North Zone Fire Management

Prescribed Fire Media Guide

This document briefly describes the benefits of prescribed fire in our forested landscape. It also details the locations and objectives for each of our planned project locations.

PRESCRIBED FIRE:
IMPROVING THE HEALTH OF OUR FORESTED ECOSYSTEM

Fires burns in forests and rangeland, playing a vital ecological role in keeping land healthy. Fire reduces dead vegetation, replenishes nutrients in the soil, stimulates new growth, and maintains biological diversity. Over time a mix of forest management practices, fire suppression, and recently – drought, has led to overcrowding of vegetation and plants and shrubs that may not be ecologically adapted to live with fire. As a result, our forests are now conducive to large, severe wild land fires. Prescribed burns allow fire managers to reintroduce fire under a more controlled environment, usually in the spring or fall, to lower fire intensities and produce fire effects that are more desirable to land managers and the public. Once completed, the prescribed burn area will also serve to lessen fire intensities from naturally ignited fires such as lightning and provides fire managers more options when suppressing future fires.

In the Black Hills, public land managers have been reducing accumulations of hazardous fuels that lead to large, severe wild land fires through the use of mechanical treatment and prescribed fire. Reducing hazardous fuels through prescribed fire and other tools is a key component of the National Fire Plan. This plan is interagency strategy, developed by the Department of Agriculture and Department of Interior, to respond to severe wild land fires, reduce fire's impacts on rural communities, and to assure sufficient firefighting capacity in the future. The National Fire Plan, as well as other legislation such as the Healthy Forest Restoration Act, provides direction for land managers to reduce fuel concentrations and threats of uncharacteristic wildfires in the Wildland Urban Interface.

The last several years, substantial progress has been made implementing prescribed fire projects and mechanical fuels reduction treatments within the urban interface mix. Mechanical fuels reduction involves removal or shredding of dense stands of trees. The Forest Service will utilize private contractors with machines that use special attachments that fragment the trees and reduce slash accumulations that can lead to more intense fires. Mechanically thinning trees will remove laddering fuels that reach into the canopies of the older trees. Removing ladder

fuels will decrease torching of trees and ultimately crown fires. Mechanical fuels treatments are conducted near private property where prescribed fire may be too risky.

Prescribed fires have proven to be very successful in creating the conditions necessary for healthy forests, but there is troublesome side of smoke. To minimize the impacts of smoke, land managers work closely with the South Dakota and Wyoming Department of Environmental Quality, the National Weather Service, and adjoining ranger districts when implementing prescribed fires.

Before every prescribed fire, burn personnel call the National Weather Service with on-site weather conditions and request a spot weather forecast. This forecast allows fire managers to determine whether they will burn or not based on site specific weather forecasts.

This forecast includes temperatures, relative humidity, winds, and smoke dispersal. Typically, the Forest Service will only burn when the smoke dispersal rating is fair or better. A rating of fair or better allows smoke to rise higher in the atmosphere and allows upper air winds to disperse smoke. Yet even in favorable conditions, the air will still become smoky. Although the air is smoky, it still meets federal and state air quality standards.

Smoke will also be seen this winter when the snow flies. Currently, North Zone Fire Management has several hundred acres of hand and machine piles that will also be burned. Thinning and hand piling is chosen when forest aesthetics is important because fire crews can selectively leave the largest, healthiest trees and pile the downed and dead woody material.

