# CONCEPTUAL MANAGEMENT PLAN

## Ellicott Slough National Wildlife Refuge
## Proposed Buena Vista Addition

**Santa Cruz County, California**

United States Department of the Interior
**U.S. Fish and Wildlife Service**

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# CONCEPTUAL MANAGEMENT PLAN

## Ellicott Slough National Wildlife Refuge
## Proposed Buena Vista Addition

**Santa Cruz County, California**

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# CONCEPTUAL MANAGEMENT PLAN

# ELLICOTT SLOUGH NATIONAL WILDLIFE REFUGE
# PROPOSED BUENA VISTA ADDITION
# Santa Cruz County, California

## INTRODUCTION

The 289-acre Buena Vista Property consists of three parcels; one consisting of approximately 187 acres, one consisting of approximately 100 acres, and another consisting of approximately 2 acres, currently owned by California Department of Fish and Game (CDFG). However, CDFG has indicated that they have limited resources to manage Buena Vista. Therefore, the U.S. Fish and Wildlife Service (Service) proposes to accept donation of the 100-acre and 2-acre parcels from CDFG in fee title and to cooperatively manage the entire 289-acre property as a unit of the Ellicott Slough National Wildlife Refuge (Refuge) and State Ecological Reserve (See Figure 1). CDFG would retain ownership of the 187-acre parcel and would enter into a Memorandum of Understanding with the Service for management of the Buena Vista property. This is similar to the current management arrangement at the Refuge where the Service manages the entire area, including a 30-acre parcel owned by CDFG.

This Conceptual Management Plan (CMP) is for the Service's proposed acquisition and management of the Buena Vista Unit of the Refuge and presents a general outline on how Buena Vista would be managed. As a conceptual plan, this CMP does not provide extensive detail or pinpoint exactly where long-term habitat improvements could be made or exactly where public use facilities would be ultimately constructed. Those details would be included in the Refuge's Comprehensive Conservation Plan (CCP), a long-term formal planning effort scheduled to begin in 2005 for the Refuge. During the CCP planning effort, goals, objectives, and strategies for public use as well as resource management will be developed, with input from the public and in accordance with the National Environmental Policy Act. This CMP, however, presents a broad overview of the Service's proposed management approaches to wildlife, habitats, public uses, wildlife-dependent recreational activities, wildfire suppression, rights-of-way, easements, law enforcement, and facilities. More specific information is included for activities proposed during the interim period, prior to implementation of an approved CCP.

As part of the acquisition process, an Environmental Assessment, Land Protection Plan, compatibility determinations, and a Section 7 endangered species consultation, have been prepared by the Service to analyze the environmental effects of establishing and managing the proposed Buena Vista Addition as part of the Refuge.

The purpose of the proposed Buena Vista addition is to enhance survival prospects of endangered species in the area. This expansion is being proposed primarily to protect the endangered Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*).

