

EXECUTIVE SUMMARY

DOLLY SODS NORTH

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1.0 EXECUTIVE SUMMARY

1.1. Introduction

This Environmental Assessment (EA) has been developed by the U.S. Army Corps of Engineers (COE), Huntington District, to evaluate the potential impacts of ordnance removal from an area known as Dolly Sods North. Dolly Sods North is a 6,168.5-acre area recently acquired by the U.S. Department of Agriculture's Forest Service (FS). It is located north of and adjacent to the 10,215-acre Dolly Sods Wilderness. It is proposed that this action be carried out in concert with ordnance removal already planned for the wilderness area.

Dolly Sods North is part of the Monongahela National Forest. It is managed by the FS through its Potomac Ranger District, Petersburg, WV. The tract lies almost wholly in Tucker County, WV (a very small portion along the eastern edge is in Grant County). Both the wilderness area and the northern tracts were part of the 2,181,000-acre West Virginia Maneuver Area during World War II. The area was used to train soldiers to fire artillery and mortars. Even though the area was searched and cleared by military explosive ordnance teams after the war, at least 21 pieces of ordnance have been found incidently in both areas in recent years. One individual was severely wounded from exploding ordnance and several other accidents have been avoided. The latest incident occurred in 1996, when a piece of live ordnance was found about 300 feet from Bear Rocks parking lot, a popular visitors' area in Dolly Sods North. Unexploded munitions present an imminent and present danger to the public welfare. Therefore, the Department of Defense (DOD) intends to search for and remove unexploded ordnance. The COE has been designated as the organization responsible for environmental restoration of formerly used defense sites, such as Dolly Sods North and Dolly Sods Wilderness.

In 1995 a decision was made that removal of unexploded ordnance from Dolly Sods Wilderness was necessary. An EA was completed, and work was scheduled for 1996-97. Recently, additional funding became available to extend the ordnance removal activity to include Dolly Sods North. It is proposed that this action be carried out in concert with ordnance removal at the Dolly Sods Wilderness. The COE plans to follow the same work plan that was developed for Dolly Sods Wilderness and to complete work concurrently.

The information presented in the "Dolly Sods Wilderness Ordnance Removal Project Environmental Assessment-Final" (September 8, 1995) also applies to Dolly Sods North. Since the areas are similar in climate, and somewhat similar in terrain and ecosystems, the environmental consequences and mitigation activities will be similar. As noted by the FS Potomac District Ranger, "We believe that the effects that were disclosed in the EA that was written for the Dolly Sods Wilderness proposal are accurate predictions and descriptions of effects that would occur for similar alternatives in Dolly Sods North." As a result, information in this EA frequently refers to that presented in the EA for Dolly Sods Wilderness. Consideration is given to public safety, environmental effects, local public opinion, and compliance with Federal, State, and local regulations. The proposed alternative actions and mitigation plans are evaluated regarding potential environmental impacts, either beneficial or adverse.

1.2. Purpose of Project

Unexploded munitions still present in Dolly Sods Wilderness and Dolly Sods North present an imminent and present danger to the public welfare. Therefore, the DOD, through the COE, intends to remove unexploded ordnance. The COE has been designated as the organization responsible for environmental restoration of formerly used defense sites, such as these two tracts in West Virginia. This is part of an ongoing, nationwide program.

1.3. Alternatives

A feasibility study was conducted in 1991 to characterize the nature and extent of ordnance present. Approximately 281 acres in the old West Virginia Maneuver Area considered most likely to have been used as targets or to contain undershots or overshots were searched. (All of the 1991 search areas were within Dolly Sods Wilderness.) In that study a surface sweep (within 6 inches of the surface) was conducted on the 281 acres; seven rounds of unexploded ordnance were found. A subsurface sweep (deeper than 6 inches below the surface) was conducted on 10.5 acres; another six rounds were unearthed for a total of 13 rounds.

Ordnance found included 57-mm armor piercing, 60-mm high explosive, and 81-mm white phosphorus rounds. Records indicate that 81-mm, 105-mm, and 155-mm artillery shells were fired in the area so there is a reasonable expectation that they may also be present.

Based on findings from the feasibility study, the DOD determined that it is an unacceptable risk to allow the area to remain as potentially dangerous sites. The COE has attempted to determine the level of remediation which is appropriate for the ordnance contamination and to identify the locations where this remediation would be of the greatest benefit.

Alternatives currently considered include:

- Alternative 1-Clearing publicly used areas:
 - Searching 20 feet on each side of 23 miles of Forest Service designated hiking trails, old roads and travelways, to a depth of 1 foot, and detonating in-place any ordnance found (114.3 acres).
 - Searching the area around Blackbird Knob to a depth of 1 foot and detonating in-place any ordnance found (98.9 acres).
 - Searching 75 FS inventoried campsites to a depth of 4 feet and detonating in-place any ordnance found (1.1 acres).
 - Searching the area around three hunting cabins to a depth of 4 feet and detonating in-place any ordnance found (1.5 acres).
 - Searching an old trailer dump site to a depth of 4 feet and detonating in-place any ordnance found (0.5 acre).

This alternative would involve searching approximately 216.3 acres. It is the selected alternative.

