

6.0 List of Applicable or Relevant and Appropriate Requirements and Performance Standards

6.1 Overview

Under CERCLA, remedial actions designed to clean up or abate contaminants in the groundwater or in soils must be designed, constructed, and operated to comply with all federal and more stringent State ARARs. ARARs include both federal requirements under any federal environmental law and State requirements under state environmental or facility siting laws that are more stringent than federal requirements and that have been identified by the State of California in a timely manner.

Applicable requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site. Relevant and appropriate requirements include those that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, nevertheless address problems or situations sufficiently similar to those encountered at the CERCLA site to indicate their use is well suited to the particular site. If a given requirement is both relevant and appropriate to a particular site, it constitutes a valid legal requirement for that site. A requirement must either be applicable or both relevant and appropriate to be an ARAR. If no ARAR addresses a particular situation, or if an ARAR is insufficient to protect human health or the environment, then non-promulgated standards, criteria, guidance, and to be considered (TBC) advisories are identified as additional performance standards in an ROD.

In general, onsite actions need to comply with only the substantive aspects of these requirements, not with corresponding administrative requirements (such as, but not limited to, permits, recordkeeping, and reporting).

All laws and statutes identified as ARARs for a particular site or action must be considered and applied during the design, construction, and operation of any remedial action at the particular site. ARARs are identified on a site-specific basis from data and information concerning that site. Data and information concerning the objectives of site remediation, specific actions that are being considered as remedies at that site, the hazardous substances located upon the site, the physical and geological characteristics of the site, and the potential human and ecological receptors at or near the site must be analyzed and considered to properly identify ARARs at a particular site. All federal and more stringent state requirements that address or impact any of these conditions must be included as site ARARs.

There are three categories of ARARs that are described below:

- Chemical-specific ARARs establish numerical values or provide methodologies which, when applied to site-specific conditions, result in the establishment of numerical values. These ARARs are developed by identifying the contaminants at a site that pose a threat to human health or the environment and that must be remediated. Chemical-specific ARARs determine acceptable concentrations of specific hazardous substances,

pollutants, and contaminants in the environment and establish the levels to which the soil or groundwater at the affected site must be cleaned or restored to protect human health and the environment. Chemical-specific ARARs also establish the levels at which certain actions must be taken while transporting, treating, or storing hazardous wastes recovered during remediation.

- Location-specific ARARs are designed to protect the unique characteristics of the site or other areas potentially affected by site activities during the design, construction, or operation of remedial activities. Location-specific ARARs place restrictions on the concentration of hazardous substances or the conduct of activities solely because the site occurs in, or may affect, a special location. Some examples include the protection of wetlands and vernal pools; protection of endangered or threatened species and their habitats; and the protection of fish and game from unauthorized taking.
- Action-specific ARARs are technologically or activity-based requirements or limitations on the particular remedial actions at the site. Some examples include prohibitions or restrictions against the discharge of chemicals or contaminants to the air, water, or soil and the proper transfer, treatment, or storage of chemicals and contaminants.

6.2 ARARs Identification, Development, and Evaluation

6.2.1 Methodology

As lead agency, the Department of the Air Force has performed each of the following actions consistent with CERCLA and the NCP:

- Identified federal ARARs for each remedial action alternative addressed in the WABOU FS, taking into account site-specific conditions found in the WABOU.
- Reviewed potential state ARARs identified by the State to determine whether each potential ARAR satisfied CERCLA and NCP criteria that must be met to qualify as State ARARs.
- Evaluated and compared federal ARARs and their state counterparts to determine which State ARARs are more stringent or are in addition to the federal ARARs.
- Reached a conclusion as to which federal and State requirements were the most stringent ARARs for each selected alternative.

6.2.2 Solicitation, Identification, and Evaluation of State ARARs

The Department of the Air Force followed the procedures of the process set forth in 40 CFR, Section 300.515 and the Travis AFB FFA for remedial actions in seeking state assistance in identification of State ARARs.

The CERCLA, NCP, and FFA requirements for remedial actions provide that the lead federal agency request that the State identify chemical-specific and location-specific State ARARs. The lead agency requested chemical-, location-, and action-specific ARARs from DTSC on 20 February 1997. The request letter included as an attachment the ARARs tables developed during the NEWIOU FS. These tables were developed using responses from:

- California Integrated Waste Management Board
- Department of Toxic Substances Control Board
- State Water Resources Control Board
- California Regional Water Resources Control Board
- Bay Area Air Quality Management District
- California Department of Fish and Game

With few exceptions, the site conditions at both operable units are similar, so this approach was used to simplify the WABOU ARARs selection process for both the state and lead agency. The tables were made available so that the state could identify additional requirements, if any, to be included as ARARs, or identify those requirements that were not applicable to the WABOU. The state did identify additional requirements that address radiological remediation sites and actions.

During the review and analysis of ARARs identified by the state, and following considerable discussion with the representatives from the various state agencies, many of the requirements identified by the state as potential ARARs were determined to be valid ARARs by the lead agency. These ARARs are included in this section of this document.

6.3 Determination of ARARs

6.3.1 Methodology

The list included in this section identifies those requirements applicable or relevant and appropriate to soil remediation while those that had no relevancy were excluded from consideration. Specifically excluded were:

1. Location-specific requirements addressing conditions not present at WABOU remediation sites.
2. Chemical-specific requirements for COCs not present at WABOU remediation sites.
3. Action-specific requirements for remedial alternatives not utilized at WABOU remediation sites.

The list of ARARs for WABOU soil sites and remedial actions is provided in Tables II-6-1 through II-6-8 (all tables come at the end of this section).

6.4 Action-Specific ARARs

These ARARs place restrictions on remedial activities that may negatively impact the surrounding environment. The potential WABOU soil remedial alternatives were analyzed to identify potential impacts to the environment. Those considered are discussed in the following sections.

6.4.1 Solid Waste Management Requirements

The California Integrated Waste Management Act of 1989 is intended to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible in an efficient and

cost-effective manner to conserve water, energy, and other natural resources, to protect the environment, and to improve the regulations for solid waste management. Table II-6-1 contains potential ARARs for sites containing solid waste and a brief description of the substantive requirements and applicability to the sites, remedial action, or technology used to clean up the site and contaminated material.

6.4.2 Hazardous Waste Treatment, Storage, and Disposal Requirements

These requirements are technology- or activity-based requirements that place limitations on actions taken with respect to the hazardous waste. Regulations promulgated under the applicable provisions of the state authorized federal RCRA and more stringent provisions of the California Hazardous Waste Control Law (HWCL) are relevant and appropriate to RCRA-permitted storage facilities and proper characterization of hazardous waste, and storage and disposal of such waste. If any hazardous wastes are identified that will be transported offsite, they will be disposed of and handled under applicable provisions of the state authorized federal RCRA program.

Many of the HWCL provisions are either applicable or relevant and appropriate because they describe requirements for the safe handling of contaminated materials and precautions for preventing further contamination. These requirements are identified in Table II-6-2.

6.4.3 Water Resources Requirements

Several California statutes and regulations that protect the waters of the State have been identified and incorporated as ARARs. These ARARs establish the remedial objectives and requirements for COCs present at WABOU soil remediation sites. For example, Title 27 details the requirements for a minimum five foot separation between waste in the CAMU and groundwater, design of the final engineered cover, along with closure and post-closure maintenance and monitoring.

