McCormack Fire
May 23, 2007
Umatilla National Wildlife Refuge

BURNED AREA EMERGENCY STABILIZATION PLAN

AGENCY/UNIT: U.S. Fish and Wildlife Service, Umatilla National Wildlife Refuge, Mid-Columbia River Refuges Complex

LOCATION: Morrow County, Oregon

DATE: June 1, 2007

PREPARED BY: Mid-Columbia NWR Complex ESR Team

Submitted By: _____ Date: _____
Gregory M. Hughes, Project Leader

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire

Umatilla National Wildlife Refuge

REVIEW AND APPROVAL -- US Fish and Wildlife Service

I. EMERGENCY STABLIZATION PLAN CONCURRANCE

Concur

Concur with Revision

Disapproved

Explanation for Revision or Disapproval:

Gregory M. Hughes, Project Leader, Mid-Columbia NWR Complex **Date**

II. Regional Fire Management Coordinator: Concurrence that this plan fits the technical definition for use of Burned Area Emergency Stabilization funding and policy guidelines.

Regional Fire Management Coordinator, Region 1, USFWS **Date**

III. EMERGENCY STABILIZATION PLAN APPROVAL

Concur

Concur with Revision

Disapproved

Explanation for Revision or Disapproval:

Regional Director, Region 1 **Date**

EXECUTIVE SUMMARY

Introduction

This plan has been prepared in accordance with provisions contained within Chapter 620 DM 3- Burned Area Emergency Stabilization and Rehabilitation, and the Mid-Columbia Refuges Complex Fire Management and Integrated Pest Management Plans. This plan provides burned area emergency stabilization (ES) recommendations for all lands burned within the McCormack Fire perimeter administered by the U.S. Fish and Wildlife Service (Service). The primary objectives of the McCormack Fire Burned Area Emergency Stabilization Plan are:

- To prescribe cost effective post-fire stabilization measures necessary to protect human life, property, and critical natural and cultural resources.
- To promptly stabilize and prevent further degradation to affected resources on lands within the fire perimeter and downstream impacted areas and mitigate damages caused by fire suppression operations in accordance with approved land management plans and policies, and all relevant federal, state, and local laws and regulations.

Emergency Stabilization

This plan addresses the emergency stabilization and fire suppression impacts/fire related damages to lands administered by the Service on the Umatilla National Wildlife Refuge (Refuge). Based upon field assessments conducted by Mid-Columbia National Wildlife Refuge Complex (Complex) staff on May 30, 2007, an analysis was conducted to include: suppression impacts, vegetation impacts, and fire effects on known threatened and endangered (T&E) species and their habitats. An archeological assessment is being coordinated with the Regional Office and no ground disturbing activities will take place until all cultural clearances are obtained. The wildlife biologist/vegetation specialist evaluated and assessed fire damages and suppression impacts to vegetative resources, including T&E species, and identified values at risk associated with vegetative losses. The wildlife biologist conducted an assessment of T&E species, and other species of management concern to the Refuge.

Individual resource Burned Area Assessment Reports produced by these specialists are in Appendix I. The individual treatment specifications, including the effectiveness monitoring identified in the assessments, can be found in Part F. A summary of the costs is in Part E. Appendix II contains the National Environmental Policy Act (NEPA) compliance documentation summary. Appendix III contains photo documentation; Appendix IV contains Supporting Documentation; and Appendix V contains the ES Plan maps respectively.

Fire Background

The McCormack Fire, Number 13510-9141-DF74, was discovered by a Fish and Wildlife Service employee at approximately 1200 hrs on May 23, 2007, on Umatilla National Wildlife Refuge. It was located on the Southwest side of McCormack Slough along a two track road that runs along the edge of the slough. The fire ended up being approximately 47 acres. There was very little threat to anything except wildlife habitat, due to a North West wind with fire behavior being a backing fire through cheat grass and a flanking fire along McCormack slough to the South East. Observed fire behavior was low to moderate with flame lengths ranging from 6 inches to 2 feet.

Local and mutual aid resources were utilized successfully to contain the fire. Resources utilized during the term of the incident included Fish and Wildlife Service, Hermiston Rural Fire Department, Umatilla

Rural Fire Department and Boardman Rural Fire Department and consisted of engines, water tenders and ATVs. Initial communications with resources was a problem and delayed firefighters in initial suppression resulting in more acres burned. The fire was contained on May 24, 2007 at approximately 1800 hrs.

The fire demonstrated moderate to high fire intensity on approximately 90% of the fire area on the Refuge. The McCormack Fire burned approximately 14 acres of cottonwood dominated riparian habitat and 14 acres of upland shrub-steppe (rabbitbrush and bitterbrush with an understory of cheatgrass and some native bunchgrass and forbs) and 19 acres of dune land. Ground disturbance, caused by engines driving the perimeter of the fire, was minimal in area but some small areas in the dunes were heavily damaged. The Complex ES Team, tasked with evaluation of short and long-term emergency stabilization needs, developed this plan to address the following issues:

- Natural and cultural resource values impacted by the fire or fire suppression actions.
- ES requirements established by Federal law, policies, and relevant Department of the Interior resource management mandates.
- Treatment requirements established by state laws, policies, and regulations.
- Implementation of treatments in a timely manner, prior to damaging winds and rains.

Fire Damages and Threats to Human Safety and Natural and Cultural Resources

The McCormack Fire burned approximately 47 acres on the Refuge. (see maps in Appendix V). Fire suppression impacts included wheel track trails at the fire perimeter and through the fire site, and the potential spread of noxious weeds, including cheatgrass, Canada thistle, rush skeletonweed, and Russian olive.

The entire fire has been mapped by the BAER Team for burn severity. Within the fire approximately 10 percent of the fire area is classified as low to moderate burn severity and 90 percent is classified as moderate to high burn severity. The loss of the vegetation cover exposed very fine sandy loam soils and dunes to wind erosion. Soils are composed of Burbank Loamy Fine Sand, Quincy Loamy Fine Sand and Dunes which are vulnerable to severe wind erosion.
The ESR Team conducted field surveys after the fire to identify impacts and compile the following recommendations for treatments of affected lands:

Emergency Stabilization Treatments:

- Conduct cultural resource damage assessment of known/documented sites
- Control unburned noxious weeds and non-native invasive plant species
- Protect ecological integrity of native shrub-steppe plant communities through native grass and shrub/tree planting
- Monitor planting effectiveness for site stabilization
- Control spread of noxious weeds and non-native invasive plant species

Specifications were developed for all actions meeting the requirements for Emergency Stabilization (ES) funding.

Other resource impacts assessed as a result of the McCormack Fire included a review of cultural sites impacted, and impacts to wildlife and vegetation resources.

An archeological inventory will be conducted on all suppression lines and known cultural sites within the fire area. Further cultural resource damage assessments may be required prior to implementation of ground disturbing stabilization actions.

Listed wildlife species existing within and/or potentially using the fire area include 1 threatened species (Bald eagle), 1 species of tribal importance (Mule deer) and 3 federal species of concern (Appendix IV).

Vegetation resources provide valuable wildlife forage and habitat, watershed protection, effective competition against invasive non-native plant species, and comprise a visually pleasing landscape. Complete consumption of the above-ground vegetative resources was observed on approximately 90% of the of the uplands in the fire area. Large mature cottonwoods in the riparian area were heavily damaged but still standing. The primary vegetative concerns are the recovery of upland grasses and shrubs and the riparian shrub/tree plant community (primarily large and medium sized cottonwood trees) and control of non-native species and noxious weed invasion.

This BAER Plan is the initial funding request for Emergency Fire Stabilization funds. The Emergency Fire Stabilization funding for this plan is for one year from the date of fire containment. At the conclusion of the funding period, a final Accomplishment Report will be due to the approval authority. The Accomplishment Report will document the funding received (initial and supplemental funding), treatments installed, the effectiveness of the installed treatments, and the results of monitoring activities.

Fire Suppression Treatments:

- Inventory vehicle tracks for potential archeological sites prior to treatments.
- Rehabilitate vehicle tracks (Appendix V).

Emergency Stabilization:

- Noxious weed and invasive species control to protect the ecological integrity of the site.
- Ecological stabilization through planting of native species to prevent the re-establishment and spread of non-native invasive plants (Appendix V).

The following statements in the approved Fire Management Plan direct the development of the proposed burned area funded through the Burned Area Stabilization and Rehabilitation funds:

- Prior to the completion of an ESR, treatments may be initiated by the Incident Commander, FMO, or Project Leader. A set of standard treatments for slopes, channels, and roads are pre-approved and listed in the Fire Management Handbook on pg. 5.2-1. ESR plans for each fire will be reviewed by the Fire Analysis Committee. A final plan will be submitted to Region for establishing an account.
- Monitor, protect, and recover native plants and animals that are federally or state listed and any other species that are in any other way considered sensitive.

