

**AUGUST 2001 FIRE COMPLEX
BURNED AREA EMERGENCY STABILIZATION REHABILITATION PLAN**

PART F - SPECIFICATIONS

SPECIFICATION TITLE:	RESEED BURNED-OVER RANGE USING DRILL OR AERIAL METHODS	AGENCY:	BLM, Elko F.O.
PART E LINE ITEM:	#18 V-1 Ecological Stabilization - Planting/Seeding	FISCAL YEAR(S) (list each year):	2002 - 2004

I. WORK TO BE DONE

Number and Describe Each Task:	<p>A. General Description: Fires within the Elko August 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 13 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: See Map Index, Treatment Section 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>C. Seed: See attached Seed Mix</p> <ol style="list-style-type: none"> 1. Aerial seeding application will be completed with Office of Aircraft (OAS) carded helicopter and pilot. Seed 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 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>
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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 @ \$25.00/hr X 10 hrs/day X 30 days X 2 people X Yr 1	\$15,000.00
Survey & flagging for Cadastral monuments GS-9 @ \$19.00/hr X 10 hrs/day X 45 days X Year 1	\$8,550.00
Project Inspector for drill seeding GS-11 @ \$25.00/hr X 10 hrs/day X 60 days X 1 persons x Year 1	\$15,000.00
Project Inspectors for drill seeding GS -7 @ \$17.00/hr X 10 hrs/day X 60 days x 2 person x Year 1	\$20,400.00
Survey, design, & GIS mapping of Aerial seeding GS-11 @ \$25.00/hr X 10 hrs/day X 30 days X Year 1	\$7,500.00
Project Inspector for Aerial seeding GS-11 @ \$25.00/hr X 10hrs/day X 30 days X Year 1	\$7,500.00
Helicopter Loading crew (inc. premium pay) GS-5 @ \$225 day x 3 people x 30 days x 1 Year	\$20,250.00
Helicopter Manager (inc. premium pay) GS-9 @ \$350 day x 30 days x 1 Year	\$10,500.00
TOTAL PERSONNEL SERVICE COST	\$104,700.00
▶ 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 buckets @ \$150/ day per bucket x 30 days x 1 year	\$9,000.00
Helicopter Ag/NAV GPS mapping system @ \$40/hour x 8 hours x 30 days x 1 year	\$9,600.00
Seed mixer @ \$200/day x 30 days x 1 year	\$6,000.00
Vehicle Rental Cost @ \$1000/ month x 3 months x 4 vehicles x 1 year	\$12,000.00
Vehicle maintenance costs @ .17 per mile x 250 miles/day x 90 days x 4 vehicles x 1 year	\$15,300.00
Vehicle fuel costs @ \$40.00 per day x 90 days x 4 vehicles x 1 year	\$14,400.00
Trade in 4 of the 1999 BAER four wheelers and purchase 4 new four wheelers	\$28,000.00
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$94,300.00
▶ MATERIALS AND SUPPLIES: (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item:	COST/ITEM
Drill Seed Mix Average Seed Costs @ \$ 3.50/avg price/b X 143,100 lbs (bulk) X 1 Year	\$500,850.00
Aerial Seed Mix Average Seed Costs @ \$ 11.00/avg price/lb X 226,538 lbs X 1Year	\$2,491,918.00
TOTAL MATERIALS AND SUPPLY COST	\$2,992,768.00
▶ 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 250 miles per day x 40 days X Year 1	\$5,000.00
Seed transport vehicle for aerial seeding @ \$.50/mile x 250 miles per day x 30 days X Year 1	\$3,750.00
Support Vehicle for aerial seeding @ \$2.00/mile X 250 miles/day X 30 days X Year 1	\$15,000.00
Per Diem for pilot and mechanic @ \$168/day X 30 days X 1 Year	\$5,040.00
Fuel truck milage @ \$1.00/mile X250/mile X 30days X 1 Year	\$7,500.00
TOTAL TRAVEL COST	\$36,290.00
▶ CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST/ITEM
Drill Seed Storage \$300/wk x 52 weeks x 1 year	\$15,600.00