The Porter-Cologne Water Quality Control Act (PCWQCA) is one of the statutory bases for regulation of discharges of waste to land that could impair either surface water or groundwater quality in California. It establishes the authority of the State through its regional water quality control boards to protect the quality of surface water and groundwater. Under the authority of the PCWQCA, the Regional Water Quality Control Board (RWQCB) developed the San Francisco Bay Basin Plan, which in conjunction with regulations promulgated pursuant to the PCWQCA is identified in Table II-6-3. The EPA does not acknowledge the status of the San Francisco Bay Basin Plan in this soil ROD as a soil ARAR. The Air Force will take a cautious approach to this issue and will retain this groundwater requirement as a soil ARAR until such time that EPA and RWQCB agree to an acceptable resolution. If the regulatory agencies decide that this requirement is not a soil ARAR, this ROD will be amended accordingly.

6.4.4 Air Resources Requirements

Legislation divides the State into local air pollution control districts and allows each district to enforce the requirements of the California Clean Air Act within its jurisdictional boundaries. Travis AFB is located in the Bay Area Air Quality Management District (BAAQMD). The applicable air regulations are presented in Table II-6-4. In addition, most of the rules in the State Implementation Plan (SIP), adopted pursuant to the Federal Clean Air

Act, are federal ARARs. Table II-6-4 contains a brief description of the substantive requirements and their applicability to either the site, remedial action, or technology used to clean up the site.

6.5 Location-Specific ARARs

These ARARs place restrictions on remedial activities that may be conducted onsite because of the presence of unique site features. The location of the WABOU soil and groundwater sites and surrounding areas were analyzed for unique site features to identify ARARs. The unique site features considered are discussed below.

6.5.1 Habitats of Rare, Threatened, Endangered, and Special-Status Species

Vernal pools that may contain an endangered species, including the Vernal Pool Tadpole Shrimp and the Vernal Pool Fairy Shrimp, have been identified. Other endangered species, including the Black-Shouldered Kite, Boggs Lake Dodder, Burrowing Owl, Coopers Hawk, California Gull, Golden Eagle, Loggerhead Shrike, Northern Harrier, Red Fox, Tri-colored Blackbird, Contra Costa Goldfields, Northwestern Pond Turtle, and San Francisco Forktail Damselfly have been observed at least once at Travis AFB and have the potential to be found at WABOU sites.

Several more stringent State ARARs protective of site ecology have also been identified. The California Fish and Game Code (CFGC) and regulations promulgated under this Code protect rare, endangered, or threatened species or habitats, and require alternative actions at sites where impacts have the potential to occur. In addition to these State counterparts to the Endangered Species Act, the CFGC also establishes several requirements to protect site wildlife by prohibiting or restricting the unauthorized taking of other wildlife. The CFGC also regulates to protect aquatic life in the waters of the State. All remedial activities that have the potential to cause a discharge to any stream, lake, or other body of water must comply with the requirements of the CFGC. Table II-6-5 presents the CFGC ARARs.

Several federal ARARs were identified which impact site ecology. The Endangered Species Act and implementing regulations set forth in Table II-6-6 apply to those remedial actions at WABOU sites where impact to endangered wildlife could occur. To ensure that regulatory requirements are followed and impacts are avoided or mitigated, all sites will be surveyed in consultation with the U.S. Fish and Wildlife Service for the presence of these resources immediately prior to the commencement of remedial activities. This consultation will begin after all necessary site-specific data concerning the execution of soil media actions become available.

6.5.2 Historically or Culturally Significant Properties

Some buildings on Travis AFB have recently been identified as Cold War Era buildings and historically significant. However, none of these buildings is affected by WABOU remedial activities.

6.5.3 Wilderness Areas, Wild and Scenic Rivers, and Coastal Zones

No wilderness areas, wild and scenic rivers, or coastal zones exist within the boundaries of Travis AFB. Therefore, requirements related to these areas are not applicable or relevant to WABOU sites and actions.

6.5.4 Earthquake Faults

Although the Vaca-Winters and the Vaca-Kirby faults are located in the Travis AFB area, WABOU sites are not located on these faults.

6.6 Chemical-Specific ARARs

6.6.1 Remediation of Soil Sites

The soil sites in the WABOU are contaminated primarily with SVOCs, pesticides, PCBs, and metals. The only site with potential vadose zone issues is Building 755 at which volatile organic chemicals (VOC) are present in the subsurface soil. The burial of construction debris and pesticide containers took place at two WABOU sites. A third site was used for the burial of low-level radioactive waste from nuclear weapon maintenance.

The only chemical-specific federal requirement applicable to soils remediation is the Toxic Substance Control Act implemented through 40 CFR, Part 761 that applies to sites where soil contains more than 50 ppm of PCBs and the PCB spill occurred after May 4, 1987. There are no WABOU soil sites with PCB concentrations greater than 2.0 mg/kg. Therefore, this federal requirement is not an ARAR at any WABOU site. There are no state chemical-specific ARARs for COCs found in WABOU soil sites.

To ensure protection of human health and the environment, chemical-specific requirements were developed using the 1 October 1999 PRGs developed by U.S. EPA Region IX and the Human Health screening process. This screening process evaluated chemicals detected in soil/dry sediment and compared them to chemical-specific PRGs developed by U.S. EPA Region IX, dated 1995. These soil PRGs were developed using default exposure factors for a residential scenario and U.S. EPA or Cal-EPA toxicity values (whichever are more stringent) to estimate concentrations that are protective of humans, including sensitive groups, over a lifetime. This is a very conservative screening assessment because no current or future residential land use is planned for sites within the WABOU. Radiological data were evaluated by comparing the detected concentrations in soil with PRGs for radioactive constituents that were developed following the 1991 EPA Risk Assessment Guidance for Superfund (RAGS), Volume 1.

6.6.2 Low-level Radiological Contaminant Remediation

In addition to the hazardous waste, transfer, treatment, and storage requirements for radioactive constituents identified above, the State of California has also identified statutes, regulations, and guidance that pertain to military bases in California. Those requirements identified as potential ARARs are identified in Table II-6-7. The State identified a non-promulgated guidance document title, "Guidance for Cleanup of Radioactivity on Closing Military Bases for Unrestricted Use of Property." However, because Travis Air Force Base is not on the military installation closure list, and the Travis AFB property will not be designated for unrestricted public use or access, it was determined by the lead agency that this document is neither applicable nor relevant to cleanup of radiological sites at Travis AFB.

Table II-6-1
Travis AFB - WABOU Soil Sites
State ARARs
California Integrated Waste Management Requirements

Source	Requirement, Standard, of Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 CCR Chap 3, Subchapter 4, Art 1	20510	Applicable	Establishes requirement that the weight or volume of waste accepted must be determined to an accuracy of + or - 10 percent. Applies to sites defined by PRC 40122. Requires that records be maintained to document excavations which may affect the safe and proper operation of the site or cause damage to adjoining properties.	Applicable to non-hazardous waste removed from WABOU landfill sites which will be consolidated at the base-wide CAMU. Wastes generated will include landfill wastes, disposal pit wastes, and contaminated soil wastes.	008, 041, 042, 044, 045	S4, S6
	20530	Applicable	Requires that the site be designed to discourage unauthorized access using perimeter or topographic constraints, or fenced to provide adequate security.	Permitting requirements set forth in these sections are not ARARs.		
	20540	Applicable	Requires landfill roads be designed to minimize dust or tracking of materials onto public roads.	The 27 CCR requirements reflect the consolidation and renumbering of Chapter 14 and Chapter 23 solid waste requirements by the State of California. Requirements identified in Title 27 may vary from those in the WABOU FS ARAR tables as a result of this consolidation.		
	20630	Applicable	Requires that unloading of solid waste be confined to as small an area as possible to minimize health and safety hazards.			
	20640	Applicable	Requires spreading/compacting of refuse in layers			
	20650	Applicable	Requires covered surfaces of the disposal area be graded to promote run-off and prevent ponding, accounting for future settlement.			
	20660	Applicable	Requires stockpiled cover material and unacceptable native material be placed not to cause problems or interference with site operations.			

