

**BUREAU OF LAND MANAGEMENT
ELKO FIELD OFFICE
BURNED AREA EMERGENCY REHABILITATION PLAN AND ACCOMPLISHMENT REPORT**

PART F - SPECIFICATIONS

SPECIFICATION TITLE:	RESEED BURNED-OVER RANGE USING DRILL OR AERIAL METHODS	AGENCY:	BLM, Elko F.O.
PART E LINE ITEM:	N-3b Ecological Stabilization - Planting/Seeding (BLM 98-148 III. Q)	FISCAL YEAR(S) (list each year):	2001 - 2003

I. WORK TO BE DONE

Number and Describe Each Task:	
<p>A. General Description: Fires within the Elko 21 Fire Complex have negatively impacted mid to late seral plant communities and increased the potential for erosion, loss of ecological integrity through the invasion of non-native species, and the spread of known populations of noxious weeds. Range sites within the 21 fires covered under this plan have been analyzed and prioritized for treatment to prevent site degradation, maintain ecological stability, and prevent spread of non-native, invasive weeds along roads by reseeding using species adapted to the sites.</p> <p>B. Location (Suitable) Sites: Camp Creek, Chokecherry, Cold Springs, Rabbit, South Cricket, and West Basin Fires. See Map Index, Treatment Section</p> <p>Site Preparation:</p> <ol style="list-style-type: none"> a. Seed mixtures as identified for each treatment area b. Seeding areas have been pre-identified for treatment c. Appropriate clearances (NEPA and Archaeological) are obtained d. Equipment is calibrated to project specifications established and administered by the local BLM Office e. Seed to be applied at specified rates using rangeland drills or aerially (helicopter) f. Monitoring conducted on seed application rates, treatment sites, and contractual specification compliance during seeding operations. <p>Seed: See attached Seed Mix</p> <ol style="list-style-type: none"> 1. Seed should be tested for purity and germination rates. Before excepting delivery of seed shipment the contractor must provide written evidence (seed label and letter) to the Resource Advisor that the seed conforms to the purity and germination requirements in the specification. Test methods specified in <i>Rules for Testing Seeds, Proceedings of the Association of Official Seed Analyst</i> will be acceptable for determining the germination rate. Seed designated without a purity or germination rate shall be labeled to include the name, date (month and year) collected, and the name and address of the seed supplier. 2. Delivery: Deliver pre-mixed certified weed-free seed sold on a pure live seed basis. Deliver to Contract Specified Location. 3. Storage: Seed should be applied as soon as possible after delivery. If immediate application is not possible the seed should be stored as follows: On-site stored seed must be protected from dew and rain. Seed must be stored under cover near a selected helibase site or near sites appropriate for basing ground (drilling operations) and protected from livestock and wildlife, etc. 4. Application Rate: Seed should be applied according to Agency Project Specifications. 5. Application Method: Pilot will apply according to line of sight and personal discretion, will utilize visible markers as necessary for swath continuity within the high to moderate fire severity areas. Tractor and drill operator will apply seed as flagged and at specified rates. <p>D. Purpose of Treatment Specifications: Stabilize soils in high to moderate burn intensity areas; protect the ecological integrity of native plant communities; and provide competing vegetation (cultural control methods) to prevent further spread of non-native, invasive weeds within the fire area.</p>	