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire-Umatilla National Wildlife Refuge

PART A FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	McCormack Fire	**Jurisdiction**	**Acres**
Fire Number	13510-9141-DF74	**USFWS, Umatilla NWR**	**47**
Agency Unit	US Fish and Wildlife Service Umatilla National Wildlife Refuge		
Region	Region 1		
State	Oregon		
County(s)	Morrow		
Ignition Date/Manner	May 23, 2007 Human-caused / Unknown		
Zone	Pacific Northwest		
Date Contained	May 24, 2007		
Date Controlled		**TOTAL ACRES**	**47 ac.**

PART B NATURE OF PLAN

Type of Plan (check one box below)

Initial Submission	**X**
Update and Revising Initial Submission	
Supplying Information For Accomplishment To Date On Work Underway	
Different Phase Of Project Plan	
Final Report (To Comply With The Closure Of The EFR Account)	

EMERGENCY STABILIZATION OBJECTIVES

- Locate and stabilize severely burned conditions that pose a direct threat to human life, property, or critically important cultural and natural resources.

- Recommend post-fire emergency stabilization prescriptions that prevent irreversible loss of natural and cultural resources.

- Conduct immediate post-burn reconnaissance for fire suppression related impacts to threatened and endangered (T&E) species, and cultural sites.

- Develop monitoring specifications designed to document relative effectiveness of emergency stabilization treatments or whether additional emergency stabilization treatments are required.

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire

PART C - TEAM ORGANIZATION

BAER TEAM MEMBERS

POSITION	TEAM MEMBER / AGENCY
Team Leaders	Mike Ritter, Howard Browers, USFWS
Operations	Brian Allen, USFWS
Vegetation	Howard Browers, Kevin Goldie, USFWS
Soil and Watershed	Howard Browers, Kevin Goldie, Heidi Newsome, USFWS
Wildlife	Howard Browers, Kevin Goldie, Heidi Newsome USFWS
Cultural	Regional Office, Portland
Environmental Compliance	Mike Ritter, Howard Browers, USFWS
GIS	Lindsay Hayes, Kevin Goldie, USFWS
IT / Documentation	Howard Browers, Heidi Newsome, Kevin Goldie, USFWS

PRIMARY SUPPORT PERSONNEL

Supervisory Wildlife Refuge Manager- Administration, Biology, Law Enforcement	Mike Ritter, USFWS
Project Leader	Greg Hughes, USFWS
Outdoor Recreation Planner	Paula Call, USFWS

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire

PART D - SUMMARY OF APPROVAL AUTHORITIES
US FISH AND WILDLIFE SERVICE

ACTIVITIES REQUIRING NATIONAL OFFICE APPROVAL (Emergency Stabilization Requests (Charged to ES)).	**Cost**
#1, Non-native Invasive Species Control – Integrated Pest Management	$16,688
#2, Ecological Stabilization– Native Plantings	$52,755
#3, Effectiveness Monitoring	$16,896
TOTAL	**$86,339**

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire

PART E - SUMMARY OF ACTIVITIES

The SUMMARY OF ACTIVITIES table identifies emergency stabilization costs charged or proposed for funding from fire suppression emergency stabilization funding sources. The total cost of the treatments excluding the costs absorbed by the fire (fire crew, labor and associated overhead) is displayed as either Fire Suppression Rehabilitation (**SR**), Emergency Stabilization (**ES**), Rehabilitation (**R**), or Agency Operations/Other (**OP/O**).

No.	TREATMENT SPECIFICATION	UNIT	UNIT COST	# OF UNITS	COST BY FUND SOURCE			IMPLEMENTATION METHOD	SPECIFICATION TOTAL
					SR	ES	R		
#1	Non-Native Invasive Species Control- Integrated Pest Management	Acres	$359	47		ES		P	$16,688
#2	Ecological Stabilization- Native Seeding	Acres	$1,552	34		ES		C, P	$52,755
#4	Effectiveness Monitoring	Acres	$272	47		ES		P	$16,869
								TOTAL	**$86,339**

BURNED AREA EMERGENCY STABILIZATION PLAN
McCormack Fire

PART F - SPECIFICATION

SPECIFICATION TITLE:	**Non-native invasive species control-Integrated Pest Management**	**JURSIDICTIONS:**	**USFWS-UNWR**
PART C: LINE ITEM:	**#1- Non-native invasive species control-Integrated Pest Management**	**FISCAL YEAR:**	**2008**
ESR REFERENCE #:	**8.3.2.1 Non-native Invasive Plant Control**	**SPECIFICATION TYPE:**	**ES**

I. WORK TO BE DONE

A. Provide a Brief General Description of Treatment

Control noxious weed infestations remaining within McCormack Fire area prior to seed-set and maturation. Control new infestations in spring of 2008. Current weed species observed include Russian knapweed (*Acroptilon repens*), Perennial pepperweed (*Lepidium latifolium*), Rush skeletonweed (*Chondrilla juncea*), Diffuse knapweed (*Centaurea diffusa*), Puncturevine (*Tribulus terrestris*), Russian olive (*Eleagnus angustifolia*), Kochia (*Bassia scoparia*), and Russian thistle (*Salsola kali*). Utilize integrated pest management techniques (herbicides, biological, mechanical and cultural control methods) as appropriate to prevent the spread and establishment of noxious weeds within the fire area. Control Cheatgrass (*Bromus tectorum*) that germinates in fall of 2007 and spring of 2008 to reduce competition with native species recovery and reseeding efforts.

B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment

Control all visible noxious weed populations along roads, trails and disturbed sites within the fire area. Control sites identified include dozerlines, disklines, known infestations of Russian knapweed, Perennial pepperweed, Rush skeletonweed, Diffuse knapweed, Puncturevine, Russian Olive, Kochia, and Russian thistle. Control non-native invasive species, such as Cheatgrass, within the fire perimeter to decrease competition for native grass seeded species.

C. Provide and Number Detailed Design/Construction Specifications

1. Control known populations of noxious weeds as identified in USFWS reviews (approximately 47 acres) prior to seed set.

2. Recommended herbicide for Russian knapweed is Milestone (aminopyralid) @ 6 oz/acre. Recommended herbicides for Perennial pepperweed are Escort XP (metsulfuron methyl) @ 2 oz/acre and 2,4-D Amine @ 2 pt/acre. Recommended herbicides for Rush skeletonweed, Diffuse knapweed, Puncturevine, Kochia, and Russian thistle, within upland shrub-steppe areas, are Transline (clopyralid) @ 1pt/gallon spot treatment and 2,4-D Amine @ 2 pt/acre in broadcast application. Recommended herbicides for Russian olive are Arsenal (imazapyr) @ 1% solution and Garlon 4 (triclopyr) @ 1.5% solution for spot treatment (foliar) application. Recommended herbicide for cheatgrass control is Roundup PRO© (glyphosphate). Application at low concentrations (3.5 oz.-1 pint/acre) during late winter-early spring will minimize damage to native species. Adjuvants (e.g., surfactant, drift control agents, de-foaming agents) will be required for all weed treatments.

3. Recommended herbicides for Russian knapweed, Perennial pepperweed, Rush skeletonweed, Diffuse knapweed, Puncturevine, Kochia, and Russian thistle within riparian habitat areas are AquaNeat (glyphosate) @ 2.5 pt/acre and 2,4-D Amine @ 2 pt/acre. Recommended herbicides for Russian olive within riparian habitat areas are Habitat (imazapyr) @ 1% solution and Garlon 3A (triclopyr) @ 1.5% solution for spot treatment (foliar) application. Adjuvants (e.g., surfactant, drift control agents, de-foaming agents) will be required for all weed treatments.

4. Roadside and small infestations will be treated by backpack spraying or truck/ATV mounted sprayer. Non-native invasive species control within interior of fire area will be treated using fixed-wing or rotary aircraft services.

5. Winds in the area to be sprayed should be less than 10 MPH (constant).

6. A buffer of 150 feet will be adhered to around all private land areas. Herbicides approved for aquatic use will be used in riparian wetland areas according to labeled specifications.

7. Applicator will be state certified. All aircraft used should be OAS certified; will be equipped with GPS guidance systems and contractor will be licensed and bonded.

8. Locate, map, and document (using photography, topographic maps, and Global Positioning System--GPS—technology), new weed occurrences within burned area. Provide GPS shapefile to aerial contractors for use in GPS guided applications. Document percent control or kill of noxious weeds.

D. Describe Purpose of Treatment Specification – What Resource will be Protected

Protect the ecological integrity and site productivity of shrub-steppe plant communities and riparian areas within the Umatilla NWR in accordance with established management plan guidelines.

E. Describe Treatment Effectiveness Monitoring

Spot checking of noxious weed sites to ensure control methods are meeting management objectives. A staff person from the Mid-Columbia River NWR Complex will visit sites controlled every week after initial treatment; this is especially important for weed populations that are sprayed to ensure effectiveness of herbicide application. If both spring and summer/fall applications are used then visits will occur during both these times.

II. LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
Maintenance Laborers (2) x $30/hour x 40 hours per treatment x 3 treatment periods x 1 year (Backpack spraying work)	$7,200
Wildlife Biologist (GS-12) x $39/hour x 24 hours per treatment x 3 treatment monitoring periods x 1 year – treatment monitoring	$2,808
TOTAL PERSONNEL SERVICE COST	**$10,008**

EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
Misc. Spray nozzles, hoses, backpack sprayer, equipment repair	$1000
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	**$1,000**

MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Milestone - 1 gallon (6 oz/acre x 22 acres) @ $350/gallon	$350
Escort XP - 1 gallon (2 oz/acre x 30 acres) @ $80/gallon	$80
2,4-D Amine- 12 gallons (2 pt/ac x 47 acres) @ $9.50/gallon	$114
Transline - 1 gallon (0.5% solution over 47 acres-spot treatments) @ $295/gallon	$295
Arsenal - 1 gallon (1% solution over 10 acres-spot treatments) @ $270/gallon	$270
Garlon 4 - 1 gallon (1.5% solution over 10 acres-spot treatment) @ $80/gallon	$80
Roundup Pro- 6 gallons (1pt/ac x 47 acre) @ $31.10/gallon	$187
AquaNeat - 4 gallons (2.5 pt/acre x 10 acre) @ $35/gallon	$140
Habitat – 1 gallons (1% solution over 10 acres Riparian habitat) @ $270/gallon	$270
Garlon 3A – 1 gallons (1.5% solution over 10 acres Riparian habitat) @ $80/gallon	$80
MSO or MVO Surfactant – 15 gallons @ $ 16.00/gallon	$240
Biological Control Agents- Russian Thistle, diffuse knapweed	$1,000
TOTAL MATERIAL AND SUPPLY COST	**$3,106**

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
4 X 4 Pickup @ .485/mile x 200 miles/day x 12 days x 1 fiscal year	$1164
TOTAL TRAVEL COST	**$1164**

CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
Aerial Application of Herbicide-47 ac. X $30/ac.	$1,410
TOTAL CONTRACT COST	**$1,410**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY_08_	10/1/07	9/30/08	F	47	$355.06	47	$16,668
FY__							
FY__							
FY__							
						TOTAL	$16,668

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser,

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	M,C
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.	
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	
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-References within ESR Plan
Refer to Vegetation Assessment- Appendix I.

IV. TOTAL COST BY JURSIDICTION

JURISDICTION	UNITS TREATED	COST
USFWS	**47**	**$16,688**
TOTAL COST	**47**	**$16,688**

BURNED AREA EMERGENCY REHABILITATION PLAN
McCormack Fire

PART F - SPECIFICATION

SPECIFICATION TITLE:	**Ecological Stabilization- Native Seeding**	**JURSIDICTIONS:**	**USFWS-Umatilla NWR**
PART C: LINE ITEM:	**# 2- Ecological Stabilization- Native Seeding**	**FISCAL YEAR:**	**2008**
ESR REFERENCE #:	**8.3.2.3 Revegetation**	**SPECIFICATION TYPE:**	**ES**

V. WORK TO BE DONE

A. Provide a Brief General Description of Treatment

Apply native seed mix through, hydro-mulch applications in burned area to stabilize erosion and wind-blown soils that are at risk of ecological degradation due to erosion, loss of productivity and invasion by non-native invasive species.

B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment

The McCormack Fire area on the Umatilla National Wildlife Refuge (47acres) is located along the Columbia River, and frequently receives high winds, and extreme temperatures. The soils are sandy river deposits and prone to wind erosion. Reseeding should take place over the upland portion (approximately 34 acres) of the fire area to stabilize soils and to maintain the productivity of the shrub-steppe ecosystem in this area.

C. Provide and Number Detailed Design/Construction Specifications

1. Purchase native seed mix: in appropriate amounts to stabilize soils and ecological function according to the following specifications for native seed mix.

Seed Mix: (35 acres):

Indian Ricegrass (*Oryzopsis hymenoides*) (Nez Par)	3 lbs./ac. PLS
Sandberg's bluegrass (*Poa sandbergii*) (Hanford)	4 lbs./ac. PLS
Needle and Thread *(Stipa comata)*	0.5 lb./ac. PLS
Thickspike Wheatgrass (Swindemar) *(Elymus lanceolatus)*	2 lbs./ac PLS
Sand dropseed *(Sporobolous cryptandrus)*	0.5 lb. /ac PLS
Bottlebrush Squirreltail (*Elymus elymoides*)	2 lbs./ac PLS
Bluebunch wheatgrass (*Pseudoroegneria spicata*)(Boardman OR)	2 lbs./ac PLS
Yarrow, (*Achillea millefolium*)	0.5 lbs./ac PLS
Columbia Blue Flax (*Linum* sp.)	0.5 lbs./ac PLS
Wyoming Big Sagebrush (*Artemisia tridentate* ssp. *wyomingensis*)	0.1 lbs/ac PLS
Winterfat (*Krascheninnikovia lanata*)	0.1 lbs/ac PLS

2. Seed Mixture Selection and Certification: The seed mix should be tested for purity and germination rates. Before accepting delivery of seed shipment the contractor must provide written evidence (seed label and letter) to the Refuge managers (Deputy Project Leader or Supervisory Wildlife Biologist) that the seed conforms to the purity and germination requirements in the specification. Seed must also be source identified as to its origin. Columbia Basin derived and grown seed is required, where practical, for all native grass, forb and sagebrush species.

3. Delivery: Deliver certified weed-free seed sold on pure live seed basis. Deliver to Mid-Columbia River National Wildlife Refuge Complex.

Storage: Seed should be applied as soon as possible after delivery. If immediate application is not possible the seed should be stored under dry, cool conditions and protected from rodents and other wildlife. Seed also needs to be protected from dew and rain.

4. Timing of Seeding Application: Seeding should occur in the fall of 2007, but no later than late March, 2008.

Application Rate: Seed will be applied at the above rates, 15.2 pounds per acre on a PLS/acre basis.

5. Application Method:

Hydromulch Applications- Approximately 34 acres will be hydromulched to stabilize highly erosive soils. Mulch specifications are to include mulch delivered at a rate of approximately 1,000 lbs./ acre containing approximately 40%paper and 60% wood fiber. Mulch will contain a binder or tackifier at a rate of approximately 80 lbs./ac. Mulch will contain seed provided by USFWS and applied at a rate of 15.2 PLS pounds to the acre. Mulch will be applied from trucks.

D. Describe Purpose of Treatment Specification – What Resource will be Protected

To retain the ecological integrity of the site seeding will promote ecological recovery of native shrub/steppe ecosystem to maintain the quality and character of the shrub-steppe habitat, to prevent invasion by non-native invasive plant species and noxious weeds, and to reduce soil erosion and to stabilize soils.

E. Describe Treatment Effectiveness Monitoring

Monitor to determine effectiveness and if a second seeding is needed. See specification Effectiveness Monitoring.

VI. LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
Wildlife Biologist (GS-12) @ $39/hr X 100 Hours X 1 Fiscal year (contract management)	$3,900.00
TOTAL PERSONNEL SERVICE COST	**$3,900.00**

EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	

MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Native Seed Mix @ $300.50/ac x 34 acres	$ 10,217.00
TOTAL MATERIAL AND SUPPLY COST	**$ 10,217.00**

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
4 X 4 Pickup @ .485/mile x 200 miles/day x 4 days x 1 fiscal year	$388.00
TOTAL TRAVEL COST	**$388.00**

CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
Hydromulch by truck- $1,125/acre x 34acres	$ 38,250.00
TOTAL CONTRACT COST	**$ 38,250.00**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY_08_	10/1/07	9/30/08	S, F	47	$1,551.6	47	$52,755
FY__							
FY__							
FY__							
						TOTAL	$52,755

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser,

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	C
2. Documented cost figures from similar project work obtained from local agency sources.	P,M
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	
P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression	

VII. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
Please refer to Vegetation and Wildlife Assessments, and treatment maps contained in this document.

VIII. TOTAL COST BY JURSIDICTION

JURISDICTION	UNITS TREATED	COST
USFWS	34 Acres	$52,755.00
TOTAL COST		$52,755.00

BURNED AREA EMERGENCY STABILIZATION PLAN
McCormack Fire

PART F - SPECIFICATION

SPECIFICATION TITLE:	Effectiveness Monitoring	**JURSIDICTIONS:**	**USFWS-UNWR**
PART C: LINE ITEM:	**#3 – Effectiveness Monitoring**	**FISCAL YEAR:**	**2008**
ESR REFERENCE #:	**8.3.6 Monitoring**	**SPECIFICATION TYPE:**	**ES**

IX. WORK TO BE DONE

A. Provide a Brief General Description of Treatment
Monitoring plots or transects and photo points will be installed to determine the effectiveness of stabilization by native seeding using hydromulch, and to monitor native species abundance and establishment. Transects will monitor shrub planting survival and weed cover. Photo points will monitor tree species profile area, as an index of species abundance over time.
B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment
Monitoring transects should be set within treated areas. Photo points should be randomly placed within the fire area.
C. Provide and Number Detailed Design/Construction Specifications
1. Establish monitoring plots or transects within the seeded and planted areas. If weed species cover exceeds 20%, retreat area with herbicide. If overall native tree and shrub survival is <25%, then re-plant native shrubs.
2. Establish photo points randomly within the fire area, focusing on native tree plantings. Take "Time 0" and "Time 1" photos (prior to and just after native plantings), and establish a revisit schedule to monitor species abundance over time.
D. Describe Purpose of Treatment Specification – What Resource will be Protected
Adaptive management-based assessment of treatments. If treatments do not meet intended goals for native vegetation stabilization and prevention of invasion by non-native species into the fire area, then treatments can be modified and adapted to meet goals.
E. Describe Treatment Effectiveness Monitoring
Monitoring is considered effective if data collected and results reported are sufficient to determine if treatments are effective. Monitoring protocol will be designed to conduct sufficient evaluation of treatments.

X. LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
Wildlife Biologist or Natural Resource Specialist GS-12 ($ 39/hr) X 80 hours	$3120
TOTAL PERSONNEL SERVICE COST	**$3120**

EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	

MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Transect/point markers, spatial reference photo markers, misc supplies	$200
TOTAL MATERIAL AND SUPPLY COST	**$200**

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
4 X 4 Pickup @ .485/mile x 200 miles/day x 8 days x 1 fiscal year	$776
TOTAL TRAVEL COST	**$776**

CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
Botanical inventory and monitoring. Contract botanists, 2 scientists @ $40/hour X 240 hours X 1 FY	**$** 12,800
TOTAL CONTRACT COST	**$ 12,800**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY_08_	10/1/07	9/30/08	S, F	47	$3,59.50	47	$16,896
FY__							
FY__							
FY__							
						TOTAL	$16,896

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser,

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	M
2. Documented cost figures from similar project work obtained from local agency sources.	P, M
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

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

XI. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
Construction costs derived from current cost estimates for materials. Contractual labor costs based upon actual costs for associated work (24 Command Fire Final Accomplishment Report- 2004).

XII. TOTAL COST BY JURSIDICTION

JURISDICTION	UNITS TREATED	COST
FWS	**47 acres**	**$16,896**
TOTAL COST	**47 acres**	**$16,896**

BURNED AREA EMERGENCY STABILIZATION PLAN
McCormack Fire

APPENDIX I RESOURCE ASSESSMENTS

Cultural Resource Assessment

Wildlife Resource Assessment

Vegetation Resource Assessment

Operations Resource Assessment

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire Burned Area Emergency Stabilization Plan

CULTURAL RESOURCE ASSESSMENT (Pending)

I OBJECTIVES

- Identify and protect previously recorded or documented prehistoric and historic cultural resources within the fire perimeter area.
- Assess damage to known and documented archaeological sites, historic structures, and cultural landscape features from the effects of wildfire and suppression activities**.**
- Inventory areas disturbed by fire suppression activities and recommend treatments for those cultural properties adversely affected by suppression and rehabilitation actions.

II ISSUES

- Assessment of fire and fire suppression effects on previously documented cultural resources.
- Protection of cultural resources from suppression-related effects;
- Inventory of cultural properties potentially affected by the wildfire and fire suppression activities;
- Protection of prehistoric and historic archaeological resources, culturally significant locations, historic structures, and historic landscapes within the fire suppression and burned areas;
- Evaluation, monitoring, or preservation treatments for cultural resources affected by fire, suppression, or rehabilitation activities.

III OBSERVATIONS

A. Background Information

The lands in an around the Umatilla NWR are important areas to members of the Yakama, Umatilla, Colville and Nez Perce Tribes, as well as the Wanapum People. Their ancestors resided on the land, utilized its resources and in so doing created a culture closely woven with the landscape. This connection is retained with use of traditional properties for gathering and ceremonies.

Euro-Americans first came into the region with the Lewis and Clark expedition. They were followed by fur trappers, military units, and miners passing through on the major rivers. The lack of timber and fur-bearing animals, the presence of numerous, well-established Native Americans, and the scorching summers were among the salient reasons that the area was not immediately settled by Euro-Americans. When Euro-Americans did settle in the area, they, like the tribes along the Columbia, Snake, and Yakima rivers, established towns, ranches and trading centers along these important irrigation sources and transportation corridors. By 1880 cattle ranches were established and the railroad soon arrived.

B. Reconnaissance Methodology

Protection of human life and property from wildfire takes precedence over the protection of historic and prehistoric cultural properties. However, the diminishing numbers of archaeological sites, traditional cultural sites and resources of cultural importance representing millennia of human life must be provided protection whenever possible.

The explosive spread of the fire and the very limited cultural resource personnel available prevented any effective intervention during suppression.

BAER policy recognizes cultural resources as a critical resource requiring assessment and protection. A guiding principle as well as a legal requirement of burned area stabilization and rehabilitation is to regard archaeological sites and other materially fragile cultural resources when proposing emergency stabilization and rehabilitation treatments. If post-fire conditions indicate erosion threats or other actual or potential watershed problems, cultural resources must receive special attention to ensure that their unique and irreplaceable values are given full consideration.

Incident-related damages to cultural resources fall in two broad categories: fire-related and suppression-related. Fire-related impacts include thermal fracture of, basalt, chert, granite and other stone artifacts, destabilization or destruction of structures and features. Other impacts include destruction of organic elements in an occupational or midden deposit, destabilization of soils within a site or landscape with resultant increased erosion and deflation of loosened sediments, and increased susceptibility to looting and surface collection due to greater visibility.

Suppression related impacts occur with disturbance or destruction from fire line construction. Rehabilitation activities also may cause impacts, including restoration of fire lines and restoration of range land.

C. Findings

Overall, the area burned at a moderate to high severity. The fire was wind-driven through native grasslands, shrubs, cheatgrass, riparian shrubs, and mature cottonwood trees and completely consume almost all vegetation, except the mature cottonwoods. The fire continued to linger in these mature trees for several days and we expect that most of them will die. Fine plant roots were usually observed immediately below the surface, indicating that the organic composition of the soil and consequently of archaeological sites has not been affected to a significant extent within the main body of the fire. However, these areas have been significantly impacted by suppression line construction and could potentially negatively impact archaeological sites.

IV. RECOMMENDATIONS

One specification was prepared to address known and potential effects to cultural resources. This specification may be accomplished by force account, contract or inter-agency agreement. The specification addresses potential affects and specific rehabilitation needs for properties damaged by the fires and inventory/assessment of identified cultural resources. Similarily, line items for Section 106 compliance investigations have been included in the seeding of native species specification. It will be necessary to review the fire area prior to reseeding efforts and ground disturbance activities.

The inventory of previously uninventoried areas in advance of ground disturbing activity for other rehabilitation projects will be accomplished under the compliance process for those undertakings. At this writing no subsurface deposits appear to have been damaged or are threatened by post fire erosion. Therefore no archaeological site data recovery is recommended at this time.

A. Emergency Stabilization (pending)

B. Rehabilitation (pending)

C. Management (non-specification related)

Post suppression rehabilitation of vegetation through planting of seeds or container plants has the potential to effect historic and prehistoric cultural properties. As specific revegetation plans are developed they must be reviewed by agency archaeologists, Tribes, and consultation with the State Historic Preservation Officer must be documented.

Specifications for rehabilitation undertakings must include Section 106 compliance, and include specific provisions for the protection of identified cultural resources. The contractor must be informed of areas to be avoided by flagging or UTM locations, and of the requirement to follow specific site treatment requirements. Inspectors must be responsible for monitoring and documenting compliance. Archaeological monitors may be required at specific locations. Monitors should have direct contact with the Contracting Officers Representative to ensure compliance with the cultural resource protection requirements.

The locations and expressions of archeological sites can not be determined with certainty. If in the course of any rehabilitation or restoration activity cultural resources are discovered all work in the vicinity must stop and the appropriate agency archaeologist consulted.

BURNED AREA EMERGENCY STABILIZATION PLAN
McCormack Fire
WILDLIFE RESOURCE ASSESSMENT

I. OBJECTIVES

- Assess effects of fire and suppression actions to Threatened, Endangered, Proposed and other significant state and federal agency listed species and their habitat, including birds, mammals, amphibians, reptiles, fish and insects.
- Initiate Emergency Section 7 Consultation as required by the Endangered Species Act.
- Assess effects of fire and suppression action to habitat improvements.
- Assess effects of proposed emergency stabilization actions to listed species and habitat.

II. ISSUES

- 4 agency (state and/or federal) listed wildlife species occur within or near the fire area.
- Potential effects to these species from the fire, suppression actions and potential post fire effects.
- Potential effects to these species from proposed emergency stabilization actions.

III. OBSERVATIONS

A. Background

The purpose of this Burn Area Emergency Stabilization (BAER) Wildlife Assessment is to document the effects of the fire, suppression actions, proposed emergency stabilization work, and potential post fire erosion, to all federally and state listed, agency sensitive and culturally significant mammals, birds, amphibians, reptiles, fish, invertebrates, and their habitats which may occur within or downstream from the fire area. This assessment also includes documentation on Emergency Section 7 Consultation, as required by the Endangered Species Act, with U. S. Fish and Wildlife Service. The species list for the fire area was developed by Howard Browers, Wildlife Biologist, U. S. Fish and Wildlife Service (FWS), Mid-Columbia National Wildlife Refuge Complex. Species occurrence discussed in this assessment is based on formal surveys and habitat inventories conducted prior to the McCormack Fire, and post fire reconnaissance. Documents, inventory data, sighting records, vegetation maps and other species specific information referenced in this report are on file at the Complex office.

