### **Criterion 8 JPAT Report**

### **Purpose**

This report summarizes and documents the approach and process used by the Base Realignment and Closure (BRAC) 2005 Selection Criterion 8 Joint Process Action Team (JPAT).

#### **Criterion 8**

"The environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities."

### **Executive Summary**

The Office of the Secretary of Defense (OSD)-authorized JPAT was established to develop a Department of Defense (DoD)-wide approach to the application of BRAC Final Selection Criterion 8. The JPAT was tasked to define the aspects of the criterion and develop a process that would appropriately analyze the environmental impacts specified in the criterion. The JPAT would also develop a process for arraying the certified environmental data gathered for use by the Military Departments (MilDeps) and Joint Cross-Service Groups (JCSGs) in their analyses.

### **Authority**

The BRAC statute requires that the foundation for Secretary of Defense base realignment and closure recommendations be "the force structure plan and infrastructure inventory prepared by the Secretary under section 2912 and the final selection criterion prepared by the Secretary under section 2913." As such, the JCSGs and MilDeps need to ensure that all eight final selection criteria are considered in developing the recommendations that will be forwarded to the Secretary of Defense.

### **Establishment**

Exercising authority provided by the BRAC 2005 Infrastructure Steering Group (ISG), the OSD BRAC Director and the MilDep Deputy Assistant Secretaries responsible for the BRAC process (known as the "BRAC DASs"), established a JPAT for Selection Criterion 8, commonly known as "Environmental Impact." The Department of the Navy (DON) was designated the lead MilDep for the effort.

### **Direction**

The BRAC DASs directed the JPAT to develop a DoD-wide approach to application of BRAC Selection Criterion 8.

### **Mission and Concept**

The JPAT was tasked to define the aspects of the criterion and identify a process for decision makers to appropriately consider environmental impact as required under Criterion 8. As to defining the criterion aspects, the fundamental difference between BRAC 1995 and BRAC 2005 is that additional language was added in the Defense Base Closure and Realignment Act of 1990, as amended through FY04 Authorization Act (Statute) to Criterion 8. In BRAC 1995, by DoD policy, Criterion 8 simply required that the decision makers consider "the environmental impact" with no further definition or clarification. For BRAC 2005, the Criterion 8 Final Selection Criteria language, reflecting the Statute, requires that the decision makers consider, "the environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities." This criterion, in these terms, is not specifically defined in the statute. The JPAT's mission was therefore to establish the parameters of these terms for analysis and consideration by the decision makers. It was agreed that the terms "environmental impact", "environmental restoration", "waste management" and "environmental compliance" would be used and considered in the same context as they are defined in existing federal environmental laws and regulations, as well as in DoD and MilDep implementing policies.

The JPAT was also tasked with developing a process for meeting the requirements of Criterion 8. In this regard, the JPAT developed three primary deliverables:

- (1) A template for the Installation Environmental Profiles (Appendix 1). The Profiles will be compiled by the host MilDeps or host Defense Agency, from the certified data call responses to the environmental questions. The Profiles will be completed no later than 1 September 2004.
- (2) A template for the Summary of Scenario Environmental Impacts (Appendix 2). The Summary will be drafted by the host MilDep upon receipt of a specific, viable scenario from the JCSG. This Summary will only be required for viable scenarios that the JCSG and/or MilDep decide upon (viable scenarios are defined as post-COBRA run scenarios to receive complete criteria review). The Summary will be based on the impacted installation(s) Profile(s) as described above, stemming from the environmental data contained in the first Data Call and will provide an overview, limited in scope, highlighting pertinent information, apparent potential impacts and/or potential problems;
- (3) A template for the Summary of Cumulative Environmental Impacts (Appendix 3). The Cumulative Summary will document consideration of the cumulative environmental impacts of the final group of scenarios (namely, those scenarios that will be formally forwarded as recommendations) on a particular gaining installation.

### **Organization and Responsibilities**

The Deputy Assistant Secretary of the Navy (Infrastructure Strategy and Analysis) DASN (IS&A) was designated the Executive Agent for the JPAT. In that role, she was responsible for:

- a. Overseeing the work of the JPAT
- b. Presenting an approach and suggested data questions to the ISG for approval

The DASN (IS&A) subsequently identified the DON Infrastructure Analysis Team (IAT) Environmental Lead as the Executive Agent Functional Representative to provide day-to-day guidance and support to the JPAT.

The JPAT was composed of members from each of the MilDeps, along with members from the Office of the Secretary of Defense (Acquisition, Technology and Logistics). Representatives from the Defense Logistics Agency were added to the JPAT April 2004. The DoD IG, General Accounting Office, and the Naval Audit Service were process observers.

JPAT members were responsible for the following:

- a. Developing a process to support Criterion 8 requirements.
- b. Reviewing the BRAC 2005 Public Law, existing DoD policy and guidance to ensure compliance.
- c. Providing a draft report on the process, including recommended integration of the environmental questions from the first Data Call.
- d. Developing suggested templates for displaying data and templates for assessing impacts for MilDep and JCSG consideration.

### **Process Development Approach**

Prior to the formal establishment of the JPAT, MilDep environmental experts worked together from September through December of 2003 to develop data call questions with deliberate focus on how the data gathered by these questions could be used by the decision makers and to meet the legal requirements under Criterion 8. The goal was also to create a common set of environmental questions that were not duplicative, overlapping or inconsistent. These joint MilDep environmental questions, once synthesized through

the DoD Question Review Team (QRT) process, became the environment and encroachment questions (Appendix 4) in the first Data Call, which was approved by the Infrastructure Steering Group (ISG). The JPAT subsequently agreed that the answers to most of these questions provide sufficient data for use in the Profile portion of the Criterion 8 process.

It is important to note that the Criterion 8 process is not an Environmental Assessment or Impact Study under National Environmental Policy Act (NEPA). Per the BRAC statute (Section 2905(c) of the Defense Base Closure and Realignment Act of 1990, as amended through FY04 Authorization Act), the NEPA process is not triggered until the implementation of the BRAC recommendations. This Criterion 8 process is rather an effort to efficiently package and analyze the certified environmental data, thus making it easily accessible to the JCSGs and MilDeps for integration into their scenario formulation and recommendation development and analysis process.

The JPAT formed officially in January 2004 and met approximately every other week from inception. The initial tasks were to review process suggestions proposed by the MilDep representatives and develop consensus on the process between the services. After evaluation of numerous approaches proposed by the MilDep and OSD representatives, the JPAT reached consensus. The ISG was briefed generally on April 23, 2004 on the process. The general philosophy of the analysis process is to gather sufficient comprehensive environmental data in key environmental resource areas and effectively array that data to allow the decision maker to integrate environmental considerations into the scenario and recommendation making process, and consider any impact of costs associated with recommended decisions.

The JPAT conducted a mock scenario run to exercise the Criterion 8 process and develop guidelines for compiling Appendices 1 and 2.

### **Criterion 8 Aspects Defined**

### **Environmental Impact - Environmental Resource Areas**

In order to assist the JCSGs' and MilDeps' analysis of the environmental impact of scenarios per Criterion 8, the JPAT developed a template (Appendix 1) that arrayed the environment and encroachment data from the first Data Call into ten environmental resource areas. The ten environmental resource areas represent the primary environmental media areas that are regulated under federal environmental law. They also encompass the important aspects of environmental restoration, waste management, and environmental compliance. Based on the opinions of MilDep environmental experts, these ten areas provide BRAC decision makers with crucial environmental data needed to consider environmental impact under Criterion 8. These ten resource areas align with the questions in the environment/encroachment portion of the first Data Call:

#### Air Quality (DoD Question #210-225):

The Clean Air Act (CAA), establishes health-based standards for air quality and all areas of the country are monitored to determine if they meet the standards. A major limiting factor is whether the installation is in an area designated nonattainment or maintenance (air quality is not meeting the standard) and is therefore subject to more stringent requirements, including the CAA General Conformity Rule. Conformity requires that any new emissions from military sources brought into the area must be offset by credits or accounted for in the State Implementation Plan (SIP) emissions budget. The criteria pollutants of concern include: Carbon Monoxide (CO), Ozone (O3), and Particulate Matter. Installations in attainment areas are not restricted, while activities for installations in non-attainment areas may be restricted. Nonattainment areas are classified as to the degree of non-attainment: Marginal, Moderate, Serious, and in the case of O3, Severe and Extreme. SIP Growth Allowances and Emission Reduction Credits are tools that can be used to accommodate increased emissions in a manner that conforms to a state's SIP. All areas of the country require operating permits if emissions from stationary sources exceed certain threshold amounts. Major sources already exceed the amount and are subject to permit requirements. Synthetic minor means the base has accepted legal limits to its emissions to stay under the major source threshold. Natural or true minor means the actual and potential emissions are below the threshold.

#### Cultural/Archeological/Tribal Resources (DoD Question #229-237):

Many installations have historical, archeological, cultural and Tribal sites of interest. These sites and access to them often must be maintained, or consultation is typically required before changes can be made. The sites and any buffers surrounding them may reduce the quantity or quality of land or airspace available for training and maneuvers or even construction of new facilities. The presence of such sites needs to be recognized, but the fact that restrictions actually occur is the overriding factor the data call is trying to identify. A programmatic agreement with the State Historic Preservation Office facilitates management of these sites.

#### **Dredging (DoD Question #226-228):**

Dredging allows for free navigation of vessels through ports, channels, and rivers. Identification of sites with remaining capacity for the proper disposal of dredge spoil is the primary focus of the profile. However, the presence of unexploded ordnance or any other impediment that restricts the ability to dredge is also a consideration.

# Land Use Constraints/Sensitive Resource Areas (DoD Question #198-201, 238, 240-247, 254-256, 273):

Land use can be encroached from both internal and external pressures. This resource area combines several different types of possible constraints. It captures the variety of constraints not otherwise covered by other areas that could restrict operations or development. The areas include electromagnetic radiation or emissions, environmental restoration sites (on and off installation), military munitions response areas, explosive safety quantity distance arcs, treaties, underground storage tanks, sensitive resource areas, as well as policies, rules, regulations, and activities of other federal, state, tribal and local agencies. This area also captures other constraining factors from animals and wildlife that are not endangered but cause operational restrictions. This resource area specifically includes information on known environmental restoration costs through FY03 and the projected cost-to-complete the restoration.

# Marine Mammal/Marine Resources/Marine Sanctuaries (DoD Question #248-250, 252-253):

This area captures the extent of any restrictions on near shore or open water testing, training or operations as a result of laws protecting Marine Mammals, Essential Fish Habitat, and other related marine resources.

#### **Noise (DoD Question # 202-209, 239):**

Military operations, particularly aircraft operations and weapons firing, may generate noise that can impact property outside of the installation. Installations with significant noise will typically generate maps that predict noise levels. These maps may then be used to identify whether the noise levels are compatible with land uses in these noise-impacted areas. Installations will often publish noise abatement procedures to mitigate these noise impacts.

# Threatened and Endangered Species/Critical Habitat (DoD Question #259-264)

The presence of threatened and endangered species (TES) can result in restrictions on training, testing and operations. They serve to reduce buildable acres and maneuver space. The data in this section reflects listed TES as well as candidate species, designated critical habitat as well as proposed habitat, and restrictions from Biological Opinions. The legally binding conditions in Biological Opinions are designed to protect TES, and critical habitat. The data call seeks to identify the presence of the resource, TES, candidate or critical habitat, even if they don't result in restrictions, as well places where restrictions do exist.

#### Waste Management (DoD Question # 265-272):

This resource area identifies whether the installation has existing waste treatment and/or disposal capabilities, whether there is additional capacity, and in some case whether the waste facility can accept off-site waste. This area includes Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal facilities, solid waste disposal facilities, RCRA Subpart X (open/burning/open detonation) and operations.

#### Water Resources (DoD Question # 258, 274-299):

This resource area asks about the condition of ground and surface water, and the legal status of water rights. Water is essential for installation operations and plays a vital role in the proper functioning of the surrounding ecosystems. Contamination of ground or surface waters can result in restrictions on training and operations and require funding to study and remediate. Federal clean water laws require states to identify impaired waters and to restrict the discharge of certain pollutants into those waters. Federal safe drinking water laws can require alternative sources of water and restrict activities above groundwater supplies particularly sole source aquifers. Water resources are also affected by the McCarran Amendment (1952), where Congress returned substantial power to the states with respect to the management of water. The amendment requires that the Federal government waive its sovereign immunity in cases involving the general adjudication of water rights. On the other hand existence of Federal Reserve Water Rights can provide more ability to the government to use water on federal lands.

#### Wetlands (DoD Question # 251, 257):

The existence of jurisdictional wetlands poses restraints on the use of land for training, testing or operations. In the data call the installations were asked to report the presence of jurisdictional wetlands and compare the percent of restricted acres to the total acres. The presence of jurisdictional wetlands may reduce the ability of an installation to assume new or different missions, even if they do not presently pose restrictions, by limiting the availability of land.

