

***Stamm 41 Fire***  
Burned Area  
Emergency Stabilization & Rehabilitation Plan

September 23, 2002

U.S. Fish and Wildlife Service  
San Francisco Bay National Wildlife Refuge Complex

Prepared by:  
Burned Area Emergency Response Team



**Stamm 41Fire  
BURNED AREA  
EMERGENCY STABILIZATION & REHABILITATION (ESR) PLAN**

**AGENCY/UNIT:** U.S. Fish and Wildlife Service  
San Francisco Bay National Wildlife Refuge Complex  
Antioch Dunes National Wildlife Refuge

**LOCATION:** Contra Costa County, California

**DATE:** September 16, 2002

**PREPARED BY:** United States Department of the Interior  
U.S. Fish and Wildlife Service  
San Francisco Bay National Wildlife Refuge Complex

**Submitted By:** \_\_\_\_\_

Margaret Kolar, Project Leader  
San Francisco Bay National Wildlife Refuge Complex

**Date:** \_\_\_\_\_

**DEPARTMENT OF THE INTERIOR  
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN  
ACCOMPLISHMENT REPORT**

**EXECUTIVE SUMMARY**

**Introduction**

This plan has been prepared in accordance with the U.S. Department of the Interior, *Burned Area Emergency Stabilization General Policy and Procedures (620 DM 3)* January, 2001 and U.S. Fish and Wildlife Service Burned Area, Interim Burned Area Emergency Stabilization and Rehabilitation Guidelines (2002). This plan provides for Emergency Stabilization and Rehabilitation (ESR) for all Federal lands burned within a fire that occurred within the San Francisco Bay National Wildlife Refuge (NWR) Complex on July 24, 2002. The fire was the 24-acre Stamm 41 Fire at Antioch Dunes NWR. The primary objectives of this Burned Area Emergency Stabilization and Rehabilitation (ESR) Plan are:

- \* □ To prescribe post-fire mitigation measures necessary to protect human life, property, and critical cultural and natural resources
  
- \* □ To promptly mitigate unacceptable effects of fire and its suppression on lands within the burned area in accordance with management policies, and all relevant federal, state, and local laws and regulations

This plan addresses rehabilitation of fire suppression impacts and emergency stabilization and rehabilitation of fire effects (while fire suppression impacts documented in this plan will be rehabilitated under the fire suppression account). A Burned Area Emergency Response (BAER) Team was established by the San Francisco Bay NWR Complex comprised of staff at Salinas River and Antioch Dunes National Wildlife Refuges. The BAER Team conducted an analysis of fire effects throughout the burned area. The Antioch Dunes NWR Biologist conducted an assessment of effects of the fire on federal listed threatened and endangered species and the fire effects on the refuge management program for these species. The Salinas River NWR Refuge Manager served as the vegetation specialist in evaluating the effects of the fire on existing noxious weeds within the burned area and the post-fire effect on refuge's existing noxious weed management program. Of primary concern were the fire effects on the endangered Lange's metalmark butterfly species and its host plant and two endangered plant species which the Antioch Dunes NWR was established for. There are no known cultural resource sites within the burned area. Fire suppression impacts were noted and rehabilitation treatments were developed.

**Management Requirements**

Antioch Dunes National Wildlife Refuge was established under authority of the Federal Endangered Species Act of 1973 which provides for the protection of endangered and threatened species of fish, wildlife, and plants. Lands within the refuge were purchased with Land and Water Conservation Fund money. The Refuge was established in 1980 to protect a unique riverine dune ecosystem, including designated critical habitat for three endangered species, Antioch Dunes Evening Primrose, Contra Costa Wallflower and Lange's Metalmark Butterfly. The Congressionally established purpose for the Antioch Dunes NWR is:

...to conserve (A) fish or wildlife which are listed as as endangered species or threatened species...or (B) plants... (16 U.S.C. 1534 - Endangered Species Act of 1973)

Refuge management is further directed by the National Wildlife Refuge System Administration Act as Amended by the National Wildlife Refuge Improvement Act of 1997 and specific approved land management plans including:

Antioch Dunes Comprehensive Conservation Plan (August 2002)  
Antioch Dunes Wildland Fire Management Plan (February 2002)

### **Burned Area Emergency Response**

The Refuge Project Leader consulted with the California/Nevada Operations office regarding Burned Area Emergency Stabilization and Rehabilitation assistance, and it was determined that a BAER Team could be assembled at the refuge with available staff.