Ladder fuels can make broadcast burning dangerous

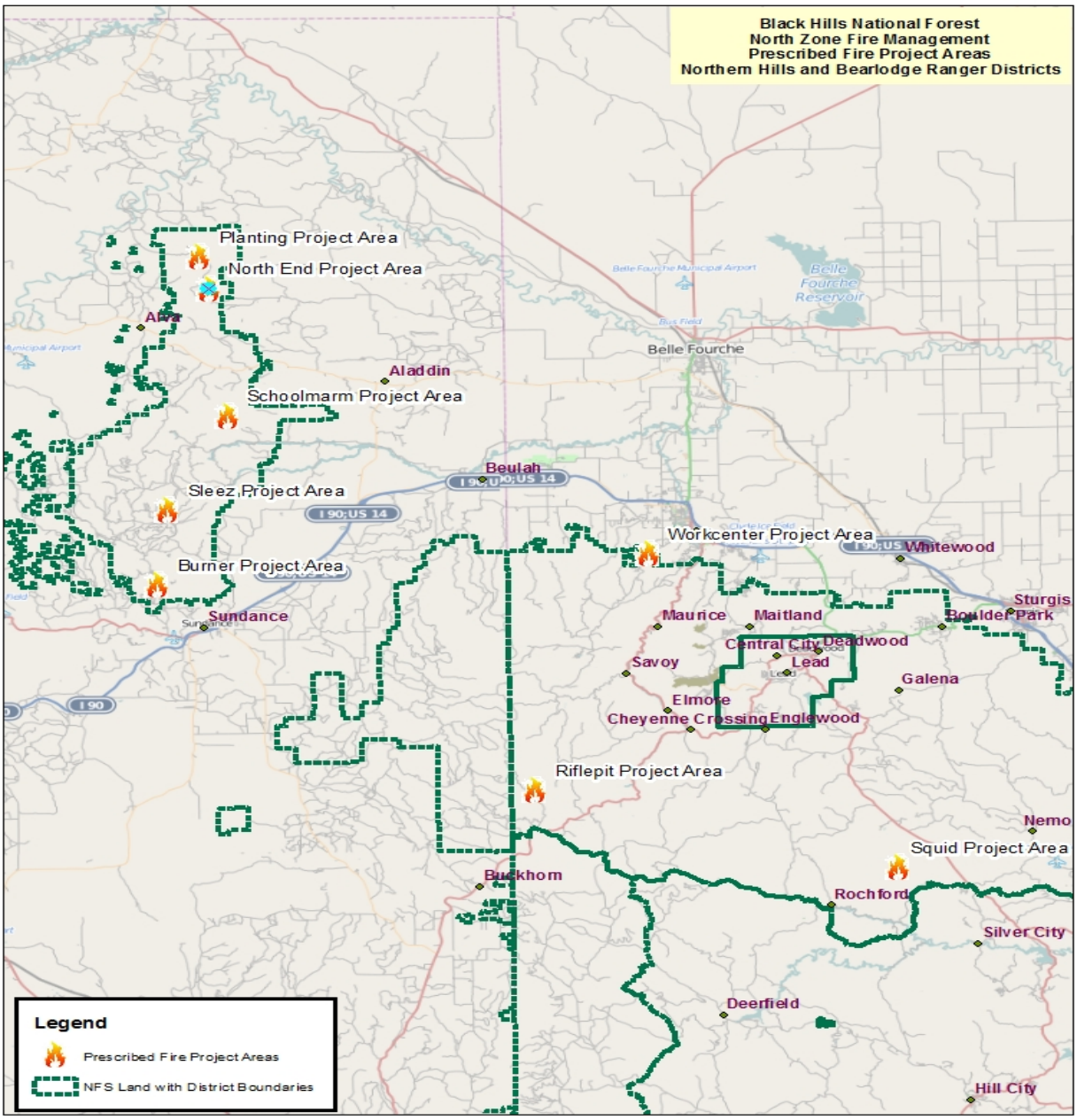
Area after selective thinning and piling

When a natural ignition does occur, this treatment effectively removes ladder fuel, which reduces the chance of trees torching and initiating crown fire. Removing woody debris on the forest floor helps firefighters because it slows fire's rate of spread and reduces the flame length so initial attack forces have increased suppression options (i.e. engines, hand line, dozer line) too safely and effectively manage the incident. Hand piles are typically created near structures where prescribed broadcast burning is too risky.

North Zone Fire Management consists of two ranger districts on the northern tier of the Black Hills National Forest. The Bearlodge Ranger District encompasses much of the Wyoming side of the Black Hills and the Bearlodge Mountains in northeast Crook County Wyoming. The Northern Hills Ranger District follows the Wyoming border to US 85, and then generally follows the Lawrence and Pennington County Lines east to near Interstate 90.

Starting in early fall, the North Zone of the Black Hills will focus efforts on the Workcenter, Squid and Burner project areas. Other areas identified are also planned if a better window of opportunity becomes available for that area. All of these areas have been identified and cleared for treatment utilizing direction from the National Fire Plan and focus on treating forested land within the wildland urban interface.

During the winter, smoke from slash pile burning may be seen in all parts of the zone from various hand piling projects or burning of the larger landing site piles generated from timber sales.



Vicinity map that depicts project areas on the Northern Hills and Bearlodge Ranger Districts.

NORTHERN HILLS RANGER DISTRICT PRESCRIBED FIRE PROJECTS FISCAL YEAR 2016

PROJECT NAME	PLANNED ACRES	TARGET DATE
Squid	120	October -November
Riflepit	500	October-November
Workcenter	225	October-December

The desired objectives for these project areas are to reduce natural and activity created fuels near wildland urban interface. The treatments in these units will maintain a forest structure that continues to inhibit the spread of wildland fire to the crowns of trees. Reducing surface fuels will lessen the fire intensity required to pre-heat the tree crowns which is necessary for crown fires to initiate. Fires that remain on the surface of the ground provide managers more diverse and safer fire suppression strategies when a fire does start. The burn will also recycle necessary nutrients to the soil that will provide additional browse and forbs for wildlife species and create a proper seedbed for pine regeneration.

The Squid project area is located in the Experimental Forest - south of Roubaix Lake, west of Highway 385 and north of the Rochford Road and Sugar Shack. The legal location is Township 2 North, Range 4 East, Section 10. The Squid project area is coordinated effort between the district and the Rocky Mountain Research Station and Colorado State University to examine fire intensity and severity and its effects on varied structured ponderosa pine stands.

The Riflepit project area is located north of Highway 85 at O'Neil Pass. The legal location for Riflepit is Township 3 North, Range 1 East, Section 8.

The Workcenter project area is four miles southeast of Spearfish along Tinton Road. Prescribed fire efforts are a continuing effort under the Citadel EIS to reduce likelihood of high-intensity wildfires that are difficult to control and threaten structures, private land and other improvements in the surrounding area.

For more information on these project areas please contact Jeff Gies or Brian Rafferty at the Northern Hills Ranger District office at 605-642-4622.