Table II-6-1
Travis AFB - WABOU Soil Sites
State ARARs
California Integrated Waste Management Requirements
(continued)

Source	Requirement, Standard, of Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 CCR Chap 3, Subchapter 4, Art 3	20700	Applicable	Requires compacted material at least 12 inches thick on fill where no additional refuse will be deposited within 180 days.	Applicable to activities where non-hazardous wastes will be uncovered and moved.	008, 041, 042, 044, 045	S4, S5, S6
	20710	Applicable	Establishes prohibition on scavenging at disposal sites. Salvaging is permitted in a planned and controlled manner. Requires salvage material to be safely isolated for storage, and the storage time for salvage material be limited to a safe duration			
	20720	Applicable	Establishes that items capable of impairing public health not be salvaged without prior approval by enforcement/local health agencies.			
	20730	Applicable	Authorizes volume reduction and energy recovery in a planned and controlled manner. Requires processing to be confined to the smallest area possible.			
Title 27 CCR Chap 3, Subchapter 4, Art 4	20760	Applicable	Requires that each disposal site be operated and maintained so as to not create a nuisance.	Applicable to activities where nonhazardous wastes will be uncovered or moved. Section 20790 is applicable as applied consistent with 22 CCR 66264.301	008, 041, 042, 044, 045	S4, S5, S6
	20790	Applicable	The operator shall take adequate steps to monitor, collect, treat, and effectively dispose of leachate. Requires that no solid waste be deposited in contact with surface or ground water.			
	20800	Applicable	Requires operators take measures to minimize dust and prevent safety hazards due to obscured visibility.			

Table II-6-1
Travis AFB - WABOU Soil Sites
State ARARs
California Integrated Waste Management Requirements
(continued)

Source	Requirement, Standard, of Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 CCR Chapter 3, Subchapter 4 Article 4 (continued)	20810	Applicable	Requires the operator control or prevent the propagation, harborage, or attraction of flies, rodents, or other vectors, and to minimize bird problems.	Applicable to activities where non-hazardous wastes will be uncovered or moved.	008, 041, 042, 044, 045	S4, S5, S6
	20820	Applicable	Requires adequate drainage to be provided to ensure integrity of systems, prevent safety hazards, and prevent exposure of waste.			
	20830	Applicable	Requires litter/loose materials to be routinely collected and disposed.			
	20860	Applicable	Requires minimization of traffic flow into, on and out of the site.			
Title 27 CCR Chapter 3, Subchapter 4, Article 6	20919	Applicable	Establishes requirements for landfill gas control based on monitoring.	Applicable to activities where nonhazardous wastes will be uncovered or moved.	008, 041, 042, 044, 045	S4, S5, S6
Title 27 CCR Chapter 3, Subchapter 5, Article 2	21130	Applicable	Establishes a requirement to maintain a written emergency response plan.	Applicable to landfill sites where nonhazardous wastes will be uncovered or moved.	007, 008, 044	S4, S5, S6
	21135	Relevant and Appropriate	Establishes site security requirements and closure procedure for open landfills.	Section 21135, paragraphs (c) to (f) are relevant requirements. Paragraph (a) is not applicable per paragraph (b). Enforcement Agency requirements identified in these sections are non substantive and therefore not ARARs		

Table II-6-1
Travis AFB - WABOU Soil Sites
State ARARs
California Integrated Waste Management Requirements
(continued)

Source	Requirement, Standard, of Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 CCR Chapter 3, Subchapter 5 Article 2 (continued)	21140	Relevant and Appropriate	Establishes requirements for the final cover of the waste management unit.	Pertains to the management unit in which wastes from the remediation sites will be placed.	007	S4, S6
	21142	Relevant and Appropriate	Establishes requirements for the design and maintenance of the final grading of the cap for the waste management unit.			
	21145	Relevant and Appropriate	Establishes requirements for the design of the slopes of the cap on the waste management unit to ensure stability.			
	21150	Relevant and Appropriate	Establishes requirements for the design and maintenance of the drainage and erosion control system for the waste management unit.			
	21160	Relevant and Appropriate	Establishes requirement for landfill gas control and leachate collection within the waste management unit.			
	21180	Relevant and Appropriate	Establishes requirements for postclosure maintenance of the waste management unit.			
	21190	Relevant and Appropriate	Establishes parameters for postclosure land use of the waste management unit.			
Title 27 CCR Chapter 4, Subchapter 3, Article 2	21600	Relevant and Appropriate	Requires the development of plans to ensure solid waste is handled and disposed in a manner that protects public health, safety, and the environment.	Pertains to sites where consolidation activities will occur. Relevant and appropriate to establish format for contents of the remedial action documents.	008, 044	S4, S5, S6

Table II-6-2
Travis AFB - WABOU Soil Sites
Federal ARARs*

Waste Transfer, Treatment, and Storage and Disposal Requirements

* (California Statutes and Regulations Comprising Federal Authorized RCRA Program)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 22 CCR Chap 12, Art 1	66262.11	Applicable	Requires a facility to make a determination as to whether waste is hazardous	Applicable to wastes excavated or resulting from treatment processes.	008, 013, 041, 042, 045	S4, S5, S6
Title 22 CCR Chap 14, Art 9 (Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities - Use and Management of Containers)	66264.171	Relevant and Appropriate	Sets standards for containers holding hazardous waste for chemicals recovered from sediments, surface soils, or groundwater.	Sections in this article are relevant and appropriate to sites or actions where waste containers are used. Containers will be used to transfer and store wastes generated from construction activities or the operation of remedial actions. Examples would include spent carbon from treatment plants, drill cuttings from well installation, free product removed from a plume, etc.	008, 013, 041, 042, 045	S4, S5, S6
	66264.172	Relevant and Appropriate	Requires use of containers that are compatible with the recovered material for the storage of that material.			
	66264.173	Relevant and Appropriate	Requires containers used to transport material to be closed during transport and that waste be handled to minimize damage to containers.			
	66264.174	Relevant and Appropriate	Establishes requirements for inspecting containers weekly.			
	66264.175	Relevant and Appropriate	Establishes requirement for adequate secondary containment for stored waste.			
	66264.176	Relevant and Appropriate	Requires isolating waste from sources of ignition if waste is ignitable.			
	66264.177	Relevant and Appropriate	Requires segregation of waste from incompatible waste.			
	66264.178	Relevant and Appropriate	Establishes the requirement to remove all hazardous waste and waste residue at closure.	Section 66264.178 is relevant and appropriate when sites are closed and wastes or residue, as described above, are on-site at closure.		

Table II-6-2
Travis AFB - WABOU Soil Sites
Federal ARARs*

Waste Transfer, Treatment, and Storage and Disposal Requirements

* (California Statutes and Regulations Comprising Federal Authorized RCRA Program)

(continued)

(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 22 CCR Chap 14, Art 10 Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal) (Facilities - Use and Management of Tank Systems)	66264.192	Relevant and Appropriate	Establishes design/installation requirements for new tank systems and components.	Sections in this article are relevant and appropriate to alternatives which incorporate the use of tanks or tank systems as part of the remedial equipment. Tanks will be used at treatment plants to store contaminated water prior to treatment. Tanks will also be used for temporary storage of free product, if necessary.	008, 041, 042, 045	S4, S7
	66264.193	Relevant and Appropriate	Delineates requirements for tank systems including containment and detection of releases.			
	66264.194	Relevant and Appropriate	Delineates requirements for tank systems including operating requirements.			
	66264.195	Relevant and Appropriate	Delineates requirements for tank systems including inspections.			
	66264.196	Relevant and Appropriate	Delineates requirements for tank systems including response to leaks or spills.	Section 66264.197, paras (a), (c)(3) and (c)(4) are not relevant and appropriate with respect to cost estimates and financial responsibility requirements. Section 66264.198 is relevant and appropriate to sites with ignitable wastes [i.e., free product] or reactive waste. Remedies utilizing reactive oxidizers, such as ultraviolet oxidation or catalytic oxidation trigger this requirement.		
	66264.197	Relevant and Appropriate	Delineates requirements for tank systems including closure and post-closure care.			
	66264.198	Relevant and Appropriate	Delineates requirements for tank systems including special care requirements for reactive wastes.			
	66264.199	Relevant and Appropriate	Delineates requirements for tank systems including special requirements for incompatible wastes.			