The BAER Team, tasked with evaluation of fire suppression impacts, emergency stabilization and rehabilitation needs, developed this plan to address the following issues:

- \*  Rehabilitation requirements established by Federal law, policies, and relevant approved resource management plans.
- \*  Implementation of treatments in a timely manner to prevent irreversible natural resource damage from spread of noxious weeds.
- \*  Monitor the restoration and recovery of burned endangered species habitat.

### **Resource Damages and Threats to Resources and Human Safety**

The BAER Team conducted field surveys after the fire to identify impacts and compiled the following recommendations for rehabilitation of affected lands:

#### **Fire Suppression Rehabilitation:**

- \*  Water sprayed from light engines was used to suppress the fire. **No fire suppression rehabilitation is necessary.**

#### **Emergency Stabilization and Rehabilitation**

- \*  Chemically Treat up to 21 acres of burned management units to prevent expansion of pre-fire seed sources of noxious weeds, including star thistle, vetch, and Russian thistle.
- \*  Monitor recovery of naked-stem buckwheat, host plant of endangered butterfly.
- \*  Grow and Replant naked-stem buckwheat.
- \*  Extend current Term Biologist for implementation, monitoring, and reporting.

**DEPARTMENT OF THE INTERIOR  
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN  
ACCOMPLISHMENT REPORT**

**PART A FIRE LOCATION AND BACKGROUND INFORMATION**

<b>Fire Names</b>	Stamm 41 Fire	<b>Dates Contained</b>	July 24, 2002
<b>Fire Number</b>	11646-9261-1577	<b>Dates Controlled</b>	<b>July 24, 2002</b>
<b>Agency Unit</b>	San Francisco Bay National Wildlife Refuge Complex Antioch Dunes NWR		
<b>Region</b>	R1, California/Nevada Operations	<b>Total Acres Burned</b>	24 acres
<b>State(s)</b>	California		
<b>County(s)</b>	Contra Costa	<b>Acres / Jurisdiction</b>	
<b>Ignition Date/Manner</b>	July 24, 2002 Trespass - Unknown	<b>FWS</b>	21 acres
<b>Zone</b>	South	<b>Private</b>	3 acre

**PART B NATURE OF PLAN**

I. Type of Plan (check one box below):

<input type="checkbox"/>	<b>Suppression Rehabilitation (complete Parts A, B, C, and H only)</b>
<input checked="" type="checkbox"/>	<b>Emergency Stabilization &amp; Rehabilitation (complete all parts)</b>
<input type="checkbox"/>	<b>Both Suppression &amp; ESR (completed all parts)</b>

II. Type of Action (check one box below):

<input checked="" type="checkbox"/>	<b>Initial submission</b>
<input type="checkbox"/>	<b>Updating or revising the initial submission</b>
<input type="checkbox"/>	<b>Supplying information for accomplishment to date on work underway</b>
<input type="checkbox"/>	<b>Final report (to comply with the closure of the EFR account)</b>

**DEPARTMENT OF THE INTERIOR  
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN  
ACCOMPLISHMENT REPORT**

**PART C REHABILITATION ASSESSMENT**

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**I. Rehabilitation Objectives:**

- \*  Recommend post-fire rehabilitation prescriptions which prevent irreversible loss of natural and cultural resources.
- \*  As practical and necessary, restore natural conditions to areas disturbed by fire suppression actions.
- \*  Conduct immediate post-burn reconnaissance for fire suppression related impacts to T&E species.
- \*  Provide long-term monitoring recommendations intended to ensure the success of rehabilitation efforts.

**II. Rehabilitation Recommendations:**

See Summary of Rehabilitation Recommendations.