BEARLODGE RANGER DISTRICT
PRESCRIBED FIRE PROJECTS FISCAL YEAR 2016

PROJECT NAME	PLANNED ACRES	TARGET DATE
Burner Project Area	500	October-November
Sleez Prescribed Fire	500	October-November
Schoolmarm	63	October-November
Northend	250	October-January

The primary benefits of these burns are to begin reducing the continuity of live, dead, standing and downed hazardous fuels in the treatment areas. Hazardous fuels reduction will help to protect nearby private property and homes, and to aid fire suppression tactics and strategies in the event of an ignition (unplanned or unwanted wildland fire) while restoring and/or maintaining the hardwood component.

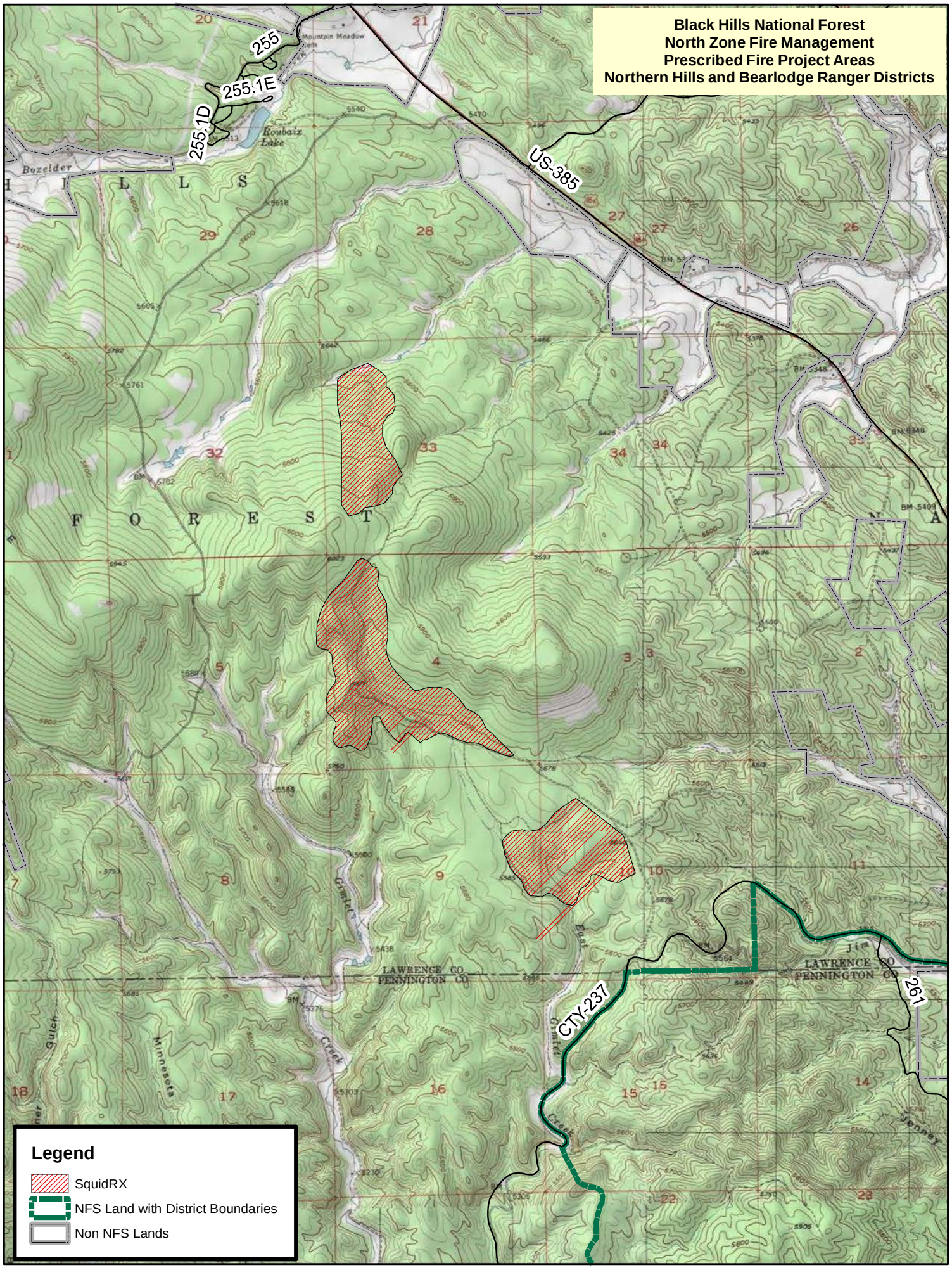
The Burner project is located north of Sundance, Wyoming and south of Warren Peak along the Warren Peak Highway. The legal location for this project area is Township 51 North, Range 63 West, Section 4. Some burn units are adjacent to the Warren Peak Highway and smoke can reduce visibility at times.