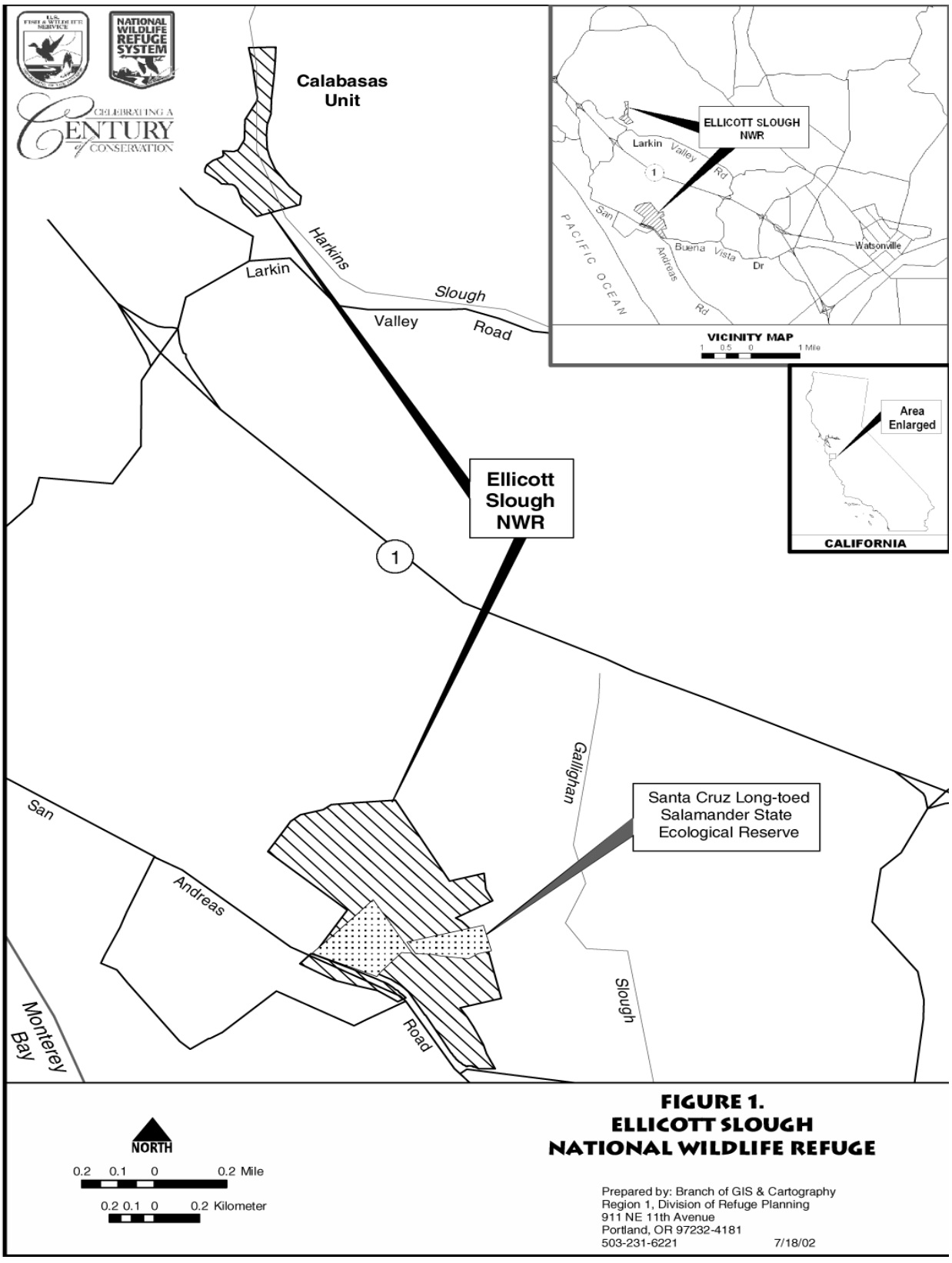
The Buena Vista property is extremely important to the survival of the Santa Cruz long-toed salamander (SCLTS) because of the small number of active breeding populations (11 known), and the limited amount of suitable habitat. In addition, acquisition and management of this site would benefit other rare species including the endangered robust spineflower (*Chorizanthe robusta var. robusta*) and the threatened California tiger salamander (*Ambystoma californiense*). Buena Vista supports one of only six known populations of the robust spineflower, and 135 acres of the property are included in the designated critical habitat (50 CFR 17 36822-36845). Other rare plants on the site include Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*) (CNPS 1B), Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*) (CNPS 1B), and California bottlebrush grass (*Elymus californicus*) (CNPS 4).

## NATIONAL WILDLIFE REFUGE SYSTEM

The proposed Buena Vista addition would become part of the National Wildlife Refuge System (Refuge System) and would be managed to fulfill the Refuge System's mission and the specific purpose for which the Refuge was established. "The mission of the Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Improvement Act of 1997). The Refuge System is a network of protected lands and waters dedicated to fish and wildlife. Since the Refuge System's inception in 1903, with the establishment of the Pelican Island National Wildlife Refuge in Florida, the System has grown to 545 refuges, with at least one refuge in every state. California has 34 national wildlife refuges and 4 wildlife management areas covering more than 450,000 acres.

### Goals of the National Wildlife Refuge System

- ❑ To fulfill our statutory duty to achieve refuge purpose(s) and further the System mission.
- ❑ Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.
- ❑ Perpetuate migratory bird, interjusisdictional fish, and marine mammal populations.
- ❑ Conserve a diversity of fish, wildlife, and plants.
- ❑ Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems.


Calabasas Unit
Harkins Slough
Larkin Valley Road
Ellicott Slough NWR
Santa Cruz Long-toed Salamander State Ecological Reserve
Gallighan Slough
San Andreas Road
Monterey Bay
ELLICOTT SLOUGH NWR
Larkin Valley Rd
San Andreas Rd
Buena Vista Dr
Watsonville
PACIFIC OCEAN
VICINITY MAP
1 0.5 0 1 Mile
Area Enlarged
CALIFORNIA
NORTH
0.2 0.1 0 0.2 Mile
0.2 0.1 0 0.2 Kilometer
FIGURE 1.
ELLICOTT SLOUGH
NATIONAL WILDLIFE REFUGE
Prepared by: Branch of GIS & Cartography
Region 1, Division of Refuge Planning
911 NE 11th Avenue
Portland, OR 97232-4181
503-231-6221 7/18/02

- ❑ To foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high-quality, and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

## Purpose of the Ellicott Slough National Wildlife Refuge

The purpose of the Refuge is to protect, manage, and restore wildlife habitats for Federally listed endangered and threatened species. A refuge's purpose serves as a vision or mission statement for refuge managers and the public. It provides a broad, long-term statement of management direction and priorities.