**III. BAER Team Members**

SPECIALTY/PROFESSION	NAME/AGENCY	ASSESSMENT INCLUDED (Yes or No)
Team Leader Refuge Manager Antioch Dunes NWR	Chris Bandy (FWS)	no
Operations	N/A	N/A
Hydrologist	N/A	N/A
Soil Scientist	N/A	N/A
Forester	N/A	N/A
Cultural Resource/Archeologist	N/A	N/A
Vegetation Specialist	Ivette Loreda (FWS)	no
Wildlife Biologist	Rachel Hurt (FWS)	no
Environmental Protection Spec.	N/A	N/A

**IV. Resource Advisors:** (Note: Resource Advisors are individuals who assisted the BAER Team with the preparation of this plan.) See Part H of this plan for a full list of agencies and individuals who were consulted or otherwise contributed to the development of this plan.

NAME	AFFILIATION, SPECIALTY, or PROFESSION
Margaret Kolar	San Francisco Bay NWRC, Project Leader
Mike Parker	San Francisco Bay NWRC, Deputy Project Leader
Joy Albertson	San Francisco Bay NWRC, Wildlife Biologist
Peg Ainsley	Fire Management Officer (acting)
Richard Hadley	Assistant Refuge Supervisor
Joel Miller	Assistant Refuge Supervisor

**DEPARTMENT OF THE INTERIOR  
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN  
AND ACCOMPLISHMENT REPORT**

**PART D SUMMARY OF APPROVAL AUTHORITIES (By Activities/Cost)**

<b>ACTIVITIES REQUIRING PROJECT LEADER APPROVAL</b>	<b>COST</b>
Fire Suppression Damages (charged to Fire Suppression)	
N/A	
<b>SUBTOTAL</b>	

<b>ACTIVITIES REQUIRING REGIONAL OFFICE REVIEW/APPROVAL:</b>	
Long-term ESR request (charged to ESR)	
Chemically Treat Burned Management Units for Noxious Weeds	\$19,394
Monitor Noxious Weed	\$3,366
Buckwheat Restoration/Recovery	\$7,966
<b>SUBTOTAL</b>	<b>\$30,726</b>

<b>Activities Requiring Project Leader s Approval:</b>	
FWS Base Funding	
N/A	
<b>SUBTOTAL</b>	

<b>TOTAL REHABILITATION COST (short &amp; long-term)</b>	<b>\$30,726</b>
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**DEPARTMENT OF THE INTERIOR  
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN  
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**PART E            SUMMARY OF ACTIVITIES**

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The SUMMARY OF ACTIVITIES table identifies **trackable** Suppression Rehabilitation costs charged to fire account, costs proposed for Emergency Stabilization and Rehabilitation (ESR) funding, agency operation funds, and other funding sources. Only trackable expenditures are displayed in the total cost column. They are coded with the appropriate cost authority. The total cost of the rehabilitation effort to date, excluding the costs absorbed by the fire (fire crew, labor and associated overhead) is displayed as either Fire Suppression Rehabilitation (**F**), Emergency Stabilization & Rehabilitation (**ESR**), Agency Operations (**OP**) or Other (**O**).

**PART E - SUMMARY OF ACTIVITIES - San Francisco Bay NWR Complex**

TREATMENT SPECIFICATION	UNIT	UNIT COST	# OF UNITS	COST BY FUND SOURCE			IMPLEMENTATION METHOD	SPECIFIC ACTION TOTAL
				FIRE	ES	R		
N-1 Chemically Treat Noxious Weeds	Acres	\$ 924	21	\$ 0	\$ 19,394		P	19,394
N-2 Monitor Noxious Weeds	Acres	\$ 160	21	\$ 0	\$ 3,366		P	\$,366
N-3 Buckwheat Restoration/ Recovery (Lange s host plant)	Plant	\$ 4	2,000	\$ 0	\$ 7,966		P, C	\$,966
<b>TOTAL</b>					\$ 30,726			\$ 30,726
<b>COST:</b> F=Suppression; ES= Emergency Stabilization.; R = Long-term Rehabilitation <b>METHOD:</b> FC=Crews Assigned to Fire; C=Contract; EFC=Emergency Fire Contract; P=Agency Personnel								