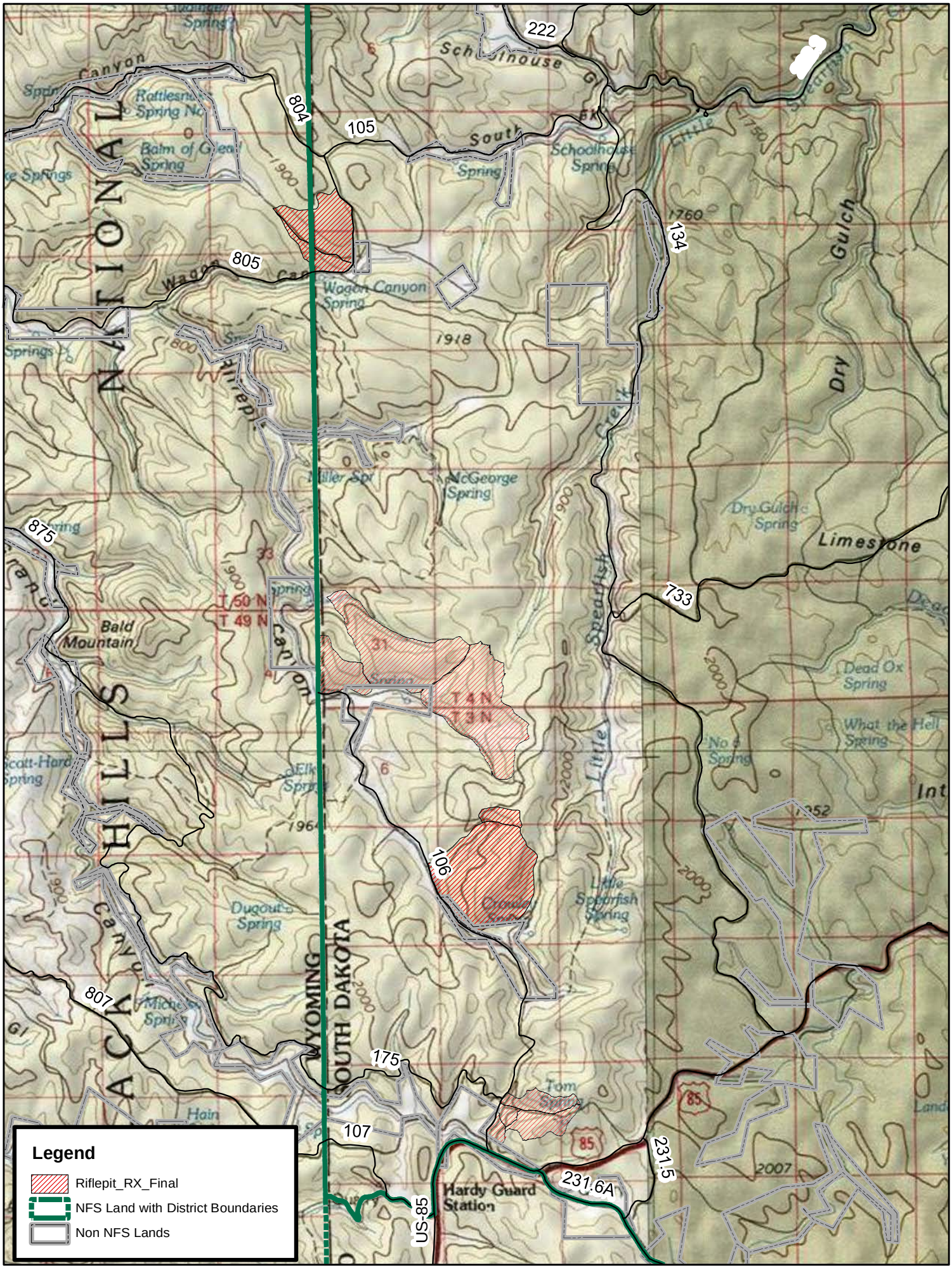
The Sleez project area is also in the vicinity of Warren Peak, mainly north. Units are concentrated in the Whitelaw and Beaver drainages. Legal location for this project is Township 52 North, Range 63 West, Section 4.

Schoolmarm prescribed fire is coordinated effort with research conducted at Colorado State University in Ft. Collins, CO. This unit was commercially harvested prior to 2011. The research will focus on fire intensity with varying fuel loadings and its effects on diverse size class of ponderosa pine. The project area is located northwest of Cook Lake recreation area at Township 52 North, Range 63 West, Section 7.