# How the Impact of Costs Related to Environmental Restoration Will Be Considered

The impact of costs related to potential environmental restoration will be considered through the review of certified data of pre-existing, known environmental restoration projects at installations that are identified during scenario development as candidates for closure or realignment. In this regard, the certified data considered by decision makers will only include the FY03 current estimate of costs to complete of

Installation Restoration (IR) sites managed and reported under the Defense Environmental Restoration Account (DERA). It is important to note that under DERA, the costs are calculated on a "clean-to-current-use" clean-up standard. The cost of environmental restoration will not dictate any installation closure decision but will be noted in the installation environmental profile, the Summary of Scenario Environmental Impacts, and the Summary of Cumulative Environmental Impact. Location and number of IR sites may be considered as a land use constraint for installations receiving missions as a result of a realignment decision. Since the Department of Defense has a legal obligation to perform environmental restoration regardless of whether a base is closed, realigned, or remains open, Environmental Restoration costs at closing bases are not to be considered in the cost of closure calculations.

Decision makers should be aware that although the remediation of munitions contamination is a form of environmental restoration, the costs of remediating munitions contamination on operational ranges are not captured in the existing estimated cost to complete IR sites. Additionally, estimates of such costs are not available in an auditable or certifiable form without site survey and preliminary analysis of contamination, which is not attainable within the BRAC analytical timeframe. Experience to date has shown that the cost to remediate ranges varies from small to very significant amounts depending on the type, quantity, and location of potential munitions used over the entire life of the range, potential other uses of the range such as open burn, open detonation and burial sites, potential future land-use use of the range and the lack of an agreed upon process for identifying and removing such hazards. In order to consider the impact of these costs in the absence of credible estimates, scenario summaries that involve a closure of an operational range will identify the potential impact of closing an operational range where the extent of financial liability is uncertain. For example, "Decision makers should be aware that the closure decision, contemplated in this scenario, would necessitate the closure of X ranges and the remediation of any munitions contaminants on the ranges. The cost and time required to remediate the ranges is uncertain and may be significant, potentially limiting near-term reuse of the range portion of the facility."

# How the Impact of Costs Related to Waste Management and Environmental Compliance Will Be Considered

Recurring and non-recurring environmental compliance and waste management costs will be captured in Criterion 5 using the Cost of Base Realignment Actions (COBRA) estimates generated for each scenario being evaluated as part of the scenario analysis process. These costs will be captured as part of the Base Operating Support (BOS) costs. Any one-time compliance costs associated with closing a facility (e.g. costs generated as result of operating permit closure regulations) will be specifically identified in COBRA. Similar one-time costs associated with realignment actions (expanding operation permits) will also be identified in COBRA. The impact of these costs will be noted in the Summary of Scenario Environmental Impact under the process developed for Criterion 8.

# Appendix 1 Template Installation Environmental Profile

#### **Installation X Environmental Profile**

#### 1. Air Quality (DoD Question #210-225):

- a. The Clean Air Act (CAA) establishes health-based standards for air quality and all areas of the country are monitored to determine if they meet the standards. A major limiting factor is whether the installation is in an area designated nonattainment or maintenance (air quality is not meeting the standard) and is therefore subject to more stringent requirements, including the CAA General Conformity Rule. Conformity requires that any new emissions from military sources brought into the area must be offset by credits or accounted for in the State Implementation Plan (SIP) emissions budget. The criteria pollutants of concern include: CO, O3 (1 hour & 8 Hour), and PM (PM10, and PM2.5) Installations in attainment areas are not restricted, while activities for installations in non-attainment areas may be restricted. Non-attainment areas are classified as to the degree of non-attainment: Marginal, Moderate, Serious, and in the case of O3. Severe and Extreme. SIP Growth Allowances and Emission Reduction Credits are tools that can be used to accommodate increased emissions in a manner that conforms to a state's SIP. All areas of the country require operating permits if emissions from stationary sources exceed certain threshold amounts. Major sources already exceed the amount and are subject to permit requirements. Synthetic minor means the base has accepted legal limits to its emissions to stay under the major source threshold. Natural or true minor means the actual and potential emissions are below the threshold.
  - b. [Specific summary of data regarding Installation X ]

#### 2. Cultural/Archeological/Tribal Resources (DoD Question #229-237):

- a. Many installations have historical, archeological, cultural and Tribal sites of interest. These sites and access to them often must be maintained, or consultation is typically required before changes can be made. The sites and any buffers surrounding them may reduce the quantity or quality of land or airspace available for training and maneuvers or even construction of new facilities. The presence of such sites needs to be recognized, but the fact that restrictions actually occur is the overriding factor the Profile is trying to identify. A programmatic agreement with the State Historic Preservation Office facilitates management of these sites.
  - b. [Specific summary of data regarding Installation X]

#### **3. Dredging (DoD Question # 226-228):**

- a. Dredging allows for free navigation of vessels through ports, channels, and rivers. Identification of sites with remaining capacity for the proper disposal of dredge spoil is the primary focus of the profile. However, the presence of unexploded ordnance or any other impediment that restricts the ability to dredge is also important.
  - b. [Specific summary of data regarding Installation X]

# **4.** Land Use Constraints/Sensitive Resource Areas (DoD Question #198-201, 238, 240-247, 254-256, 273):

- a. Land use can be encroached from both internal and external pressures. This resource area combines several different types of possible constraints. It captures the variety of constraints not otherwise covered by other areas that could restrict operations or development. The areas include electromagnetic radiation or emissions, environmental restoration sites (on and off installation), military munitions response areas, explosive safety quantity distance arcs, treaties, underground storage tanks, sensitive resource areas, as well as policies, rules, regulations, and activities of other federal, state, tribal and local agencies. This area also captures other constraining factors from animals and wildlife that are not endangered but cause operational restrictions. This resource area specifically includes information on known environmental restoration costs through FY03 and the projected cost-to-complete the restoration.
  - b. [Specific summary of data regarding Installation X]

# 5. Marine Mammal/Marine Resources/Marine Sanctuaries (DoD Question #248-250, 252-253):

- a. This area captures the extent of any restrictions on near shore or open water testing, training or operations as a result of laws protecting Marine Mammals, Essential Fish Habitat, and other related marine resources.
  - b. [Specific summary of data regarding Installation X]

#### 6. Noise (DoD Question # 202-209, 239):

a. Military operations, particularly aircraft operations and weapons firing, may generate noise that can impact property outside of the installation. Installations with significant noise will typically generate maps that predict noise levels. These maps may then be used to identify whether the noise levels are

compatible with land uses in these noise-impacted areas. Installations will often publish noise abatement procedures to mitigate these noise impacts.

b. [Specific summary of data regarding Installation X]

# 7. Threatened and Endangered Species/Critical Habitat (DoD Question #259-264)

- a. The presence of threatened and endangered species (TES) can result in restrictions on training, testing and operations. They serve to reduce buildable acres and maneuver space. The data in this section reflects listed TES as well as candidate species, designated critical habitat as well as proposed habitat, and restrictions from Biological Opinions. The legally binding conditions in Biological Opinions are designed to protect TES, and critical habitat. The profile identifies the presence of the resource, TES, candidate or critical habitat, even if they don't result in restrictions, as well places where restrictions do exist.
  - b. [Specific summary of data regarding Installation X]

#### 8. Waste Management (DoD Question # 265-272):

- a. This resource area identifies whether the installation has existing waste treatment and/or disposal capabilities, whether there is additional capacity, and in some case whether the waste facility can accept off-site waste. This area includes Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal facilities, solid waste disposal facilities, RCRA Subpart X (open/burning/open detonation) and operations.
  - b. [Specific summary of data regarding Installation X]

#### 9. Water Resources (DoD Question # 258, 274-299):

a. This resource area asks about the condition of ground and surface water, and the legal status of water rights. Water is essential for installation operations and plays a vital role in the proper functioning of the surrounding ecosystems. Contamination of ground or surface waters can result in restrictions on training and operations and require funding to study and remediate. Federal clean water laws require states to identify impaired waters and to restrict the discharge of certain pollutants into those waters. Federal safe drinking water laws can require alternative sources of water and restrict activities above groundwater supplies particularly sole source aquifers. Water resources are also affected by the McCarran Amendment (1952), where Congress returned substantial power to the states with respect to the management of water. The amendment requires that the Federal government waive its sovereign immunity in cases involving the

general adjudication of water rights. On the other hand existence of Federal Reserve Water Rights can provide more ability to the government to use water on federal lands.

b. [Specific summary of data regarding Installation X]

#### **10.** Wetlands (DoD Question # 251, 257):

- a. The existence of jurisdictional wetlands poses restraints on the use of land for training, testing or operations. In the data call the installations were asked to report the presence of jurisdictional wetlands and compare the percent of restricted acres to the total acres. The presence of jurisdictional wetlands may reduce the ability of an installation to assume new or different missions, even if they do not presently pose restrictions, by limiting the availability of land.
  - b. [Specific summary of data regarding Installation X]

### **Appendix 2 Template**

### **Summary of Scenario Environmental Impacts**

[Describe scenario specifically: description must cite all specific details explored in the COBRA runs] *Below is an illustration with hypothetical installations and their impacts.* 

### **General Environmental Impacts**

Environmental Resource	Camp Swampy Losing	Base Oceanview receiving
Area	Training Asset	training asset
Air Quality	No Impact	Oceanview is in moderate nonattainment for carbon monoxide and severe nonattainment for ozone. Conformity determination may have to be conducted.
Cultural/Archeological/Tribal Resources	Disposition of the historic barracks will have to be determined	No impact
Dredging	No Impact	No impact
Land Use Constraints/Sensitive Resource Areas	No impact	There may be an impact on approximately 1,000 acres of sensitive resource area.
Marine Mammals/Marine Resources/ Marine Sanctuaries	No impact	No impact
Noise	Noise will be reduced at Camp Swampy	Noise will increase at Base Oceanview but may not affect local community
Threatened& Endangered Species/Critical Habitat	No impact	Increased monitoring of species X may be required to ensure training will not impact the breeding habitat during the months of April and May
Waste Management	Reduces waste disposals associated with the training assets.	Increases waste disposal associated with the training assets.
Water Resources	Reduces water resources.	Increases water consumption, but Oceanview has sufficient water resources to accommodate training assets
Wetlands	No impact	No Impact

### **Summary of Scenario Environmental Impacts cont.**

### **Impacts of Costs**

	Camp Swampy	Base Oceanview
Environmental Restoration	Restoration Costs through FY 03 and Cost to Complete estimate	Restoration Costs through FY 03 and Cost to Complete estimate
Waste Management	None	None
Environmental Compliance	None	Air conformity assessment may be required; requirement for expanded air permits may be likely; the cost is approximately \$X

### **Appendix 3 Template**

### **Summary of Cumulative Environmental Impacts**

[Here list all the final scenarios that serve as an additional mission function at Base X

- 1. Scenario # 23 describe each scenario referring to original individual Summary document
- 2. Scenario # 28 brief description
- 3. Scenario #30 brief description]

Below is an illustration with a hypothetical installation and impacts.

Environmental Resource Area	Base X (Gaining Installation)
Air Quality	Base X is in moderate nonattainment for carbon monoxide and severe nonattainment for ozone. Scenario #23 will require Conformity determination be conducted, but existing air credits should accommodate new mission.
Cultural/Archeological/Tribal Resources	No impact
Dredging	Scenario #28 requires a deepening of the existing channel.
Land Use Constraints/Sensitive Resource Areas	Due to Scenario #30 there will be an impact on approximately 1,000 acres of sensitive natural resource area.
Marine Mammals/Marine Resources/ Marine Sanctuaries	No impact
Noise	Scenario #23 will increase at Base X but will not affect local community
Threatened& Endangered Species/Critical Habitat	Scenario #23 - increased monitoring of species Y will be required to ensure training will not impact the breeding habitat during the months of April and May
Waste Management	All 3 scenarios increase waste disposal associated with the training assets.
Water Resources	All 3 scenarios increases water consumption, but Base X has sufficient water resources to accommodate training assets
Wetlands	No Impact

### Cumulative Summary of Scenarios' Environmental Impacts cont.

### **Impacts of Costs**

	Base Overview	
Environmental Restoration	Restoration Costs through FY 03 and Cost to Complete estimate	
Waste Management	None	
Environmental Compliance	Scenario #23 – Air conformity assessment required; requirement for expanded air permits likely and the estimate for the cost to obtain the permits is approximately \$X	

# Appendix 4 Capacity Data Call – Environment/Encroachment Section

#### Section 2 – Environmental and Encroachment

# Index: Environment and Encroachment: Environment: Air Quality:

DOD #210: 2.1.1.a Air Quality Control Region/Area (Final #589)

JCSG: Environment Sub Group: Environmental

**Question:** What is/are the name(s) of the air quality control region(s) (AQCR(s)) and/or air quality area in which the installation is located? (e.g., San Joaquin Valley Air Basin/Merced Count; Buffalo-Niagara Falls Area/Erie County; AOCR 45)

Source / Reference: Current Edition of 40 C.F.R. Part 81

**Amplification:** IVT EQUIVALENCY: Counties designated as non-attainment areas by the EPA are being shown in the Installation Visualization Tool (IVT). If possible, consider the EPA non-attainment areas being shown by counties nationwide when responding.

Column Headings for this question

Column names	Data
Name of AQCR or air quality area (Text)	

#### DOD #220: 2.1.1.b Clean Air Act Operating Permits Status (Final #588)

JCSG: Environment
Sub Group: Environmental

**Question:** List any Clean Air Act (CAA) operating permits held by the installation. If multiple CAA operating permits are held for the installation, please indicate the applicable SIC code(s) for each permit.

Source / Reference: Base Title V or Synthetic Minor Operating Permits

Amplification: None.