**DEPARTMENT OF THE INTERIOR  
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**PART F - SPECIFICATIONS**

<b>SPECIFICATION TITLE:</b>	<b>Chemically Treat Noxious Weed Management Units</b>	<b>AGENCY:</b>	FWS
<b>PART E LINE ITEM:</b>	N-1 Noxious Weeds	<b>FISCAL YEAR(S) (list each year):</b>	2003, 2004

**I. WORK TO BE DONE** (describe or attach exact specifications of work to be done):

<p><b>Number and Describe Each Task:</b></p> <p><b>A. General Description:</b> Chemically treat up to 21 acres of burned habitat prone to advanced spread of yellow star thistle, Russian thistle, rip-gut brome, and other noxious weeds as the result of loss of native vegetative cover and nutrient release via fire ash. Previous noxious weed treatments at the Refuge have shown two years are necessary for success with possible spot treatments the third year.</p> <p><b>B. Location/(Suitable) Sites:</b></p> <p><b>C. Design/Construction Specifications:</b></p> <ol style="list-style-type: none"> <li>1. Use certified pesticide applicator.</li> <li>2. Treat areas using chemical treatments approved in the refuge s annual Integrated Pest Management Program.</li> </ol> <p><b>D. Purpose of Treatment Specification:</b> Prevent re-infestation of yellow star thistle, Russian thistle, vetch , and other noxious weeds into areas under active noxious weed management by the refuge under their approved IPM program.</p>
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**II. LABOR, MATERIALS AND OTHER COST:**

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</b>	<b>COST/ITEM</b>
GS-7 @ \$17.29 / hr x480hrs x 2 fiscal year	\$16,598
<b>TOTAL PERSONNEL SERVICE COST</b>	<b>\$16,598</b>
<b>EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.</b>	<b>COST/ITEM</b>
<b>TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST</b>	
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
4 gallons Transline @ \$324 / gal. (application rate of 11 oz. / ac.) x1 fiscal year	\$1,296
25 gallons Kleenup Pro @ \$37.60 / gal. x 1 fiscal year	\$940
Marker dye/surfactant	\$560
<b>TOTAL MATERIALS AND SUPPLY COST</b>	<b>\$2,796</b>
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
<b>TOTAL TRAVEL COST</b>	
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
<b>TOTAL CONTRACT COST</b>	

**SPECIFICATION COST SUMMARY**

FISCAL YEAR	UNIT	UNITS COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	ACRES	\$461.76	21.0	\$9,697	EFR	P
FY 2	ACRES	\$461.76	21.0	\$9,697	EFR	P
FY 3						
<b>TOTAL</b>	<b>ACRES</b>	<b>\$923.52</b>	<b>21.0</b>	<b>\$19,394</b>	<b>EFR</b>	<b>P</b>

**FUNDING SOURCES:**

**F** = Fire Suppression Account  
**EFR** = Emergency Fire Rehabilitation  
**OP** = Agency Operating Fund  
**O** = Other

**METHODS:**

**P** = Agency Personnel Services  
**C** = Contract (long-term)  
**EFC** = Emergency Fire Contract  
**FC** = Crew Labor Assigned to Fire

**SOURCE OF COST ESTIMATE**

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	M
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

**P** = Personnel Services, **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

**III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:**

**List Relevant Documentation and Cross-Reference Location within BAER Report:**

Estimated required pesticide coverage for Telar and Transline is 50% of burned area.