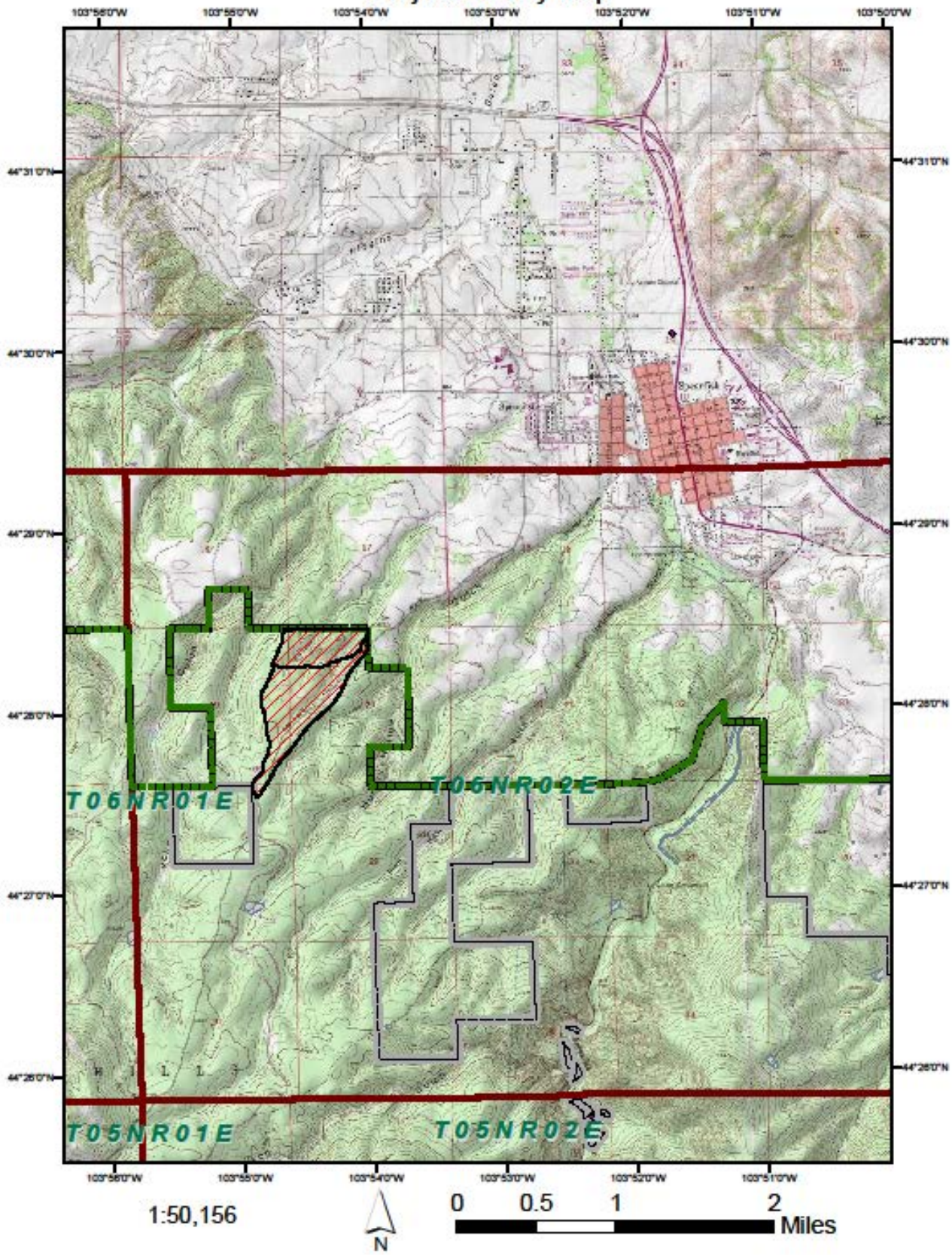
Northend project area is just north of the Bearlodge Campground along Forest Road 830.

For more information on the these projects please contact Jeff Gies at the Bearlodge Ranger District office at 307-283-1361.


Black Hills National Forest
North Zone Fire Management
Prescribed Fire Project Areas
Northern Hills and Bearlodge Ranger Districts
255
255.1E
255.1D
Roubaix Lake
Mountain Meadow
US-385
LAWRENCE CO
PENNINGTON CO
CTY-237
261
Legend
SquidRX
NFS Land with District Boundaries
Non NFS Lands


Legend
Riflepit_RX_Final
NFS Land with District Boundaries
Non NFS Lands
222
105
804
805
134
733
875
106
807
175
107
231.5
231.6A
US-85
WYOMING
SOUTH DAKOTA
Hardy Guard Station
Bald Mountain
Wagon Canyon Spring
McGeorge Spring
Dry Gulch Spring
Limestone
Dead Ox Spring
What the Hell Spring
Little Spearfish Spring
Dugout Spring
Schoolhouse Spring
Rattlesnake Spring No
Balm of Gilead Spring
Miller Spr
Tom Spring
T 50 N
T 49 N
T 4 N
T 3 N
Little Spearfish Creek
Dry Gulch
Spearfish
Canyon
Hain