Column Headings for this question

Column names	Data
CAA Operating Permit Held (List) (List Values:	
Major Operating, Synthetic Minor Operating	
(FESOP), (Natural) Minor Operating)	
SIC Code(s) (Code)	

# DOD #211: 2.1.1.c Stationary Source Emissions Inventory/Permit Limits/Threshold Limits (Final #525)

JCSG: Environment Sub Group: Environmental

Question: Identify the actual air emissions, permit limits and threshold limits for each criteria pollutant

**Source / Reference:** Most recent Stationary Source Air Emissions Inventory submitted for regulatory review for Total Emissions Inventory-Actual and Year of Inventory, Base Title V or Synthetic Minor Operating Permit for Permitted Emission Limit and Major Source Threshold.

**Amplification:** NOTE: When determining emission and/or thresholds, use the most restrictive of Federal, State, or local regulations that apply.

Example of how your grid will look

Criteria	Total Stationary Source	Year of	Permitted	Major Source Threshold or
Pollutant	Emissions Inventory -	Inventory	Emission Limit -	Major Modification
	Actual (Tons/Year)	(YYYY)	PTE (Tons/Year)	Threshold - PTE
				(Tons/Year)
VOC				
Nox				
NO2				
CO				
SO2				
PM10				
PM2.5 (if				
available				
Pb				

#### DOD #212: 2.1.1.d Top-5 Hazardous Air Pollutants (Final #526)

JCSG: Environment
Sub Group: Environmental

**Question:** Stationary Source Emissions Inventory/Permit Limits. Identify the actual emissions and the permit limits for the top five hazardous air pollutants in the following table.

**Source / Reference:** SOURCE: Installation Title V or Synthetic Minor Operating Permit and most recent emissions inventory submitted to regulatory authority.

Amplification: None.

Column Headings for this question

Column Headings for this question	
Column names	Data
Hazardous Air Pollutant (Top 5 in terms of amount	
of emissions) (Text)	
Total Emissions Inventory—Actual (Tons/Year)	
Permitted Emission Limit (PTE) (Tons/Year)	
Major Source Threshold or Major Modification	
Threshold (PTE) (Tons/Year)	

#### DOD #213: 2.1.1.e Air Quality Attainment (Final #590)

JCSG: Environment
Sub Group: Environmental

**Question:** In the following Table, fill in the following information which describes the attainment designation classifications of the installation's National Ambient Air Quality Standard (NAAQS) for each applicable criteria pollutant.

**Source / Reference:** Current Edition of 40 CFR 81 or the Federal Register or the Federal Register Citation to EPA's "final rule" approving the area's "maintenance plan" and "redesignation" of the area to "attainment status"

**Amplification:** \* For the 8-hour Ozone and PM 2.5 Standards, use the most recent EPA reference that either projects, or actually promulgates, the final designation

IVT EQUIVALENCY: Counties designated as non-attainment areas by the EPA are being shown in the Installation Visualization Tool (IVT). If possible, consider the EPA non-attainment areas being shown by counties nationwide when responding.

Example of how your grid will look

Criteria	NAAQS Designation (List)	NAAQS Classification	Attainment Date	Conformity
Pollutant	(List Values: Attainment,	(List) (List Values: N/A,	(MM/DD/YYYY)	Threshold
	Nonattainment, Nonattainment	Marginal, Moderate,		(Tons/Year)
	(Deferred), Maintenance,	Serious, Severe,		
	Unclassifiable)	Extreme)		
O3 (1hr)				
PM10				
NO2				
SO2				
CO				
Pb				
O3				
(8hr)*				
PM2.5*				

#### DOD #214: 2.1.1.f Proposed Nonattainment Areas (Final #527)

JCSG: Environment

**Sub Group:** Environmental

**Question:** Is the installation located in an area or areas, projected or proposed to be designated non attainment for the any of the criteria pollutants (VOC, Ozone, NO2, CO, SO2, PM10, or Lead)?

**Source / Reference:** Current Edition of 40 CFR 81 or the Federal Register or the Federal Register Citation to EPA's "final rule" approving the area's "maintenance plan" and "redesignation" of the area to "attainment status"

**Amplification:** IVT EQUIVALENCY: Counties designated as non-attainment areas by the EPA are being shown in the Installation Visualization Tool (IVT). If possible, consider the EPA non-attainment areas being shown by counties nationwide when responding.

Single Answer Question (a); has a data type of Yes/No.

#### DOD #215: 2.1.1.g Critical Air Quality Regions (Final #528)

JCSG: Environment
Sub Group: Environmental

**Question:** If there are any critical air quality regions (i.e., wilderness areas, national parks, etc.) within 100 statute miles of the military installation, complete the table.

**Amplification:** The geographical scale of significant ozone transport is about 100 miles and this is the range that was used in the Western States regional Haze Plan.

Column Headings for this question

Column names	Data
Identify Critical Air Quality Region (Text)	
Does it restrict military installation operations?	
(Yes/No)	

Does it restrict range operations? (Y/N/NA)	
Does it restrict auxiliary airfield operations?	
(Y/N/NA)	
Identify restrictions. (Text)	

#### DOD #216: 2.1.1.h Emission Reduction Procedures (Final #594)

JCSG: Environment Sub Group: Environmental

**Question:** If your military installation has been required to implement emission reduction procedures through special actions, such as carpooling or emissions credit transfer specify the nature of the actions.

Column Headings for this question

Column names	Data
Identify The Special Action Taken (Text)	
Did special action restrict military installation	
operations? (Yes/No)	
Identify the restrictions. (Text)	

#### DOD #217: 2.1.1.i OTIS Air Emissions Exceedances (Final #529)

JCSG: Environment Sub Group: Environmental

**Question:** If the U.S. EPA On-Line Technical Information System (OTIS) shows permit limit exceedances related to emissions from permitted sources during any of the past eight quarters, complete the table.

Column Headings for this question

Column names	Data
List Permitted Source (Text)	
List Pollutant that Exceeded Limit (Text)	
List Number of OTIS Exceedances (Text)	

## DOD #218: 2.1.1.j Restrictions or Delays from Air Quality Requirements (Final #530)

JCSG: Environment Sub Group: Environmental

**Question:** If your military installation, range or auxiliary airfield operations (i.e., training, R&D, ship movement, aircraft movement, military operations, support functions, vehicle trips per day, etc.) have been restricted or delayed as a result of air quality requirements, complete the following table.

Column Headings for this question

Column names	Data	
Identify Type of Restriction (Text)		
Does it restrict military installation? (Yes/No)		
Does it restrict ranges? (Yes/No)		
Does it restrict auxiliary airfields? (Yes/No)		

#### DOD #219: 2.1.1.k Eight Hour Ozone and PM2.5 Attainment Status (Final #593)

JCSG: Environment
Sub Group: Environmental

**Question:** Is the installation located in an area or areas, projected or proposed to be designated non attainment for the 8-hour Ozone or the PM2.5 NAAOS?

**Source / Reference:** Current Edition of 40 CFR 81 or the Federal Register or the Federal Register Citation to EPA's "final rule" approving the area's "maintenance plan" and "redesignation" of the area to "attainment status"

**Amplification:** IVT EQUIVALENCY: Counties designated as non-attainment areas by the EPA are being shown in the Installation Visualization Tool (IVT). If possible, consider the EPA non-attainment areas being shown by counties nationwide when responding.

Single Answer Question (Yes/No); has a data type of Yes/No.

#### **DOD #221: 2.1.1.1 SIP Emissions Budget (Final #591)**

JCSG: Environment Sub Group: Environmental

**Question:** (a) For non-attainment and maintenance criteria pollutants, identify the amount of the SIP emissions budget, if any, allocated to the installation in the following table. (b) For non-attainment and maintenance criteria pollutants, indicate whether the SIP emissions budget contains a line item growth allowance (tons/year) approved by the local air regulator and/or granted final approval by EPA. Identify the amount for the applicable pollutant allocated to the installation.

**Source / Reference:** State Implementation Plan

Amplification: None.

Example of how your grid will look

Criteria	(a) Installation SIP Emission Budget	(b) Installation SIP Growth Allowance
Pollutant	(Tons/Year)	(Tons/Year)
VOC		
Nox		
NO2		
CO		
SO2		
PM10		
PM2.5(if		
available)		
Pb		

DOD #222: 2.1.1.m Stationary Source Emission Reduction Credits for Criteria

**Pollutants (Final #531)** 

JCSG: Environment Sub Group: Environmental

**Question:** (a) Indicate whether your air quality area has a stationary source Emission Reduction Credit (ERC) banking and trading program for each of the criteria pollutants. (b) List any ERCs that the military installation owns outright.

**Source / Reference:** Local Emission Reduction Credit Banking and Trading Program **Amplification:** None.

Example of how your grid will look

Criteria	(a) ERC Banking and Trading Program	(b) Amount of ERCs Owned by your
Pollutant	Available? (Yes/No)	Installation (Tons/Year)
VOC		
Nox		
NO2		
CO		
SO2		
PM10		
PM2.5(if		
applicable)		
Pb		

# DOD #223: 2.1.1.n Mobile Source Emission Reduction Credits for Criteria Pollutants (Final #592)

JCSG: Environment Sub Group: Environmental

**Question:** (a) Indicate whether your air quality area has a Mobile Source Emission Reduction Credit (MSERC) Banking and Trading program for each of the Criteria Pollutants. (b) List any MSERCs that the installation owns outright.

Source / Reference: Local Emission Reduction Credit Banking and Trading Program or Air Emission

Credit Commodity Broker **Amplification:** None.

Example of how your grid will look

Criteria	(a) MSERC Banking and Trading Program	(b) # of MSERCs Owned
Pollutant	Available? (Yes/No)	(Tons/Year)
VOC		
Nox		
NO2		
CO		
SO2		
PM10		
PM2.5(if		
applicable)		
Pb		

**DOD #224: 2.1.1.0 ERCs for Purchase (Final #532)** 

JCSG: Environment
Sub Group: Environmental

**Question:** Identify Emission Reduction Credits (ERCs) available for purchase by completing the following table.

Example of how your grid will look

Criteria Pollutant	Is ERC available for purchase in the area? (Yes/No)	Tonnage (Tons)	\$/tons (\$)
VOC			
NO x			
NO2			
CO			
SO2			
PM10			
PM2.5(if applicable)			
Pb			

### DOD #225: 2.1.1.p MSERCs for Purchase (Final #533)

JCSG: Environment
Sub Group: Environmental

**Question:** Identify Mobile Source Emission Reduction Credits (MSERCs) available for purchase by completing the following table.

Example of how your grid will look

Criteria Pollutant	Is MSERC available for purchase for the area?	Tonnage	\$/ton
	(Yes/No)	(Tons)	(\$)
VOC			
NO X			
NO2			
CO			
SO2			
PM10			
PM2.5(if			
applicable)			
Pb			

### **Index: Environment and Encroachment: Environment: Dredging:**

DOD #228: 2.1.2.a Dredging Maintenance (Final #595)

JCSG: Environment Sub Group: Environmental

**Question:** If the military installation has a dredging maintenance requirement and there is an approved spoil dumping site, complete the following table.

**Amplification:** Only report dredging activities that are a requirement of the military installation's operations.

Column Headings for this question

Commit Headings for this question	
Column names	Data
Identify Approved Dumping Site (Text)	
Remaining site capacity (CY)	
Anticipated year of Site closure (YYYY)	
10 Year Average Annual Spoils Dredged from	
activity (CY)	

#### DOD #227: 2.1.2.b Impediments to Dredging (Final #596)

JCSG: Environment
Sub Group: Environmental

**Question:** Are there known impediments to deepening existing channels (possible structural concerns, etc.)?

**Amplification:** Only report dredging activities that are a requirement of the military installation's operations.

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #226: 2.1.2.c Ordnance and Dredging (Final #597)

JCSG: Environment
Sub Group: Environmental

Question: Is dredging activity restricted because of the presence of ordnance in the water?

**Amplification:** Only report dredging activities that are a requirement of the military installation's operations.

Single Answer Question (Yes/No); has a data type of Yes/No.

# Index: Environment and Encroachment: Environment: Land Use Constraints: Archeological Resources

DOD #233: 2.1.3.1.a Archeological Resources Surveys (Final #613)

JCSG: Environment
Sub Group: Environmental

**Question:** If the military installation, range, or auxiliary airfield has been surveyed for archeological resources, what percentage of the military installation, range or auxiliary airfield has been completed as of 30 Sep 03?

Single Answer Question (%); has a data type of numeric.

#### DOD #232: 2.1.3.1.b High Potential for Archeological Sites (Final #614)

JCSG: Environment Sub Group: Environmental

**Question:** Were any sites or areas with high potential for archaeological sites identified?

Single Answer Question (Yes/No); has a data type of Yes/No.

#### **DOD #231: 2.1.3.1.c** Native People Sites (Final #615)

JCSG: Environment Sub Group: Environmental

**Question:** Are there any areas on or contiguous to the military installation, range or auxiliary airfield used or identified as sacred sites, Traditional Cultural Properties, or burial sites by Native People or others? Include all on-military installation cemeteries.

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #230: 2.1.3.1.d Archeological resources (Final #616)

JCSG: Environment Sub Group: Environmental

**Question:** List any archeological resources and/or sacred burial sites in the table.

**Amplification:** Current construction = construction projects that are started/underway. Future construction = construction projects that are funded by FY04 but not yet started.