Table II-6-2
Travis AFB - WABOU Soil Sites
Federal ARARs*

Waste Transfer, Treatment, and Storage and Disposal Requirements

* (California Statutes and Regulations Comprising Federal Authorized RCRA Program)

(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 22 CCR Chap 14, Art 15 Corrective Action for Waste Management Units	66264.552(c)	Applicable	Establishes subjective criteria for the establishment of a Corrective Action Management Unit (CAMU): (1) to ensure reliable, effective, protective, and cost-effective corrective action measures (2) to eliminate unacceptable risks to human health or the environment resulting from exposure to hazardous wastes (3) which limit the use of uncontaminated areas of the site (4) to manage and contain wastes that remain in place after the CAMU is closed (5) to expedite timing of corrective action implementation (6) to utilize technologies that enhance the long-term effectiveness of the corrective actions; and (7) which minimize the land area of the site upon which wastes remain after CAMU closure.	These criteria are applicable to the creation of a CAMU at the LF007 landfill in the NEWIOU. Although there will be no CAMU established in the WABOU, these requirements are applicable to the wastes excavated from the WABOU sites that will be consolidated at the LF007 landfill.	008, 041, 042, 045	S4, S6
	66264.552(d)	Applicable	Establish requirement for lead agency to provide the State with information necessary for the establishment of a CAMU	Applicable to sites where solid wastes are excavated and transported to LF007 for final consolidation.		
	66264.552(e)	Applicable	Requires DTSC to specify CAMU requirements to include; (1) areal configuration of the CAMU; (2) remediation waste management; (3) ground water monitoring; (4) and closure and post-closure.	The requirement for a permit or order set forth in Section 66264.552(e) is not applicable.		

Table II-6-2
Travis AFB - WABOU Soil Sites
Federal ARARs*

Waste Transfer, Treatment, and Storage and Disposal Requirements

* (California Statutes and Regulations Comprising Federal Authorized RCRA Program)

(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 22 CCR Chap 15, Art 17 (Chemical, Physical, and Biological Treatment)	66265.401	Relevant and Appropriate	Establishes operating requirements for equipment used in chemical, physical, or biological treatment.	Relevant and appropriate for landfill sites where wastes will be chemically treated and left in place prior to capping.		S7
	66265.402	Relevant and Appropriate	Establishes requirements for conducting waste analysis and trial treatment tests.			
	66265.403	Relevant and Appropriate	Establishes facility inspection requirements.			
	66265.404	Relevant and Appropriate	Establishes requirements for treatment process closure.			
	66265.405	Relevant and Appropriate	Establishes special requirements for ignitable or reactive wastes.			
	66265.406	Relevant and Appropriate	Establishes special requirements for incompatible wastes.			
Title 22 CCR Chap 18, Art 1 (Land Disposal Restrictions - General)	66268.3	Applicable	Establishes land disposal restrictions, including a prohibition of using dilution as a substitute for treatment.	Applicable to hazardous wastes generated from site excavation activities. Restricts onsite disposal activities in unauthorized areas. Section 66268.7, paragraphs (a)(1), (b)(1)(2) and (3), and (c)(2) are substantive requirements. The remainder of the section is procedural and not ARARs.	008, 041, 042, 045	S4, S6
	66268.7	Applicable	Establishes land disposal restrictions, including requirements for waste analysis and record keeping.			
	66268.9	Applicable	Establishes land disposal restrictions and special rules for wastes exhibit a characteristic.			
Title 22 CCR Chap 18, Art 2	All Sections	Applicable	Establishes treatment technology for disposal of waste to land for RCRA and non-RCRA wastes identified in section 66268.106.	Applicable to sites where excavated material is classified as hazardous waste or state regulated waste. Wastes identified will be managed IAW these standards.	008, 041, 042, 045	S4,S5, S6, S7

Table II-6-2
Travis AFB - WABOU Soil Sites
Federal ARARs*

Waste Transfer, Treatment, and Storage and Disposal Requirements

* (California Statutes and Regulations Comprising Federal Authorized RCRA Program)

(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 22 CCR, Chap 18 Art 3	66268.30	Applicable	Establishes waste-specific LDRs	Applicable to sites where excavated media is classified hazardous waste and disposed of or treated on-site. Applicable to wastes excavated/ removed from soil sites. Requires identification of waste through the proper characterization process.	08, 41, 42, 45	S4,S5, S6
	66268.31	Applicable	Establishes LDRs for waste containing dioxin.			
	66268.32	Applicable	Establishes LDRs for certain hazardous waste.			
	66268.33	Applicable	Establishes LDRs - First Third Wastes.			
	66268.34	Applicable	Establishes LDRs – Second Third Wastes.			
	66268.35	Applicable	Establishes LDRs – Third Third Wastes.			
	66268.36	Applicable	Prohibits land disposal of newly listed wastes.			
	66268.37	Applicable	Prohibits land disposal of ignitable or corrosive wastes whose treatment standards were vacated.			
	66268.38	Applicable	Identifies waste specific prohibitions on newly identified organic toxicity characteristic wastes and newly listed coke by-product and chlorotoluene waste.			
Title 22 CCR Chap 18, Art 4	All Sections	Applicable	Identifies treatment standards for halogenated organic compounds regulated by Sec. 66268.32	Applicable to sites where excavated material is classified as hazardous waste. Identified waste to be managed in accordance with these standards, if disposed of on land and not in a CAMU. Applicable at sites where wastes or contaminated soils are excavated or removed.	008, 041, 044	S4, S5, S6
Title 22 CCR Chap 18, Art 5	All Sections	Applicable	Establishes prohibitions on storage of hazardous wastes restricted under Article 3 of this chapter or RCRA Section 3004 (42 USC 6924).			
Title 22 CCR Chap 18, Art 10	66268.100	Applicable	Establishes land disposal prohibitions for non-RCRA hazardous wastes.			
Title 22 CCR Chap 18, Art 11	All Sections	Applicable	Establishes disposal restrictions, prohibitions, and treatment standards for certain identified hazardous wastes.			
Title 22 CCR Chap 43 -Mgmt of Extremely Haz. Wastes)	67430.3	Applicable	Establishes requirements, for the removal of spilled or improperly deposited extremely hazardous wastes.	Applicable to sites where unintentional spills may occur.	008, 013, 041, 042, 045	S4, S5, S6

Table II-6-3
Travis AFB - WABOU Soil Sites
State ARARs
Water Board Requirements

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Federal Water Pollution Control Act Section 402, Porter Cologne Water Act; California Water Code, Division 7, Sections 13000, 13140, 13240, Water Quality Control Plan for the San Francisco Bay Basin	SWB Resolution 68-16	Applicable	Establishes policy that whenever the existing water quality is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, won't unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than prescribed in the policies. Discharges or proposed discharges to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the State will be maintained.	Applicable to sites where discharges of contaminants to the soil or soil actions have the potential to cause active discharges to surface water (i.e., contaminant solidification and stabilization and CAMU consolidation activities). The cleanup levels established in Tables II-5-2 through II-5-8 will satisfy this requirement.	007, 008, 041, 042, 044, 045	S4, S6, S7
Porter Cologne Water Act; CWC Sections 13000, 13140, 13240,	SWB Resolution 88-63	Applicable	Designates all ground and surface water of the state as potential drinking water with certain exceptions (TDS> 3000 ppm, well yield<200 gpd, geothermic resources, waste water conveyance facility, or can't be reasonably treated for domestic use).	Applies to soils actions that will result in a discharge to groundwater or surface water (i.e. Union Creek). Beneficial uses of Union Creek include navigation, contact and non-contact recreation, fish spawning, and warm fresh-water and wildlife habitat. Groundwater beneficial uses include municipal and domestic water supply, industrial and industrial process water supply, and agriculture water supply.	007, 008, 041, 042, 044, 045	S4, S6, S7