## Goals of the Ellicott Slough National Wildlife Refuge

The interim goals of the Refuge reflect the core mission of the U.S. Fish and Wildlife Service to protect wildlife resources of national importance. The interim goals of the Refuge are:

- ❑ Endangered Species/Essential Habitats: To protect and enhance populations of the Santa Cruz long-toed salamander and other endangered, threatened, and rare species, and to promote their recovery by restoring and enhancing their habitats.

- ❑ Biodiversity: To protect, restore, and enhance upland and wetland habitats to promote a natural diversity of native species.

Goals of the Refuge will be reviewed during the Comprehensive Conservation Plan process scheduled to begin in 2005.

# REFUGE ADMINISTRATION

The Refuge would continue to be administered and supervised by the San Francisco Bay National Wildlife Refuge Complex in Fremont, California. However, acquisition of the Buena Vista Unit would allow for the establishment of a satellite office on-site using an existing building on the property. Initially, only the Refuge Manager and Refuge Biologist would work from this office. These two staff positions would also be responsible for the Salinas River National Wildlife Refuge, 15 miles south of Buena Vista. The satellite office would increase the efficiency of staff time by eliminating the long commute from Fremont headquarters to both of these Refuges, a three to four-hour round trip. Additional funding would be necessary to operate and maintain the office and storage facilities. It is estimated that initial expenditures would be needed as follows: $50,000 to purchase two vehicles; $40,000 for office and computer equipment; $15,000 for building repairs; and $23,000 for tools and maintenance supplies; for a total of $128,000. Eventually, approximately $100,000 would be needed to acquire and furnish a modular home or trailer for intern housing. In the interim, given Buena Vista's proximity to two

universities, it may be possible to recruit local interns who do not require housing. Aside from staff costs, an interim annual operating budget of approximately $28,000 would be needed for operations and supplies, $9,000 for an intern, and $15,000 for contracting maintenance work, for a total of $52,000. In the long term, the Refuge would acquire heavy equipment and other maintenance supplies, but, during interim management, maintenance work would be contracted out or conducted by Refuge Complex staff stationed in Fremont.

## KEY AREAS OF MANAGEMENT FOCUS

The key areas of initial focus for the Buena Vista Unit would be habitat and wildlife management, research, and wildlife-dependent recreational activities. The proposed new unit would operate under interim management until a formal habitat management plan or Comprehensive Conservation Plan is in place. Interim management would include non-native vegetation control using chemical and mechanical means, habitat restoration with native plant species, endangered species surveys, law enforcement patrols, and limited environmental education and interpretation. Buena Vista is relatively pristine, with few invasive non-native species. Much of Buena Vista has been left undisturbed and would not need active management.

### Habitat and Wildlife Management

Native habitats and plant communities would generally be managed for the recovery of endangered, threatened, and rare species. Active modification and manipulation of intact native plant communities would be avoided as appropriate. In disturbed areas, such as along the road, around the building and trailer, and around the breeding pond, there are some non-native plant infestations including *Acacia* sp., *Eucalyptus* sp., and pampas grass (*Cortaderia selloana* and *C. jubata*). Non-natives would be controlled with Roundup™ (glyphosate), Rodeo™, or Garlon4™ (triclopyr). Mechanical means would also be used to remove pampas grass by the root systems and to remove non-native trees using chain saws. Areas that have undergone vegetation control would be revegetated with native species. Seeds from native plants would be collected on-site and grown in a greenhouse at the San Francisco Bay National Wildlife Refuge Complex Headquarters in Fremont for later outplanting.

Research that may benefit the Refuge's endangered and threatened species or other natural resources, may be permitted (see Compatibility Determination for Research, Appendix A). The Service may allow limited access for scientific research and for study groups on a case-by-case basis through a special-use permit process. Research that is nondisruptive to wildlife or archaeological resources and compatible with refuge purposes and goals are types that may be allowed.

## Population Monitoring

Endangered species surveys of SCLTS and robust spineflower would occur annually. During the winter breeding season for the SCLTS, several night-time surveys would be conducted to document breeding migrations. Using headlamps, Refuge staff would walk around the breeding pond looking for adults. Adults found would be measured, checked for sex, and immediately released. In addition, in the late spring, ponds would be sampled for larval salamanders to document breeding success. Individual larvae would be measured, checked for overall condition and presence of deformities, and released back into the pond. Robust spineflower surveys would be conducted during the spring bloom period by walking the drainages where the species is known to occur and counting individual plants. Other wildlife surveys, such as for the California tiger salamander or rare plants, would be conducted as staff time permits.

## Public Use and Wildlife-Dependent Recreational Activities

### Refuges as Primary Use Areas

National wildlife refuges are managed first and foremost for the benefit of fish, wildlife, plants, and their habitats. In addition, refuges are closed to public uses unless specifically and formally opened. Other Federal land management systems are managed under a multiple-use mandate (e.g., national forests administered by the U.S. Forest Service and public lands administered by the U.S. Bureau of Land Management). Hunting, fishing, wildlife observation and photography, and environmental education and interpretation are priority public uses of the Refuge System. These uses must receive enhanced consideration over other general public uses in refuge planning and management.