**DEPARTMENT OF THE INTERIOR  
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**PART F - SPECIFICATIONS**

<b>SPECIFICATION TITLE:</b>	<b>Monitor Noxious Weed Treatments</b>	<b>AGENCY:</b>	FWS
<b>PART E LINE ITEM:</b>	N-2 Noxious Weed Monitoring	<b>FISCAL YEAR(S) (list each year):</b>	2003, 2004

**I. WORK TO BE DONE** (describe or attach exact specifications of work to be done):

<p><b>Number and Describe Each Task:</b></p> <p><b>A. General Description:</b> Monitor noxious weed infestation in the burned area throughout the two years following the fire. Different weeds sprout at different times of the year.</p> <p><b>B. Location/(Suitable) Sites:</b> Mapped burned and chemical treatment areas.</p> <p><b>C. Design/Construction Specifications:</b></p> <ol style="list-style-type: none"> <li>Assigned staff will conduct a visual inspection of burned and treated noxious weed infestation areas during weed season of 2003 and 2004.</li> <li>Areas in need of further weed treatment for yellow star thistle, Russian thistle, vetch and other noxious weeds will be mapped and entered into GIS system.</li> </ol> <p><b>D. Purpose of Treatment Specification:</b> Since target noxious weeds have differing germination and growth times monitoring throughout the two years is required to determine which noxious weed treatments of the burned area require follow-up treatment. If additional treatments are required a supplemental chemical treatment specification can be submitted for approval.</p>
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**II. LABOR, MATERIALS AND OTHER COST:**

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</b>	<b>COST/ITEM</b>
GS-7 Biological Technician @ \$17.29 / hr x 80 hrs x 2 fiscal year	\$2,766
<b>TOTAL PERSONNEL SERVICE COST</b>	<b>\$2,766</b>
<b>EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.</b>	<b>COST/ITEM</b>
<b>TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST</b>	
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
Plot markers @ \$20 / ea. x 10 x 1 fiscal year	\$200
Maps/mapping supplies x 2 fiscal years	\$400
<b>TOTAL MATERIALS AND SUPPLY COST</b>	<b>\$600</b>
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
<b>TOTAL TRAVEL COST</b>	
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
<b>TOTAL CONTRACT COST</b>	

**SPECIFICATION COST SUMMARY**

FISCAL YEAR	UNIT	UNITS COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	ACRES	\$84.90	21.0	\$1,783	EFR	P
FY 2	ACRES	\$75.38	21.0	\$1,583	EFR	P
FY 3						
<b>TOTAL</b>	<b>ACRES</b>	<b>\$160.28</b>	<b>21.0</b>	<b>\$3,366</b>	<b>EFR</b>	<b>P</b>

**FUNDING SOURCES:**

**F** = Fire Suppression Account  
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**OP** = Agency Operating Fund  
**O** = Other

**METHODS:**

**P** = Agency Personnel Services  
**C** = Contract (long-term)  
**EFC** = Emergency Fire Contract  
**FC** = Crew Labor Assigned to Fire

**SOURCE OF COST ESTIMATE**

<b>1. Estimate obtained from 2-3 independent contractual sources.</b>	
<b>2. Documented cost figures from similar project work obtained from local agency sources.</b>	
<b>3. Estimate supported by cost guides from independent sources or other federal agencies</b>	
<b>4. Estimates based upon government wage rates and material cost.</b>	M/P
<b>5. No cost estimate required - cost charged to Fire Suppression Account</b>	

**P** = Personnel Services, **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

**III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:**

List Relevant Documentation and Cross-Reference Location within BAER Report:
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**DEPARTMENT OF THE INTERIOR  
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**PART F - SPECIFICATIONS**

<b>SPECIFICATION TITLE:</b>	<b>GROW, OUT-PLANT, AND MONITOR BUCKWHEAT RESTORATION/RECOVERY</b>	<b>AGENCY:</b>	FWS
<b>PART E LINE ITEM:</b>	N-3 Buckwheat Restoration/Recovery	<b>FISCAL YEAR(S) (list each year):</b>	2003