II. LABOR, 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
Survey, design, & flagging for drill seeding GS-11 @ \$20.05/hr X 10 hrs/day X 10 days X Year 1	\$2,005.00
Survey, design, & flagging for aerial seeding GS-11 @ \$20.05/hr X 10 hrs/day X 8 days X Year 1	\$1,604.00
Project Inspector for drill seeding GS-11 @ \$20.05/hr X 10 hrs/day X 38 days X Year 1	\$7,619.00
Project Inspector for aerial seeding GS-11 @ \$20.05/hr X 10 hrs/day X 9 days X Year 1	\$1,804.00
Air Support Personnel @ \$ 1,000/day x 9 days (Helitak seasonals or AD hires) X 1 Year	\$9,000.00
TOTAL PERSONNEL SERVICE COST	\$22,032.00
EQUIPMENT PURCHASE, LEASE AND /OR RENT (Item @ Cost/Hour X # of Hours X # Fiscal Years = Cost/Item): Note: Purchase require written justification that demonstrates cost benefits over leasing or renting.	COST/ITEM
Helicopter Seed bucket Rental (2) @ 500/day X 9 days X 1 Year	\$4,500.00
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$4,500.00
MATERIALS AND SUPPLIES: (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item):	COST/ITEM
Drill Seed Mix Average Seed Costs @ \$ 8.01/avg price/b X 34,107 lbs (bulk) X 1 Year	\$273,173.00
Aerial Seed Mix Average Seed Costs @ \$ 8.67/avg price/lb X 65,507 lbs X 1Year	\$568,196.00
Broadcast Seed Mix Average Seed Costs @ \$ 3.58/avg price/b X 3,275 lbs (bulk) X 1 Year	\$11,738.00
Certified Weed-free hay for mulch @ \$125/Ton X 450 Tons X 1 Year	\$56,250.00
TOTAL MATERIALS AND SUPPLY COST	\$909,357.00
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST/ITEM
Seed transport vehicle for drill seeding @ \$.50/mile x 200 miles per day x 38 days X Year 1	\$3,800.00
Seed transport vehicle for aerial seeding @ \$.50/mile x 200 miles per day x 9 days X Year 1	\$900.00
Support Vehicle for aerial seeding @ \$1.00/mile X 200 miles/day X 9 days X Year 1	\$1,800.00
Per Diem for pilot and mechanic @ \$168/day X 9 days X 1 Year	\$1,512.00
Fuel truck milage @ \$1.00/mile X 200/mile X 9 days X 1 Year	\$1,800.00
TOTAL TRAVEL COST	\$9,812.00
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST/ITEM
Seed mixing cost for drill seeding mix @ \$0.10/lb. X 34,107 lbs x 1 Year	\$3,411.00
Seed mixing cost for aerial seeding mix @ \$0.10/lb. X 65,507 lbs x 1 Year	\$6,552.00
Fertilizer coating for drill seeding mix @ \$0.20/lb. X 142,148 lbs x 1 Year	\$6,822.00
Fertilizer coating for aerial seeding mix @ \$0.20/lb. X 142,148 lbs x 1 Year	\$13,101.00
Contracted Aerial Application @ \$7.25/acre X 9,737 acres	\$70,594.00
4% Contract administration and oversight to agency @ 04% X \$70,594.00 (total contract) X 1 Year	\$2,824.00
Rangeland drill application @ \$13.50 /acre x 3,868 Acres X 1 Year	\$52,218.00
4% Contract Administration and oversight to agency @ 04% X \$52,218.00 (total contract)	\$2,089.00
TOTAL CONTRACT COST	\$157,611.00

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	acres aerial	\$ 70.27	9,737	\$684,187.00	EFR	C
FY 1	acres drill	\$ 90.78	3,868	\$351,137.00	EFR	C
FY 1	acres broadcast/hay mulch	\$259.50	262	\$ 67,988.00		
FY 2						
FY 3						
TOTAL:	acres		13,867	\$1,103,312.00	EFR	C

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.	M, C
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.	

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:
 Treatment areas located in Treatment Maps (SEE MAP INDEX). Seeding mixtures are attached.
 Seed mixtures are listed and discussed in the Vegetation Assessment and seed cost prices were obtained from the following: Grassland West:1-888-456-7712, Granite Seed Co.,801-531-1456, Blm Seed Warehouse:208-384-3417.

IV. TOTAL COST BY FIRE

FIRE NAME	UNITS TREATED	TREATMENT METHOD	COST
Camp Creek	784	Aerial	\$84,265.00
Camp Creek	262	Broadcast/hay mulch	\$ 67,988.00
Chokecherry	726	Aerial	\$47,228.00
Cold Springs	1,267	Aerial	\$81,929.00
Rabbit	1,384	Aerial	\$157,685.00
Rabbit	1,384	Drill	\$233,755.00
South Cricket	5,076	Aerial	\$279,786.00
South Cricket	2,062	Drill	\$87,219.00
West Basin	500	Aerial	\$33,294.00
West Basin	422	Drill	\$30,163.00
TOTAL COST	13,867		\$1,103,312.00

2000 ELKO 21 FIRE COMPLEX SEED MIX LISTING

Notes:

Estimates derived from either the actual 1999 cost to the Elko Field Office or the 8/11/99 seed list from Boise Seed Cache; prices were increased 20%. The exceptions are forage kochia and Basin big sagebrush which was based on the estimated cost at the 2000 seed buy. Where species were not listed, the next closest species was used (i.e., Mountain big sagebrush was not listed so used the price and germination for Basin big sagebrush.)