As part of the National Wildlife Refuge System, the proposed Buena Vista Unit of Ellicott Slough National Wildlife Refuge would provide opportunities for wildlife-dependent recreational uses that are compatible with the Refuge purpose. Ellicott Slough National Wildlife Refuge can provide the people of the Monterey Bay area and the nation with opportunities to gain better appreciation and understanding of the region's unique wildlife heritage.

### The Compatibility Standard

Before any uses are allowed on a national wildlife refuge, Federal law requires a written compatibility determination be completed which states that the use is compatible. A compatible use is defined as a proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the national wildlife refuge. Sound professional judgement is defined as a decision that is consistent with the principles of fish and wildlife management and administration, available science and resources (funding, personnel, facilities, and other infrastructure), and

adherence to the requirements of the National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee), and other applicable laws. If resources are not available to design, operate, and maintain priority public uses that are otherwise compatible, the refuge manager will take reasonable steps to obtain outside assistance from the state and other conservation interests. If adequate funding or staffing assistance cannot be identified, then the use is not compatible and cannot be allowed. High quality wildlife-dependent recreational opportunities are predicated on healthy habitats and healthy populations of endangered species, migratory birds, and other native species. Therefore, some constraints on public use and recreation are necessary. Unlimited public access and use of refuge lands could easily degrade the resources that make a visit to a national wildlife refuge so special.

**Refuge Purpose(s)**

The purpose(s) for which a refuge is established has special significance relating to compatible public uses. A refuge purpose may be specified in or derived from a Federal law or proclamation, an executive order, an agreement, a public land order, a donation document, or an administrative memorandum (Fish and Wildlife Service Manual, 602 FW 1.4M.). In addition to providing a basis for making compatibility determinations, a refuge's purpose also serves as a vision or mission statement for refuge managers and the public. It provides a broad, long-term statement of management direction and priorities.

**Pre-acquisition Compatibility Determinations**

The Service is required to identify, prior to acquisition of new refuges or refuge additions, existing owner-authorized, wildlife-dependent public uses that would be allowed to continue on an interim basis during the time period following Service acquisition to the completion of a Comprehensive Conservation Plan (CCP). This is required by the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee). The referenced wildlife-dependent public uses are hunting, fishing, wildlife observation and photography, and environmental education and interpretation. These are the priority public uses of the National Wildlife Refuge System.

The Service is not required to complete pre-acquisition compatibility determinations for uses that did not previously exist and were not owner-authorized. Determination of what qualifies as an existing priority public use is a judgement call by the refuge manager. In general, occasional, personal use of property, such as allowing family or friends to hunt or photograph wildlife, would not be considered an existing public use. In contrast, properties that are generally open, such as a private hunt club or a military reservation that allows fishing by military personnel and their families, would be considered to have an existing public use. The Buena Vista property is currently owned by CDFG and no public use opportunities are available. The previous private owners (pre-TPL) also did not allow public use. Based on the pre-acquisition compatibility

determinations (Appendix A), however, some compatible public use opportunities would be available within the capabilities of allocated staff and budget.

Wildlife-dependent public uses that could be allowed on an interim basis within the proposed Buena Vista Unit of Ellicott Slough National Wildlife Refuge, are identified in Table 1. The pre-acquisition compatibility determinations are found in Appendix A.

**Table 1. Pre-acquisition Compatibility Determination Matrix**

| Pre-acquisition Compatibility Determination Matrix for Priority Public Uses | | | | |
|---|---|---|---|---|
| **Public Use** | **Existing Activity?** | **Compatible for Interim Period?** | **FWS Funds and Staff Available to Manage?** | **Interim Use Allowed?** |
| Hunting | NO | N/A | N/A | NO |
| Fishing | NO | N/A | N/A | NO |
| Wildlife Observation | NO | YES | YES | YES |
| Photography | NO | YES | YES | YES |
| Environmental Education | NO | YES | YES | YES |
| Interpretation | NO | YES | YES | YES |
| Pre-acquisition Compatibility Determination Matrix for Other Public Uses | | | | |
| **Public Use** | **Existing Activity?** | **Compatible for Interim Period?** | **FWS Funds and Staff Available to Manage?** | **Interim Use Allowed?** |
| Research | NO | YES | YES | YES |

N/A=not applicable

Hunting and fishing do not currently occur on the Buena Vista property. There is no fishing opportunity because there are no permanent water bodies. The site does not provide good hunting opportunities due to the dense vegetation and severe terrain. There is no known demand for hunting on this site.