Column Headings for this question

Commit Treatments for this question		
Column names	Data	
Identify Site or Resource (Text)		
Does Site/Resource Constrain Current		
Construction? (Yes/No)		
Does the Site/Resource Constrain Future		
Construction? (Yes/No)		
Does Any Site or Resource Restrict		
Training/Testing/Operations? (Yes/No)		
Identify restrictions. (Text)		

#### DOD #229: 2.1.3.1.e Limitations to Fee-Simple Ownership (Final #647)

JCSG: Environment Sub Group: Environmental

**Question:** Do any on-military installation cemeteries impose limitations on fee-simple ownership, e.g. access easements, outside plot ownership?

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #234: 2.1.3.1.f Federally Recognized Native American Tribes (Final #648)

JCSG: Environment
Sub Group: Environmental

**Question:** If any federally recognized Native American Tribes have asserted an interest in the military installation for the purposes of National Historic Preservation Act or other required consultation activities, complete the following table.

Column Headings for this question

Column Heddings for this question	
Column names	Data
Tribe (Text)	
Local to installation? (Yes/No)	
Subject of interest(sacred sites, burial sites,	
archaeological) (Text)	
Frequency of interaction (List) (List Values: In	
formal consultation Currently, In formal	
consultation within the last two years, In contact,	
but no formal consultation yet, rare)	

# Index: Environment and Encroachment: Environment: Land Use Constraints: Cultural Resources

DOD #235: 2.1.3.2.a National Register of Historic Places (Final #612)

JCSG: Environment
Sub Group: Environmental

**Question:** If the military installation, range or auxiliary airfield has been surveyed for non-archaeological historic resources (i.e. properties on or eligible for the National Register of Historic Places) and historic resources were identified, complete the following table.

Amplification: "Historic District" is as defined by the National Historic Preservation Act.

Example of how your grid will look

Location	Number of historic	Number of	Total Area of	Total number of contributing
	properties not in districts	districts	Districts	resources in districts (Count)
	(Count)	(Count)	(Acres)	
Military				
Installation				
Auxiliary				
Airfields				
Ranges				

DOD #236: 2.1.3.2.b Programmatic Agreements (Final #645)

JCSG: Environment Sub Group: Environmental

**Question:** Does the military installation have a programmatic agreement or other program alternative to case-by-case National Historic Preservation Act consultation in effect with the State Historic Preservation Officer? (Do not include nationwide or other multi-state agreements not established specifically for the military installation.)

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #237: 2.1.3.2.c Integrated Cultural Resource Plan (Final #646)

JCSG: Environment
Sub Group: Environmental

Question: What is the date of the military installation Integrated Cultural Resources Management Plan?

Single Answer Question (MM/DD/YYYY); has a data type of date.

# Index: Environment and Encroachment: Environment: Land Use Constraints: Electromagnetic Radiation

DOD #238: 2.1.3.3.a Electromagnetic Radiation (Final #619)

JCSG: Environment Sub Group: Environmental

**Question:** Do electromagnetic radiation and/or emissions constrain current military installation, range or auxiliary airfield operations?

Single Answer Question (Yes/No); has a data type of Yes/No.

# Index: Environment and Encroachment: Environment: Land Use Constraints: Environmental Restoration

DOD #240: 2.1.3.4.a Defense Environmental Restoration Accounts (Final #536)

JCSG: Environment Sub Group: Environmental

**Question:** If there are identified installation restoration (DERA - Defense Environmental Restoration Accounts) sites located on the military installation, range or auxiliary airfield, complete the following table.

**Amplification:** CTC = Cost to Complete

Column Headings for this question

Column names	Data	Source/Reference	Amplification
DERA money spent			
through FY03? (\$K)			
Estimated CTC (FY04		For Navy: 5 Year IR	FY 04 to completion
to completion)? (\$K)		Report	_

DOD #241: 2.1.3.4.b Off Site Hazardous/Waste Contamination Sites (Final #621)

JCSG: Environment Sub Group: Environmental

**Question:** If there are hazardous waste contaminated sites located off the military installation, range or auxiliary airfield that restrict or could restrict operations, complete the following table .

Column Headings for this question

Commit Headings for this question		
Column names	Data	
Identify the Site (Text)		
Identify Proximity to Military Installation, Range,		
Aux Airfield (Mi)		
Identify Hazard (groundwater, air, etc) (Text)		
Is this a Designated National Priorities List Site?		
(Yes/No)		
Identify amount constrained acreage with respect to		
total acres (Text)		

#### DOD #273: 2.1.3.4.c Military Munitions Response Areas (Final #650)

JCSG: Environment Sub Group: Environmental

**Question:** Are there military munitions response areas located on the military installation or auxiliary airfield?

Single Answer Question (Yes/No); has a data type of Yes/No.

# Index: Environment and Encroachment: Environment: Land Use Constraints: Explosive Safety Quantity Distance

**DOD #243: 2.1.3.5.a ESQD Arcs (Final #617)** 

JCSG: Environment
Sub Group: Environmental

Question: If the military installation, range, or auxiliary airfield has ESQD arcs, complete the following

table.

Function: (Example: munitions training area, storage)

Type: (Example: inhabited building distance)

**Amplification:** IVT EQUIVALENCY: Composite Inhabited building distance (IBD) ESQD arcs are shown in the Installation Visualization Tool (IVT) for Hazard Ratings 1.1 and 1.2, and select instances of Hazard Ratings 1.3 and 1.4 as determined by the appropriate ESQD POC at the installation. Installations should use the same source(s) to answer question DOD #243 as those used to depict ESQD arcs in IVT.

Column Headings for this question

Column names	Data
Identify Function (Text)	
Type (Text)	
Radius (Ft)	
Acres (Acres)	

#### DOD #242: 2.1.3.5.b Explosive Safety Waivers/Exemptions (Final #537)

JCSG: Environment Sub Group: Environmental

**Question:** If explosives safety waivers or exemptions are in effect at the military installation or range, complete the following table.

Criteria Violation: Include safety criteria not met and waiver/exemption number.

Column Headings for this question

Column names	Data
Criteria Violation (Text)	
Function Affected (Text)	
Off-Station Restriction (Yes/No)	

#### **DOD #244: 2.1.3.5.c** Expansion of ESQD Arcs (Final #618)

JCSG: Environment Sub Group: Environmental

**Question:** Can existing arc/arcs be expanded by 100 feet or more without encroaching on non-compatible areas without requiring a special waiver?

**Amplification:** IVT EQUIVALENCY: Inhabited Building Distance (IBD) ESQD arcs are being depicted in the Installation Visualization Tool (IVT) for Hazard Ratings 1.1 and 1.2, and select instances of Hazard Ratings 1.3 and 1.4 as determined by the appropriate ESQD POC at the installation. If possible, consider the depiction of these ESQD arcs shown in IVT when responding.

Single Answer Question (List); is a multiple choice list (List Values: All arcs, some arcs, none of the arcs).

# **Index: Environment and Encroachment: Environment: Land Use Constraints: Treaties**

DOD #245: 2.1.3.6.a International Treaties (Final #620)

JCSG: Environment Sub Group: Environmental

**Question:** If there are any facilities, operations or vessels ported at the facility that are monitored, inspected, or reported on under international treaties (i.e. the Strategic Arms Reduction Treaty (START), Biological Research & Development Defense Treaty), complete the following table.

Column Headings for this question

Column names	Data
Identify Facility, Operation or Vessel (Text)	
Identify Treaty (Text)	

# Index: Environment and Encroachment: Environment: Land Use Constraints: Underground Storage Tanks

DOD #246: 2.1.3.7.a Underground Storage Tanks (Final #622)

JCSG: Environment Sub Group: Environmental

**Question:** Are there underground storage tanks located in the military installation, range or auxiliary airfield?

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #247: 2.1.3.7.b OTIS Underground Storage Tank Violations (Final #540)

JCSG: Environment Sub Group: Environmental

**Question:** If the US EPA On-line Technical Information System (OTIS) show permit violations related to underground storage tanks during any of the past eight quarters, complete the following table.

Column Headings for this question

Column Headings for this question		
Column names	Data	
List Tanks (Text)		
Identify Number of Otis Violations (Count)		
Identify location (Military Installation, Range, Aux.		
Airfield) (Text)		

# Index: Environment and Encroachment: Environment: Natural Resources: Wetlands

DOD #257: 2.1.4.1.a Jurisdictional Wetlands (Final #542)

JCSG: Environment
Sub Group: Environmental

**Question:** If there are any jurisdictional wetlands (as defined by the U.S. Army Corps of Engineers), estuaries, or other special aquatic features such as American Heritage Rivers present on the military installation, complete the following table.

**Amplification:** Restrictions would be such things as limitations on military installation expansion, required mitigation during testing or training, modification of testing or training to avoid areas or discharges to areas.

"ops" - operations

Jurisdictional Wetlands are those that are regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act and must exhibit the three following characteristics: hydrology, hydrophytes and hydric soils as per the 1987 USACE Wetlands Delineation Manual.

Example of how your grid will look

Areas	Percent Restricted	Any jointly managed	If so	Are	Identify the
	lands to the total	programs for protection	with	operations	restrictions
	acres of the area.	of this feature? (Yes/No)	whom?	restricted?	(Text)
	(%)		(Text)	(Yes/No)	
Military					
Installation					
Range					
Auxiliary					
Airfields					

#### DOD #251: 2.1.4.1.b Jurisdictional Wetland Surveys (Final #630)

JCSG: Environment Sub Group: Environmental

**Question:** If the military installation has been surveyed for jurisdictional wetlands in accordance with established Federally approved guidelines, when was the survey completed?

**Amplification:** IVT EQUIVALENCY: Wetlands are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of these wetlands shown in IVT when responding to question DoD #251. Note IVT may show wetlands delineated with non-Federally approved guidelines in lieu of the availability of wetlands delineated using Federally-approved guidelines. Valid sources for wetlands depicted in IVT are - in order from most preferred to least preferred - installation jurisdictional wetland delineations, installation wetland studies, National Wetlands Inventory (NWI), and estimated wetlands boundaries

Single Answer Question (MM/DD/YYYY); has a data type of date.

## Index: Environment and Encroachment: Environment: Natural Resources: Marine Mammals

## DOD #249: 2.1.4.2.a Endangered Specie Act/Marine Mammal Protection Act (Final #544)

JCSG: Environment Sub Group: Environmental

**Question:** If current Endangered Species Act/Marine Mammal Protection Act restrictions affect shore or in-water operations or testing/training activities conducted at the military installation or range, complete the following table.

**Amplification:** In addition to potential Endangered Species Act section 7(a) requirements, the presence of marine mammals may require that agencies obtain letters of authorization or incidental harassment authorizations for actions that would take marine mammals.

Column Headings for this question

Commit Treatments for this question	
Column names	Data
Identify Sea Training, Testing or Operational Area	
(Text)	
Identify Species/Mammal (Text)	
What are the restrictions? (Text)	
How many SQ MI are restricted? (Compared to	
total nautical miles)	

## DOD #248: 2.1.4.2.b Marine Mammals in Sea Training, Testing, and Operational Areas (Final #546)

JCSG: Environment
Sub Group: Environmental

**Question:** If activities/operations are restricted by the presence of marine mammals in sea training/testing/operational areas that are not part of the military installation that the military installation manages and/or controls, provide the following information and list restricted area in nautical miles.

Column names	Data
Identify Training, Testing or Operational Area	
(Text)	
Identify Mammal (Text)	
What are the restrictions? (Text)	
How many SQ MI are restricted? Compared to total	
nautical miles)	

## Index: Environment and Encroachment: Environment: Natural Resources: Marine Resources

DOD #250: 2.1.4.3.a Other Marine Resources (Final #548)

JCSG: Environment Sub Group: Environmental

**Question:** If operations/testing/training activities conducted at the military installation or range have been modified or restricted because of the presence of coral reefs, Essential Fish Habitat, Marine Protected Areas or other sensitive marine zones, complete the following table.

**Amplification:** Essential fish habitat is protected under the Magnuson-Stevens Fishery Conservation Act, which requires consultation on agency actions that may affect essential fish habitat. In addition, certain executive orders require agencies to avoid harm to coral reefs and other marine protected areas.

Column names	Data
Identify Training, Testing or Operational Area	
(Text)	
Identify EFH, MPA or other sensitive Marine area	
(Text)	
What are the restrictions? (Text)	
How many SQ MI are restricted? (Compared to the	
total nautical miles)	

## Index: Environment and Encroachment: Environment: Natural Resources: Marine Sanctuaries

DOD #252: 2.1.4.4.a Marine Sanctuary Regulations (Final #631)

JCSG: Environment Sub Group: Environmental

**Question:** If any marine sanctuary regulations or supporting environmental documentation restrict operations, testing /training activities conducted on your military installation (to include adjacent waters), complete the table, listing the restricted area in square (SQ) nautical miles (MI).

**Amplification:** The National Marine Sanctuaries Act requires Federal agencies to consult with marine sanctuaries on proposed activities that are likely to have an adverse impact on marine sanctuary resources. Agencies that damage sanctuary resources can be required to replace or compensate for the value of those resources.