The Umatilla National Wildlife Refuge (Refuge) is located in the Pacific Flyway. Habitats within the fire area serve as resting, feeding, and nesting areas for migratory birds, and include those for many other wildlife and invertebrate species.

B. Reconnaissance Methodology

Information used in this assessment is based on a review of relevant literature, agency management planning documents, agency wildlife sighting and habitat inventory data, communication with FWS, personal communication with agency biologists (listed at end of report), and reconnaissance of the fire area on May 30, 2007. Habitat information and mapping for the various species is based on agency

records and post fire reconnaissance. Reconnaissance and analysis included review of other fires in the area to assess effects to species and vegetative recovery.

C. Findings

To better understand the species and habitat information discussed in this wildlife assessment, it is important to review the McCormack Fire BAER Vegetation and Soils Resource Assessments. These reports contain more detailed descriptions of pre-fire vegetation, post-fire vegetative recovery estimates, and effects to the watersheds.

The purpose of this assessment is to discuss the potential effects of the fire, suppression actions, and proposed emergency stabilization activities to federally and state listed and sensitive species which occur within the fire area. Effects to general wildlife species are not discussed. This assessment is not intended to definitively answer the many questions of effects to specific species that are inevitably raised during an incident such as the McCormack Fire. The focus of this assessment is to determine the potential for immediate, emergency actions that may be necessary to prevent further effects to these species. Because the species discussed in this assessment have ranges or territories which extend beyond the fire area, it may be important to include information at a larger scale, across land ownership boundaries, for species which may require assessment for long term needs.

BIOLOGICAL EVALUATION

Direct effects as described in this report refer to mortality or disturbances that result in flushing, displacement, harassment or mortality of the animal. Indirect effects refer to modification of habitat and/or effects to prey species.

The community of plants and animals found in this area represents one of the remaining examples of the shrub-steppe and riparian shrub-steppe ecosystems that once covered the Columbia River Basin. The Refuge contains rare, rich and diverse shrub-steppe and riparian shrub-steppe ecosystem flora and fauna that has been lost elsewhere due to habitat conversion, fragmentation and application of pesticides. This area serves a critical role in contributing to the local, regional, national and international ecological integrity of the shrub-steppe ecosystem.

While fire has played an integral role in the history of the shrub-steppe environment, the region's historical fire regime has been greatly altered from socio-political and economic factors. Coupled with the arrival of invasive species and noxious weeds, this has weakened the natural recovery processes of the shrub steppe ecosystem from disturbance events such as fire. Shrub-steppe, partially vegetated dunes, and riparian plant communities were located within the fire perimeter. These vegetation communities habitat that is critical for meeting FWS regional, national and ecosystem goals and objectives. Managing for biological integrity in this area necessitates that actions be taken to mitigate the ecological effects increasing fire frequency and intensity, and invasion of exotic species.

The McCormack Fire resulted in negative effects to plant communities through the complete consumption of the above-ground vegetative resources on approximately 90% of the upland areas. Large, mature cottonwood trees in the riparian area were heavily damaged and though still standing, most will eventually die and fall over. It will take decades to replace these trees. Riparian shrub and tree vegetation, as well as sagebrush, bitterbrush, and rabbitbrush serve as food sources and/or provide nesting, resting, thermal and escape cover for a wide variety of species. Other value for wildlife includes the thick canopy which protects understory vegetation that can be a valuable food source for wildlife.

Wildlife Species of Concern:

McCormack Fire Species List
On May 31, 2007, a current species list for the McCormack area (Morrow County) was obtained from the US Fish and Wildlife Service's Oregon Fish and Wildlife Office, La Grande Field Station. Federal agencies are also charged with managing for species of importance to the Native American Tribes. Therefore, the following species are included in this assessment. This list was developed by Howard Browers. For plant species of concern see Vegetation Assessment.

The following species are known to occur or have the potential to occur in the fire area during at least portions of the year.

SPECIES	LISTING STATUS
Bald eagle (*Haliaaetus leucocephalus*)	FLT/ST
Burrowing owl (*Athene cunicularia*)	FSC/SC
Long-billed curlew (*Numenius americanus*)	FSC/SS
Mule deer (*Odocoileus hemionus*)	TI
Northern sagebrush lizard (*Sceloporus graciosus graciosus)*	FSC/SS

The following listed species were identified as occurring, or having habitat within Morrow County. Through post fire reconnaissance and consultation with local experts, it was determined that these species were not affected by the fire because they have no habitat within or adjacent to the fire area, and/or inventories prior to the fire determined absence, and/or the fire is outside of the species range or season of use. For plant species of concern see the Vegetation Assessment.

Washington ground squirrel (*Spermophilus washingtoni*)	FC/SE
Yellow-billed cuckoo (*Coccyzus americanus*)	FC/SS
Northern goshawk (*Accipiter gentiles*)	FSC/SC
Ferruginous hawk (*Buteo regalis*)	FSC/SC
Olive-side flycatcher (*Contopus cooperi*)	FSC/SS
Willow flycatcher (*Empidonax traillii adastus*)	FSC/SS
Lewis' woodpecker (*Melanerpes lewis*)	FSC/SC
Mountain quail (*Oreortyx pictus*)	FSC
White-headed woodpecker (*Picoides albolarvatus*)	FSC
Steelhead (Snake River Basin) (*Oncorhynchus mykiss*)	FLT
Steelhead (Middle Columbia River) (*Oncorhynchus mykiss*)	FLT
Steelhead (Upper Columbia River) (*Oncorhynchus mykiss*)	FLE
Sockeye salmon (Snake River) (*Oncorhynchus nerka*)	FLE
Chinook salmon (Upper Columbia River) (*Oncorhynchus tshawytscha*)	FLE
Chinook salmon (Snake River) (*Oncorhynchus tshawytscha*)	FLT
Margined sculpin (*Cottus marginatus*)	FSC
Interior redband trout (*Oncorhynchus mykiss gibbsi*)	FSC
Pacific lamprey (*Lampetra tridentata*)	FSC/SM
Northern wormwood (A*rtemisia campestris* var. *wormskioldii*)	FC

KEY TO LISTING STATUS:

FLE	FEDERAL LISTED ENDANGERED
FLT	FEDERAL LISTED THREATENED
FC	FEDERAL CANDIDATE
FSC	FEDERAL SPECIES OF CONCERN

SC STATE CANDIDATE
SE STATE ENDANGERED
ST STATE THREATENED
SS STATE SENSITIVE
SM STATE MONITOR
TI TRIBAL IMPORTANCE

There are no listed threatened or endangered bats in the area; however, several bat species are federal species of concern or state sensitive species. Impacts to bats were not specifically addressed due to lack of good data on bat occurrence on Umatilla Refuge.

BALD EAGLE

The bald eagle is listed threatened under the Federal Endangered Species Act and also by the state of Oregon. Bald eagles do not nest in the area of the fire or anywhere on Umatilla Refuge and the local vicinity. Bald eagles do inhabit the refuge from fall through spring, becoming very common during the winter months. Large concentrations of waterfowl wintering on Umatilla Refuge and the rest of the Refuge Complex provide a predictable forage base for wintering eagles. As many as 60 eagles have been counted on the Refuge complex during January surveys.

FIRE IMPACTS: No direct impacts to bald eagles resulted from the McCormack fire as eagles have left the area for their northern breeding areas. Approximately 14 acres of bald eagle habitat was damaged by the McCormack fire. Indirect impacts to eagles will be the future loss of large perch trees as the cottonwood trees damaged by the fire eventually die and fall over. Replacement of these perch trees will take decades.

BURROWING OWL

Burrowing Owls are a federal species of concern, a Migratory bird of Conservation Concern (USFWS 2002), and an Oregon state candidate species. Burrowing owls are also a species identified as a focal species for management in the recently completed Comprehensive Conservation Plan for Umatilla Refuge. Although there are no known active burrows within the fire area, owls do nest on the McCormack Unit. It is unlikely that any owls nest in the area of the fire due the very sandy soils and duney nature of the area. However, a thorough inventory of burrowing owls on the Refuge has not been done.

Burrowing owls are small ground-dwelling species associated with dry, open, shortgrass, or desert and are often linked with burrowing mammals. Foraging areas are typically short grass dominated habitats. Food items include predominately invertebrates and small mammals, and occasionally small birds and reptiles. Within the Columbia Basin, Burrowing owls are primarily migratory and are present from February through early August, although a few individuals over-winter. The Burrowing owl is thought to be declining throughout much of its range in North America. Its current population levels on the Refuge are not known. Once thought relatively common in the Columbia Basin, they are now rarely observed. The regional decline of ground squirrels, which provide nesting sites for these owls, is possibly linked with the apparent decline in owl populations. The potential decline in population is not unique to the Refuge and may be characteristic of the species population trend throughout the basin.

FIRE IMPACTS: Impacts to Burrowing Owls from the McCormack Fire are likely none.