Buena Vista would initially be open to limited staff-led public use, providing interpretative and educational opportunities. There would also be the opportunity for the public to enjoy wildlife observation and photography during these on-site visits. In order to protect endangered species and sensitive resources, the area would initially be open to the public only through Refuge staff-led tours and volunteer programs. Group size would be limited to 20 people and groups would be supervised by Refuge staff to ensure that resources are protected.

The Service may also allow limited access for scientific research and for study groups on a case-by-case basis through a special-use permit process. Research that is nondisruptive to wildlife or archaeological resources and compatible with refuge purposes and goals may be allowed.

In 2005 the Service is scheduled to begin a long-term planning effort for Ellicott Slough National Wildlife Refuge. The CCP will develop goals, objectives, and strategies for public use as well as resource management and will involve public input. At that time, the Service will examine the potential for other compatible wildlife-oriented public uses of the Refuge. Of any site at Ellicott Slough National Wildlife Refuge, Buena Vista provides the greatest opportunity for environmental interpretation and education activities. Any public use allowed would be in strict conformance with applicable Federal and State statutes.

## RIGHTS-OF-WAY AND EASEMENTS

Lands for the Refuge would be acquired subject to existing rights-of-way and easements. The Service has an application process for granting new rights-of-way and easements across refuge lands. This process would also be used if holders of existing rights-of-way and easements on refuge lands want to expand or modify the terms and conditions of their rights. New rights-of-way and easements or modifications to existing rights-of-way and easements must be compatible with the purpose for which the Refuge was established.

## LAW ENFORCEMENT

Enforcement of Federal, State, and County laws on the Refuge would be important to safeguard visitors, protect public and private property, and to conserve natural resources. The Refuge Complex staff includes law enforcement personnel. Refuge officers would work with the County Sheriff and California Department of Fish and Game to control trespass, violation of wildlife laws, and other violations.

## FACILITIES DEVELOPMENT AND MANAGEMENT

Facilities for a satellite office and storage would be needed for the expanded Ellicott Slough National Wildlife Refuge. The existing house and shed on the property would be utilized for an office and storage facility, although modifications and repairs may be needed. It is estimated that initial expenditures would be: $50,000 to purchase two vehicles; $40,000 for office and computer equipment; $15,000 for building repairs; and $23,000 for tools and maintenance supplies; for a total of $128,000. Eventually, approximately $100,000 would be needed to acquire and furnish a modular home or trailer for intern housing. In the interim, given Buena Vista's proximity to two universities, it may be possible to recruit local interns who do not require housing. In the long-term, heavy equipment and a new shop and storage facility would be needed for maintenance. However, during interim management, maintenance work would be

contracted out or provided by the Refuge Complex staff stationed in Fremont. Long-term needs will be analyzed during the CCP planning process scheduled to begin in 2005.

A refuge entrance sign would be needed at the entrance gate. In addition, boundaries of any lands acquired by the Service may be posted with refuge signs at regular intervals. Fencing or other types of barriers are often constructed to control trespassing that could damage habitat or endangered species.

## FIRE MANAGEMENT

Wildfires are a concern in Santa Cruz County and within the proposed Buena Vista Unit. Chaparral, oak woodland, and pine forest habitats are subject to periodic natural and man-induced wildfires.

If and when Buena Vista is acquired, the Service would update the Ellicott Slough National Wildlife Refuge Wildland Fire Management Plan (FMP) (USFWS 2002) to include the new unit. The FMP addresses initial response, fire crew dispatch, wildfire suppression, cooperative agreements for firefighting support, and prescribed burning. Fire management planning would also include agreements with the California Department of Forestry, and local fire departments and districts for fire suppression support. The Refuge would maintain certain existing roads and trails as fire breaks and fire roads, and would evaluate needs for additional fire management facilities.

## INTERAGENCY AND PUBLIC COORDINATION

The Service acknowledges the strong support of the California Department of Fish and Game and Santa Cruz County. The Service will continue to work with these agencies to maximize resource protection, enhancement, and public education for the expanded Ellicott Slough National Wildlife Refuge.

CDFG currently owns 30 acres within the approved boundary of the existing Refuge. These lands are managed cooperatively by the Service and CDFG as the Ellicott Slough National Wildlife Refuge and State Ecological Reserve. The Service and CDFG often work cooperatively on land protection and management issues in Santa Cruz County; both agencies, for example, recognized the need for protection of the Buena Vista property and have been actively involved in the acquisition process. CDFG will retain a portion of the Buena Vista property which would be managed by the Service. In addition, the County of Santa Cruz included the Buena Vista property in its Watsonville Sloughs Watershed Resource Conservation and Enhancement Plan (County of Santa Cruz, 2001). Located within the Gallighan Slough watershed, Buena Vista is part of the larger Watsonville Slough Watershed. Within the planning area boundaries, the County recognizes the need for non-native vegetation control, native plant restoration, and protection of wildlife corridors through fee title or easement acquisition. The Buena Vista

property itself lies adjacent to several privately owned residential parcels and agricultural areas. Therefore, the opportunity for a continued coordinated approach to resource management exists. The Service would seek partnerships with other agencies and neighboring landowners to meet mutual goals and objectives whenever possible. The Service would also pursue other partnerships to benefit resource management and public use, including interpretation and environmental education.

