

**DEPARTMENT OF THE INTERIOR  
ELKO FIELD OFFICE - ELKO 21 FIRE PLAN  
BURNED AREA EMERGENCY REHABILITATION PLAN AND ACCOMPLISHMENT REPORT**

**PART F - SPECIFICATIONS**

<b>SPECIFICATION TITLE:</b>	<b>STRAW WATTLES</b>	<b>AGENCY:</b>	<b>BLM Elko F.O.</b>
<b>PART E LINE ITEM:</b>	<b>W-4 Straw Wattles (BLM 98-148 111 BB)</b>	<b>FISCAL YEAR(S) (list each year):</b>	<b>2001 - 2003</b>

**I. WORK TO BE DONE**

<p><b>Number and Describe Each Task:</b></p> <p><b>A. General Description:</b> Straw wattles can be used on slopes to act as terraces to prevent slope erosion and facilitate re-vegetation. Straw wattles will be utilized for stabilizing slopes greater than or equal to 30% and less than or equal to 60%.</p> <p><b>B. Location (Suitable) Sites:</b> Slopes susceptible to sheet and rill erosion and slopes difficult to vegetate because of soil movement. South Cricket and Vega fire have suitable for straw wattles.</p> <p><b>C. Design/Construction Specifications:</b> Wattles should be installed on contour with slight downward angle at the end of the row to prevent ponding at mid-section. Wattles should be installed in shallow trenches 2 to 5 inches deep depending on soil type. Vertical spacing of wattles is as follows:  1:1 slopes 10 feet apart  2:1 slopes 20 feet apart  3:1 slopes 30 feet apart  4:1 slopes 40 feet apart</p> <p>When installing running lengths of wattles, butt the second wattles tightly against the first. Stake the wattles down at each end and every four feet from the center. Stakes should be driven down perpendicular to the slope.</p> <p><b>D. Purpose of Treatment Specifications:</b> Straw wattles are intended to capture and keep sediment on slopes. Wattles temporarily stabilize slopes by shortening slope length and reducing the slope steepness until vegetation can get established.</p>
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**II. LABOR, MATERIALS AND OTHER COST:**

<p>▶ <b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item Do not include contract personnel costs here (see contractor services below).</b></p>	<b>COST/ITEM</b>
GS-7 @ \$13.50/hour x 160 hours x 1 year (Project supervisor - seasonal work force)	\$2,160.
10-person team @ \$85.00/hour x 160 hours (seasonal work force)	\$13,600.
TOTAL PERSONNEL SERVICE COST	\$15,760.
<p>▶ <b>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.</b></p>	<b>COST/ITEM</b>
Fuel and maintenance of quad track vehicle x 1 year	\$300.
Gloves and safety equipment x 1 year	\$275
Flagging, nails, lath stakes, mallets x 1 year	\$300.
Canvas tarps to cover wattles at project site x 1 year	\$300.
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$1,175.
<p>▶ <b>MATERIALS AND SUPPLIES: (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item:</b></p>	<b>COST/ITEM</b>
Straw Wattle's (9 inch diameter by 25 feet long) @ \$1.15/feet ea. (delivered) x 100,000 feet x 1 year	\$115,000.
Stakes @ \$.18/stake x 4 stakes/wattle x 4000 wattles x 1 year	\$2,880.

TOTAL MATERIALS AND SUPPLY COST	\$117,880.
▶ TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	<b>COST/ITEM</b>
Crew van @ \$70./day x 20 days x 1 year	\$1,400
TOTAL TRAVEL COST	\$1,400.
▶ CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	<b>COST/ITEM</b>
TOTAL CONTRACT COST	<b>\$136,215.</b>

**SPECIFICATION COST SUMMARY**

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY 1	Square feet	\$1.36	100,000	\$136,215	EFR	P
FY 2						
FY 3						
<b>TOTAL:</b>				<b>\$ 136,215</b>	<b>EFR</b>	<b>P</b>

FUNDING SOURCES:

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

METHODS:

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

**SOURCE OF COST ESTIMATE**

1. Estimate obtained from 2-3 independent contractual sources.	M
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.	

**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:**  
 See text of Soil and Watershed Assessment (Appendix I) for narrative on the objectives. See map index, Treatment section for potential treatment sites.

**IV. TOTAL COST BY FIRE**

FIRE NAME	UNITS TREATED	COST
ADOBE	33,600	\$45,768
SOUTH CRICKET	6,400	\$8,718
VEGA	60,000	\$81,729
<b>TOTAL COST</b>	<b>100,000</b>	<b>\$136,215</b>

STRAW ROLLS MUST BE PLACED ALONG SLOPE CONTOURS

3'-4'  
(1.2m)

ADJACENT ROLLS SHALL TIGHTLY ABUT

10'-25'  
(3-8m)

SPACING DEPENDS ON SOIL TYPE AND SLOPE STEEPNESS

SEDIMENT, ORGANIC MATTER, AND NATIVE SEEDS ARE CAPTURED BEHIND THE ROLLS.

LIVE STAKE

3"-5" (75-125mm)

8"-10" DIA.  
(200-250mm)

1" X 1" STAKE  
(25 x 25mm)

NOT TO SCALE

NOTE:

1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

STRAW ROLLS