LONG-BILLED CURLEW

The long-billed curlew is a large shorebird species that breeds in the sage-steppe and grassland environments of the Basin Regions of North America. It is a federal species of concern and a sensitive species in Oregon. It is also identified as a priority species for management on Umatilla Refuge in the recently completed comprehensive conservation plan. The long-billed curlew is an obligate of grasslands and open shrub areas, but will also use open areas in riparian/wetland habitats and agricultural fields while feeding. It feeds primarily on insects and arachnids, and occasionally on baby birds and rodents. It

has been documented to successfully reproduce on the Refuge. Curlews are not known to nest in the area of the fire.

FIRE IMPACTS: It is unlikely that the McCormack fire had any direct negative impacts to long-billed curlews on Umatilla Refuge. Indirect impacts may be the temporary loss of foraging and brood rearing habitat.

MULE DEER

Mule deer are abundant on the Refuge. The deer population on the Refuge is high though it has been reduced in recent years due to a special hunt program. Mule deer are primarily browsers and rely on riparian vegetation and bitterbrush for browse. Impacts to willows and bitterbrush from deer over browsing is common on the McCormack Unit

FIRE IMPACTS: Mule deer are highly mobile animals, and it is anticipated that they were able to move out of the affected area during the fire. Recently born fawns may not have been able to move out of the way of the fire. One newly born fawn was reported to have been killed by the fire. The greatest impact to mule deer within the burn area is loss of available forage. Regrowth of grasses in upland areas is not anticipated until fall rains begin, possibly in November. Regrowth of shrub species is expected to be minimal due to high fire residence times and the cumulative impacts to species richness/seed banks by past fires. Overbrowsing in other areas is likely to occur.

Northern Sagebrush Lizard

The Northern sagebrush lizard is a Federal Species of concern and a state sensitive species in Oregon. Habitats used by northern sagebrush lizards are generally composed of sagebrush and/or bitterbrush in sandy soils. A study done by Green at al. (2001) on the Boardman Bombing Range south of Umatilla Refuge indicated a preference by sagebrush lizards for sand blows.

FIRE IMPACTS: Approximately 19 acres of the McCormack fire area could be considered potential sagebrush lizard habitat. If present during the fire, sagebrush lizards could have experienced mortality if unable to move quickly or find a safe cover area. Those that survived could experience temporary displacement. Prey species for sagebrush lizards may be temporarily reduced. Invasion of cheat grass and other invasive non-native plant species across the fire area may reduce habitat availability.

IV. RECOMMENDATIONS

A. Fire Suppression:

Determinations of effect: The loss of cottonwood trees will have a negative impact on bald eagles locally. Replacement of these large cottonwood trees will take decades. Bald eagles will be forced to use other nearby riparian areas adjacent to McCormack Slough and the Columbia River for perching. Therefore, the fire, suppression actions and proposed emergency stabilization may affect but is not likely to adversely affect bald eagles.

B. Emergency Stabilization:

Recommendations with Specifications:

- #1 – Non-native Invasive species control – Integrated Pest Management. This specification is critical, as mentioned above in wildlife species assessments, to stabilize the ecological integrity and condition of the burned area and to create a trajectory of recovery that will eventually result in

viable habitat conditions for all 11 of the listed species addressed above.

- #2 – Ecological Stabilization – Native Plantings. This specification is critical, as mentioned above in wildlife species assessments, to stabilize the ecological integrity and condition of the burned area and to create a trajectory of recovery that will eventually result in viable habitat conditions for all 11 of the listed species addressed above

C. Management recommendations (Non-Specification Related):

- Permanent photo points and monitoring transects should be established in key wildlife habitat locations to monitor habitat recovery. This should be coordinated with the vegetation monitoring as recommended in the McCormack Fire BAER Vegetation Report.

V. References:

Green, G.A., K. B. Livezey, and R.L. Morgan. 2001. Habitat Selection by Northern Sagebrush Lizards (Sceloporus graciosus graciosus) in the Columbia Basin, Oregon. Northwestern Naturalist 82(3): 111-115.

Nordstrom, Noelle. 2004. Burrowing owl (*Athene cunicularia*). *In* E. M. Larsen, J. M. Azerrad, and N. Nordstrom, editors. Management Recommendations for Washington's Priority Species, Volume IV: Birds [Online]. Available http://wdfw.wa.gov/hab/phs/vol4/buow.pdf

Storm, R. M and W. P Leonard, Eds. 1995. *Reptiles of Washington and Oregon*. Seattle Audubon Society, Seattle, Washington.

U.S. Fish and Wildlife Service. 2002. *Birds of conservation concern 2002.* Division of Migratory Bird Management, Arlington, Virginia. 99 pp.

VI. Agency Biologists

Howard Browers, Wildlife Biologist, USFWS, Hanford Reach NM

Heidi L. Newsome, Wildlife Biologist, USFWS, Hanford Reach NM

Kevin L. Goldie, Wildlife Biologist, USFWS (509) 371-1801 ext. 223

BURNED AREA EMERGENCY STABILIZATION PLAN
McCormack Fire

VEGETATION RESOURCE ASSESSMENT

OBJECTIVES

- Evaluate and assess fire and suppression impacts to vegetation resources and identify values at risk associated with vegetation losses.
- Determine emergency stabilization and monitoring needs supported by specifications to aid in vegetation recovery and soil stabilization.
- Evaluate the potential for invasive species encroachment into native plant communities within the fire area.
- Provide management recommendations to assist in vegetation recovery, watershed stabilization, site productivity and species habitat protection.

II. ISSUES

- Protection and enhancement of other resource values including site productivity, wildlife habitat, vegetation resources, cultural resources and watershed stability.
- Management strategies which provide for the stabilization, natural regeneration and recovery of impacted areas.
- Immediate stabilization of denuded (i.e. vegetation has been removed) soils that may impact ecological function
- Monitoring of the planting/seeding effectiveness of emergency stabilization efforts.
- Monitoring of impacted lands for the early detection and control of invasive and noxious weed species.

III. OBSERVATIONS

This report identifies and addresses known and potential impacts to vegetation resources within the McCormack Fire area, Umatilla National Wildlife Refuge (Refuge). The burned area consists of approximately 47 acres of contiguous area. The vegetation resources can be described as riparian plant communities, and associated upland Columbia Basin shrub-steppe plant communities. Findings and

recommendations contained within this assessment are based upon field reconnaissance of the fire area, interviews with local resource specialists, local land managers, and review of relevant documents.

This report will detail the known damage to the vegetation and soil resources; will discuss re-vegetation processes and future monitoring criteria, and will outline management considerations for recovery of vegetation resources.

A. Reconnaissance Methodology and Results

Ground reconnaissance was conducted on May 30, 2007. Photographs were taken and are in the photo documentation section of this plan (Appendix III). Vegetation resources provide valuable wildlife forage and habitat, watershed protection, effective competition against invasive non-native plant species, and comprise a visually pleasing landscape.

1. Soils:

Soils within the McCormack Fire are fine sandy loams and dunes. These soils are highly vulnerable to wind erosion. Loss of vegetative cover increases the likelihood of wind erosion.

2. Vegetation:

The McCormack burned approximately 47 acres of refuge lands.

Primary plant communities impacted by the fire included the following plant associations:

Cottonwood/willow Riparian: Riparian habitat along McCormack Slough was dominated by eastern cottonwood (Populus deltoides) and included some coyote willow (Salix exigua) and false indigo. Approximately 14 acres of this habitat was damaged by the fire. The majority of the cottonwood trees were large and several decades old, having been established following completion of the John Day Dam in the 1960's. These trees provided perch sites for wintering bald eagles as well as nesting habitat for migratory birds such as Bullock's orioles and black-headed grosbeaks.

Rabbitbrush/Antelope Bitterbrush/Sandberg's Bluegrass/Cheatgrass shrub-steppe: Approximately 14 acres of this habitat type burned in the fire. Rabbitbrush is the dominant shrub, although bitterbrush *(Purshia tridentata)* occurs at varying levels. Sandberg's Bluegrass *(Poa secunda)* mixed with cheatgrass (*Bromus tectorum*) dominates the understory.

Dunes: Dune areas have similar vegetation as the shrub-steppe indicated above. However, plant cover is reduced in the dunes. Rabbitbrush is the dominant shrub. The understory is a combination of cheartgrass, Indian rice grass, needle and thread grass and forbs adapted to sandy soils such as sand dock (*Rumex venosus*). Approximately 19 acres of this habitat type were burned.

Species diversity within each of the major community types has been altered in some areas due to the activities of neo-European people that entered the region beginning 200 years ago. In more recent history, alien plants were introduced and established a foot-hold in the shrub-steppe communities with the advent of livestock grazing in the mid-1800's and through agricultural cultivation and urbanization later in the century.
Vegetation within this area has also been altered through the establishment of cheatgrass within sage communities and the shortening of the natural fire return interval. Historically, fire return intervals were between 50-100 years in the shrub-steppe region. Fires burned in a mosaic fashion across the landscape leaving many healthy remnant stands of bunchgrass and sage. The mosaic fire patterns allowed for the survival of healthy sage communities and habitat for wildlife species. The shortened fire return interval has created impacts from repeated burning.