## REFERENCES CITED


County of Santa Cruz Planning Department, October 2001. Watsonville Sloughs Watershed Resource Conservation and Enhancement Plan. Unpublished Report. Santa Cruz, CA.

U. S. Fish and Wildlife Service. 2002. Ellicott Slough National Wildlife Refuge Wildland Fire Management Plan. U. S. Fish and Wildlife Service, Fremont, CA.

# APPENDIX A
# PRE-ACQUISITION COMPATIBILITY DETERMINATIONS

## Pre-acquisition Compatibility Determination

**Use:** Environmental Education and Interpretation, Wildlife Observation and Photography

**Refuge Name:** Proposed Buena Vista Unit of Ellicott Slough National Wildlife Refuge, Santa Cruz County, California
San Francisco Bay National Wildlife Refuge Complex

**Establishing and Acquisition Authority:**
Endangered Species Act of 1973 (16 U.S.C. 1531-1543)

**Refuge Purpose(s):** "... to conserve (A) fish or wildlife which are listed as endangered species or threatened species... or (B) plants..." (16 U.S.C. 1534)

**National Wildlife Refuge System Mission:** The mission of the National Wildlife Refuge System is "to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (16 U.S.C. 668dd-668ee).

**Description of Use(s):** During the interim period between acquisition of Buena Vista and development and finalization of a Comprehensive Conservation Plan (CCP), limited compatible public use programs could be implemented. The proposed Buena Vista Unit of Ellicott Slough National Wildlife Refuge would provide an opportunity to interpret coastal resources and increase public awareness of the importance of protecting wildlife habitat and endangered species. Buena Vista supports regionally important populations of special-status species, including the Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*) and the robust spineflower (*Chorizanthe robusta* var. *robusta*), both federally listed as endangered. Buena Vista supports one of only six known populations of the robust spineflower, and 135 acres of the 289-acre property are included in the designated critical habitat (50 CFR 17 36822-36845). The site also supports the threatened California tiger salamander (*Ambystoma californiense*), as well as several rare plants including Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*) (CNPS 1B), Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*) (CNPS 1B), and California bottlebrush grass (*Elymus californicus*) (CNPS 4).

The Refuge would provide access to the proposed Buena Vista Unit through guided tours led by Refuge staff. Environmental education and interpretation at Buena Vista would focus on

endangered species and habitat management. In addition, Refuge staff would educate the public about the National Wildlife Refuge System and the Service mission. There would be a concurrent opportunity for wildlife observation and photography during any led tours. Tours would be on foot on existing roads and trails. The number of tours offered each year would be based on Refuge staff availability. Environmental education, interpretation, wildlife observation and photography are priority wildlife-dependent public uses of the National Wildlife Refuge System. For additional information about these proposed uses, please see the Environmental Assessment for the Proposed Addition to Ellicott Slough National Wildlife Refuge (USFWS 2004).

**Availability of Resources:** In the interim period before development and finalization of a Comprehensive Conservation Plan (CCP), Refuge resources would be limited to leading approximately 2 to 4 on-site group events per year. It is anticipated that funding would be available to maintain existing roads and trails on the property. If funding was not available to maintain roads and trails to ensure public safety, tours would not be offered. Refuge staff would, however, actively seek funding to provide for this limited public use.

**Anticipated Impacts of the Use(s):** Public access through staff-led tours at appropriate times, as determined by the Refuge Manager, would have minimal impacts on Refuge resources. The Service's effort to protect sensitive habitats and endangered species could be aided by increased public awareness. However, human activity can adversely impact the two endangered species on Buena Vista, the Santa Cruz long-toed salamander and robust spineflower, as well as other sensitive wildlife. Unsupervised public access, or failure of visitors to remain in designated areas, could result in disturbance to or trampling of sensitive wildlife.

**Public Review and Comment:** Public review and comment will be conducted concurrent with the public review and comment period for the Environmental Assessment. Comments and Service responses will be summarized here.

**Determination (check one below):**

_____ Use is Not Compatible

__X__ Use is Compatible With Following Stipulations

**Stipulations Necessary to Ensure Compatibility:** In order to allow use of the Refuge, the following measures would be taken to ensure that environmental education and interpretation, and wildlife observation and photography are compatible uses.