Seed mixing cost for drill seeding mix @ \$0.10/lb. X 143,100 lbs x 1 Year	\$14,310.00
Fertilizer coating for drill seeding mix @ \$0.30/lb. X 143,100 lbs x 1 Year	\$42,930.00
Rangeland drill application @ \$14.00 /acre x 12,851 Acres X 1 Year	\$179,914.00
Site Preparation disking @ \$15.00/ acre x 3,885 Acres X 1 Year	\$58,275.00
7% Drill Contract Administration and oversight to agency	\$17,693.00
Aerial Seed Storage 300/wk x 52 weeks x 1 year	\$15,600.00
Seed mixing cost for aerial seeding mix @ \$0.10/lb. X 226,538 lbs x 1 Year	\$22,654.00
Fertilizer coating for aerial seeding mix @ \$0.30/lb. X 226,538 lbs x 1 Year	\$67,961.00
Contracted Aerial Application @ \$7.25/acre X 25,472 acres x 1 year	\$184,672.00
7% Aerial Contract Administration and oversight to agency	\$20,362.00
TOTAL CONTRACT COST	\$639,971.00

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	acres drill	\$68.80	12,851	\$884,097.00	ESR	C/P
FY 1	acres aerial	\$114.86	25,472	\$2,925,657.00	ESR	C/P
FY 1	acres disk	\$15.00	3,885	\$58,275.00	ESR	C/P
FY 2				\$0.00		
FY 3				\$0.00		
TOTAL:	acres	\$91.64	42,208	\$3,868,029.00	ESR	C/P

FUNDING SOURCES:

F = Fire Suppression Account
ESR = Emergency Stabilization 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.	P
5. No cost estimate required - cost charged to Fire Suppression Account.	

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

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

**List Relevant Documentation and Cross-Reference Location within BAER Report:
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
Bailey	150	Drill	\$10,319.40
Bailey	150	Aerial	\$17,228.66
Buffalo	695	Aerial	\$79,826.15
Hot Lakes	2,220	Aerial	\$254,984.24
North Delano	543	Drill	\$37,356.21
North Delano	4,498	Aerial	\$516,630.23
Ranch	1,307	Drill(Winnemucca)	\$89,916.33
Ranch	5,465	Drill	\$375,969.97
Ranch	5,465	Aerial	\$627,697.68
Rodeo	471	Drill	\$32,402.90
Rodeo	471	Aerial	\$54,098.01
Sheep	4,285	Drill	\$294,790.73
Sheep	3,885	Disk	\$58,275.00
Sheep	4,285	Aerial	\$492,165.52
Stag	593	Drill	\$40,796.01
Stag	7,688	Aerial	\$883,026.51
Tabor Creek	37	Drill	\$2,545.45
TOTAL COST	42,208		\$3,868,029.00

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Notes:

Estimates derived from either the actual 1999 cost to the Elko Field Office or the 8/1/99 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.

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
Bailey							
Siberian Crested Wheatgrass	4.5	80%	3.05		150	850	\$ 2,593
Nordan Crested Wheatgrass	4.5	80%	2.22			850	\$ 1,887
Total						1700	\$ 4,480
North Deleno							
Rush Intermediate Wheatgrass	3.0	80%	10.00		543	2,050	\$ 20,500
Bozoisky Russian Wildrye	3.0	80%	3.20			2,050	\$ 6560
Hycrest Crested Wheatgrass	3.0	80%	2.03			2,050	\$ 4,162
Total						6,150	\$ 31,222
Ranch (Elko Management Area Mix)							
Siberian Wheatgrass - Vavilov	2.5	80%	3.05		5465	17,100	\$ 52,155
Hycrest Crested Wheatgrass	2.0	80%	2.03			13,700	\$ 27,811
Nordan Wheatgrass	2.0	80%	2.22			13,700	\$ 30,414
Russian Wild Rye - Bozoisky	2.5	75%	3.20			18,250	\$ 58,400
Total						62,750	\$ 168,780
Ranch (Winnemucca Management Mix)							
Hycrest Crested Wheatgrass	5.0	80%	2.03		1307	8,200	\$ 16,646
Ladak upland alfalfa	1.0	88%	1.30			1,500	\$ 1,950
Forage Kochia	0.5	95%	25.30			900	\$ 22,770
Total						10,600	\$ 41,366
Rodeo							
Siberian Wheatgrass - Vavilov	2.5	80%	3.05		471	1,500	\$ 4,575
Hycrest Crested Wheatgrass	2.0	80%	2.03			1,200	\$ 2,436
Nordan Wheatgrass	2.0	80%	2.22			1,200	\$ 2,664
Russian Wild Rye - Bozoisky	2.5	75%	3.20			1,600	\$ 5,120
Total						5500	\$ 14,795
Sheep							
Siberian Wheatgrass - Vavilov	2.5	80%	3.05		4285	13,400	\$ 40,870
Hycrest Crested Wheatgrass	2.0	80%	2.03			10,750	\$ 21,823
Nordan Wheatgrass	2.0	80%	2.22			10,750	\$ 23,865
Russian Wild Rye - Bozoisky	2.5	75%	3.20			14,300	\$ 45,760
Total						49,200	\$ 132,318
Drill Seed Mixes							

Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Stag							
Secar Snake River Wheatgrass	4.5	80%	10.66		593	3,350	\$ 35,711
Idaho Fescue	4.5	80%	9.00			3,350	\$ 30,150
Total						6,700	\$ 65,861
Tabor Creek							
Critana Thickspike	2.0	80%	7.55		37	100	\$ 755
Secar Snake River Wheatgrass	6.0	80%	10.66			300	\$ 3198
Indian Rice Grass	2.0	80%	25.24			100	\$ 2,524
Total						500	\$ 6,477

Aerial Seed Mixes							
Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Bailey (Drill Overseed)							
Forage Kochia	1.0	95%	25.30		150	160	\$ 4,048
Total						160	\$ 4,048
Buffalo							
Critana Thickspike	6.0	80%	7.55		695	5,250	\$ 39,638
Secar Snake River Wheatgrass	6.0	80%	10.66			5,250	\$ 55,965
Western Yarrow	0.15	95%	7.19			150	\$ 1,079
Total						6,700	\$ 96,682
Hot Lake							
Siberian Wheatgrass - Vavilov	3.0	80%	3.05		2220	8,325	\$ 25,391
Hycrest Crested Wheatgrass	3.0	80%	2.03			8,325	\$ 16,900
Nordan Wheatgrass	3.0	80%	2.22			8,325	\$ 18,482
Russian Wild Rye - Bozoisky	3.0	75%	3.20			8,880	\$ 28,416
Forage Kochia	1.0	95%	25.30			2,337	\$ 59,126
Total						36,192	\$ 148,315
North Deleno (Block 1)							
Critana Thickspike	2.0	80%	7.55		3924	9,850	\$ 74,368
Secar Snake River Wheatgrass	5.0	80%	10.66			24,550	\$ 261,703
Rush Intermediate	5.0	80%	10.00			24,550	\$ 245,500
Total						58,950	\$ 581,571
North Deleno (Block 2)							
Critana Thickspike	5.0	80%	7.55		574	3,588	\$ 27,089
Secar Snake River Wheatgrass	5.0	80%	10.66			3,588	\$ 38,248
Total						7,176	\$ 65,337

Aerial Seed Mixes							
Rangeland Seed Mix	Rate/ac lbs.	Min % PLS	Cost/lb. PLS	Cost/lb. Bulk	Acres	Bulk lbs.	Total Cost
Ranch (Drill Overseed)							
Forage Kochia	1.0	95%	25.30		5465	5,750	\$ 145,475
Total						5,750	\$ 145,475
Rodeo (Drill Overseed)							
Forage Kochia	1.0	95%	25.30		471	500	\$ 12,650
Total						500	\$ 12,650
Sheep (Drill Overseed)							
Forage Kochia	1.0	95%	25.30		4285	5400	\$ 136,620
Total						5400	\$ 136,620
Stag							
Secar Snake River Wheatgrass	8.0	80%	10.66		7688	76,880	\$ 819,541
Idaho Fescue	3.0	80%	9.00			28,830	\$ 259,470
Total						105,710	\$ 1,079,011