3. Rare Plants

A current USFWS species list for the county was consulted. Listed plant species that have occurrences within Morrow County include:

Threatened:
None

Candidate:
None

Species of Concern:
Robinson's onion (*Allium robinsonii*)
Laurence's milk-vetch (*Astragalus collinus* var. *laurentii*)
Disappearing monkeyflower (*Mimulus evanescens*)
Little mousetail (*Myosurus minimus* ssp. *apus* (= var. *sessiliflorus*)

The above listed species were identified as occurring, or having habitat within Morrow County. However, through post fire reconnaissance and consultation with local experts, it was determined that these species were not affected by the fire because they have no habitat within or adjacent to the fire area, and/or inventories prior to the fire determined absence, or the fire is outside of the species range.

4. Vegetation/Structural Impacts

Vegetation resources were directly impacted by the McCormack Fire and by suppression tactics utilized to control the fire. Documented impacts to vegetation resulted from:

a) Impacts to native microbiotic crust, shrub and grass species during suppression and mop-up activities.

b) Vegetation losses and damage to microbiotic crust due to fire intensity.

c) Loss of the organic litter layer on approximately 95% percent of the fire area.

Generally speaking, most shrub and bunchgrass communities experienced 90% vegetation loss of above ground cover. On approximately 90% of the fire area, complete consumption of vegetation resources was observed; most shrub, grass, and forb species and organic material on the soil surface was consumed indicating extreme fire intensity.

Many of the forb species were consumed. Although the fire burned at varying intensities across the landscape, in most cases the residency time of the fire was short enough so as not to damage the soil, existing root systems, or reduce native seed banks in the known habitats of these plants.

Riparian trees and shrubs suffered heavy damage. Many large, mature cottonwoods were badly scorched and will likely die in the future. We estimate of 80% of these trees will be lost over the next several years.

Negative impacts resulting from vegetation losses include a reduction in wildlife habitat, forage for wildlife species, visual quality degradation, increased non-native species invasion, bare soils, and reduced species diversity. The loss of wildlife habitat and potential impacts to Threatened and Endangered Species are discussed further within the Wildlife Assessment.

Ground disturbing impacts to Refuge property resulted from the engines driving off road during suppression efforts. A complete inventory was conducted of ground disturbance on the fire area and emergency stabilization needs assessed (see Operations assessment).

B. Vegetation Recovery

Revegetation of the fire area through natural processes will take between 7-30 years to visually represent pre-fire conditions. However, due to the presence of non-native plants and noxious weeds, the site is at risk of becoming dominated by non-native annuals, such as cheatgrass, aggressive annual/biennial species such as Russian thistle, and aggressive perennial species such as Canada thistle, rush skeletonweed, and Russian Olive. Without active restoration it is unlikely that the site will recover to its pre-fire characteristics. Some impacted plant communities will take decades to re-establish back to pre-fire levels.

1. Noxious Weed Establishment

Invasive alien plant species pose one of the most serious threats to the native biodiversity, wildlife habitat, and scenic values of the Refuge. At Umatilla Refuge, and elsewhere in western North America, invasive and noxious alien plant species compete against and reduce habitat available for rare plant taxa and native plant species in general. Weeds alter ecosystem structure and function, disrupt food chains and other ecosystem characteristics vital to wildlife (including rare and endangered species), and can dramatically alter key ecosystem processes such as hydrology, productivity, nutrient cycling, and fire regime. Conditions created by wildfire favor the spread of many noxious weed species (Evans, J.R., J.J. Nugent, and J.K. Meisel, 2003).

The establishment of invasive species and noxious weeds which will compete with native vegetation recovery is likely. During field assessment inventories, the vegetation specialist recorded sightings of Russian olive (*Elaeagnus angustifolia*), Canada thistle (*Cirsium arvense*), Cheatgrass (*Bromus tectorum*), rush skeletonweed (Chondrilla juncea), and Russian thistle (*Salsola kali*) infestations.

All of the above non-native plants and noxious weeds spread vigorously, and are a threat to the burned area. Each of these species is currently located along existing road systems and/or in areas within or near the fire. It is imperative to treat known populations prior to seed-set in order to reduce the expansion potentials of these populations into the fire area. Immediate treatment of these populations is recommended.

The fire area presents a disturbance, and has created new open sites for weed invasion. Coupled with the added nutrients from the ash, a fertile bed for the rapid colonization and spread of non-native species has been created. Upon the discovery of new noxious weed populations, accurate population information should be collected through the use of Global Positioning Systems (GPS) to determine infestation size, original source and potential control methods. Control efforts will be implemented in accordance with the Invasive species management plan guidelines and protocols.

The area of the fire may have further populations of noxious weeds that are currently undocumented. Immediate surveys of the area are important to document any previously unknown infestations.

The U.S. Fish and Wildlife Service uses an Integrated Pest Management (IPM) approach to treat targeted invasive plant species on the Refuge. Manual, mechanical, biological, cultural (e.g., prescribed fire, competitive plantings), and chemical treatment methods will be used within the fire area to achieve prioritized weed control objectives. Invasive species managers will draw upon the full range of appropriate control technologies to develop integrated treatment plans for target species at selected priority sites. Treatment methodologies will be based upon the best information available from weed management literature and professional experience, tailored to the characteristics of the particular species and site.

2. Revegetation

Concern has been expressed over the loss of vegetation cover within the McCormack Fire area. Stabilization and re-vegetation of those areas as needed to ensure ecological function. Revegetation in the area should be conducted in order to protect soils in the area, to reduce the change due to further

erosion and degradation. Wind erosion is highly likely in this area. Additionally, because the site is at high risk from non-native species and noxious weeds, re-vegetation must be completed to protect the plant community and ecology of the site. As stated above, it is unlikely that the fire area will recover without some intervention and active restoration effort.

IV. RECOMMENDATIONS

A. Fire Suppression:

Suppression account - Replant and reseed all disturbed areas resulting from suppression actions with native species to protect the ecological integrity of the area. Seeding and planting will be postponed until fall of 2007 or until such time as adequate moisture provides a firm seedbed for stabilization actions.

B. Emergency Stabilization : (specification related)

The following recommendations are offered to assist in the timely recovery of the McCormack Fire:

-1 Non-native Invasive Species Control – Integrated Pest Management
Identify and treat non-native invasive species within the McCormack Fire area, and control infestations in areas adjacent to the McCormack Fire area utilizing integrated pest management techniques.

#-2 Ecological Planting– Native Plantings
Install native plants in burned area to stabilize ecological integrity of the native shrub steppe and riparian communities, to prevent invasion by noxious weeds and non-native species, and to stabilize soils and reduce erosion that threatens public safety and site degradation.

C. Management Recommendations (non-specification related)

- Protect area from further disturbance during recovery.

VI. References

Evans, J. R., J.J. Nugent, and J. K. Meisel. 2003. Invasive Plant Species Inventory and Management Plan for the Hanford Reach National Monument. Report to U.S. Fish and Wildlife Service, The Nature Conservancy of Washington, Seattle, Washington

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire

OPERATIONS ASSESSMENT

I. OBJECTIVES

- Identify, inventory, and map fire suppression impacts on jurisdictions affected by the fire.
- Specify rehabilitation measures to mitigate fire suppression impacts.
- Coordinate with local agencies so that specification recommendations are consistent with agency objectives.
- Protect natural and cultural resource values during rehabilitation efforts.

II. ISSUES

- Potential impacts to critical natural and cultural resources from suppression actions.
- Soil disturbance on highly erodable soils from fire suppression activities.

III. OBSERVATIONS

A. Background

Please refer to fire history summary.

B. Reconnaissance Methodology and Results

On May 30, 2007, refuge staff began evaluating resource impacts caused by the suppression effort on lands and physical improvements with the McCormack Fire area. Information was obtained from suppression forces, the Umatilla NWR manager, and the complex supervisory biologist.

C. Findings

The McCormack Fire burned approximately 45acres on the Umatilla NWR. Approximately 1-1.25 miles of access road into the fire and 3 miles within the fire area were created to stop the fire.

Rehabilitation of suppression line is necessary to protect habitats from noxious weed infestation, ORV intrusion on the landscape, and to minimize fragmentation of ecological areas. Monitoring of suppression lines is necessary to determine the need for future noxious weed mitigation needs. A complete cultural resource assessment will be completed on all suppression lines within the fire (refer to Cultural Resources Assessment).

There are two types of suppression impacts to be considered:

- The access road into the fire area that were used for suppression actions are now almost impassible due do the amount of lose powdery soils resulting from the destruction of soil structure in the upper horizons. These roads will be stabilized as weather permits (accumulation of adequate moisture).
- Vehicles trails around and through some of the perimeter of the fire area are almost impassible due do the amount of lose powdery soils resulting from the destruction of soil structure in the upper horizons. These roads will be stabilized as weather permits (accumulation of adequate moisture).