**I. WORK TO BE DONE** (describe or attach exact specifications of work to be done):

<p><b>Number and Describe Each Task:</b></p> <p><b>A. General Description:</b> This specification provides for monitoring of naked-stem buckwheat in the burned area. If recovery is not immediate, Fall of 2002, planting will be implemented. In addition, growing buckwheat in the Native Plant Nursery at SFB Complex and a contracted location will be done with available seed in Fall 2002. These plants will be planted in transition areas to facilitate the remaining Lange s population spread back to previous areas of density. Approximately one third of the Lange s population was lost to the fire.</p> <p><b>B. Location/(Suitable) Sites:</b> Stamm Unit, Antioch Dunes National Wildlife Refuge, CA</p> <p><b>C. Design/Construction Specifications:</b></p> <p>1. This specification would provide for monitoring of the burned buckwheat to determine if significant mortality has occurred and whether sufficient resprouting will occur. Surveys will occur immediately upon funding and after the first major rain event. It also allows for the propagation and restoration of buckwheat to areas which will enhance the Lange s re-use of the burned areas.</p> <p><b>D. Purpose of Treatment Specification:</b> To facilitate the optimum return of Lange s to the burned area in case another catastrophic event occurs.</p>
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**II. LABOR, MATERIALS AND OTHER COST:**

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</b>	<b>COST/ITEM</b>
GS-7 @ \$17.29 / hr x 160 hrs x 1 fiscal year	\$2,766
Native Plant Nursery @ \$1/plant x 2000 potted buckwheat plants planted at Antioch Dunes NWR	\$2,000
<b>TOTAL PERSONNEL SERVICE COST</b>	<b>\$4,766</b>
<b>EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.</b>	<b>COST/ITEM</b>
<b>TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST</b>	
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
Pots, soil, soil amendments, water for 1,000 potted plants	\$1,200
<b>TOTAL MATERIALS AND SUPPLY COST</b>	
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
<b>TOTAL TRAVEL COST</b>	
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST/ITEM</b>
1,000 plants @ \$2.00/potted plant x 1fiscal year	\$2,000
<b>TOTAL CONTRACT COST</b>	<b>\$2,000</b>

**SPECIFICATION COST SUMMARY**

FISCAL YEAR	UNIT	UNITS COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	Plant	\$3.98	2,000.0	\$7,966	EFR	P, C
FY 2						
FY 3						
<b>TOTAL</b>		<b>\$3.98</b>	<b>2,000.0</b>	<b>\$7,966</b>	<b>EFR</b>	<b>P, C</b>

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**METHODS:**

- P** = Agency Personnel Services
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- EFC** = Emergency Fire Contract
- FC** = Crew Labor Assigned to Fire

**SOURCE OF COST ESTIMATE**

<b>1. Estimate obtained from 2-3 independent contractual sources.</b>	
<b>2. Documented cost figures from similar project work obtained from local agency sources.</b>	C
<b>3. Estimate supported by cost guides from independent sources or other federal agencies</b>	M
<b>4. Estimates based upon government wage rates and material cost.</b>	P
<b>5. No cost estimate required - cost charged to Fire Suppression Account</b>	

**P** = Personnel Services, **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

**III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:**

List Relevant Documentation and Cross-Reference Location within BAER Report:
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**PART G FWS - SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE COMPLEX - REVIEW AND APPROVAL**

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**I. Suppression Related Rehabilitation Approval (check one box below):**

- \*  Approved
- \*  Approved with Revision
- \*  Disapproved

**Explanation for revision or disapproval:** N/A  
No Suppression Related Rehabilitation requested

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signed 9-18-02  
Margaret Kolar, Project Leader, San Francisco Bay NWR Complex Date

**II. Emergency Stabilization & Rehabilitation (ESR) Approval (check one box below):**

- \*  Approved
- \*  Approved with Revision
- \*  Disapproved

**Explanation for revision or non-concurrence:**

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signed 4-30-03  
Stephen Thompson, Manager, California/Nevada Operations Date

**Concurrence:**

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signed 4-22-03  
James P. Anderson Date  
Regional Fire Management Coordinator

**DEPARTMENT OF THE INTERIOR  
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**APPENDIX I: ENVIRONMENTAL DOCUMENTATION CONSULTATIONS**

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**STAMM 41 FIRE  
BURNED AREA EMERGENCY STABILIZATION AND REHABILITATION PLAN  
Environmental Compliance Considerations and Documentation**

**A. FEDERAL, STATE, AND PRIVATE LANDS ENVIRONMENTAL COMPLIANCE RESPONSIBILITIES**

All projects proposed in this Burned Area Emergency Stabilization and Rehabilitation (ESR) Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, Tribal, or private lands are subject to compliance with the *National Environmental Policy Act* (NEPA) in accordance with the guidelines provided by the *Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508)*. This Appendix documents the Interagency BAER Team considerations of NEPA compliance requirements for prescribed rehabilitation and monitoring actions described in this plan.