Table II-6-3
Travis AFB - WABOU Soil Sites
State ARARs
Water Board Requirements
(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Porter Cologne Water Act; CWC Sections 13140, 13240, 13260, 13263, 13267, 13300, 13304, 13307	State Water Board Resolution 92-49	Relevant and Appropriate	Establishes a requirement for the regional boards to apply certain policies and procedures for the oversight of investigations and cleanup and abatement activities resulting from discharges of waste which affect or threaten water quality. Also requires the application of Title 27 CCR, Division 2 to cleanups.	Paragraphs IIIF and IIIG are relevant and appropriate to all WABOU sites where the discharges of wastes to soils threatens or may affect the quality of ground or surface water. The cleanup levels established in Tables II-5-2 through II-5-8 will satisfy this requirement.	007, 008, 041, 042, 044, 045	S4, S6, S7
Title 27 Division 2, Subdivision 1, Chapter 1, Article 1	20080 (b and c)	Relevant and Appropriate	Establishes the use and justification of engineered alternatives for construction of solid waste treatment, storage and disposal units that are consistent with Title 27 performance goals.	Pertains to sites where consolidation activities will occur. Only substantive portions of this regulation pertain to the CAMU.	007	S4, S6
	20080 (d)	Relevant and Appropriate	Requires closure of existing waste management units IAW Title 27 CCR, Division 2, Chapter 3, Subchapter 2, Article 3. Applies to all areas where waste has been discharged to land on or before Nov 27, 1984, but were not closed, abandoned, or inactive prior to that date.	This section pertains to existing waste management units and only as invoked through section 20090(d).	008, 013, 044	S3, S7
	20090(d)	Relevant and Appropriate	Establishes exemption from provisions of this subsection for unintentional or unauthorized releases of waste or pollutants to the environment. Requires wastes, pollutants, or contaminated materials removed from the immediate place of release to be discharged according to Art 2, Subch. 2, Chap.3, Subdivision 1 (Sections 20200 et. seq.). Remedial actions to contain such wastes at the place of release shall implement applicable provisions of this subchapter to the extent feasible.	The 27 CCR requirements reflect the consolidation and renumbering of Chapter 14 and Chapter 23 solid waste requirements by the State of California. Requirements identified in Title 27 may vary from those in the WABOU FS ARAR tables as a result of this consolidation.		

**Table II-6-3
Travis AFB - WABOU Soil Sites
State ARARs
Water Board Requirements
(continued)**

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 Division 2, Subdivision 1, Chapter 3, Subchapter 2 Article 2	20210	Relevant and Appropriate	Requires that designated wastes be discharged to class I or II management units. Applies to designated waste (nonhazardous waste that could cause degradation of surface or ground water) to land for treatment, storage, or disposal.	Pertains to wastes being removed from landfills.	008, 013, 041, 044, 045	S3, S7
	20220	Applicable	Requires that non-hazardous solid waste be discharged to a classified waste management unit.	Applicable to landfill consolidation activities.		
Title 27 CCR Chapter 3, Subchapter 2, Article 3	20240 (c)	Relevant and Appropriate	Requires all new landfills, waste piles, and surface impoundments to be sited, designed, constructed, and operated to ensure that wastes will be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water.	Pertains to sites where consolidation activities will occur. Relevant and appropriate for the design of the CAMU.	007	S4, S5, S6

Title 27 Division 2, Subdivision 1, Chapter 3, Subchapter 3 Article 1	20380 (e)	Relevant and Appropriate	Establishes the ability to use an Allowable Engineered Alternative monitoring program.	Pertains to areas in which waste has been discharged to land, specifically the CAMU. Only the substantive portions of this regulation pertain to the CAMU.	007	S4, S6
	20385	Relevant and Appropriate	Requires detection monitoring at a waste management unit to determine the threat to water quality.			
	20390	Relevant and Appropriate	Establishes a water quality protection standard for a waste management unit.	The Air Force has met these requirements through negotiation with the RWQCB. Requirements are satisfied in the CAMU Soil Acceptance Criteria technical memorandum and the draft LF007 Soil Remedial Design Report.		
	20395	Relevant and Appropriate	Establishes a list of chemicals of concern for a waste management unit.			
	20400	Relevant and Appropriate	Establishes concentration limits for chemicals of concern at a waste management unit.			
	20405	Relevant and Appropriate	Establishes monitoring points and the point of compliance at a waste management unit.	Pertains to remediation sites where waste has been discharged to land.		
	20410	Relevant and Appropriate	Establishes a compliance monitoring period.			

**Table II-6-3
Travis AFB - WABOU Soil Sites
State ARARs
Water Board Requirements
(continued)**

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 Division 2, Subdivision 1, Chapter 3, Subchapter 3, Article 1 (continued)	20420	Relevant and Appropriate	Requires the installation of a water quality monitoring system that is appropriate for detecting, at the earliest possible time, a release from the waste management unit, and that comply with substantive provisions of section 20415.	Pertains to sites where consolidation activities will occur.	007	S4, S6
	20425	Relevant and Appropriate	Establishes the need to assess the nature and extent of a groundwater release, including a determination of the spatial distribution and concentration of each constituent.	Pertains to the CAMU only if the analytical results from the detection monitoring referenced in section 20385 show statistically “measurably significant” evidence of a release to groundwater. Only substantive portions of this regulation pertain to the CAMU.		
	20430 (c, d, f, and g)	Relevant and Appropriate	Establishes procedures for the implementation and termination of corrective action measures and monitoring to ensure that cleanup levels are achieved throughout the zone affected by a release to groundwater.	Pertains to the CAMU only if the analytical results from the evaluation referenced in section 425 indicate the need to conduct a groundwater corrective action. Only substantive portions of these sections in the regulation pertain to the CAMU.		
Title 27 Division 2, Chap 3, Subchap 5 Art 1	20950	Relevant and Appropriate	Establishes closure and post-closure performance standards for a waste management unit.	Pertains to the management unit in which wastes from the remediation sites will be placed.	007	S4, S6

**Table II-6-3
Travis AFB - WABOU Soil Sites
State ARARs
Water Board Requirements
(continued)**

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 27 Division 2, Subdivision 1, Chap 3, Subchap 5 Art 2	21090	Relevant and Appropriate	For wastes contained or left in place following remedial action if potentially affecting water quality. Includes closure landfills and other areas where wastes have been discharged. Requires final cover be constructed IAW specific prescriptive standards	Pertains to remediation sites where waste has been left in place following remedial action.	007, 008, 013, 041, 044, 045	S3, S7
Title 27 Division 2, Subdivision 1, Chapter 3, Subchapter 5 Article 3	21400	Applicable	Requires surface impoundments to be closed by either removing all remaining contamination or closing the surface impoundment as a landfill.	Applies to areas where wastes containing free liquids were discharged.	008, 041	S3, S7
Title 27 Division 2, Subdivision 1, Chapter 4, Subchapter 3 Article 4	21750 (f, g, h)	Relevant and Appropriate	Establishes the need to consider the geology, hydrogeology and land and water use in the construction of a waste management unit.	The Air Force has met these requirements through negotiation with the RWQCB. Requirements are satisfied in the CAMU Soil Acceptance Criteria technical memorandum and the draft LF007 Soil Remedial Design Report.	008, 013, 041, 044, 045	S4, S6