Column Headings for this question

Column names	Data
Identify Area (Text)	
Identify Resource (Text)	
What are the restrictions? (Text)	
How Many SQ MI are restricted? Compared to total	
usable area (NM^2)	

#### DOD #253: 2.1.4.4.b Restrictions to Operations in Marine Sanctuary (Final #632)

JCSG: Environment Sub Group: Environmental

**Question:** If any marine sanctuary regulations or supporting environmental documentation restrict operations/ testing /training activities conducted on the range in or near a sanctuary, complete the following table, listing the restricted area in square (SQ) nautical miles (MI).

Column Headings for this question

Column names	Data
Identify Sea Training, Testing or Operational Area	
(Text)	
Identify Resource (Text)	
What are the restrictions? (Text)	
How many SQ MI are restricted? Compared to total	
usable area. (NM^2)	

## Index: Environment and Encroachment: Environment: Natural Resources: Sensitive Resources Areas

DOD #256: 2.1.4.5.a Sensitive Resource Areas (Final #652)

JCSG: Environment Sub Group: Environmental

**Question:** If there are any Sensitive Resource Areas managed by a state or Federal agency, on, adjacent to, or within 10 miles of the military installation, range or auxiliary field, complete the following table.

**Amplification:** Sensitive resource areas are areas, such as Wilderness Areas, National Parks, Wildlife Refuges, Bird Sanctuaries, forests or other areas managed for the benefit of natural resources or their enjoyment by the public.

Restrictions would be changes in flight patterns or operation of other equipment due to noise restrictions, required avoidance of areas that otherwise would be accessible for military training or testing.

Column Headings for this question

Column names	Data
Identify Management Areas (Text)	
Do the areas restrict military installation operations? (Yes/No/N/A) (List Values: Yes, No, N/A)	
Do the areas restrict range operations?	
(Yes/No/N/A) (List Values: Yes, No, N/A)	
Do the areas restrict auxiliary airfield operations?	
(Yes/No/N/A) (List Values: Yes, No, N/A)	
What are the restrictions? (Text)	
% restricted lands to the total acres of military installation. (%)	

## DOD #255: 2.1.4.5.b Documented Complaints for Sensitive Resource Areas (Final #643)

JCSG: Environment Sub Group: Environmental

**Question:** If there are any documented complaints from users or managers of these sensitive resource areas, complete the following table.

**Source / Reference:** Source = user/manager

**Amplification:** Documented Complaints - official correspondence. IVT EQUIVALENCY: Wetlands are shown in the Installation Visualization Tool (IVT). Installations should use the same source(s) to answer question DOD #255 as those used to depict wetlands in IVT. Note IVT may show non-jurisdictional in additional to jurisdictional wetlands. Valid sources for wetlands depicted in IVT are - in order from most preferred to least preferred - installation jurisdictional wetland delineations, installation wetland studies, National Wetlands Inventory (NWI), and estimated wetlands boundaries.

Column Headings for this question

J	
Column names	Data
Particular Sensitive Resource Area (Text)	
Complaint Source (Text)	
How often? (List) (List Values: 0-5 per month, 6-20	
per month, Greater than 20 per month)	
Total complaints in 5 year period. (Count)	

DOD #254: 2.1.4.5.c Training/Testing/Operational Areas Restricted by Sensitive Resource Areas (Final #644)

JCSG: Environment
Sub Group: Environmental

**Question:** If training/testing/operational areas (e.g. MTRs, EW emitter sites, antenna sites) that are not part of the local operations are restricted by Sensitive Resource Areas that your military installation manages and/or controls, provide the following information and list restricted area in square (SQ) statute miles (MI) or describe in parameters (e.g. MTR from San Nicholas Island to China Lake from 0 to 18,000 MSL).

**Amplification:** IVT EQUIVALENCY: Military Training Routes (MTR) and special use airspace (SUA) are being depicted in the Installation Visualization Tool (IVT). The source for MTR and SUA depicted in IVT is the National Imagery and Mapping Agency (NIMA) Digital Aeronautical Flight Information File (DAFIF). Consider the MTR and SUA depicted in IVT when responding.

The state of the s	
Column names	Data
Identify Training, Testing, or Operational area	
(Text)	
Identify Special Land Use Designation (Text)	
Statute MI (Mi)	
What are the restrictions? (Text)	

## Index: Environment and Encroachment: Environment: Natural Resources: TES Critical Habitat

DOD #259: 2.1.4.6.a Threatened/Endangered Species (Final #624)

JCSG: Environment Sub Group: Environmental

**Question:** If Federally listed threatened or endangered species are found on your military installation, range or auxiliary field locations, identify each and indicate whether operations, testing or training are restricted by the presence of the threatened or endangered species in the table. For example, does presence of species require section 7 consultations for operations testing or training? Are incidental take statements required? Have requirements for mitigation prevented forces from training as they will fight?

**Amplification:** Section 7(a)(2) of the Endangered Species Act requires federal agencies to consult with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on proposed actions that may affect threatened or endangered species or adversely modify or destroy critical habitat.

Column Headings for this question

Column Headings for this question	T
Column names	Data
Identify Species (common and scientific name)	
(Text)	
Identify Location (Military Installation, Range or	
Aux Air Field) (List) (List Values: Military	
Installation (Main Installation), Range, Auxiliary	
Air Field)	
State the operations/testing/training restrictions	
(Text)	
State work arounds to facilitate	
operations/training/testing. (List) (List Values:	
Delayed, Diverted, Canceled, None)	
% restricted land to the total acres of the military	
installation (%)	

### **DOD #260: 2.1.4.6.b** Critical Habitats (Final #625)

JCSG: Environment Sub Group: Environmental

**Question:** If any critical habitats (as defined by the U.S. Fish and Wildlife Service) have been designated on the military installation, range or auxiliary field, complete the following table.

Amplification: "ops" - operations

Column names	Data
Identify Critical Habitat/Critical Habitat Species	
(Text)	
Does the habitat restrict military installation ops?	
(Yes/No/N/A) (List Values: Yes, No, N/A)	
Does the habitat restrict range operations?	
(Yes/No/N/A) (List Values: Yes, No, N/A)	
Does the habitat restrict auxiliary field ops?	

(Yes/No/N/A) (List Values: Yes, No, N/A)	
State the operation/testing/training restrictions	
(Text)	
State the work arounds to facilitate	
ops/training/testing. (List) (List Values: Delayed,	
Diverted, Canceled, None)	
% restricted land to the total acres of the military	
installation (%)	

#### **DOD #261: 2.1.4.6.c Biological Opinions (Final #626)**

JCSG: Environment Sub Group: Environmental

**Question:** If existing Biological Opinions restrict operations/testing/training on the military installation, range or auxiliary airfield, complete the following table.

Column Headings for this question

Column names	Data
Identify Biological Opinion (Text)	
Identify Date of Biological Opinion	
(MM/DD/YYYY)	
Identify Resource Covered (Text)	
Identify Issuing Agency (Text)	
Are restrictions imposed on military installation	
operations? (List Values: Yes, No, N/A)	
Are restrictions imposed on range operations? (List	
Values: Yes, No, N/A)	
Are restrictions imposed on auxiliary field	
operations? (List Values: Yes, No, N/A)	
List most significant restrictions. (Text)	

### DOD #262: 2.1.4.6.d Species/Habitat Development Restrictions (Final #627)

JCSG: Environment
Sub Group: Environmental

**Question:** Do current species/habitat restrictions outlined in biological opinions impede military installation development/expansion activities?

Single Answer Question (Yes/No); has a data type of Yes/No.

**DOD #263: 2.1.4.6.e Candidate Species (Final #628)** 

JCSG: Environment Sub Group: Environmental

**Question:** If species that are identified by U.S. Fish and Wildlife Service as candidate species for listing as threatened or endangered are found on the military installation, range or auxiliary airfield, complete the following table.

**Amplification:** "aux" - auxiliary; "ops" -operations

Column Headings for this question

Column names	Data
Identify Candidate Species (common and scientific	
name) (Text)	
Identify Location (List Values: military installation	
(main base), range, auxiliary air field)	
State the ops/testing/training restrictions of	
candidate species. (Text)	
% restricted land to the total acres of the military	
installation (%)	

### DOD #264: 2.1.4.6.f Proposed Habitat for Candidate Species (Final #642)

JCSG: Environment Sub Group: Environmental

**Question:** If a candidate species that has been identified by U.S. Fish and Wildlife Service has a proposed critical habitat complete the following table.

Amplification: "ops" - operations; "aux" - auxiliary

Column names	Data
Identify Proposed Critical Habitat (Text)	
Would the proposed habitat restrict military	
installation ops? (List Values: Yes, No, N/A)	
Would the proposed habitat restrict range	
operations? (List Values: Yes, No, N/A)	
Would the proposed habitat restrict aux air field	
ops? (List Values: Yes, No, N/A)	
% restricted lands to the total acres of military	
installation. (%)	
What are the potential restrictions? (Text)	

## Index: Environment and Encroachment: Environment: Waste Disposal: Hazardous Waste

DOD #265: 2.1.5.1.a Permitted Hazardous Waste TSD Facility (Final #606)

JCSG: Environment
Sub Group: Environmental

**Question:** Does the military installation have a permitted hazardous waste RCRA Treatment Storage and Disposal (TSD) facility?

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #266: 2.1.5.1.b Acceptance of Off Site Waste (Final #607)

**JCSG:** Environment

**Sub Group:** Environmental

**Question:** Does the hazardous waste storage facility permit allow acceptance of off site waste (e.g. from DoD Facilities)?

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #267: 2.1.5.1.c OTIS TSD Facility Exceedances (Final #608)

JCSG: Environment

**Sub Group:** Environmental

**Question:** If the US EPA On-line Technical Information System (OTIS) show permit limit exceedances related to operations of the TSD facility during any of the past eight quarters, identify the total number of exceedances.

Single Answer Question (Count); has a data type of numeric.

## **Index: Environment and Encroachment: Environment: Waste Disposal: Solid Waste**

DOD #272: 2.1.5.2.a Permitted Solid Waste Disposal Facility (Final #611)

JCSG: Environment Sub Group: Environmental

**Question:** If the military installation has a permitted solid waste disposal facility, what is the permitted capacity and percent filled for each facility?

Column names	Data
Permitted Capacity (CY)	
Percent Filled (%)	
Average Annual of Solid Waste Generated over past	
3 years (CY/year)	

## Index: Environment and Encroachment: Environment: Waste Disposal: RCRA Subpart X Treatment Facilities

**DOD #269: 2.1.5.3.a RCRA Subpart X Permit (Final #609)** 

JCSG: Environment
Sub Group: Environmental

**Question:** Does the military installation have a interim or final RCRA Subpart X permit for operation of an open burning/open detonation facility?

Single Answer Question (Yes/No); has a data type of Yes/No.

### DOD #270: 2.1.5.3.b Additional Capacity for RCRA Subpart X (Final #610)

JCSG: Environment Sub Group: Environmental

**Question:** Is the military installation operating at the maximum permitted capacity for its RCRA Subpart X permitted facility?

Single Answer Question (Yes/No); has a data type of Yes/No.

### DOD #268: 2.1.5.3.c Acceptance of Off-site Waste for RCRA Subpart X Treatment

Facility (Final #549)
JCSG: Environment
Sub Group: Environmental

**Question:** Does the RCRA Subpart X permit allow acceptance of off-site waste (e.g. from other DOD facilities)?

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #271: 2.1.5.3.d OTIS RCRA Subpart X Facility Exceedances (Final #550)

JCSG: Environment
Sub Group: Environmental

**Question:** If the US EPA On-line Technical Information System (OTIS) show permit limit exceedances related to operation of the RCRA Subpart X Treatment facility during any of the past eight quarters, identify the number of exceedances.

Single Answer Question (Count); has a data type of numeric.

# Index: Environment and Encroachment: Environment: Water Resources: Surface Water (National Pollution Discharge Elimination System)

DOD #280: 2.1.6.1.a OTIS Storm water Discharge Exceedances (Final #565)

JCSG: Environment Sub Group: Environmental

**Question:** If the US EPA On-line Technical Information System (OTIS) shows permit limit exceedances related to storm water point source discharges during any of the past eight quarters, identify the number of exceedances and particular constituents involved.

Single Answer Question (Text); has a data type of string.

#### DOD #281: 2.1.6.1.b Surface Water Contamination (Final #641)

JCSG: Environment

**Sub Group:** Environmental

**Question:** If contamination has been identified in the surface water resources within the boundaries of the installation or range, complete the following table.

Column Headings for this question

Column names	Data
Identify Contaminant (Text)	
Identify Source of Contamination (Text)	
Contamination found within boundaries of military installation? (Yes/No)	
Contamination found within boundaries of the range? (Yes/No)	
Contamination found within boundaries of the Auxiliary Airfield? (Yes/No)	

#### **DOD #279: 2.1.6.1.c Impaired Waterway (Final #649)**

JCSG: Environment Sub Group: Environmental

**Question:** If the military installation discharges (point or nonpoint source) to an impaired waterway, as defined in the Clean Water Act, for which the state will have to develop a total maximum daily load for one or more pollutants in the installation's discharge, complete the following table.

Commit Head 18 Jos into question	
Column names	Data
Identify Impaired Waterway (Text)	
For what pollutants is waterway impaired? (Text)	
Do discharges from installation impair waterway?	
(Y/N/Unknown) (Text)	
Is waterway a source of potable water? (Yes/No)	

## Index: Environment and Encroachment: Environment: Water Resources: Ground Water

**DOD #276: 2.1.6.2.a Recharge Zone (Final #633)** 

JCSG: Environment Sub Group: Environmental

Question: Is the military installation or range located over or in the recharge zone of a sole source aquifer?