This plan has been developed by an interdisciplinary BAER Planning Team comprised of representatives from the: U.S. Department of the Interior (DOI) , U.S. Fish and Wildlife Service, San Francisco Bay National Wildlife Refuge Complex.

**B. RELATED PLANS AND CUMULATIVE IMPACTS ANALYSIS**

The individual actions recommended by the BAER Team in the Stamm 41 Fire Burned Area Emergency Stabilization and Rehabilitation Plan are adequately covered by the:

Intra-agency Formal Section 7 Consultation on Comprehensive Conservation Plan for Antioch Dunes NWR (August 2002); Environmental Assessment, Wildland Fire Management Plan for Antioch Dunes NWR (February 2002); or the Annual Integrated Pest Management Plan, San Francisco Bay National Wildlife Refuge Complex; or are Categorical Exclusions from further environmental analysis as provided for in the Department of the Interior, Manual Part 516, and U.S. Fish and Wildlife Service, NEPA Guidelines, Part 516 DM 6, Appendix 1 .

All applicable and relevant Department and Agency Categorical Exclusions are listed below. Department exceptions (516) DM 2.3 do not apply to any of the individual actions proposed.

**Departmental Categorical Exclusions:**

- |                           |   |
|---------------------------|---|
| 516 DM 6 App. 1.4A(3) iii | The planting of seeds or seedlings and other minor revegetation actions.  |
| 516 DM 6 App. 1.4A(5)     | Fire management activities, including prevention and restoration measures, when conducted in accordance with departmental and Service procedures. |

**U.S. Fish and Wildlife Service Categorical Exclusions:**

(1) Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources which involve negligible animal mortality or habitat destruction, no introduction of contaminants, or no introduction of organisms not indigenous to the affected ecosystem.

(3) The construction of new, or the addition of, small structures or improvements, including structures and improvements for the restoration of wetland, riparian, instream, or native habitats, which result in no or only minor changes in the use of the affected local area. The following are examples of activities that may be included.

- i. The installation of fences.
- ii. The construction of small water control structures.
- iii. The planting of seeds or seedlings and other minor revegetation actions.
- iv. The construction of small berms or dikes.
- v. The development of limited access for routine maintenance and management purposes.

(5) Fire management activities including prevention and restoration measures, when conducted in accordance with departmental and Service procedures.

**Cumulative Impact Analysis:** Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action, when added to other past, present, and reasonably foreseeable future actions, both Federal and nonfederal. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The emergency protection and rehabilitation treatments for the Stamm 41 Fire, as proposed in this ESR Plan, do not result in an intensity of impact (i.e. major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. The treatments are consistent with the above jurisdictional management plans and associated environmental compliance documents.

No direct or indirect unavoidable adverse impacts to the biological or physical environment would result from the implementation of this ESR Plan. The implementation of emergency stabilization and rehabilitation treatments proposed in the plan would not result in any adverse effect on the burned area or areas downstream. Conversely, implementation of the plan would be expected to result in a cumulatively beneficial effect by reducing the extent and intensity of the fire's effect on native wildlife and plant species.

## **C. STATEMENT OF COMPLIANCE FOR THE STAMM 41 FIRE BURNED AREA EMERGENCY REHABILITATION PLAN**

This section documents considerations given in development of this ESR Plan to the requirements of specific environmental laws. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the ESR Plan.

1. **Executive Order 11593. Protection and Enhancement of Cultural Environment and National Historic Preservation Act (NHPA).** The Regional Archaeologist was consulted for this project and determined that the minor level of ground disturbance (planting small plants) would unlikely disturb any cultural resources at the site.
1. **Executive Order 11988. Floodplain Management.** Treatments proposed within this plan do occur within the 100-year floodplain however the treatments do not constitute structures, fills, or changes in land use as defined by this order.

