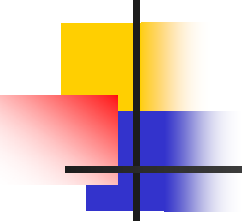


RESTORATION OF A CRESTED WHEATGRASS FIELD



RECLAIMING DEGRADED LANDS FOR SAGE GROUSE

Pam Camp and Jerry Bensen

- 
-
- IN 2001 MONEY WAS AWARDED TO START UP A RESTORATION PROGRAM USING NATIVE PLANTS.
 - BLM HAS DONE RESTORATION FOR YEARS BUT WITH DIFFERENT OBJECTIVES
 - WHAT'S NEW IS USE OF NATIVE GENOTYPES, OF GRASSES, WILDFLOWERS AND SHRUBS FOR WILDLIFE
 - ESPECIALLY SAGE GROUSE



TODAY'S TALK

- PLANNING
- FIELD PREPARATION
- PLANTING
- DUFFY CREEK FIRST YEAR RESULTS
- RE-INTRODUCING WILDFLOWERS
 - Julie Sanderson

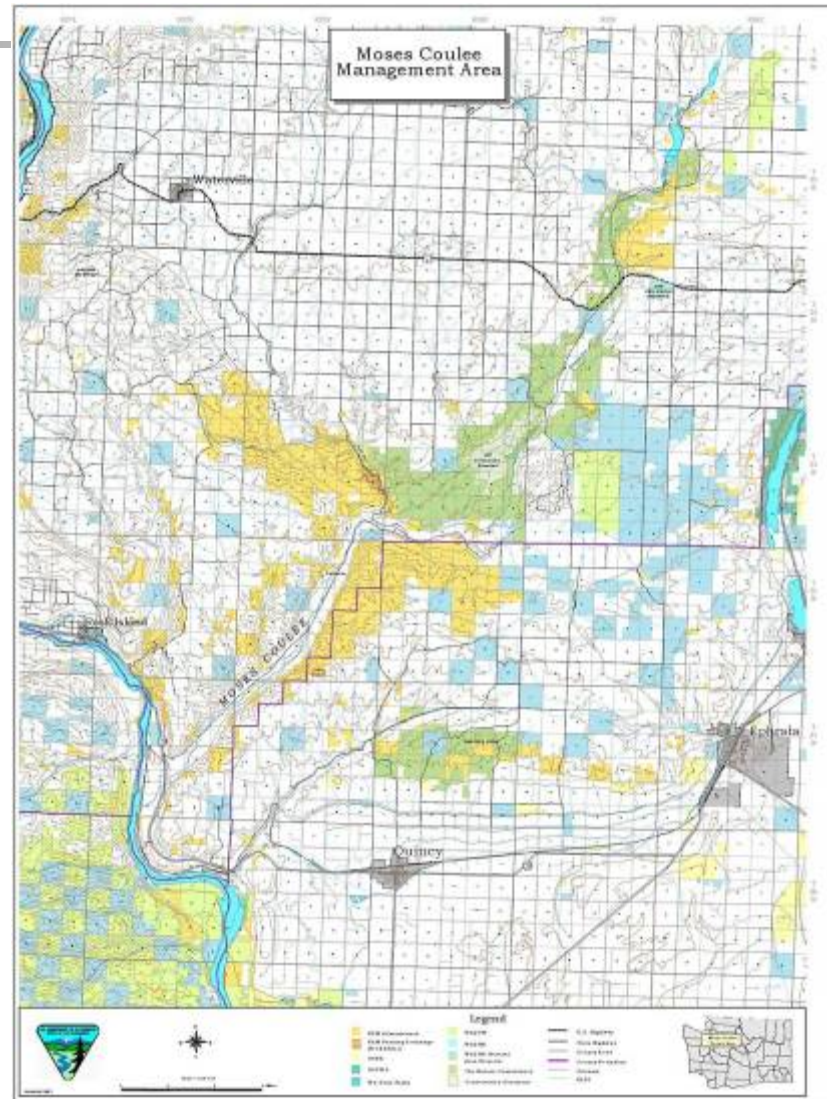
MOSES COULEE DEMONSTRATION PROJECT

NORTHERN DOUGLAS CO.,
ONE OF THE TWO REMAINING
SAGE GROUSE AREAS IN
THE STATE

ONE OF THE REMAINING
CONTIGUOUS NATIVE
HABITATS

JOINT MANAGEMENT AREAS
OF BLM AND TNC

ACREAGE 50,000 BLM
35,000 TNC





MOSES COULEE AREA

SAGE GROUSE HABITAT

ON THE TOPS OF THE
RIDGES

SAGE GROUSE STANDARDS-
10-30% SAGEBRUSH
BUNCH GRASSES 7-INCHES HIGH
MIXTURE OF WILDFLOWERS SEEDS

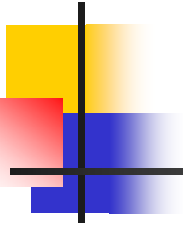


SITE SELECTION

- AREA IMPORTANT TO SAGE GROUSE
- FLATISH AND ROCK FREE
- NO GRAZING LEASE FOR THE NEXT 10 YEARS



SITE SPECIFICS



- 100 ACRES AT DUFFY CREEK CRP, IN THE 1980'S FLAT, EASY ACCESS
- 2 PIECES, SOME FENCING
- ADJACENT TO NATIVE AREA
- WEED FREE*
- IRREGULAR SHAPE*
- MORE RAIN, COOLER SPRING
- FREE FROM GRAZING



PLANNING

- 1. WHAT GRASS, SHRUB AND WILDFLOWERS WERE THERE?