**Amplification:** The designation of a sole source aquifer protects an area's ground water resource by requiring U.S Environmental Protection Agency (EPA) review of any proposed projects within the designated area that are receiving federal financial assistance.

The recharge zone is essentially that area in which the soil/substrate is permeable and allows the aquifer to replenish itself from rain, snow, surface water, etc.

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #275: 2.1.6.2.b Groundwater Contamination (Final #634)

JCSG: Environment Sub Group: Environmental

**Question:** If contamination has been found in ground water resources within the boundaries of the military installation or range, complete the following table.

Column Headings for this question

Commit Treatments for this question	
Column names	Data
Identify Contaminant (Text)	
Identify Source of Contamination (Text)	
Contamination found within boundaries of military	
installation? (Yes/No)	
Contamination found within boundaries of the	
range? (Yes/No)	
Contamination found in Potable Groundwater	
Source? (Yes/No)	

#### **DOD #274: 2.1.6.2.c State Regulations (Final #636)**

JCSG: Environment
Sub Group: Environmental

Question: If the state regulates withdrawals of groundwater, complete the following table.

Column names	Data
Does the state require a permit for withdrawals?	
(Yes/No)	
Does the military installation have such a permit?	
(Yes/No)	
What are the permitted withdrawal limits? (Text)	

Can withdrawals be increased under the permit?	
(Yes/No)	

### **DOD #277: 2.1.6.2.d Federal reserve Lands (Final #637)**

**JCSG:** Environment

**Sub Group:** Environmental

Question: Was the military installation created from Federal reserve lands?

Single Answer Question (Yes/No); has a data type of Yes/No.

### **DOD #278: 2.1.6.2.e McCarren Amendment (Final #638)**

JCSG: Environment

Sub Group: Environmental

Question: Is any source from which the military installation withdraws water currently the subject of an

adjudication under the McCarren Amendment?

Amplification: McCarren Amendment - 43 USC 666

Single Answer Question (Yes/No); has a data type of Yes/No.

## Index: Environment and Encroachment: Environment: Water Resources: Industrial Wastewater

DOD #282: 2.1.6.3.a Industrial Wastewater Treatment System (Final #601)

JCSG: Environment
Sub Group: Environmental

Question: If the installation has an industrial wastewater treatment system, complete the table for FY 2003:

**Amplification:** permitted capacity = NPDES or other applicable permit

Provide the peak monthly outflow/amount treated as derived in each applicable category (government owned plant/wells, privatized plant/wells, and/or publicly owned/commercial source).

For treatment/processing purchased from off-base resources or accomplished from on-base privatized resources, "Permitted Daily Treatment/System Capacity" is the maximum daily volume of industrial wastewater that can be treated/accepted without additional cost over the basic rate or without violating a permit.

For industrial wastewater treated/processed by government-owned plants, "Maximum Daily treatment/System Capacity (Design)" is the maximum sustained volume of sewage the plant can process/treat per day. DO NOT consider manpower limitations; rather consider plant/physical limitations only.

For off-base treatment facilities, "Maximum Daily Treatment/System Capacity (design)" the design capacity of the sewer at the service connection.

Column Headings for this question

Column names	Data
Name (System Identifier) (Text)	
Location (List) (List Values: On Military	
Installation Govt Owned Plant, On Military	
Installation Govt Privatized Plant, Off Military	
Installation Publicly Owned Plant, Off Military	
Installation Commercial Source)	
Peak Monthly Outflow/Treated (MGM)	
Maximum Peak Daily Outflow/Treated (MGD)	
Permitted Daily Treatment/System Capacity (MGD)	
Maximum Daily Treatment/System Capacity	
(Design) (MGD)	

## DOD #283: 2.1.6.3.b Largest Peak Monthly Outflow for Industrial Wastewater (Final #576)

JCSG: Environment Sub Group: Environmental

**Question:** For the period FY 1999-2003, provide the month, year and volume of largest peak monthly outflow of Industrial Wastewater.

**Source / Reference:** Installation DUERS Report. For Air Force installations, an additional source may be AF Form 3552

**Amplification:** GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data.

Example of how your grid will look

Peak	Date (MM/YY)	Peak (MGM)
Largest Peak Monthly Outflow		

## DOD #285: 2.1.6.3.c Treatment Controls/Restrictions for Industrial Wastewater (Final #602)

JCSG: Environment Sub Group: Environmental

**Question:** For the period FY 1999-2003, were industrial wastewater treatment controls/restrictions implemented on the installation?

**Amplification:** "Controls/restrictions" include those items requested or imposed upon your installation such as regulatory stipulations, plant treatment capability, primary outflow point valve/piping limitations, primary lift station limitations, contract limitations.

Single Answer Question (Yes/No); has a data type of Yes/No.

## DOD #284: 2.1.6.3.d Implementation of Industrial Wastewater Controls/Restrictions (Final #603)

JCSG: Environment Sub Group: Environmental

**Question:** For the period FY 1999-2003, if controls/restrictions were implemented that limited the collection or treatment of industrial wastewater on the military installation, complete the following table: Identify all controls/restrictions that apply and enter the number of days within the applicable fiscal year that the specific type of controls/restrictions were implemented.

#### **Amplification:** Notes:

- (1) "Infrastructure" includes plant treatment capability, primary outflow point valve/piping limitations, primary lift station limitations, contract limitations, etc.
- (2) "Permit" includes existence of permitted limits and any other environmental constraints.

The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Example of how your grid will look

Fiscal Year	Total number of days on	Infrastructure (# of	Permit (# of days) (2)
	which	days) (1) (Day)	(Day)
	controls/restrictions		
	implemented (Day)		
1999			
2000			
2001			
2002			
2003			

DOD #286: 2.1.6.3.e OTIS Industrial Wastewater Exceedances (Final #604)

JCSG: Environment

**Sub Group:** Environmental

**Question:** If the US EPA On-line Technical Information System (OTIS) shows permit limit exceedances related to discharges from the industrial wastewater treatment plant during any of the past eight quarters, complete the following table.

Commit Headings for this question	
Column names	Data
List Contaminant that Exceeded Limits (Text)	
Identify Number of OTIS Exceedances (Count)	

## Index: Environment and Encroachment: Environment: Water Resources: Non-Potable Water

**DOD #287: 2.1.6.4.a Non-Potable Water Use (Final #557)** 

JCSG: Environment
Sub Group: Environmental

**Question:** If the military installation has a non-potable water system, complete the following table for FY 2003 Non-Potable Water:

Non-Potable Water (includes gray water, recycled wastewater, industrial water, untreated ground/surface water, etc.). Potable water consumed for industrial sources (such as for irrigation) should be included in the potable water data.

**Source / Reference:** Installation DUERS Report. For Air Force installations, an additional source may be AF Form 3552.

#### **Amplification:** NOTES:

- (7) Provide the peak monthly consumption derived from each applicable category (government owned plant/wells, privatized plant/wells, and/or publicly owned/commercial source).
- (8) For water purchased from off-base resources or produced from on-base privatized resources, "maximum daily production" is the maximum daily volume of non-potable water, stipulated in the contract, that the supplier will provide without additional cost over the basic rate. For water received from government-owned plant/wells, "maximum daily production" is the maximum sustained volume of non-potable water the plant/well can produce per day. DO NOT consider manpower limitations; rather consider plant/physical limitations only.

Non-Potable Water (includes gray water, recycled wastewater, industrial water, untreated ground/surface water, etc.). Potable water consumed for industrial sources (such as for irrigation) should be included in the potable water data.

GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data. The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Example of how your grid will look

FY 2003	Peak monthly consumption (7) (MGM)	Maximum daily production capacity (8) (MGD)
On-Base Resources / Government		
Owned Plant		
On-Base Resources / Privatized Plant		
Off-Base Resources / Publicly Owned /		
Commercial Source		

DOD #288: 2.1.6.4.b Peak Monthly Consumption of Non-Potable Water (Final

**#558**)

JCSG: Environment Sub Group: Environmental

**Question:** For the period FY 1999-2003, provide the month, year and volume of largest peak monthly consumption of Non-Potable Water.

**Source / Reference:** Installation DUERS Report. For Air Force installations, an additional source may be AF Form 3552.

**Amplification:** Non-Potable Water (includes gray water, recycled wastewater, industrial water, untreated ground/surface water, etc.). Potable water consumed for industrial sources (such as for irrigation) should be included in the potable water data.

GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data. The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Example of how your grid will look

Peak	Date (MM/YY)	Volume (MG)
Largest Peak Monthly Consumption		

#### DOD #289: 2.1.6.4.c Non-Potable Water Restrictions Implemented (Final #559)

JCSG: Environment
Sub Group: Environmental

**Question:** For the period FY 1999-2003, were controls/restrictions implemented that limited the production or distribution of non-potable water on the military installation? "Controls/restrictions" include those requested or imposed by factors such as water rights, aquifer limits, plant production capability, primary input point valve/piping limitations, contract limitations, regulatory stipulations, etc.

**Source / Reference:** Installation DUERS Report. For Air Force installations, an additional source may be AF Form 3552

**Amplification:** Non-Potable Water (includes gray water, recycled wastewater, industrial water, untreated ground/surface water, etc.). Potable water consumed for industrial sources (such as for irrigation) should be included in the potable water data.

GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data. The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Single Answer Question (Yes/No); has a data type of Yes/No.

## DOD #290: 2.1.6.4.d Non-Potable Water Control/Restrictions Implementation (Final #560)

JCSG: Environment

**Sub Group:** Environmental

**Question:** If water controls/restrictions were implemented that limited the production or distribution of non-potable water on the installation, fill in the following table:

**Source / Reference:** Installation DUERS Report. For Air Force installation, an additional source may be AF Form 3552.

#### **Amplification:** NOTES:

"Controls/Restrictions" include those requested or imposed by factors such as water rights, aquifer limits, plant production capability, primary input point valve/piping limitations, contract limitations, regulatory stipulations, etc.

Identify all that apply, and enter the number of days within the applicable fiscal year that the specific type of controls/restrictions were implemented.

"Infrastructure" includes plant production capability, primary input point valve/piping limitations, contract limitations, etc.

"Environmental" includes existence of endangered species, regulatory limits, permit limits, etc.

Non-Potable Water (includes gray water, recycled wastewater, industrial water, untreated ground/surface water, etc.). Potable water consumed for industrial sources (such as for irrigation) should be included in the potable water data.

GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data. The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Example of how your grid will look

Example of now you	8.101 11111 10011			
Fiscal Year	Total number of	Cause of	Cause of	Cause of
	days on which	Restriction (9) /	Restriction (9) /	Restriction (9) /
	controls/restrictions	Infrastructure (10)	Environmental	Source (12) (Day)
	implemented (Day)	(Day)	(11) (Day)	
FY 1999				
FY 2000				
FY 2001				
FY 2002				
FY 2003				

<sup>&</sup>quot;Source" includes aquifer limits, drought, etc.

## Index: Environment and Encroachment: Environment: Water Resources: Potable Water

DOD #291: 2.1.6.5.a Potable Water Production (Final #562)

JCSG: Environment
Sub Group: Environmental

Question: Complete the table for FY 2003 for each potable water system / treatment facility.

**Source / Reference:** Installation DUERS Report. For Air Force Installations, an additional source may be AF Form 3552

**Amplification:** Provide the peak monthly consumption derived from each applicable category (government owned plant/wells, privatized plant/wells, and/or publicly owned/commercial source).

"Permitted daily production capacity" is the maximum daily volume of potable water, stipulated in the contract or permit, that can be provided without additional cost over the basic rate or without violating the permit or contract.

"Maximum daily production (design)" is the maximum sustained volume of water the plant/well can produce per day. DO NOT consider manpower limitations; rather consider plant/physical limitations only. For off-base sources, provide the design capacity at the service connection.

Column Headings for this question

Column Headings for this question	
Column names	Data
Name (System Identification) (Text)	
Location (List) (List Values: On Military	
Installation Govt Owned Plant, On Military	
Installation Govt Privatized Plant, Off Military	
Installation Publicly Owned, Off Military	
Installation Commercial Source)	
Peak Monthly Consumption (MG per month)	
(MGM)	
Maximum Peak Daily Consumption (if available)	
(MGD)	
Permitted Daily Production Capacity (MGD)	
Maximum Daily Production Capacity (Design)	
(MGD)	

#### DOD #292: 2.1.6.5.b Potable Water Consumption Peak Month (Final #573)

JCSG: Environment
Sub Group: Environmental

**Question:** For the period FY 1999-2003, provide the month, year and volume of largest peak monthly consumption of Potable Water.

**Source / Reference:** Installation DUERS Report. For Air Force installation, an additional source may be AF Form 3552.

**Amplification:** GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data. The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Example of how your grid will look

Peak	Date (MM/YY)	Volume (MGM)
Largest Peak Monthly		
Consumption		

#### DOD #293: 2.1.6.5.c Potable Water Controls/Restrictions (Final #639)

JCSG: Environment
Sub Group: Environmental

**Question:** If water controls/restrictions were implemented that limited the production or distribution of potable water on the installation, fill in the following table:

**Amplification:** "Controls/restrictions" include those imposed or requested by limiting factors such as water rights, aquifer limits, plant production capability, primary input point valve/piping limitations, contract limitations, endangered species. Do no include self-imposed conservation measures.