The proposed Buena Vista Unit would remain closed to public use, other than guided tours led by Refuge staff, until those uses can be analyzed and planned for during the Ellicott Slough NWR CCP process, scheduled to begin in 2005. In the interim, tours and interpretive events on

Buena Vista would be led by Refuge staff trained in identification, ecology, and precautions necessary for activities in the vicinity of endangered species. Protection of native plants and animals would be incorporated into guided tours of Buena Vista. Groups would be instructed to remain on existing roads and trails, which would be maintained. Group size would be limited to 20 persons or fewer. The Refuge Manager would determine the appropriate location and time for the tours based on the current environmental conditions, in order to minimize impacts to plants and wildlife. Tours would be led at the approval of the Refuge Manager on a case-by-case basis. The number of tours offered each year and the maximum size of groups may be modified by the Refuge Manager in the future, especially if impacts to wildlife and habitat are noted.

**Justification:** The goals of the National Wildlife Refuge System include providing an understanding and appreciation of fish and wildlife ecology and the human role in the environment, and providing refuge visitors with high-quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife, to the extent these activities are compatible with the purposes for which a refuge was established. In addition, the National Wildlife Refuge System Improvement Act of 1997 identifies environmental education and interpretation, wildlife observation, and photography, as priority public uses for national wildlife refuges. As priority uses of the Refuge System, these uses take precedence over other potential public uses in refuge planning and management. The Service strives to provide priority public uses when compatible with the purpose of the Refuge and the mission of the System. The uses proposed for Buena Vista would clearly assist the Service in meeting the purpose of the Refuge and the mission of the System.

Environmental education and interpretive programs provide opportunities for the visiting public to learn about and experience native plants, fish, and wildlife in their natural habitat. The Refuge can also educate the public about its role within the agency and the National Wildlife Refuge System, developing better community awareness, volunteer involvement, and advocacy. The Refuge also has the opportunity to provide meaningful educational information on habitat restoration and on endangered species and their management. Wildlife observation and photography during tours would allow the visiting public to enjoy, experience, and learn about native wildlife and plants in their natural habitats. Concerns about protecting endangered species require that public use opportunities be limited to staff-led events during the interim phase.

**Mandatory Reevaluation Date (provide month and year):**

January 2020 Mandatory 15-Year Reevaluation Date (for priority public uses)
_____ Mandatory 10-Year Reevaluation Date (for all uses other than priority public uses)

**NEPA Compliance for Refuge Use Decision (check one below):**

_____Categorical Exclusion without Environmental Action Statement

_____Categorical Exclusion and Environmental Action Statement

__X___Environmental Assessment

_____Environmental Impact Statement and Record of Decision

**References Cited:**

U.S. Fish and Wildlife Service. 2004 Environmental Assessment for Proposed Addition to Ellicott Slough National Wildlife Refuge. U. S. Fish and Wildlife Service, Portland, Oregon.

**Refuge Determination**

Prepared by: _____ _____
(Signature) (Date)

Refuge Manager/
Project Leader
Approval: _____ _____
(Signature) (Date)

**Concurrence**

Refuge Supervisor: _____ _____
(Signature) (Date)

California/Nevada
Operations Manager: _____ _____
(Signature) (Date)

## Pre-acquisition Compatibility Determination

**Use:** Research

**Refuge Name:** Proposed Buena Vista Unit of Ellicott Slough National Wildlife Refuge, Santa Cruz County, California
San Francisco Bay National Wildlife Refuge Complex

**Establishing and Acquisition Authority:**
Endangered Species Act of 1973 (16 U.S.C .1531-1543)

**Refuge Purpose(s):** "... to conserve (A) fish or wildlife which are listed as endangered species or threatened species... or (B) plants..." (16 U.S.C. 1534)

**National Wildlife Refuge System Mission:** The mission of the National Wildlife Refuge System is "to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (16 U.S.C. 668dd-668ee).

**Description of Use(s):** During the interim period between acquisition of Buena Vista and development and finalization of a Comprehensive Conservation Plan (CCP), Refuge staff would consider allowing scientific research on Buena Vista. The Refuge receives periodic requests to conduct scientific research. The Refuge proposes to give priority to studies that contribute to the enhancement, protection, use, preservation, and management of native Refuge wildlife populations and their habitats. Research applicants would be required to submit a proposal summarizing:

(1) objectives of the study;

(2) justification for the study;

(3) detailed study methodology and schedule;

(4) potential impacts on Refuge wildlife and/or habitats, including short- and long-term disturbance, injury, and mortality;

(5) research personnel required and their qualifications and experience;

(6) status of necessary permits (i.e., scientific collecting permits, endangered species permit);

(7) costs to Refuge and Refuge staff time requested, if any; and

(8) end products (i.e., reports, publications).

Research proposals would be reviewed by Refuge staff or others, as appropriate. The following criteria, and others as necessary, would be used to assess research proposals:

(1) Research that would contribute to Refuge management would have higher priority than other requests.

(2) Research that would conflict with other ongoing research, monitoring, or management programs would not be approved.

(3) Research projects that can be carried out elsewhere (off-Refuge) would less likely be approved.