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Reseed Burned-Over Range Using Drill or Aerial or Broadcast Methods

Drill Seed Mixes							
Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Rabbit							
Odggers Drill Mix					1,384		
Canbar Canby Bluegrass	2.0	65%	11.08			4,258	\$ 30,669
Inidan Ricegrass	4.0	80%	25.72			6,920	\$ 142,386
Critana Thickspike Wheatgrass	3.0	80%	7.55			5,190	\$ 31,348
Total						16,368	\$ 204,403
South Cricket							
Nordan Crested Wheatgrass	1.5	85%	2.09		2,062	3,639	\$ 6,464
Hycrest Crested Wheatgrass	1.5	85%	2.03			3,639	\$ 6,279
CritanaThickspike Wheatgrass	1.5	80%	7.55			3,639	\$ 23,352
Arriba Western Wheatgrass	1.5	80%	3.49			3,639	\$ 10,795
Total						14,556	\$ 46,890
West Basin							
Hycrest Crested Wheatgrass	2.0	85%	2.03		422	993	\$ 1,713
CritanaThickspike Wheatgrass	1.0	80%	7.55			528	\$ 3,186
Arriba Western Wheatgrass	2.0	80%	3.49			1,055	\$ 2,946
Immigrant Forage Kochia	1.0	75%	32.54			563	\$ 13,732
Western Yarrow	0.1	95%	7.19			44	\$ 303
Total						3,183	\$ 21,880

Aerial Seed Mixes							
Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Camp Creek							
Goldar Bluebunch Wheatgrass	5.0	80%	9.60		784	4,900	\$ 37,632
Canbar Canby Bluegrass	4.0	65%	11.08			4,825	\$ 34,747
Western Yarrow	0.1	95%	7.19			82	\$ 564
Total						9,807	\$ 72,943
Chokecherry							
Hycrest Crested Wheatgrass	2.0	85%	2.03		726	1,708	\$ 2,948
CritanaThickspike Wheatgrass	1.0	80%	7.55			908	\$ 5,481
Arriba Western Wheatgrass	2.0	80%	3.49			1,815	\$ 5,067
Immigrant Forage Kochia	1.0	75%	32.54			968	\$ 23,624
Western Yarrow	0.1	95%	7.19			76	\$ 522
Total						5,475	\$ 37,642

Aerial Seed Mixes							
Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Cold Springs							
Secar Snake River Wheatgrass	5.0	80%	10.66		1,267	7,919	\$ 67,531
Total							
Rabbit							
Odggers Drill Mix					1,384		
Black Sagebrush	0.75	12%		15.00		8,650	\$ 129,750
Immigrant Forage Kochia	0.25	75%	32.54			461	\$ 11,259
Western Yarrow	0.1	95%	7.19			146	\$ 995
Total						9,257	\$ 142,004
South Cricket							
Low Elevation Area					3,520		
Secar Snake River Wheatgrass	3.0	80%	10.66			13,200	\$ 112,570
Critana Thickspike Wheatgrass	2.0	80%	7.55			8,800	\$ 53,152
Western Yarrow	0.1	95%	7.19			371	\$ 2,531
						22,371	\$ 168,253
Overseed Drill Seed					1,556		
Immigrant Forage Kochia	1.0	75%	32.54			2,075	\$ 50,632
Western Yarrow	0.1	95%	7.19			164	\$ 1,119
Rice Hulls (seed dispersal)	3.0	n/a		0.46		4,668	\$ 2,147
						6,907	\$ 53,898
Total						5,076	\$ 222,151
West Basin							
Hycrest Crested Wheatgrass	2.0	85%	2.03		500	1,176	\$ 2,030
Critana Thickspike Wheatgrass	1.0	80%	7.55			625	\$ 3,775
Arriba Western Wheatgrass	2.0	80%	3.49			1,250	\$ 3,490
Immigrant Forage Kochia	1.0	75%	32.54			667	\$ 16,270
Western Yarrow	0.1	95%	7.19			53	\$ 360
Total						3,771	\$ 25,925

Broadcast and Hay Mulch Seed Mix							
Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Camp Creek							
Arriba Western Wheatgrass	4.0	80%	3.49		262	1,310	\$ 3,658
Sodar Streambank Wheatgrass	6.0	80%	5.14			1,965	\$ 8,080
Total						3,275	\$ 11,738