
Limits of excavations: Redwater Pond and Upper A-12 Test Area
Subsurface water land use restriction boundary
Surrounding property line / fence
Cyclone-type fence with posted signs
Fence with posted signs
Drainage gully
Asphalt paved road / paved area
Dirt road
Contour (20 foot interval; Keith Company)
Contour (40 foot interval; U.S.G.S. DEM)
Oil well supplying water
Oil well (active and inactive)
Oil support structures/tanks
0 150 300
Approximate scale in feet
Basemap modified from J.A. Jones Environmental Services McLaren-Hart/Jones Division
MANAGEMENT AREA 1 SUBUNITS AND SUBSURFACE WATER LAND USE RESTRICTION AREAS
Aerojet Rocketdyne Chino Hills Property
Chino Hills, California
By: jrw Date: 02/25/2021 Project No. IR12162612
wood.
Figure 1a


VELLANO DEVELOPMENT
Administration Building
Warehouse (Operational Building)
Helipad
501 Guard Shack (Operational Building)
BANNON PROPERTY
VELLANO DEVELOPMENT
MW-2
MW-1
MW-3
Former Redwater Pond
Upper A-12 Test Area
A12-MW1
A12-MW2
Area 15
A12-MW3R
1C Stockpile Area
AEROJET ROCKETDYNE PROPERTY
LEE PROPERTY
GALSTIAN PROPERTY
OB / OD UNIT
CHINO HILLS STATE PARK
PONG PROPERTY
North-South Tributary
Central Tributary
FORMER McDERMONT PROPERTY
FORMER BONNETT PROPERTY (MOZEN PROPERTY)
SHINA PROPERTY
PAIGE PROPERTY
SOUQUEL CANYON
Explanation
Aerojet Rocketdyne property line
Surrounding property line / fence
Cyclone-type fence with posted signs
Fence with posted signs
Drainage gully
Asphalt road
Dirt road
Corrective Measures (CM) limits of excavation
Decommissioning & Decontamination (D & D) limits of excavation
Existing building
Former building
Demolished structure and designation
A12-MW3 Monitoring well
Water well
Oil well supplying water
Contour (20 foot interval; Keith Company) Contour (40 foot interval,; U.S.G.S. DEM) See Note 3.
0 300 600
Approximate scale in feet
Notes:
1. (CM) = Corrective Measures.
2. (D & D) = Decommissioning & Decontamination.
3. OB / OD = Open Burn / Open Detonation.
4. Contours north of facility reflect original topography before the Vellano development
PROPERTY PLOT PLAN
Aerojet Rocketdyne Chino Hills Property
Chino Hills, California
By: jrw/pah Date: 08/13/2020 Project No. IR12162612
wood.
Figure 2


NORTHERN SHANKS
2
ORDNANCE FUZE TEST UNIT
ADMIN AREA
1
TOWER
BANNON PROPERTY
2
LEE PROPERTY (NORTH)
2
2
WESTERN SHANKS
2
OIL FIELD
4
LEE PROPERTY (SOUTH)
GALSTAN PROPERTY
OB/OD UNIT
CHINO HILLS STATE PARK
2
EASTERN TEST AREA
3
1
WESTERN BUFFER
WESTERN TEST AREA
HOZEN PROPERTY (NORTH)
PONG PROPERTY
2
AEROJET PROPERTY
SOUTHWESTERN TEST AREA
HOZEN PROPERTY (SOUTH)
2
AREA 7D
SOUTHERN AREA
1
PAIGE PROPERTY
2
Explanation
1
Management Area
Management Unit
Aerojet property line
Surrounding property line / fence
Cyclone-type fence with posted signs
Fence with posted signs
Drainage gully
Asphalt road
Dirt road
Existing building
Former building
Inaccessible cliff/slope
Test area (Firing Range)
Test area (Special Tests)
Treatment (Demilitarization)
Treatment (Miscellaneous)
Zone of OB/OD MEC influence
Contour (20 foot interval, Keith Company)
Contour (40 foot interval,; U.S.G.S. DEM)
0 325 650
Approximate Scale in Feet
Basemap modified from J.A. Jones Environmental Services McLaren-Hart/Jones Division
MANAGEMENT AREA AND MANAGEMENT UNIT DESIGNATIONS
Aerojet Chino Hills Property
Chino Hills, California
amec foster wheeler
Date: 07/17/2015
Project No. IR12162611
Figure 3
Submitted By: jb
Drawn By: jrw


Vellano Development
Bannon Property
Galstian Property
Lee Property
AEROJET PROPERTY
Pong Property
Land Veritas I Property
Rabbigon Enterprises Property
Soquel Property
Tseng Property
Shina Property
Paige Property
Hozen Property (Former Bonnett)
Chino Hills State Park
Chino Hills State Park
Approximate scale in feet
0 450 900
Explanation
Property owned by Aerojet
Surrounding property boundary
Topographic contours in feet above mean sea level (20 foot interval, Keith Company) (40 foot interval, U.S.G.S. DEM)
Note:
All locations are approximate.
Sources: J.A. Jones Environmental Services McLaren-Hart/Jones Division; Keith Company; U.S.G.S. DEM. Aerial photo Bing Maps Image courtesy of LAR-IAC and U.S.G.S.
AEROJET PROPERTY AND SURROUNDING PROPERTIES
Aerojet Chino Hills Property
Chino Hills, California
amec foster wheeler
Date: 06/17/2015
Project No. IR12162611
Figure 4
Submitted By: jb
Drawn By: jrw


Northern Shanks
Guard Shack
BANNON PROPERTY
ADMIN AREA
ORDNANCE FUZE TEST UNIT
Ordnance Fuze Test Unit
Western Shanks
AREA WEST OF HEI POND
AREA 10
TOWER
OIL FIELD
Antenna
Area 12
LEE PROPERTY (SOUTH)
1
2
3
4
5
6
7
Explanation
Management Area 1
Management Unit
Subunit
1 Undisturbed Area
2 Nonoperational Eastern Area
3 Undeveloped Western Area
4 Operation Areas
5 Administration Buildings Area
6 Unswept Area
7 Woodland Area
Aerojet property line
Surrounding property line / fence
Cyclone-type fence with posted signs
Fence with posted signs
Drainage gully or creek
Asphalt road / area
Dirt road
Contour (20 foot interval; Keith Company)
Contour (40 foot interval; U.S.G.S. DEM)
Sweep grid containing MEC
Grassland
Walnut Woodlands
Woodlands
Sage and Chaparral
Prominent ridgeline
Existing building
Former building
Oil well (active and inactive)
Oil support structures/tanks
Water well
Water tank
Oil line
Water line (inactive)
Storm water drain
Belowground telephone line
Above ground telephone line
Above ground power line (active)
Belowground telephone and power line
0 150 300
Approximate Scale in Feet
Basemap modified from J.A. Jones Environmental Services McLaren-Hart/Jones Division
ADMINISTRATION AREA SUBUNIT DESIGNATIONS
Aerojet Chino Hills Property
Chino Hills, California
amec foster wheeler
Date: 07/22/2015
Project No. IR12162611
Figure 8
Submitted By: jb
Drawn By: jrw