(4) Research that causes undue disturbance or is intrusive would likely not be approved. The degree and type of disturbance would be carefully weighed when evaluating a research request.

(5) The qualifications and experience of research participants would be evaluated and taken into consideration.

(6) Evaluation of research requests would determine whether any effort has been made to minimize disturbance through study design (for example, by considering adjustments in the location, timing, or scope of the study, the number of participants, study methods, the number of study sites, etc.).

(7) If it would be impossible for the Refuge to monitor research activities because of staffing or logistical constraints, requests for research may be denied, depending on the circumstances.

(8) The duration of the project would be considered and agreed upon before approval. Open-ended projects would not be approved. All projects would be reviewed annually.

If approved, research would be conducted under a Special Use Permit (SUP) issued by the Refuge Manager. Conditions would be included in each SUP to ensure that impacts are minimized, as defined by the Refuge Manager. For additional information about this proposed use, please see the Environmental Assessment for the Proposed Addition to Ellicott Slough National Wildlife Refuge (USFWS 2004).

**Availability of Resources:** Based on the number of research proposals received for the entire San Francisco Bay National Wildlife Refuge Complex in the past, adequate funding and staff exist to manage for research at the proposed Buena Vista Unit of the Ellicott Slough National Wildlife Refuge. However, depending on the potential for impacts to wildlife and the availability of Refuge staff, the Refuge may request funds from the researcher to pay for Refuge staff to monitor the project.

**Anticipated Impacts of the Use(s):** Human activity can have adverse impacts on rare species and other wildlife, especially during breeding activities. Researchers accessing the area in motor vehicles would have the potential to run over migrating amphibians, especially on rainy winter nights. Researchers walking through Buena Vista also have the potential to trample and/or damage endangered and rare plants, amphibians, or other wildlife.

Minimal impact on Refuge wildlife and habitats is expected with research studies. Some level of disturbance is expected with all research activities, because researchers may enter areas that are closed to the public, collect samples, and/or handle plants or wildlife. Special Use Permits would contain conditions to ensure that impact on wildlife and habitats is reduced as much as possible.

**Public Review and Comment:** Public review and comment will be conducted concurrent with the public review and comment period for the EA. Comments on research and Service responses will be summarized here.

**Determination (check one below):**

_____ Use is Not Compatible

__X__ Use is Compatible With Following Stipulations

**Stipulations Necessary to Ensure Compatibility:** Concerns about protecting rare native plants and animals and the biological integrity, diversity, and environmental health of the property require that Refuge staff closely review proposed research projects and monitor research activities. In order to allow research on the Refuge, the following measures would be taken to ensure compatibility.

If proposed research methods would adversely affect, or would have the potential to adversely affect, Refuge resources (habitat or wildlife), the researcher would be required to demonstrate the need for the research and to identify potential impacts in advance of their occurrence. The researcher would also be required to develop mitigation measures to minimize potential impacts; mitigation measures would be listed as conditions on the Special Use Permit (SUP). No motor vehicle access would be permitted during the salamander breeding season on rainy/wet nights. Additional motor vehicle restrictions may be stipulated on the SUP. All projects would be reviewed annually. Refuge staff may accompany researchers at any time to assess potential impacts, and may determine that previously approved research and SUPs should be terminated. Refuge rules and regulations must be followed unless otherwise excepted by Refuge management in writing. Additional terms and conditions, tailored for specific research projects, would be listed on the SUP.

**Justification:** Research projects would contribute to the enhancement, protection, use, preservation, and management of native Refuge wildlife populations and their habitats, thereby supporting the purpose of the Refuge and the mission of the National Wildlife Refuge System. In view of the impacts research activities may have on the Service's ability to achieve Refuge purposes, sufficient restrictions would be placed on the researcher to ensure that disturbance is kept to a minimum.

**Mandatory Reevaluation Date (provide month and year):**

_____ Mandatory 15-Year Reevaluation Date (for priority public uses)

January 2015 Mandatory 10-Year Reevaluation Date (for all uses other than priority public uses)

**NEPA Compliance for Refuge Use Decision (check one below):**

_____Categorical Exclusion without Environmental Action Statement

_____Categorical Exclusion and Environmental Action Statement

__X__Environmental Assessment

_____Environmental Impact Statement and Record of Decision

**References Cited:**

U.S. Fish and Wildlife Service. 2004. Environmental Assessment for Proposed Addition to Ellicott Slough National Wildlife Refuge. U. S. Fish and Wildlife Service, Portland, Oregon.

**Refuge Determination**

Prepared by: _____ _____
(Signature) (Date)

Refuge Manager/
Project Leader
Approval: _____ _____
(Signature) (Date)

**Concurrence**

Refuge Supervisor _____ _____
(Signature) (Date)

California/Nevada
Operations Manager _____ _____
(Signature) (Date)