**Table II-6-3
Travis AFB - WABOU Soil Sites
State ARARs
Water Board Requirements
(continued)**

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Regional Water Quality Control Board (San Francisco Bay Basin Water Quality Control Plan)	Chapter 2, Beneficial Uses.	Relevant and Appropriate	Establishes beneficial uses of surface and ground waters.	Pertains to soil sites where the selected remedy protects the beneficial uses of nearby surface water or underlying groundwater. Beneficial uses of Union Creek and downstream receiving waters include navigation, contact and non-contact recreation, fish spawning, warm fresh-water habitat, and wildlife habitat. Beneficial uses of groundwater include municipal and domestic water supply, industrial and industrial process water supply, and agricultural water supply.	007, 008, 039, 041, 043	G3, G4, G5
	Chapter 3, Water Quality Objectives.	Relevant and Appropriate	Establishes both narrative and numerical water quality objectives for surface and ground waters. Narrative objectives describe the water quality to attain via pollution control and form the basis for the numerical values. Numerical objectives are designed to limit the adverse effects of pollutants.	Pertains to the beneficial uses that are being protected by the selected remedy at soil sites.		
State Water Resources Control Board Order 99-08-DWQ	A (Discharge Prohibitions), B (Receiving Water Limitations), Section A (Storm Water Pollution Prevention Plan – para. 1, 5 thru 11)	Relevant and Appropriate	Requires control of storm water runoff discharges at construction sites that are greater than five acres in size, including clearing, grading and excavation activities to be minimized using Best Available Technology Economically Achievable (BAT).	The substantive portions of these paragraphs are applicable to activities associated with the construction of the CAMU. The permitting requirement is not an ARAR.	007, 008, 013, 041, 045	S4, S6

Table II-6-4
Travis AFB - WABOU Soil Sites
State ARARs
BAAQMD Air Remediation Requirements

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Regulation 6	301	Applicable	Establishes limitations on visible emissions and opacity.	Applicable to sites where excavation or construction activities have the potential to release particulate matter into the air (i.e. dirt and dust), or at sites where portable soldering, brazing, welding equipment is used. Also applicable at sites where portable combustion engines of < 25 liters of displacement are used.	008, 013, 041, 042, 044, 045	S3, S4, S5, S6,
	302	Applicable	Establishes limitations on opacity			
	303	Applicable	Establishes limitations on emission rates, concentration, visible emissions and opacity.			
	501	Applicable	Establishes requirements for sampling facilities and instruments.	Applicable to all actions subject to Regulation 6.		

Regulation 8, Rule 40	110	Applicable	Establishes an exemption for calculation of aeration volumes for exposed surfaces.	Applicable to all soil sites where VOCs are present.		S4, S5, S6
	111	Applicable	Establishes an exemption for calculation of aeration volumes for exposed surfaces.			
	112	Applicable	Establishes exemption for calculation of aeration volume for soil used in sampling.			
	113	Applicable	Establishes an exemption for calculation of aeration volumes of chemicals with a boiling point >302 ° F.	Applicable to soil sites contaminated with non-volatile hydrocarbon compounds only.	008, 041	S4, S5, S6
	311	Applicable	Establishes restrictions on vapor freeing a tank.	Applicable to sites or activities where tanks are used as part of the remedial action.		
	312	Applicable	Establishes restrictions on ventilating a tank.			
	602	Applicable	Establishes measurement of organic content requirements for organic compounds in soil.			
	603	Applicable	Establishes parameters for measuring emissions of organic compounds from soils.			

Table II-6-5
Travis AFB - WABOU Soil Sites
State ARARs
Fish and Game Requirements

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
California Fish and Game Code	1908	Applicable	Prohibits the import, taking or possession of rare or endangered native plants.	Applicable to active remediation sites where rare or endangered native plants exist.	008, 042, 044, 045	S3, S4, S5, S6 S7
	2080	Applicable	Prohibits the import, taking or sale of threatened or endangered native plants	Requires site surveys prior to action to determine presence of endangered/threatened plants at the site and consideration of potential impact. Relevant and appropriate for federal agencies at all sites where endangered or threatened species are located. Requires coordination and, if appropriate, consideration of alternative actions at sites where impact to endangered or threatened species may occur. Will be considered at all sites where active remediation occurs.		
	2090	Relevant and Appropriate	Requires state lead agencies to consult with DF&G to ensure authorized actions will not jeopardized endangered or threatened species.			
	2091	Relevant and Appropriate	Requires state agencies to use alternative actions if impact to threatened or endangered species or habitat is found.			
	2092	Relevant and Appropriate	Requires state agencies to adopt reasonable alternative actions where project would result in the extinction of a species.			
	3005	Applicable	Prohibits taking of birds or animals with net, pound, cage, trap, set line, wire, or poison.			
	3511	Applicable	Prohibits taking of birds identified as “fully protected.”	Applicable at all remediation sites where birds, mammals, or other animals and wildlife identified by the applicable statutory provision exist.		
	3513	Applicable	Prohibits taking of mammals that are identified as fully protected.			
	4700	Applicable	Prohibits taking or possession of mammals identified as “fully protected.”			
	5050	Applicable	Prohibits taking or possession of reptiles and amphibians identified as “fully protected.”			
	5515	Applicable	Prohibits taking or possession of fish identified as “fully protected.”			
	5650	Applicable	Prohibits deposit or placement of specified materials and substances into places where it can pass into the waters of the state.	Note: These sections are applicable to the extent that the state law is more strict than the Federal Endangered Species Act or Migratory Bird treaty Act. For example, in those cases where a species is listed as “fully protected” but not identified as a federally endangered or protected, than the state law is applicable.		

Table II-6-5
Travis AFB - WABOU Soil Sites
State ARARs
Fish and Game Requirements
(continued)

Source	Requirement, Standard, of Criterion	Type	Description	Remarks	Sites and Alternatives	
California Fish and Game Policies	Management and Utilization of Fish and Wildlife on Federal Lands	Performance Standard	Establishes management policies and defines methodologies used in protecting all fish, wildlife, and threatened and endangered species.	These policies do contain substantive provisions that will be relied upon in the decision process, consistent with applicable federal laws and statutes. Will be followed at all sites where active remediation occurs. The Wetlands Resource Policy will be followed for actions at sites where wetland habitat occurs.	008, 042, 044, 045	S2, S3, S4, S5, S6, S7
	Wetlands Resource Policy	Performance Standard	Establishes management policies and defines methodologies to assure no net loss of wetland habitat value or acres.			
Title 14 CCR	40.00	Applicable	Prohibits the taking or possession of native reptiles and amphibians.	Applicable to all site and action alternatives where identified mammals, fish, reptiles or amphibians or plants exist. Will be considered at all sites where active remediation occurs. Requires site surveys prior to action to determine presence of endangered/threatened plants at the site. Section 640 will be considered to the extent feasible and consistent with CERCLA planning documents. Species found at Travis AFB which are covered by these sections include the Black-Shouldered Kite, Boggs Lake Dodder, Burrowing Owl, Coopers Hawk, California Gull, Golden Eagle, Loggerhead Shrike, Northern Harrier, Red Fox, Tri-colored Blackbird, Vernal Pool Fairy Shrimp, Contra Costa Goldfields, Northwestern Pond Turtle, San Francisco Forktail Damselfly, Vernal Pool Tadpole Shrimp.	008, 042, 044, 045	S2, S3, S4, S5, S6, S7
	40.10	Applicable	Prohibits the possession or taking of native reptiles and amphibians.			
	460	Applicable	Prohibits the taking of certain fur bearing mammals at any time.			
	640	Applicable	Establishes requirement for fish and wildlife planning to optimize fish and wildlife resources.			
	670.2	Applicable	Establishes species, subspecies, and varieties of native California plants as endangered, threatened, or rare.			
	670.5	Applicable	Establishes species, subspecies, and varieties of native California plants as endangered, threatened, or rare.			