IV. RECOMMENDATIONS

A. **Management** (non-specification related)

- Continue to review rehabilitation specifications with operators and other personnel associated with implementation of the BAER Plan to insure suppression rehabilitation specifications are clearly understood for protection of sensitive resources and land productivity. Ensure proper accounting procedures are followed in the repair of suppression related impacts through suppression accounts.

- Guarantee safety of personnel assigned to rehab operational assignments in the fire area.

- Monitor suppression related damage on dirt roads following fall and winter moisture events to see if additional rehab measures are necessary.

V. CONSULTATIONS

Regional Office Archaeologist, FWS
Howard Browers, Wildlife Biologist, FWS
Heidi Newsome, Wildlife Biologist, FWS
Kevin Goldie, Wildlife Biologist, FWS
Brian Allen, Manager, Umatilla NWR

BURNED AREA EMERGENCY STABILIZATION PLAN

McCormack Fire

APPENDIX II ENVIRONMENTAL COMPLIANCE

Environmental Compliance Considerations and Documentation

NEPA Environmental Screening Checklist and Categorical Exclusion

APPENDIX II - ENVIRONMENTAL COMPLIANCE

ENVIRONMENTAL COMPLIANCE CONSIDERATIONS, DOCUMENTATION, AND CONSULTATIONS

McCormack Fire Burned Area Emergency Stabilization Plan

FEDERAL, STATE, AND PRIVATE LANDS ENVIRONMENTAL COMPLIANCE RESPONSIBILITIES

All projects proposed in the McCormack Fire Burned Area Emergency Stabilization (ES) Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, 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); Department of the Interior Manual, Part 516, U.S. Fish and Wildlife Service, NEPA Guidelines, Part 516 DM 6, Appendix 1; and DOE, NEPA Regulations (10 CFR Part 1021). This Appendix documents the BAER Team considerations of NEPA compliance requirements for prescribed rehabilitation and monitoring actions described in this plan for all jurisdictions affected by the McCormack Fire burned area emergency stabilization.

B. RELATED PLANS AND CUMULATIVE IMPACTS ANALYSIS

Final Comprehensive Conservation Plan (CCP) for McNary and Umatilla National Wildlife Refuges: The actions proposed in the McCormack Fire ES Plan within the boundary of Umatilla NWR are consistent with the management objectives established in the CCP

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 non-Federal. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. The emergency protection and stabilization treatments for areas affected by the McCormack Fire, as proposed in the McCormack Fire ES 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 and categorical exclusions listed below.

C. APPLICABLE AND RELEVANT CATEGORICAL EXCLUSIONS

U.S. Fish and Wildlife Service: The individual actions proposed in this plan the McCormack Fire are Categorically Excluded 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. Categorical Exclusion decisions were made with consideration given to the results of required emergency consultations completed by the BAER Team and documented in Section E below.

Applicable Departmental Categorical Exclusions

516 DM2 App. 2, 1.6	Non-destructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research and monitoring activities.
516 DM 6 App. 4.4 A	Operations, maintenance, and replacement of existing facilities (includes road maintenance).
516 DM 6 App. 4.4 L(5)	Emergency road repairs under 23 U.S.C. 125.
516 DM 6 App. 7.4 C(3)	Routine maintenance and repairs to non-historic structures, facilities, utilities, grounds and trails.
516 DM 6 App. 7.4 C(19)	Landscaping and landscape maintenance in previously disturbed or developed areas.

Applicable U.S. Fish and Wildlife Service Categorical Exclusions

516 DM 6 App. 1.4B (1)	Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources which involve negligible animal mortality of habitat destruction, no introduction of contaminants, or no introduction of organisms not indigenous to the affected ecosystem.
516 DM 6 App. 1.4B (3) i	The installation of fences.
516 DM 6 App. 1.4B (3)iii	The planting of seeds or seedlings and other minor revegetation actions.
516 DM 6 App. 1.4B (3)v	The development of limited access for routine maintenance and management purposes.
516 DM 6 App. 1.4B (5)	Fire management activities, including prevention and restoration measures, when conducted in accordance with Departmental and Service procedures.
516 DM 6 App. 1.4B (6).	The reintroduction or supplementation (e.g. stocking) of native, formerly native, or established species into suitable habitat within their historic or established range, where no or negligible environmental disturbances are anticipated.

D. STATEMENT OF COMPLIANCE FOR THE MCLANE FIRE BURNED AREA EMERGENCY STABILIZATION PLAN

This section documents consideration given to the requirements of specific environmental laws in the development of the McCormack Fire BAER Plan. 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 McCormack Fire BAER Plan:

1. National Historic Preservation Act (NHPA). The BAER Team archeologists have initiated necessary consultation with the Oregon State Historic Preservation Office (SHPO) regarding treatments proposed in the McCormack Fire BAER Plan.

2. Executive Order 11988. Floodplain Management. No treatments are proposed within the 100-year floodplain.

3. Executive Order 11990. Protection of Wetlands. Treatments and actions proposed within wetland areas will "minimize the destruction, loss or degradation of wetlands, and preserve and enhance the natural and beneficial values of wetlands".

4. Executive Order 12372. Intergovernmental Review. Coordination and consultation is ongoing with affected Tribes, Federal, State, and local agencies. A copy of the BAER Plan will be disseminated to all affected agencies.

5. 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 Environmental Protection Specialist 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.

6. Endangered Species Act. The BAER Team wildlife biologist and vegetation specialists have consulted with the Service and Washington Department of Fish and Wildlife regarding actions proposed in this plan and potential affects on Federally and State listed species. Individual agencies are responsible for continued consultations during plan implementation.

7. Clean Water Act. The BAER Team Environmental Protection Specialist has determined that treatments prescribed in the McCormack Fire burned area will have no impacts to water quality within wetland areas. Impacts would not differ significantly from similar work that has been conducted on other parts of the Umatilla NWR. Long-term, treatments proposed in this plan would be expected to have a beneficial impact to water quality through stabilization of ash and soils, and treatment of invasive species within the McCormack Fire burned area.

8. Clean Air Act. Federal Ambient Air Quality Primary and Secondary Standards are provided by the National Ambient Air Quality Standards, 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 Environmental Protection Specialist has determined that treatments prescribed in the McCormack Fire burned area 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 McCormack Fire burned area.

E. **NEPA Checklist**: If any of the following exception applies, the ESR Plan cannot be Categorically Excluded and an Environmental Assessment (EA) is required.

(Yes)	(No)	
( )	(X)	Adversely affect Public Health and Safety
( )	(X)	Adversely affect historic or cultural resources, wilderness, wild and scenic rivers aquifers, prime farmlands, wetlands, floodplains, ecologically critical areas, or Natural Landmarks.

( ) (X) Have highly controversial environmental effects.
( ) (X) Have highly uncertain environmental effects or involve unique or unknown environmental risks.
( ) (X) Establish a precedent resulting in significant environmental effects.
( ) (X) Relates to other actions with individually insignificant but cumulatively significant environmental effects.
( ) (X) Adversely effects properties listed or eligible for listing in the National Register of Historic Places
( ) (X) Adversely affect a species listed or proposed to be listed as Threatened or Endangered.
( ) (X) Threaten to violate any laws or requirements imposed for the "protection of the environment" such as Executive Order 1 1 988 (Floodplain Management) or Executive Order 1 1 990 (Protection of Wetlands).

National Historic Preservation Act

Ground Disturbance:

( )None
(X) Ground disturbance did occur and an archeological assessment/inventory will be conducted.

A NHPA Clearance Form:

( )Is required because the project may have affected a site that is eligible or on the national register. The clearance form is attached. SHPO has been consulted under Section 106 (see Cultural Resource Assessment, Appendix I).
(X) Is not required because the ESR Plan has no potential to affect cultural resources (initial of cultural resource specialist).

Other Requirements

(Yes) (No)
(X) ( ) Does the ESR Plan have potential to affect any Native American uses? If so, consultation with affiliated tribes is needed.
( ) (X) Are any toxic chemicals, including pesticides or treated wood, proposed for use? If so, local agency integrated pest management specialists must be consulted.

I have reviewed the proposals in the McCormack Fire Burned Area Emergency Stabilization Plan in accordance with the criteria above and have determined that the proposed actions would not involve any significant environmental effect. Therefore it is categorically excluded from further environmental (NEPA) review and documentation. ESR 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 environment review requirements.

ES Team Environmental Protection Specialist Date

Project Leader, Hanford Reach National Monument Date

BURNED AREA EMERGENCY STABILIZATION PLAN
McCormack Fire
Umatilla National Wildlife Refuge

APPENDIX III PHOTO DOCUMENTATION

Photo 1. Dune area burned during McCormack Fire. Photo shows rolling nature of dune topography and sandy soils that were impacted by fire suppression activities.

Photo 2. Dune area burned during McCormack fire.

Photo 3. Dune area burned in McCormack fire. High severity fire demonstrated on existing vegetation resources.

Photo 4. Wheel ruts in sandy soils. Potential for Russian olive invasion.

Photo 5. Scorched cottonwood trees.

Photo 6. Badly scorched mature cottonwood tree.

Photo 7. Badly scorched cottonwood trees.

Photo 8. Recently planted black cottonwood tree badly damaged by fire.