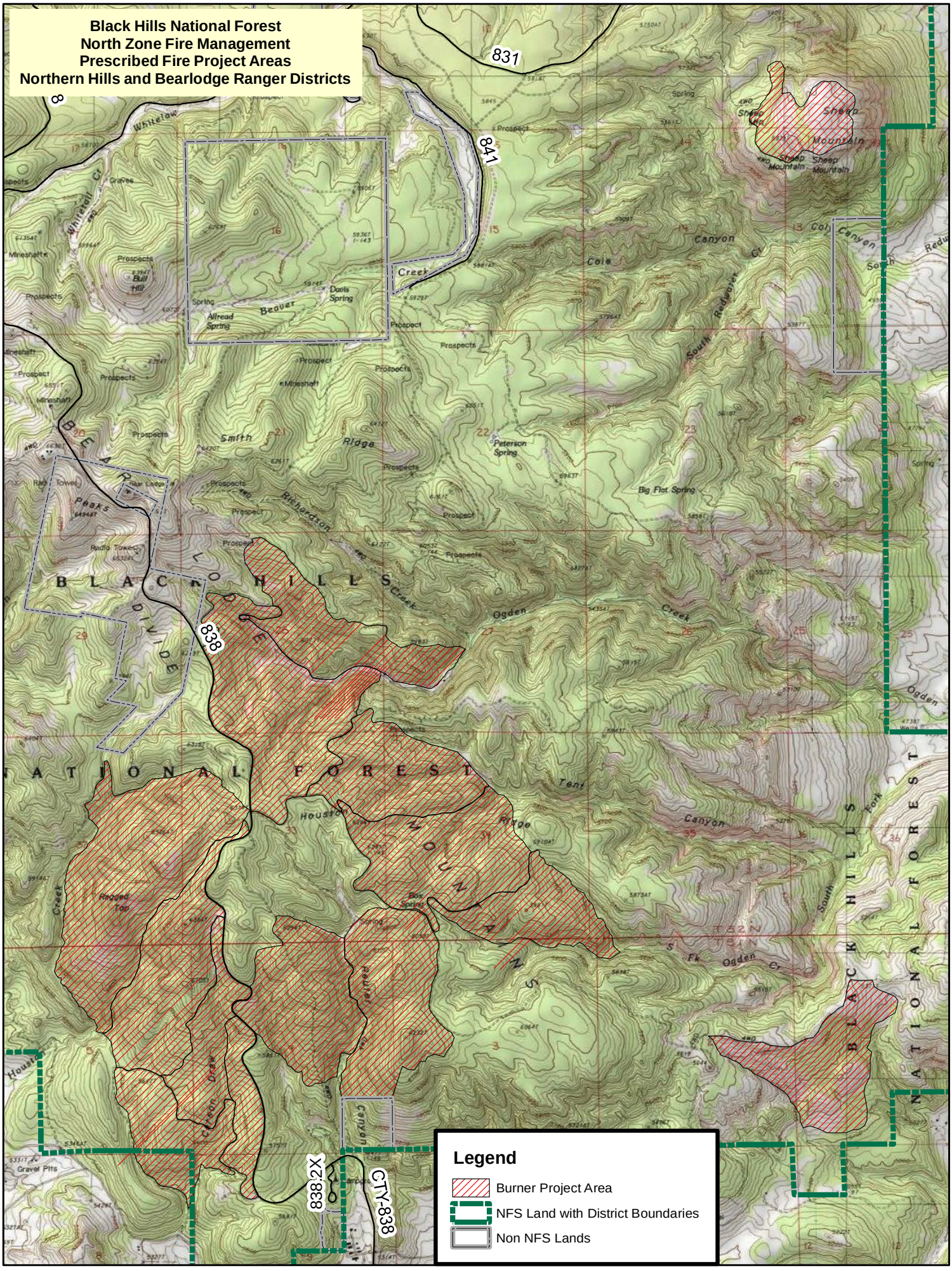
Work Center Prescribed Burn
Project Vicinity Map