ADJACENT AREAS
SPECIES LISTS

100-200 SPECIES IN
THIS ENVIRONMENT

DAUGBENMIRE'S
SAGEBRUSH STEPPE
FOR ABUNDANCE

SAGE GROUSE FORBS

PLANNING- STARTING A SEED SUPPLY

2. ARE THERE SOURCES FOR THESE SPECIES IN QUANTITIES



NO

**Too expensive
Natives don't work well
Aren't as viable**

**STARTED SEED COLLECTION
IN 2002**

4 GRASS SPECIES 25 LB PER SPECIES

**EASIER TO MISS THE WINDOW
FOR EACH SPECIES**

**FINDING SITE NOT CONTAMINATED
WITH UNDESIRABLES**

PLANNING AT LEAST 2-3 YEARS OUT

FROM WILD COLLECTING TO GROWOUT



Scott Lambert, Linda Hardsessey, Pam Camp, Jerry Benson, Joan SeEVERS



**FIELDS OF BLUEBUNCH WHEATGRASS, IDAHO FESCUE,
SANDBERG BLUEGRASS, CUSICK'S BLUEGRASS**



THE TWO YEAR PLAN FOR CRESTED WHEATGRASS REMOVAL

- REDUCE BIOMASS
- EVEN UP THE GROUND
- PREPARATION OF THE SEED BED
- ACCUMULATION OF MOISTURE
- PLANTING

PREPARATION- YEAR 1

OBJECTIVES

GETTING RID OF CRESTED
WHEATGRASS
REDUCE BIOMASS
EVEN UP THE GROUND
MOISTURE ACCUMULATION

METHODS

Mowing
Harrowing
Winter fallow



SITE

IRREGULAR SHAPE*
MORE RAIN, COOLER
SPRING



**COOPERATION WITH
STATE FISH AND WILDLIFE**

NEED SMALLER EQUIPMENT !

THE TWO YEAR PLAN

YEAR 1- GETTING RID OF BIOMASS

MOWING



PRE-TREATMENT



POST MOWING

HARROWING AND SUMMER FALLOW



YEAR 2

WEED CONTROL , MORE BIOMASS CONTROL SUMMER FALLOW AND PLANTING



WEED CONTROL
1.5 QT/AC ROUND-UP

CHEISEL PLOW
CUT ROOTS,
BURY SEEDS



HARROWING

PLANTING



SEED STORAGE ON SITE



PLANTING RATE

10 lb/acre

35 AC/DAY

THE SEED

Too expensive
Natives don't work well
Aren't as viable

SEED QUALITY

	PURITY	VIABILITY
BLUEBUNCH	98.6	91
IDAHO FESCUE	94.6	83
SANDBERG	98.6	80

SEED MIX

- 60% Bluebunch Wheatgrass
- 18% Idaho Fescue
- 1% Cusick's blue grass
- 8% Sandberg bluegrass
- 13% Rice hulls





FIRST YEAR RESULTS, 2005



SUCCESS!

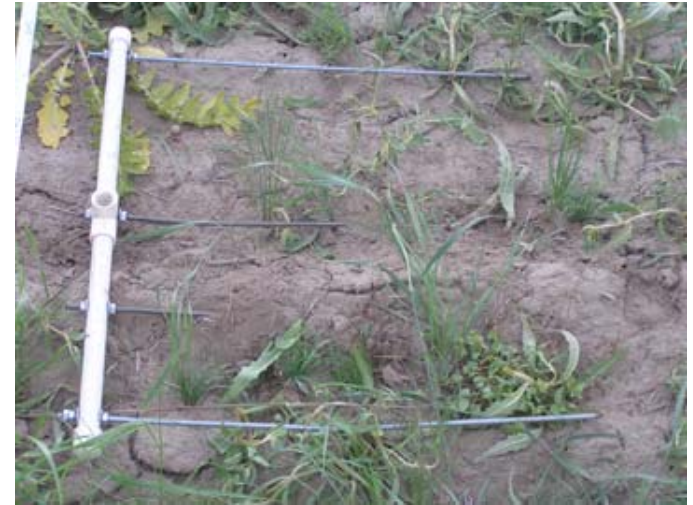
WEED FREE*

??



2 MONTHS LATER- THE WEEDS APPEAR

MONITORING



NESTED FREQUENCY
DENSITY SEEDLING/FT SQ.

	W	E
Agsp	3.2	1.8
Pose	5.3	3.6
Feid/cu	2.4	1.3

NRCS STANDARDS 1/SQ. FT



SUMMARY- IT JUST TAKES TIME



- (TO BE CONTINUED)

AN OLD AG. FIELD 20 YEARS LATER (Foster Creek)