Table II-6-6
Travis AFB - WABOU Soil Sites
Federal ARARs
Requirements under the US Code and Related Regulations

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Title 16 USC (Endangered Species Act)	1531(c)	Applicable	Requires action to conserve endangered species and critical habitats upon which endangered species depend. Includes consultation with the Department of Interior.	Activities at all remedial sites must be performed in such a manner as to identify the presence of and protect endangered or threatened plants and animals at the site. Species at Travis AFB include the Black-Shouldered Kite, Boggs Lake Dodder, Burrowing Owl, Coopers Hawk, California Gull, Golden Eagle, Loggerhead Shrike, Northern Harrier, Red Fox, Tri-colored Blackbird, Vernal Pool Fairy Shrimp, Contra Costa Goldfields, Vernal Pool Tadpole Shrimp, Northwestern Pond Turtle, San Francisco Forktail Damselfly	008, 013, 041, 042, 044, 045	S2, S3, S4, S5, S6, S7
	1536(a)	Applicable				
Title 16 USC (Migratory Bird Treaty Act)	703	Applicable	Prohibits unlawful taking, possession, and sale of almost all species of native birds in the U.S.	Species at Travis AFB include Black-Shouldered Kite, Burrowing Owl, Coopers Hawk, California Gull, Golden Eagle, Loggerhead Shrike, Northern Harrier, Tri-colored Blackbird.	008, 013, 041, 042, 044, 045	S2, S3, S4, S5, S6, S7
Federal Clean Water Act, Section 404, Title 33 CFR Part 330, Appx A, Subpart B, Army Corps of Engineers Nationwide Permit Programs	Para 27	Applicable	Establishes requirements for activities in waters of the United States associated with the restoration of altered and degraded non-tidal wetlands and creation of wetlands on private lands.	The substantive portions of these paragraphs are applicable to activities related to construction and installation of remedial equipment. The permitting requirements are not ARARs.	044	S2, S3, S4, S5, S6, S7

Table II-6-6
Travis AFB - WABOU Soil Sites
Federal ARARs
Requirements under the US Code and Related Regulations
(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
Federal Clean Water Act, Section 404, Title 33 CFR Part 330, Appx A, Subpart C Army Corps of Engineers Nationwide Permit Conditions (NWP)	Para 2	Applicable	Requires any structure or fill authorized be properly maintained, including maintenance to ensure public safety.	The substantive portions of these paragraphs are relevant and appropriate. The notification requirements are not ARARs. Site activities related to construction and installation of remedial equipment give rise to these requirements.	008, 041, 042, 045	S3, S4, S5, S6 S7
	Para 4	Applicable	Requires that no activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body.			
	Para 5	Applicable	Requires heavy equipment working in wet-lands must be placed on mats or other measures be taken to minimize soil disturbance			
	Para 11	Applicable	No activity is authorized under any NWP if likely to jeopardize the continued existence of a threatened or endangered species or species proposed for such designation, as identified under the Endangered Species Act, or which is likely to adversely modify or destroy the habitat of such species.			
40 CFR Part 230 (Clean Water Act - Disposal of Dredged or Fill Material)	230.10	Applicable	Prohibits discharge of dredged or fill material into waters or wetlands without a permit. Establishes limits on discharges.	Applicable to sites where wetlands and vernal pools are located. Permitting requirements are not applicable to CERCLA sites and are not ARARs.	008, 044, 045	S3, S4, S5, S6 S7
	230.71	Applicable	Places limitations/requirements on the disposal and treatment of the dredged or fill material discharged.			
	230.72	Applicable	Establishes requirements and methods for the control of the effects of dredged or fill material after discharge, through use of levees, caps, lined containment areas, timing and placement.			
	230.73	Applicable	Establishes requirements for minimizing discharge effects by use of specific disbursement methods.			
	230.74	Applicable	Requires use of available technology, adapted to the particular site, to minimize adverse effects of dredge and fill discharges.			
	230.75	Applicable	Requires minimization of adverse effects on populations of plants and animals from the discharge of dredge/fill materials.			
	230.76	Applicable	Requires use of fill or dredge material discharge methods that minimize the adverse effects on human use potential.			

Table II-6-6
Travis AFB - WABOU Soil Sites
Federal ARARs
Requirements under the US Code and Related Regulations
(continued)

Source	Requirement, Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
40 CFR Part 258	258.60 (a)	Relevant and Appropriate	Establishes the requirement to install a final cover system for the waste management unit.	Applicable to the management unit in which wastes from the remediation sites will be placed.	007	S4, S6
	258.60 (c)	Relevant and Appropriate	Establishes the requirements for and the elements of a closure plan for the waste management unit.	Applicable to the management unit in which wastes from the remediation sites will be placed.	007	S4, S6
Section 403 of Toxic Substance Control Act (TSCA), 40 CFR Part 745	Para III C4(b)(i)	Relevant and Appropriate	Establishes a hazard standard of 400 ppm in bare soil for children's play areas.	Applicable to sites where the residual lead concentration in the soil exceeds 400 ppm.	039, 042, 045	S2

Table II-6-7
Travis AFB - WABOU Soil Sites
Radiological Remediation Requirements

Source	Requirement Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
10 CFR Part 20 (Nuclear Regulatory Commission Regulations) (42 USC, 2073, 2093, , 2095, 2111, 2133, 2134 2201, 2232, 2236, 2297f, 5841, 5842, 5846)	20.1801	Relevant and Appropriate	The licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.	Although these regulations are designed to control the transfer and storage of licensed radioactive materials, substantive requirements are relevant and appropriate to WABOU sites containing low-level radioactive wastes.	013	S5
	20.1802	Relevant and Appropriate	Establishes requirement for the control of material not in storage, requiring control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.			
	20.1902	Relevant and Appropriate	Establishes requirements for the use of caution signs bearing radioactive symbol.			
	20.1904	Relevant and Appropriate	Establishes marking and labeling requirements for containers holding radioactive materials.			
	20.2005	Applicable	Establishes requirements/limitations for treatment or disposal of radioactive materials by incineration.			
	20.2006	Applicable	Establishes requirements/limitations for disposal of radioactive wastes to landfills.			
	20.2007	Applicable	Requires compliance with other applicable Federal, State, and local regulations governing any other toxic or hazardous properties of materials that may be disposed of under this subpart.			
	App C	Applicable	Establishes volume requirements/limitations for labeling.			
	App. F	Applicable	Requirements for low-level-waste transfer for disposal at land disposal facilities.			
	App. G	Applicable	Requirements for transfers of low-level radioactive waste intended for disposal at licensed land disposal facilities.			

