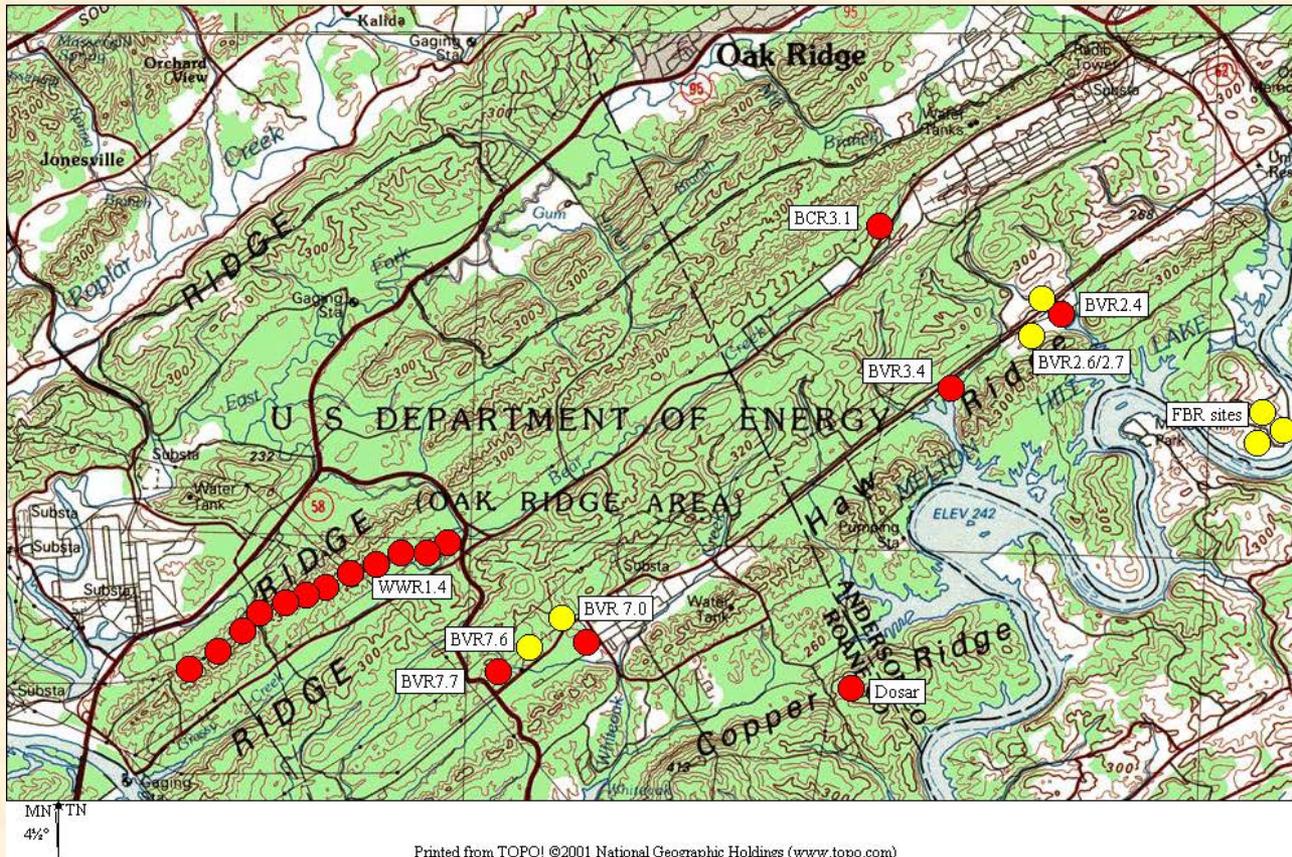


Establishment of Native Warm Season Grass Communities on the Oak Ridge Reservation

- **Project Goals:** To convert appropriate areas to native grasslands and promote use of native warm season grasses (NWSG) as preferred seeding option
- **Mission Relevancy:** The use of native grasses meets Executive Orders 13148 and 13112, results in lower costs, and increases land value.

Establishment of Native Warm Season Grass Communities on the Oak Ridge Reservation



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TWRA Habitat Enhancement – Freels Bend

Before: mowed fescue/scrub fields

2002



TWRA Habitat Enhancement – Freels Bend Site Prep: mow; herbicide; prescribed burn

April
2002



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The logo for UT-Battelle, featuring a stylized green mountain range above the text "UT-BATTELLE" in a bold, black, sans-serif font.

TWRA Habitat Enhancement – Freels Bend Planting: no-till drill with seed mix

June 2002



TWRA Habitat Enhancement – Freels Bend

Mixed Success: growth of NWSG and variety of forbs and other grasses

August 2002



Demonstration Site – Grass Types

Before: abandoned fescue/shrub fields

2002



Demonstration Site – Grass Types

Site Prep: bush-hog; herbicide



Spring-Summer 2002



Demonstration Site – Grass Types

Planting: no-till drill



July 2002

Five different plantings:

- Little bluestem
- Big bluestem
- Indian grass
- Switchgrass (2 varieties)
- Wildlife mix of big, little, and Indian grass with 4 wildflowers

Demonstration Site – Grass Types

Mixed success: some NWSG, lots of wildflowers, including volunteers



Demonstration Site – Aesthetics

Before: southern pine beetle damaged

2002



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UT-BATTELLE

Demonstration Site – Aesthetics

Site prep: pile/burn and bog harrow



Feb 2003



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Demonstration Site – Aesthetics

Planting: no-till drill of NWSG;
broadcast of wildflowers

May 2003



Demonstration Site – Aesthetics

Mixed Success: great establishment of NWSG;
poor wildflower establishment

Fall 2003



Demonstration Site – Wetland Restoration

Before: mix of native species and exotics
(fescue, honeysuckle, privet)



2003



Demonstration Site – Wetland Restoration

Site prep: cut stump and selective spray herbicide

Summer 2003



Demonstration Site – Wetland Restoration

Planting: plugs of grasses and wildflowers

Summer 2003



Demonstration Site – Wetland Restoration

Mixed success: good growth of larger grass and wildflowers, but invasives still problem



Projects with Problems

- **Right of way planting: poor establishment of native grass – cover crop too thick?**
- **Stream restoration planting: no establishment of native grass – clay compacted too much?**



ORR Native Warm Season Grass 2002-2003:

Accomplishments

- 200 acres planted in variety of grasses
- Database of naturally occurring grass areas and planted grass areas
- Fescue replaced by NWSG as preferred choice for re-seeding construction areas

ORNL Partners

- UT-Battelle
- TWRA
- TVA
- DOE
- BJC
- CSC
- IPC

ORR Native Warm Season Grass 2004: planned projects

- Plant NWSG and wildflowers at SNS entrance (hydroseed) and East Campus of ORNL
- Plant NWSG at remediation sites around ETTP
- Use NWSG for restoration of treated invasive plant sites