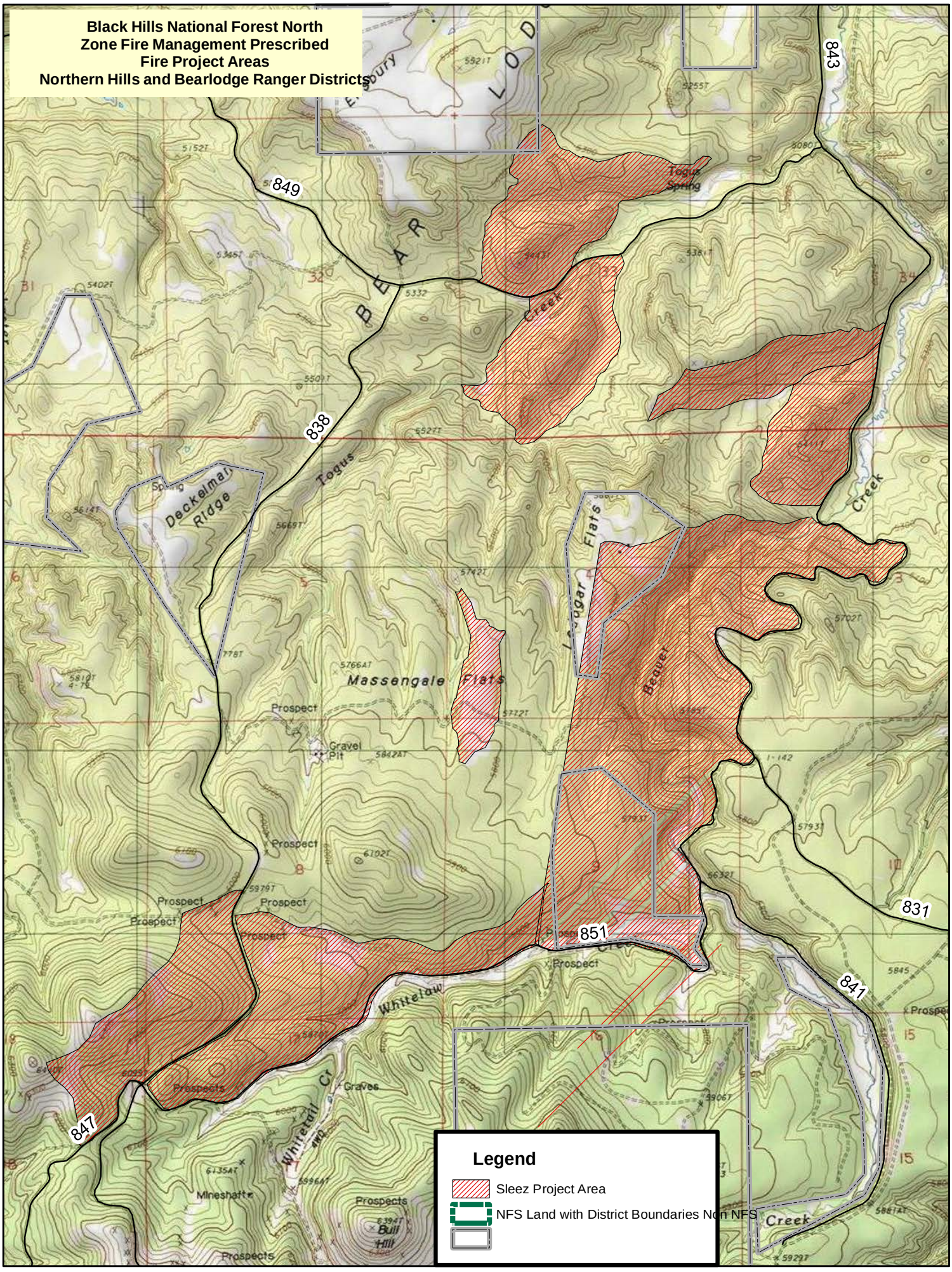


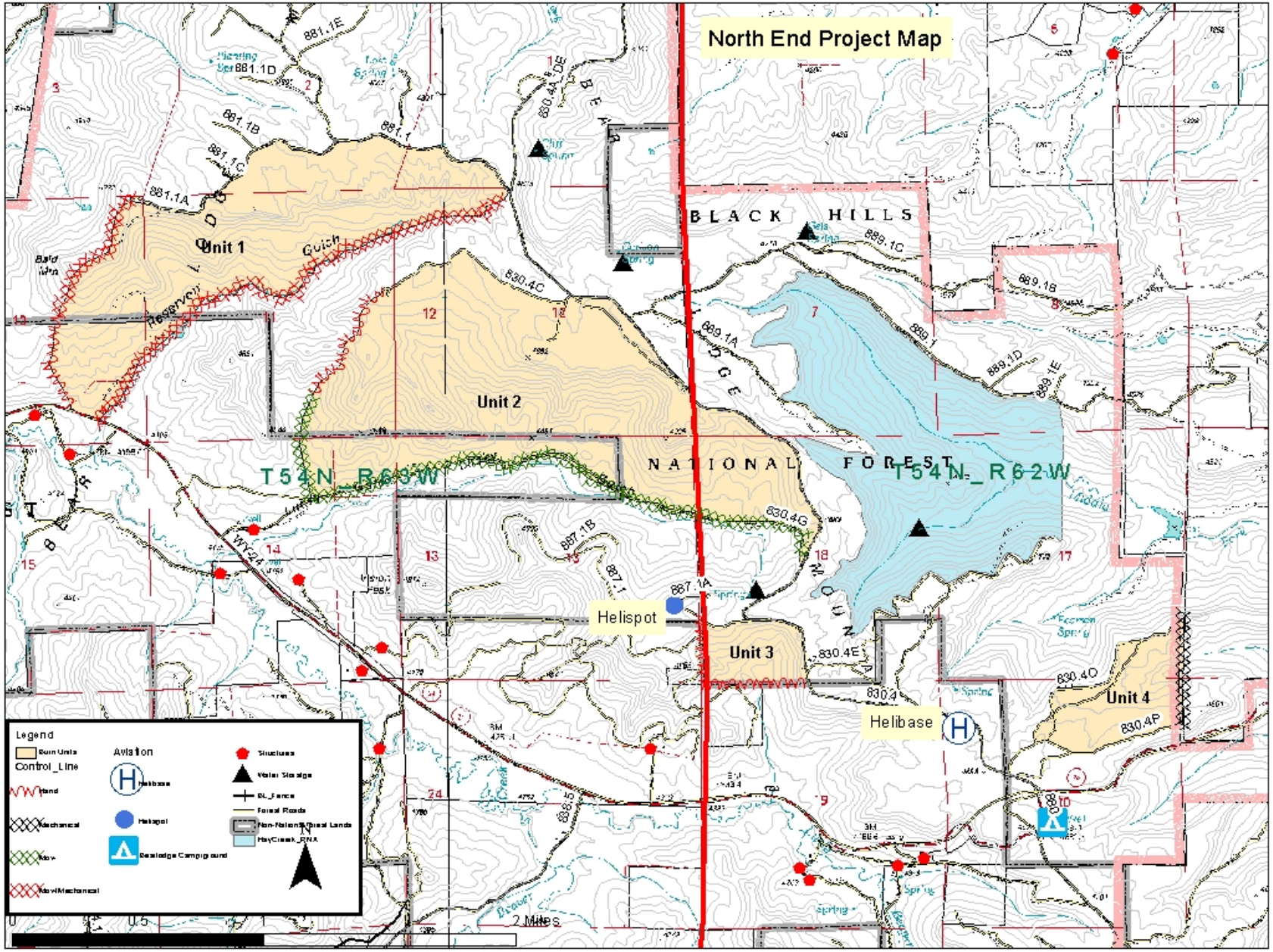
1:50,156

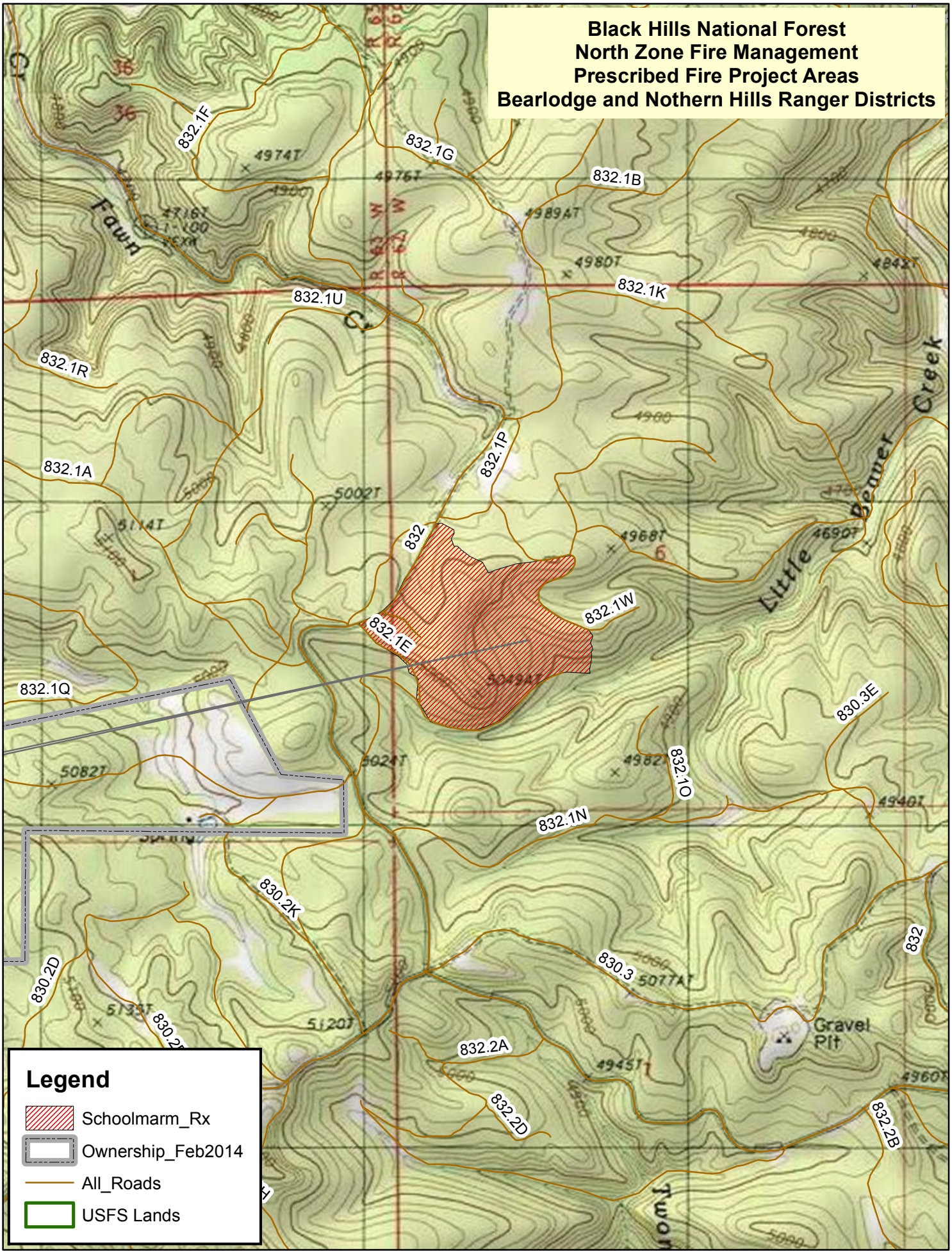
N

0 0.5 1 2 Miles


Black Hills National Forest
North Zone Fire Management
Prescribed Fire Project Areas
Northern Hills and Bearlodge Ranger Districts
831
841
838
838.2X
CTY-838
Legend
Burner Project Area
NFS Land with District Boundaries
Non NFS Lands


Black Hills National Forest North
Zone Fire Management Prescribed
Fire Project Areas
Northern Hills and Bearlodge Ranger Districts
Legend
Sleez Project Area
NFS Land with District Boundaries Non NFS
843
849
838
831
851
841
847
Togus Spring
Deckelman Ridge
Massengale Flats
Prospect
Gravel Pit
Whitetail Cr
Graves
Mineshaft
Prospects
Bull Hill
Creek


North End Project Map
Unit 1
Unit 2
Unit 3
Unit 4
Helispot
Helibase
BLACK HILLS
NATIONAL FOREST
T54N R63W
T54N R62W
Legend
Control_Line
Aviation
Helibase
Helispot
Structures
Water Storage
Forest Roads
2 Miles


Black Hills National Forest
North Zone Fire Management
Prescribed Fire Project Areas
Bearlodge and Nothern Hills Ranger Districts
832.1F
832.1G
832.1B
832.1K
832.1U
832.1R
832.1A
832.1P
832
832.1W
832.1E
832.1Q
830.3E
832.1O
832.1N
830.2K
830.2D
830.3
832
832.2A
832.2D
832.2B
Gravel Pit
Little Beaver Creek
Fawn
Legend
Schoolmarm_Rx
Ownership_Feb2014
All_Roads
USFS Lands