Table II-6-7
Travis AFB - WABOU Soil Sites
Radiological Remediation Requirements
(continued)

Source	Requirement Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
California Health and Safety Code	25249.5	Applicable	Establishes prohibition on contaminating drinking water with chemicals known to cause cancer or reproductive toxicity except as provided in Section 25249.9	Applicable to remedial activities at WABOU sites containing low-level radioactive wastes.	013	S5
	25249.6.	Applicable	Requires warning before knowingly and intentionally exposing any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual, except as provided in Section 25249.10.			
	25249.9	Applicable	Establishes exemptions from discharge prohibitions established in Section 25249.5.			
	25249.10	Applicable	Establishes exemptions from warning requirements on Section 25249.6 shall not apply to include: (a) An exposure for which federal law governs warning in a manner that preempts state authority. (b) An exposure that takes place less than twelve months (c) An exposure for which the person responsible can show that the exposure poses no significant risk assuming lifetime exposure			
United States Environmental Protection Agency (EPA Guidance Documents)	OSWER 9200.4-18	Performance Standard	Establishes EPA guidance on establishment of cleanup levels for CERCLA sites contaminated with radionuclides.	Identifies potential performance standards for radiological contaminated soil.	013	S5

Table II-6-8
Travis AFB - WABOU Soil Sites
DOD Requirements

Source	Requirement Standard, or Criterion	Type	Description	Remarks	Sites and Alternatives	
40 CFR (Military Munitions Rule)	Parts 260-266, 270 (as amended by 62 FR 6622)	Applicable	Establishes parameters for determining when military munitions become RCRA hazardous waste and provides requirements for their safe transportation and storage.	Applicable to sites where spent munitions are present.	045	S6

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Appendix A
Travis AFB Work Coordination Forms

Air Force Form 332
Base Civil Engineer Work Request

BASE CIVIL ENGINEER WORK REQUEST <i>(See Reverse for Instructions)</i>					Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average .3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project 0704-0188, Washington DC 20503. Please DO NOT RETURN your form to either of these addresses. Send your completed form to HQ AFESC/DEMG.						
SECTION I - TO BE COMPLETED BY REQUESTER						
1. FROM (Organization)		2. OFFICE SYMBOL	3. DATE OF REQUEST		4. WORK REQUEST NO. (For BCE Use)	
5. NAME AND PHONE NO. OF REQUESTER			6. REQUIRED COMPLETION DATE		7. BUILDING, FACILITY OR STREET ADDRESS WHERE WORK IS TO BE ACCOMPLISHED	
8. DESCRIPTION OF WORK TO BE ACCOMPLISHED <i>(Include Sketch or Plan, when appropriate)</i>						
9. BRIEF JUSTIFICATION FOR WORK TO BE ACCOMPLISHED <i>(Not required for maintenance and repair)</i>						
10. DONATED RESOURCES						
FUNDS		LABOR		MATERIAL		CONTRACT BY REQUESTER
						NONE
11. NAME OF REQUESTER			12. GRADE OF REQUESTER		13. SIGNATURE OF REQUESTER <i>(See Reverse of Form)</i>	
14. COORDINATION						
SECTION II - FOR BASE CIVIL ENGINEER USE						
15. WORK ORDER <i>(Place an "X" in the appropriate box.)</i>						
IN-SERVICE		SELF-HELP		CONTRACT		SABER
16. DIRECT SCHEDULED WORK <i>(Place an "X" in the appropriate box.)</i>						
EMERGENCY		URGENT		ROUTINE		SELF-HELP
						M/C
17. SELF-HELP <i>(Place an "X" in the appropriate box.)</i>						
BRIEFING REQUIRED			ADEQUATE COORDINATION			INSPECTION REQUIRED
SECTION III - COMPLETE ONLY IF WORK IS TO BE ACCOMPLISHED BY WORK ORDER						
18. WORK CLASS		19. PRIORITY		20. ESTIMATED HOURS		21. ESTIMATED FUNDED COST
						22. ESTIMATED TOTAL COST
23. THERE IS NO NEED FOR AN ENVIRONMENTAL ASSESSMENT (AFR 19-2)			24. A WRITTEN ASSESSMENT IS BEING/HAS BEEN PROCESSED			25. APPROVED
						26. DISAPPROVED
27. REMARKS						
SECTION IV - APPROVING AUTHORITY						
28. NAME AND GRADE <i>(Please Type or Print)</i>				29. SIGNATURE		30. DATE

60 Air Mobility Wing Form 55
Excavation Permit

EXCAVATION PERMIT						1. TRACKING No. _____		
PART I								
2. Excavation clearance at the following _____								
Description of work to be done: _____								
on Work Order/Job _____, Contract _____								
The excavation area involved was properly staked and/or clearly marked in white _____ (DATE) to indicate where the proposed - on _____								
3. TYPE OF FACILITY/WORK INVOLVED								
A. Pavements	B. Drainage Systems	C. Fire Detection and Protective Systems	D. Utility <input type="checkbox"/> Overhead <input type="checkbox"/> Underground	E. Communications <input type="checkbox"/> Overhead <input type="checkbox"/> Underground				
F. Aircraft or Vehicular Traffic Flow	G. Security	H. Medical	I. OTHER (Specify) _____					
<i>INSTRUCTIONS: This excavation permit is required for any interior or exterior excavation deeper than six inches. This form is used to coordinate the required work with key base activities so all base utilities in the area of excavation may be marked, and to identify potentially hazardous work conditions. It is also used to notify the proper agencies of possible road closures so as to keep customer inconvenience to a minimum. This excavation permit will be processed after the excavation area has been properly staked or marked in white (IAW Underground Service Alert (USA) guidelines). This Excavation Permit is valid only if it is signed by the Approving Officer. If excavation delays are encountered and/or conditions at the excavation site change (due to weather, heavy traffic, or construction) which cause the utility markings to no longer be visible then this excavation permit will no longer be considered valid.</i>								
4. Organization/Company Name _____				5. Phone Number _____		6. Date _____		
7. Name of Requester _____				8. Signature _____				
9. Date Submitted _____	10. Date Clearance Required _____	11. Date Clearance Terminated _____	12. Depth _____	13. Areas to be Excavated <input type="checkbox"/> Main Base <input type="checkbox"/> MFH <input type="checkbox"/> Airfield <input type="checkbox"/> DGMC <input type="checkbox"/> Other (Please specify) _____				
PART II								
EXCAVATION CLEARANCE REVIEW								
ORGANIZATION		NO UTILITY IN AREA	UTILITY NEEDS TO BE MARKED	DATE UTILITY MARKED	PRINTED NAME	INITIALS	RENEWAL STOP REQUIRED YES NO	
14. Base Civil Engineering	A. Water/Gas/Sewer Distribution							
	B. Electrical Distribution							
	C. Heat Distribution (Zone 3)							
	D. Drainage Systems							
	E. POL Distribution							
	F. Controls/Alarms							
	G. Engineering Technician							
	H. Fire Department (Only when traffic is affected)							
15. Environmental Management								
16. 60 CS Leased Comm/QS/GTE (Fiber/Metro Cable)								
17. Base Operations								
18. PAC Bell (Notified by USA)								
19. TCI/Cable TV								
20. Safety								
21. 60 Security Forces (Only when traffic is effected)								
22. 60 Medical Group Ambulance Service (Only when traffic is effected)								
23. Other (Specify)								

PART III**UNDERGROUND SERVICE ALERT (USA) NOTIFICATION****UNDERGROUND SERVICE ALERT (USA) HAS BEEN NOTIFIED BY THE DIGGER. (1-800-227-2600)**

Note to digger: USA must be notified every fourteen (14) calendar days as long as excavation continues.)

24. Date USA Called

25. USA Expiration Date

26. USA#

27.

USA EXTENSIONS

New Extension Date	New USA Number	New Extension Date	New USA Number	New Extension Date	New USA Number

PART IV

28. REMARKS (This selection must describe specific precautionary measures to be taken before and during work accomplishment. Specific comments concerning the approved method of excavation, hand or powered equipment to be included.)

Approval Recommendation: Maintenance Engineering

29. Date

30. Typed or Printed Name and Grade of Recommending Official

31. Signature

Approval Authorization☐

Approved

☐

Disapproved

Date Approved

33. Date Expires (90 days from approval)

34. Signature of Approving Officer (Chief/Deputy Chief of 60 CES Operations)