



**NASA Ames Research Center
Ames Environmental Procedural Requirements**

Chapter 25 - Burrowing Owl Management

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Table of Contents

25.1 [Applicability](#)

25.2 [Purpose](#)

25.3 [Policy](#)

25.4 [Authority](#)

25.5 [Responsibilities](#)

25.5.1 [Environmental Services Office, Code QE
\(Environmental Office\)](#)

25.5.2 [Line Management, Contracting Officer's Technical
Representatives \(COTRs\)](#)

25.5.3 [Plant Engineering Branch \(Code JFP\), Onizuka Air
Force Base, California Air National Guard \(CANG\), and any
other Organization that may conduct Squirrel and rodent
Control](#)

25.5.4 [Plant Engineering Branch \(Code JFP\), Onizuka Air
Force Base, California Air National Guard \(CANG\), and any
other Organization that may conduct Grounds Maintenance
Activities](#)

25.5.5 [Development and Communications Office \(Code
DX\), Airfield Management Office \(Code JO\), and any other
Organization that may conducting Special Events](#)

25.5.6 [Airfield Management Office \(Code JO\)](#)

25.6 [Project Implementation](#)

25.7 [Metrics](#)

25.8 [Sources of Additional Information or Assistance](#)

**25.9 [Appendix A: Burrowing Owl Nesting Habitat Preserves
and Existing](#)**

25.1 Applicability

This instruction is applicable to all civil servants, partners, resident agencies and contractors at Ames Research Center and Crows Landing (herein collectively referred to as Ames) who are involved in any project, program, or activity that could impact burrowing owls. This includes activities related to site remediation, general landscape maintenance, airfield activities,

construction, demolition, infrastructure maintenance or improvement, and other aspects of Center operations and maintenance. Any activities that may disturb the land surface, fill ground squirrel burrows, or otherwise have the potential to adversely impact burrowing owls at Ames is subject to the requirements of the Chapter.

Specific activities subject to these requirements include, but are not limited to:

1. Construction and demolition
2. Removing, creating, or adding to soil or rubble piles
3. Site grading
4. Drilling wells, digging trenches, ditches, etc.
5. Disking, tilling, covering or otherwise disturbing soil
6. Filling squirrel burrows or other small holes
7. Controlling squirrels
8. Applying pesticides
9. Conducting special events (e.g., airshows)
10. Feeding non-native animals

[Back to Table of Contents](#)

25.2 Purpose

This document establishes the minimum requirements for the Ames burrowing owl management program. It provides specifications for protecting burrowing owls and their habitat from the impacts of facilities construction and operations and maintenance activities at Ames. These activities include typical, routine, on-going work, as well as unusual or one-time activities.

[Back to Table of Contents](#)

25.3 Policy

It is the policy of the Ames Research Center to:

1. Comply with all applicable Federal, state, and local regulations that pertain to management of burrowing owls, a species of special concern in California;
2. Conduct its operations in such a manner that impacts to its resident burrowing owl population, which is important to the survival of burrowing owls in the San Francisco Bay Area, are minimized; and
3. Ensure the size of the owl population at Ames does not significantly decrease as a result of its activities

[Back to Table of Contents](#)

25.4 Authority

All relevant Federal, state, and local laws and regulations pertaining to the management of burrowing owls including, but not limited to:

1. Migratory Bird Treaty Act (16 U.S.C. Sec. 703-712)

2. Endangered Species Act of 1973, as amended (16 U.S.C. Sec. 1531-1544)
3. California Fish and Game Codes Sec. 3503, 3503.5, 3800
4. National Environmental Policy Act, as amended in 1970 (42 U.S.C. Sec. 4321-4347)
5. Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds

[Back to Table of Contents](#)

25.5 Responsibilities

25.5.1 The Environmental Services Office shall:

1. Maintain an accurate inventory of burrowing owls, occupied burrows, satellite burrows, and recently occupied burrows at Ames and make this information readily accessible to the Center.
2. Conduct site-specific surveys for burrowing owls and owl burrows, as needed to determine potential impacts associated with specific projects, programs, or activities.
3. Coordinate with the California Department of Fish & Game and other agencies, as needed.
4. Serve as point of contact for all regulatory agency interface and correspondence. Obtain any required permits or authorizations from these agencies.
5. When applicable, review National Environmental Policy Act (NEPA) Environmental Checklists for proposed activities to determine whether additional NEPA documentation (e.g., Environmental Impact Statement) is required. Participate in construction permit reviews and pre-project planning sessions to assess potential impacts to sensitive sites.
6. Develop adequate site-specific mitigation measures to comply with regulatory requirements.
7. Monitor activities to ensure compliance with mitigation plans.
8. Adapt burrowing owl management practices as needed by:
 - a. Monitoring owls and collecting ecological data throughout the year and in conjunction with specific projects.
 - b. Incorporating these data in project and activity planning.
 - c. Using this information to modify and improve owl mitigation and protection methods.
9. Continue implementation of the Ames Predator Management Program by:
 - Removing selected predators of endangered, threatened, and other special status species.
 - Educating personnel about the importance of not feeding wildlife.
 - Studying the effects of predators on burrowing owls.
10. In coordination with the organizations proposing squirrel control, review and ensure implementation of a detailed, site-specific owl protection plan for each large-scale squirrel control event, as described in Section
11. As needed, conduct ecological studies to inform management decisions.
12. Educate Ames personnel about burrowing owl ecology and

management initiatives.