Identify all controls/restrictions that apply, and enter the number of days within the applicable fiscal year that the specific type of controls/restrictions were implemented.

Notes:

- (1) "Infrastructure" includes plant production capability, primary input point valve/piping limitations, contract limitations, etc.
- (2) "Environmental" includes existence of endangered species, maximum contaminant level (MCL) limits, etc.
- (3) "Source" includes aquifer limits, drought, etc.

Example of how your grid will look

Fiscal Year	Total number of	Infrastructure (# of	Environmental (#	Source (# of days)
	days on which	days) (1) (Day)	of days) (2) (Day)	(3) (Day)
	controls/restrictions			
	implemented (Day)			
1999				
2000				
2001				
2002				
2003				

### DOD #294: 2.1.6.5.d Exceedances of Drinking Water Standards (Final #640)

JCSG: Environment
Sub Group: Environmental

**Question:** Has the military installation reported exceedances of drinking water standards in any of the past three Consumer Confidence Reports?

Single Answer Question (Yes/No); has a data type of Yes/No.

## Index: Environment and Encroachment: Environment: Water Resources: Pretreatment Units

#### DOD #295: 2.1.6.6.a Permitted Pretreatment Units (Final #598)

JCSG: Environment Sub Group: Environmental

**Question:** Does the military installation operate permitted pretreatment units to allow discharge into a publicly owned treatment works?

Single Answer Question (Yes/No); has a data type of Yes/No.

### DOD #296: 2.1.6.6.b OTIS Pre-treatment Exceedances (Final #563)

JCSG: Environment Sub Group: Environmental

**Question:** If the U.S. Environmental Protection Agency On-line Technical Information System (OTIS) shows permit limit exceedances related to discharges from the pretreatment units during any of the past eight quarters, complete the following table.

Committee Leading Sport and American		
Column names	Data	
List Permitted Units (Text)		
List Contaminants that Exceeded Limits (Text)		
Identify number of OTIS Exceedances (Count)		

## Index: Environment and Encroachment: Environment: Water Resources: Sanitary Sewage Treatment

DOD #297: 2.1.6.7.a Sanitary Sewage Treatment System / Plant (Final #564)

JCSG: Environment Sub Group: Environmental

**Question:** Complete the following table for FY 2003 for each sanitary sewer system / treatment plant for the military installation.

**Source / Reference:** Installation DUERS Report. For Air Force installations, also use AF Form 3552. **Amplification:** Provide the peak monthly outflow/amount treated as derived in each applicable category (government owned plant/wells, privatized plant/wells, and/or publicly owned/commercial source). Peak monthly outflow/treated equals the largest monthly total for the period of FY2003.

"Permitted daily treatment/processing capacity" is the maximum daily volume of sanitary sewage, stipulated in the contract or permit, that may be treated/processed without additional cost over the basic rate and without violating the permit/contract.

"Maximum daily treatment/processing capacity" is the maximum sustained volume of sewage the plant or system can process/treat/deliver per day. DO NOT consider manpower limitations; rather consider plant/physical limitations only. If the treatment plant is located off of the military installation, use the design capacity of the sanitary sewer at the service connection.

Column Headings for this question

Column names	Data
Name (Site ID) (Text)	
Location (List) (List Values: On Military	
Installation Govt Owned Plant, On Military	
Installation Privatized Plant, Off Military	
Installation Publicly Owned Plant, Off Military	
Installation Commercial Source)	
Peak Monthly Outflow/Treated (MG per month)	
(MGM)	
Maximum Peak Daily Outflow/Treated (MGD)	
Permitted Daily Treatment/Processing Capacity	
(MGD)	
Maximum daily treatment/processing capacity	
(Design) (MGD)	

DOD #298: 2.1.6.7.b Largest Peak Flow for Sanitary Sewage (Final #574)

JCSG: Environment Sub Group: Environmental

**Question:** For the period FY 1999-2003, provide the month, year, and volume of largest peak monthly outflow of sanitary sewer wastewater.

**Source / Reference:** Installation DUERS Report. For Air Force installation, an additional source may be AF Form 3552.

**Amplification:** GENERAL NOTE: Include utilities data for the entire installation, including service to military family housing (MFH). Consult with the Maintenance Engineer and/or Utilities Engineer in the host Civil Engineer squadron for data. The term "implemented" implies any actions either voluntary or directed which the base personnel took to change their procedures.

Example of how your grid will look

Peak	Date (MM/YY)	Volume (MGM)
Largest Peak Monthly Outflow		

### DOD #299: 2.1.6.7.c Sanitary Sewage Treatment Controls/Restrictions (Final #599)

JCSG: Environment
Sub Group: Environmental

**Question:** For the period FY 1999-2003, if controls/restrictions were implemented that limited the collection or treatment of sanitary sewage on the military installation, complete the following table. Identify all controls/restrictions that apply and enter the number of days within the applicable fiscal year that the specific type of controls/restrictions were implemented.

#### **Amplification:** Notes:

- (1) "Infrastructure" includes plant treatment capability, primary outflow point valve/piping limitations, primary lift station limitations, contract limitations, etc.
- (2) "Permit" includes existence of permitted limits and any other environmental constraints.

Example of how your grid will look

Fiscal Year	Total number of days on	Infrastructure (# of	Permit (# of days) (Day)
	which	days) (Day)	
	controls/restrictions		
	implemented (Day)		
1999			
2000			
2001			
2002			
2003			

#### DOD #258: 2.1.6.7.d OTIS Sewage Treatment Exceedances (Final #600)

JCSG: Environment
Sub Group: Environmental

**Question:** If the U.S. EPA On-Line Technical Information System (OTIS) shows permit limit exceedances related to discharges from the sewage treatment plant during any of the past eight quarters, complete the following table.

Column names	Data
List Contaminants Exceeding Limits (Text)	
Identify Number of OTIS Exceedances (Count)	

#### Index: Environment and Encroachment: Encroachment: :

DOD #47: 2.2.0.a Existence of AICUZ, JLUS, or FAA Part 150 (Final #1816)

JCSG: Air Force Sub Group: ...Missing

**Question:** For USAF installations, if your installation does not have an AICUZ, JLUS, or FAA Part 150 study, is it for reasons other than the stated AFI policy (less than 10 jet or 25 propeller-driven aircraft operations on a runway on an average busy day, or the noise contours do not extend beyond base boundaries)?

**Source / Reference:** AICUZ, JLUS, or FAA Part 150 Study (Most Current)

**Amplification:** IVT EQUIVALENCY: Noise contours are being shown in the Installation Visualization Tool (IVT). If possible, review the noise contours depicted in IVT to ensure that those shown correspond accordingly to the response.

Single Answer Question (Yes/No); has a data type of Yes/No.

DOD #48: 2.2.0.b Easement Violations (Final #1818)

JCSG: Air Force Sub Group: ...Missing

**Question:** For USAF installations, for areas controlled by easements (other than aviation easements), have there been any documented violations of those easements in FY03?

**Source / Reference:** Installation Real Property Manager, Installation Community Planner **Amplification:** None.

Single Answer Question (Yes/No); has a data type of Yes/No.

## Index: Environment and Encroachment: Encroachment: Noise / Safety:

DOD #239: 2.2.1.a Off-Installation Zones with Incompatible Land Use Matrix (Installation) (Final #569)

JCSG: Environment Sub Group: Environmental

**Question:** Fill in the following table for the property outside of your main installation, auxiliary airfield, training range and/or RDT&E range using local zoning and/or community land use plans.

Note: Report EITHER Noise Zones (Army) or AICUZ 5 dB contours (AF, Navy). When totaling, do not double count overlapping incompatible acres. Also, consider all structures or activities incompatible unless

there is specific knowledge (such as visual surveys) that the structure is considered compatible.

there is specific knowledge (such as visual surveys) that the structure is considered comp

**Source / Reference:** See Amplification for Source.

**Amplification:** Source:

For Air Force Installations, consult FICUN Handbook (Federal Interagency Committee on Urban Noise (FICUN). 1980. Guidelines for Considering Noise in Land Use Planning and Control) AFH 32-7084 to determine AICUZ incompatibility.

For Army: Consult Installation Environmental Noise Management Plan (IENMP) and/or Technical Manual 5-803-7, 1 May 1997.

Provide noise data in either AICUZ or Noise Zones, whichever is available and most current.

NOTES:

- (1) If known from JLUS or AICUZ
- (2) e.g. NAVAID
- (3) e.g. Signal Clear Zone
- (4) Include all munitions storage areas and buffer zones (quantity distance limits), and hot cargo pads. IVT EQUIVALENCY: Noise zones and installation boundaries are shown in the Installation Visualization Tool (IVT). Installations should use the same source(s) to answer question DOD #239 as those used to depict noise zones and installation boundaries in IVT.

Example of how your grid will look

Surface Land	Outside	Outside of	Outside of	Outside of	Outside of	Outside of
Areas	of Range	Range / Acres	Installation	Installation /	Auxiliary	Auxiliary
	(1)/	that are	/ Total	Acres that are	Airfields /	Airfield /
	Total	Incompatible	Acres	Incompatible	Total	Acres that are
	Acres	(1) (Acres)	(Acres)	(Acres)	Acres	Incompatible
	(1)				(Acres)	(Acres)
	(Acres)					
65-69 dB						
ADNL						
70-74 dB						
ADNL						
75-80 dB						
ADNL						
80+ dB ADNL						
Noise Zone II						
Noise Zone III						
Off Base Clear						
Zone						
Off Base APZ I						
Off Base APZ						
II						

Off Base All			
explosive siting			
facilities (4)			
Off Base			
Communication			
towers (2) and			
buffer zones (3)			
Off Base Other			
(Specify)			
TOTAL Acres			
(do not double			
count areas that			
overlap			

### DOD #202: 2.2.1.b Noise Abatement Procedures (Final #578)

JCSG: Environment
Sub Group: Environmental

**Question:** Are there published noise abatement procedures for your mission operations at your main installation, auxiliary airfield, training range and/or RDT&E ranges?

**Source / Reference:** See "Amplification" for source.

**Amplification:** SOURCE: Flight Information Publication (FLIP)

GENERAL SOURCE: Use the most current Air Installation Compatible Use Zone (AICUZ) study, the Base General Plan, Joint Land Use Study (JLUS), the most recent Environmental Assessment (EA) or Environmental Impact Statement (EIS) which has a signed Finding of No Significant Impact (FONSI) or Record of Decision (RoD), and/or consult with the installation Operations Support Squadron (Airfield Management) and/or flying scheduling organization.

IVT EQUIVALENCY: Existing noise conditions are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of noise conditions shown in IVT when responding.

Answer Fields for this question

Field names	Data
Main Installation (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Auxiliary Airfield (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Training and/or RDT&E Ranges (Yes/No/N/A)	
(List Values: Yes, No, N/A)	

### DOD #203: 2.2.1.c AICUZ/Part 150 Adoption for Land Use Planning (Final #580)

JCSG: Environment Sub Group: Environmental

**Question:** Has the local community, state or county adopted AICUZ or FAA Part 150 study land use compatibility guidelines in their land use planning outside of your main installation, auxiliary airfield, training range and/or RDT&E range? A "yes" answer to this question signifies the local community, state or county has adopted the AICUZ or FAA Part 150 study in total. Partial adoption requires a "no" answer.

**Source / Reference:** See "Amplification" for source.

**Amplification:** SOURCE:

Contact community planning board, commission, or similar local planning agency. Use the most current Air Installation Compatible Use Zone (AICUZ) study, the Base General Plan, Joint Land Use Study (JLUS), the most recent Environmental Assessment (EA) or Environmental Impact Statement (EIS) which has a signed Finding of No Significant Impact (FONSI) or Record of Decision (RoD), and/or consult with the installation Operations Support Squadron (Airfield Management) and/or flying scheduling organization. For Army: Use Installation Environmental Noise Management Plan (IENMP).

IVT EQUIVALENCY: Elements of AICUZ including clear zones, APZs, and noise zones are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of these items shown in IVT when responding.

Answer Fields for this question

Field names	Data
Main Installation (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Auxiliary Airfield (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Training and/or RDT&E Ranges (Yes/No/N/A)	
(List Values: Yes, No, N/A)	

### **DOD #204: 2.2.1.d AICUZ, JLUS, or FAA Part 150 Contents (Final #584)**

JCSG: Environment Sub Group: Environmental

**Question:** Does the approved and publicly released AICUZ, JLUS, FAA Part 150, or Installation Environmental Noise Management Plan (IENMP) accurately portray the following:

**Source / Reference:** Use the most current AICUZ study, most recent Environmental Assessment or Environmental Impact Statement which has a signed Finding of No Significant Impact or Record of Decision, Base General Plan, Joint Land Use Study, and/or FAA Part 150 study.

**Amplification:** For Army: Use Installation Environmental Noise Management Plan (IENMP). IVT EQUIVALENCY: Elements of AICUZ including clear zones, APZs, and noise zones are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of these items shown in IVT when responding.