1. **Executive Order 11990. Protection of Wetlands.** Treatments proposed within this plan do not occur within jurisdictional wetlands.
2. **Executive Order 12372. Intergovernmental Review.** Coordination and consultation is ongoing with affected Tribes, Federal, State, and local agencies. A copy of the plan will be disseminated to all affected agencies.
3. **Executive Order 12892. Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.** All Federal actions must address and identify, as appropriate, disproportionately high and adverse human health or low-income populations, and Indian Tribes in the United States. The BAER Team Leader has determined that the actions proposed in this plan will result in no adverse human health or environmental effects for minority or low-income populations and Indian Tribes.
4. **Endangered Species Act.** The BAER Team Leded determined that the actions proposed in this plan will have no detrimental affect on federally and State listed species.
5. **Secretarial Order 3127. Contaminants and Hazardous Waste.** There are no known contaminated sites within or within 1 mile of the Stamm 41 Fire burned area.
6. **Clean Water Act.** Any alteration to streams or waters of the United States requires compliance with Section 404 of the Clean Water Act. The BAER Team Leader has determined that the action proposed in this plan would have no affect on water quality or quantity.
7. **Clean Air Act.** Federal Ambient Air Quality Primary and Secondary Standards are provided by the National Ambient Air Quality Standards (NAAQS), as established by the U.S. Environmental Protection Agency (EPA) (Clean Air Act, 42 U.S.C. 7470, et seq., as amended). The BAER Team Leader has determined that treatments prescribed in this ESR Plan will have short-term minor impacts to air quality that would not differ significantly from routine land use practices for the area. Long-term, treatments proposed in this plan would be expected to have a beneficial impact to air quality through stabilization of ash and soils within the Stamm 41 Fire burned area.

signed

Chris Bandy, BAER Team Leader

9-23-02

Date

**ENVIRONMENTAL COMPLIANCE AND CONSULTATIONS  
DOCUMENTATION AND DECISION  
Stamm 41 Fire Burned Area Emergency Stabilization and Rehabilitation Plan**

**NATIONAL ENVIRONMENTAL PROTECTION ACT**

**NEPA Compliance:** All proposed activities are covered by the Environmental Assessment(EA) and Section 7 consultation prepared for the 2002 Comprehensive Conservation Plan. In addition, if any of the following exception applies, the project cannot be Categorical Excluded and an additional EA or EA amendment is required.

**NATIONAL HISTORIC PRESERVATION ACT**

**NHPA Compliance:** All proposed activities are covered by the EA and Section 7 consultation prepared for the 2002 Comprehensive Conservation Plan. Proper consultation with the Regional Archaeologist was conducted during this process.

**OTHER REQUIREMENTS**

(Yes) (No)

Does the project have potential to affect any Native American uses? If so, consultation with affiliated tribes is needed.

Are any toxic chemicals, including pesticides or treated wood, proposed for use? If so, local agency integrated pest management specialists must be consulted.

The use of pesticides to control the spread of noxious weeds within the burned area will be conducted under an approved Integrated Pest Management Plan for the San Francisco Bay National Wildlife Refuge Complex

I have reviewed the proposals in the Stamm 41 Fire Burned Area Emergency Stabilization and Rehabilitation Plan in accordance with the criteria above and have determined that the proposed actions

would not involve any significant environmental effect and are covered by the Environmental Assessment included in the 2001 draft Comprehensive Conservation Plan. BAER Team technical specialists have completed necessary coordination and consultation to insure compliance with the National Historic Preservation Act, Endangered Species Act, Clean Water Act and other Federal, State and local environmental review requirements.

signed 9-20-02

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BAER Team Leader Date

I concur and it is my decision to approve the plan.

I do not concur because.

signed 9-20-02

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Project Leader, San Francisco Bay National Wildlife Refuge Complex Date

I concur and it is my decision to approve the plan.

I do not concur because.

signed 4-30-03

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Manager, California Nevada Operations Date