[Back to Table of Contents](#)

25.5.2 Line management, Contracting Officer's Technical Representatives (COTRs)

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[Back to Table of Contents](#)

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[Back to Table of Contents](#)

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[Back to Table of Contents](#)

25.5.3 Plant Engineering Branch (Code JFP), Onizuka Air Force Base, California Air National Guard (CANG), and any other organization that may conduct squirrel and rodent control. Code JFP, Onizuka Air Force Base, CANG, and any other organization that may conduct squirrel and rodent control shall:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Back to Table of Contents](#)

25.5.4 Plant Engineering Branch (Code JFP), Onizuka Air Force Base, California Air National Guard (CANG), and any other organization that may conduct grounds maintenance activities. Code JFP, Onizuka Air Force Base, CANG, and any other organization that may conduct grounds maintenance activities shall:

[REDACTED]

[Back to Table of Contents](#)

25.5.5 Development and Communication Office (Code DX), Airfield Management Office (Code JO), and any other organization conducting special events. Code DX, Code JO, and any other organization conducting special events (e.g., Air Show) shall:

[REDACTED]

[Back to Table of Contents](#)

25.5.6 Airfield Management Office (Code JO)

[REDACTED]



[Back to Table of Contents](#)

25.6 Project Implementation

No project, program, or activity that may impact burrowing owls shall be implemented without prior approval by the Environmental Office, who will obtain approval from the appropriate regulatory agencies.

[Back to Table of Contents](#)

25.7 Metrics

- a. Ensure no statistically significant reduction in site-wide owl population when compared to regional trends.

Goal: 0% reduction in site-wide owl population as compared to regional trends.

- b. Ensure no "incidental take" of BUOW.

Goal: 0 incidental take.

- c. Ensure all programs & projects have been evaluated for potential impacts to BUOW.

Goal: 100% review of projects.

- d. Ensure all identified mitigation measures are implemented.

Goal: 100% implementation of mitigation measures.

- e. Ensure adequate BUOW habitat is available on Center to ensure viability of ARC subpopulation.

Goal: No loss of habitat beyond that needed to sustain ARC subpopulation (based on latest research and regulatory guidance, see HMP for guidelines).

- f. Ensure quality of owl habitat is not degraded.

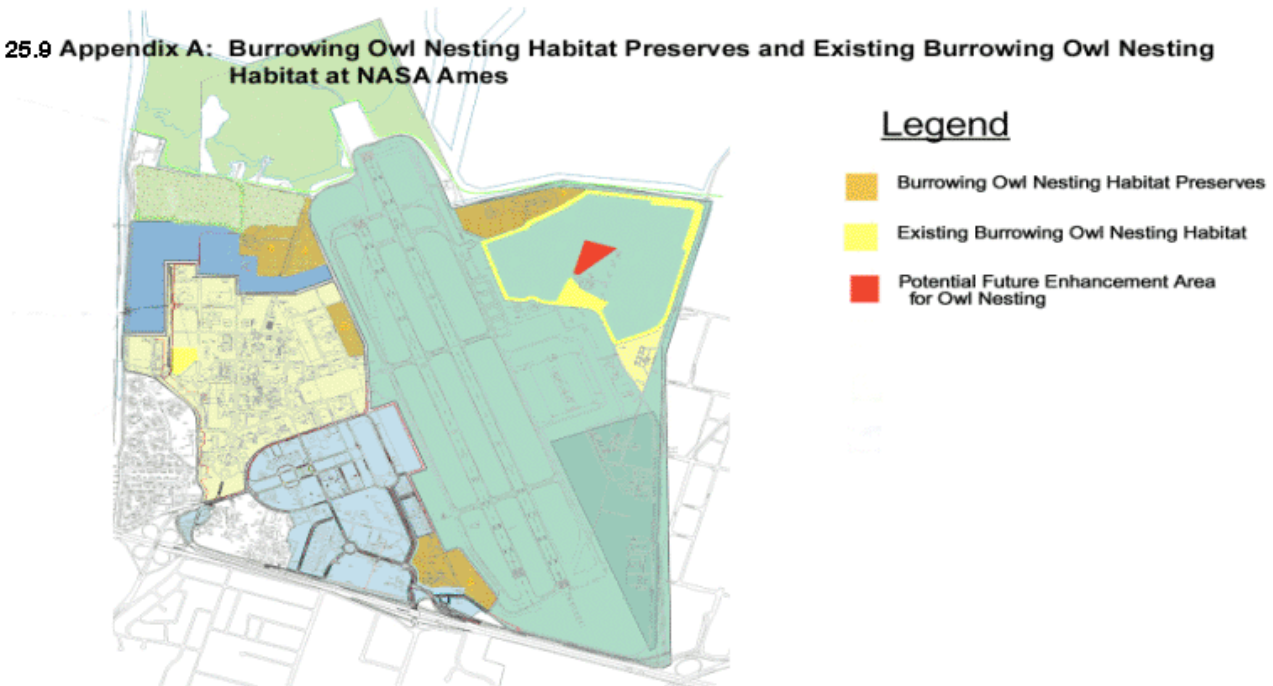
Goal: Maintain grass at a height of ~9" or less, ensure sufficient burrows are available, and limit disturbances

[Back to Table of Contents](#)

25.8 Sources of Additional Information or Assistance

- Environmental Office [REDACTED]
- Burrowing Owl Website
(<http://q.arc.nasa.gov/qe/cons/BurrowingOwl/index.php>)
- Environmental Management Handbook Chapter 22, NEPA
- Ames Research Center Burrowing Owl Habitat Management Plan
- Ames Policy Directive 8829.1: Construction Permits

25.9 Appendix A: Burrowing Owl Nesting Habitat Preserves and Existing Burrowing Owl Nesting Habitat at NASA Ames



[Back to Table of Contents](#)

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