Example of how your grid will look

Study	Current Mission	Current Local Land Use	Current Noise Levels/Contours
	(Yes/No/N/A) (List	(Yes/No/N/A) (List Values:	(Yes/No/N/A) (List Values: Yes,
	Values: Yes, No, N/A)	Yes, No, N/A)	No, N/A)
AICUZ			
JLUS			
FAA			
Part			
150			
IENMP			

DOD #205: 2.2.1.e Helicopter Operations in AICUZ, JLUS, or FAA Part 150 Study (Final #585)

JCSG: Environment
Sub Group: Environmental

**Question:** If there are any helicopter operations on the installation, does your approved and publicly released AICUZ, JLUS, FAA Part 150 study, or Installation Environmental Noise Management Plan (IENMP) incorporate the helicopter noise into your AICUZ, JLUS, FAA Part 150, or IENMP study?

**Source / Reference:** Use the most current AICUZ study, most recent Environmental Assessment or Environmental Impact Statement which has a signed Finding of No Significant Impact or Record of Decision, Base General Plan, Joint Land Use Study, and/or FAA Part 150 study.

**Amplification:** For Army: Use Installation Environmental Noise Management Plan (IENMP) IVT EQUIVALENCY: Elements of AICUZ including clear zones, APZs, and noise zones for helicopter operations are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of these items shown in IVT when responding.

Single Answer Question (Yes/No); has a data type of Yes/No.

## DOD #206: 2.2.1.f Unmanned Aerial Vehicles in AICUZ, JLUS, FAA Part 150 Study, or IENMP (Final #534)

JCSG: Environment Sub Group: Environmental

**Question:** If there are Unmanned Aerial Vehicle (UAV) operations on your military installation, does your approved and publicly released AICUZ, JLUS, or FAA Part 150 study, or Installation Environmental Noise Management Plan (IENMP) incorporate the UAV noise?

Source / Reference: See Amplification for Source.

**Amplification:** SOURCE:

Use the most current AICUZ study, most recent Environmental Assessment or Environmental Impact Statement which has a signed Finding of No Significant

For Army: Use Installation Environmental Noise Management Plan (IENMP)

IVT EQUIVALENCY: Elements of AICUZ including clear zones, APZs, and noise zones for fixed wing, including UAV, operations are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of these items shown in IVT when responding.

Single Answer Question (Yes/No); has a data type of Yes/No.

#### DOD #207: 2.2.1.g Acres Owned/Controlled in Clear Zones (Final #586)

JCSG: Environment
Sub Group: Environmental

**Question:** For each runway end, complete the table below regarding how many acres of the clear zone the installation owns or controls through easements. Include data for each end of the runway:

**Source / Reference:** Installation Real Property Manager, Installation Community Planner **Amplification:** For each runway designator report the clear-zone dimensions. For example: For Runway 17/35 report 17 in one row and 35 on a separate row.

IVT EQUIVALENCY: Clear zones are shown in the Installation Visualization Tool (IVT). Installations should use the same source(s) to answer question DOD #207 as those used to depict clear zones in IVT.

Commit Headings for this question		
Column names	Data	
Runway Designator (Text)		
Clear Zone Length (Ft)		

Clear Zone Width (Ft)	
Acres owned or controlled through Easements	
(Acres)	

#### DOD #208: 2.2.1.h Incompatible Land Use Off-Installation (Final #535)

JCSG: Environment
Sub Group: Environmental

**Question:** For each runway end, provide the percent of off-installation incompatible land use in the extended Clear Zone, Accident Potential Zone (APZ) I, and APZ II. (Percentage of incompatible land use off installation = Acres of land off-installation zoned incompatibly / Total acres of land off-installation in extended clear zone, APZ I and APZ II). Include information for each end of the runways

**Source / Reference:** For Air Force installations, consult AFH 32-7084 to determine incompatibility. For Army installations: Use Installation Environmental Noise Management Plan, and consult Army Technical Manual 5-803-7, 1 May 1997.

**Amplification:** For each runway designator report the Percentage of incompatible land use off installation. For example: For Runway 17/35 report 17 in one row and 35 on a separate row.

IVT EQUIVALENCY: CZs, APZs I and II, and installation boundaries are shown in the Installation Visualization Tool (IVT). Installations should use the same source(s) to answer question DOD #208 as those used to depict CZs, APZs, and installation boundaries in IVT.

Column Headings for this question

Column names	Data
Runway Designator (Text)	
Percentage of Acres Zoned Incompatibly (%)	

#### DOD #209: 2.2.1.i Incompatible Land Use On-Installation (Final #587)

JCSG: Environment Sub Group: Environmental

**Question:** For each runway, provide the percent of on-installation incompatible land use within the Clear Zone, Accident Potential Zone (APZ) I, and APZ II.

(Percentage of incompatible land use on installation = Acres of land on installation used incompatibly / Total acres of land on installation in extended clear zone, APZ I and APZ II)

**Source / Reference:** For Air Force installations: Consult AFH 32-7084. For Army installations: Use Installation Environmental Noise Management Plan, and consult Army Technical Manual 5-803-7, 1 May 1997

**Amplification:** For each runway designator report the Percentage of incompatible land use on installation. For example: For Runway 17/35 report 17 in one row and 35 on a separate row.

IVT EQUIVALENCY: CZs, APZs I and II, and installation boundaries are shown in the Installation Visualization Tool (IVT). Installations should use the same source(s) to answer question DOD #209 as those used to depict CZs, APZs, and installation boundaries in IVT.

Column names	Data
Runway Designator (Text)	
Percentage of Acres Used Incompatibly (%)	

## **Index: Environment and Encroachment: Encroachment: Constraints:**

DOD #198: 2.2.2.a Land Owned/Controlled By Installation (Final #538)

JCSG: Environment
Sub Group: Environmental

**Question:** Complete the table for all land owned/controlled by the installation. "Controlled" includes land/property used by the service under lease, license, permit, etc. DO NOT include easements as either owned or controlled. Include the main installation, ranges, auxiliary airfields, withdrawn land and all outlying sites. Designate ranges, auxiliary airfields, and outlying sites separately by name and real property (four letter) nomenclature (as appropriate).

**Source / Reference:** Military Installation real property records, Military installation General Plan. **Amplification:** "Developed" acreage is defined as those areas that are built-up i.e., consist of facilities and pavements.

"Constrained" acreage is defined as those areas encompassing wetland, floodplains, contaminated areas (which include military munitions response areas or sites, groundwater contaminated sites, soil contaminated sites (including pesticide contamination), RCRA/CERCLA contaminated sites, etc) areas determined by U.S. Fish and Wildlife Service via Biological Opinions requiring special management areas designed by U.S. Fish and Wildlife Service as critical habitat, archeological sites determined eligible for listing or listed on the List of National Historic Places, ESQD arcs, radiation safety zones, antenna field of view (or line of sight), clear zones, and APZs.

IVT EQUIVALENCY: Installation boundary and several constraint layers identified herein, including wetlands, floodplains, ESQD arcs, clear zones, and APZs, are being depicted in the Installation Visualization Tool (IVT). Consider the depiction of installation boundary and the referenced constraint factors as shown in IVT when responding.

Column Headings for this question

Column names	Data
Name of Installation/Site (4-digit real property identifier) (Text)	
Total Acreage (Acres)	
Developed Acreage (Acres)	
Constrained Acreage (Acres)	
Total unconstrained acreage available for	
development (Acres)	

#### DOD #199: 2.2.2.b Non-DoD Laws, Regulations, or Policies (Final #581)

JCSG: Environment Sub Group: Environmental

**Question:** Do the laws, regulations, or policies enforced by, or the activities of non-DoD federal, tribal, state or local agencies (Dept of Interior, Dept of Conservation, etc.) or their land management plans constrain any of your main installation's, auxiliary airfield's, training range's and RDT&E range's mission operations?

**Source / Reference:** See "Amplification" Source

**Amplification:** SOURCE: Use the most current Air Installation Compatible Use Zone (AICUZ) study, the Base General Plan, Joint Land Use Study (JLUS), the most recent Environmental Assessment (EA) or Environmental Impact Statement (EIS) which has a signed Finding of No Significant Impact (FONSI) or

Record of Decision (ROD), and/or consult with the installation Operations Support Squadron (Airfield Management) and/or flying scheduling organization.

For Army: an additional source is Installation Environmental Noise Management Plan (IENMP).

Answer Fields for this question

Field names	Data
Main Installation (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Auxiliary Airfield (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Training and/or RDT&E Ranges (Yes/No/N/A)	
(List Values: Yes, No, N/A)	

#### DOD #200: 2.2.2.c Mission Limitations by Activities of Other Agencies (Final #579)

JCSG: Environment Sub Group: Environmental

**Question:** Has the accommodation of the military installation's missions been limited by existing or proposed activities of other military departments or other federal, tribal, state or local agencies being located on your main installation, auxiliary airfield, training range and/or RDT&E range?

**Source / Reference:** See "Amplification" for source.

**Amplification:** SOURCE:

For Air Force: Use the most current Air Installation Compatible Use Zone (AICUZ) study, the Base General Plan, Joint Land Use Study (JLUS), the most recent Environmental Assessment (EA) or Environmental Impact Statement (EIS) which has a signed Finding of No Significant Impact (FONSI) or Record of Decision (ROD), and/or consult with the installation Operations Support Squadron (Airfield Management) and/or flying scheduling organization.

For Army: Use Installation Environmental Noise Management Plan (IENMP).

ADDITIONAL SOURCE: Contact community planning board, commission or similar local community planning agency

Answer Fields for this question

Field names	Data
Main Installation (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Auxiliary Airfield (Yes/No/N/A) (List Values: Yes,	
No, N/A)	
Training and/or RDT&E Ranges (Yes/No/N/A)	
(List Values: Yes, No, N/A)	

DOD #201: 2.2.2.d Constraints on Operations (Final #567)

JCSG: Environment Sub Group: Environmental

**Question:** If there have been constraints which impacted any type of mission operations, identify the type of constraint (1-6 below), type of limitation (i-ii below), and the operational restriction as defined in (a-e below) against the possible drivers of the constraint in the following table. Only consider constraints occurring within FY03.

Type of Constraints:

1. Unable to complete training requirements at home installation and must go TDY

- 2. Enactment of limited night-time flying has caused delays in mission
- 3. High noise on-military installation has limited development potential
- 4. Limited ability to accept new or different missions due to availability of unconstrained land
- 5. Altered, modified or re-routed flight operations and/or flight patterns
- 6. Altered, modified or re-routed ground operations

Type of Limitation:

- i. Time of Year (provide in months, e.g. Mar May)
- ii. Time of Day (provide in hours, e.g. 2200 0700)

Type of Operational Restrictions:

Degradation of operations in:

- (a) Cost (Y/N),
- (b) Time (Y/N), and/or
- (c) Number of air operations (Y/N) (2)
- (d) Reduced area for airspace (in SQ MI)
- (e) Reduced area for future facilities development on the installations' property(s) (in acres)

**Source / Reference:** See "Amplification" for source.

**Amplification:** NOTES/SOURCES:

Answer "yes" to degradation of operations in any of these three categories only if you can document specific, quantifiable operational degradation in terms of cost (\$),time (in hours) and/or lost sorties caused by one of the constraining factors in FY03. You DO NOT have to enter the actual cost, time, and/or lost sorties in this table, but must have written documentation to validate your answer.

The source document may be anything from official correspondence from a local, state, regional or federal regulator to a management action in the installation Integrated Natural Resource Management Plan. Basically, it is any official correspondence which recommends or directs a change in procedures that the installation has implemented.

RCRA/CERCLA sites, UXO sites, groundwater contaminated sites, soil contaminated sites, etc. Examples of "other" constraining factors include unique local and/or tribal agreements, animals and wildlife that are not endangered but have restrictions (lambing), etc. Closely scrutinize the condition to ensure it does not fall into one of the other 23 categories.

IVT EQUIVALENCY: Installation/site/range boundaries and several constraining factors identified herein, including wetlands, floodplains, ESQD arcs, clear zones, and APZs, are being depicted in the Installation Visualization Tool (IVT). If possible, consider the depiction of these installation/site/range boundaries and constraint factors shown in IVT when responding.

Cotumn Headings for this question	T_
Column names	Data
Name of Area (Text)	
Type of Area (List) (List Values: Main Base,	
Training Range, RDT&E Range, Auxiliary Airfield)	
Constraining Factor (List) (List Values: Noise,	
Accident Potential or Clear Zone - Operational,	
Construction in Accident Potential or Clear Zone,	
ESQD Arcs, Radiation Safety Zone, Contamination	
(5), Threatened and Endangered Species/Habitat,	
Floodplain, Wetlands, Historical/Cultural Facilities	
or Areas, Archeological Resources or Areas, Other	
Encumbered Lands (BLM, ACECS, Etc.),	
Topography, Electromagnetic Emissions,	
Groundwater Recharge Zone, Weather, Marine	
Sanctuary, Air Quality, Sensitive Resource Areas,	
Native American Tribes, Land Use / Zoning /	
Commercial /Urban Restrictions, Surfacewater,	
Airspace Encroachment on Ground Operations,	
Other (6))	
Identify Source Document (3) (Text)	

Identify Type of Constraint (List) (List Values: 1, 2,	
3, 4, 5, 6)	
Identify Type of Limitation / Months (Text)	
Identify Type of Limitation / Time of Day (Text)	
Identify Operational Restriction/Operational	
Degradation/Cost (Yes/No)	
Identify Operational Restriction/Operational	
Degradation/Time (Yes/No)	
Identify Operational Restriction/Operational	
Degradation/Air Ops (Yes/No)	
Identify Operational Restriction /Air Space (SQMI)	
Identify Operational Restriction/Area (Acres)	