- Alternative 2-Clearing trails only:
 - Searching 20 feet on each side of Forest Service designated hiking trails, old roads and travelways, to a depth of 1 foot, and detonating in-place any ordnance found. This alternative would involve 114.3

acres. There would be no search of Blackbird Knob, campsites, the three hunting cabins or the trailer dump site

- Alternative 3-~~ii~~ Action:
 - No search for ordnance; if users of Dolly Sods North find ordnance, they contact appropriate personnel who dispose of the ordnance when found. (This practice is currently followed.)

Other alternatives considered in the very early stages of the project, such as searching and clearing the entire area, have been deemed too aggressive. The three alternatives now being considered are believed by the FS managers of Dolly Sods North to be appropriate for the area.

1.4. Work Plan for the Preferred Alternative

Ordnance removal at Dolly Sods Wilderness and Dolly Sods North is scheduled for the late spring, summer and autumn of 1997. Work will be conducted by unexploded ordnance (UXO) specialists under contract to the COE. The detailed work plan for ordnance removal has been approved. (Although written for the Dolly Sods Wilderness area, the same work plan will be used during any ordnance removal in Dolly Sods North.) The FS provided input to the plan regarding issues related to forest management and wilderness area management practices. The FS, the U.S. Fish and Wildlife Service (F&WS), the West Virginia Division of Natural Resources (WVDNR), and the West Virginia Division of Environmental Protection (WVDEP) provided input related to botanical and zoological species of concern and environmental protection issues.

Dolly Sods North does not have an extensive system of maintained trails and it supports only a small number of campsites. The Blackbird Knob trail in the southern portion of Dolly Sods North is the best-known trail, and a campsite near Red Creek is a well-used site. There is a system of old, unmaintained four-wheel drive roads in the central and northern portion of the area; they are used by hikers and mountain bikers.

The "Draft Dolly Sods Work Plan," prepared by Human Factors Applications, Inc., is available for inspection. That work plan, developed for Dolly Sods Wilderness, will also be used to guide work performed at Dolly Sods North. It is anticipated that a staging area will be maintained near the Bell Knob lookout tower, approximately 0.5 miles east of Forest Road 75 which borders the eastern edge of Dolly Sods Wilderness. The staging area would include a utility/office trailer and would house support equipment for up to 20 UXO specialists and technicians. Personnel would not camp in the staging area.

Teams of experienced UXO specialists will sweep areas using hand-held magnetometers. Positive signals considered to be potential ordnance will be excavated by hand, to a depth of 1 foot on trails and at Blackbird Knob, and to 4 feet at campsites, the hunting cabins, and the trailer dump site. When specialists believe ordnance may be present, the area will be searched to determine whether recognized endangered species or historic or prehistoric artifacts may be present. If Cheat Mountain salamanders are found, they will be carefully removed, along with associated leaf litter and top soil, before any excavation. If artifacts are found, a pictorial and written record will be maintained.

If no ordnance is found after excavating where metal is indicated, any metal fragments will be returned to the hole, it will be filled with excavated material and tamped by foot. Litter from the excavated area will be saved and replaced to minimize disturbance to zoological species. If Cheat Mountain salamanders have been found and removed before excavation, after the excavation is refilled or ordnance is detonated, salamanders and associated ground litter will be returned to the original location.

If ordnance is found, it will be detonated in-place unless it is in a wetland area. Based upon location, the ordnance may be covered with earth or sandbags to dampen the noise and disturbance of earth. Noise will

only be created during daylight hours. The size of the crater created by the explosion will depend on the surrounding material, amount of cover material and size of the ordnance. Treatment of the crater following explosion of the ordnance will be a function of its size, location and the ecosystem. It may be filled with local materials, and covered with mulch and leaves. It may be left as is. In areas close to streams where erosion may result, a sediment filter will be placed to capture silt prior to entry into streams. From experience gained in the 1991 feasibility study, it is anticipated that few craters will be noticeable.

Use of motorized vehicles will be limited to the network of travelways in Dolly Sods North. Other methods, such as pack animals may be used to transport heavy loads to other areas. To minimize the impact of the work on recreational users, work will be discontinued during times of high use of the Dolly Sods Wilderness or Dolly Sods North, such as weekends, major holidays and firearms deer hunting season, if work continues that long. Due to adverse weather conditions, work cannot be accomplished in winter months. The schedule of work is anticipated to take up to 6 months during spring, summer and early autumn of 1997. Every effort will be made to complete the project as quickly as possible.

In addition to COE representatives, the FS will monitor quality control to assure protection of resources. An individual knowledgeable about the Dolly Sods North area will be assigned to represent the FS's management philosophy and provide technical assistance to the COE and UXO professionals as necessary.

1.5. Adverse Impacts of Selected Alternative/Mitigation Action

Adverse impacts will be the same as those disclosed in the ER for Dolly Sods Wilderness, and agreed upon by the FS, the F&WA, other regulatory agencies and citizens' groups. A good model of potential adverse impacts resulting from ordnance remediation is the Engineering Report of the 1991 feasibility study. The study was done in the same area, during the same season, following the same procedures. Impacts should be similar in nature, but fewer, due to the reduced area (216 acres for Dolly Sods North versus 281 acres in Dolly Sods Wilderness, as detailed in the feasibility study). Impacts will be the result of a walk-through and search of 216 acres of vegetation, excavation to search for ordnance and detonation of any ordnance found.

Neither the COE nor the FS conducted a formal analysis of the impacts from the 1991 feasibility study. However, the FS reported "minor impacts and disturbances to the vegetation and soils." There was no measurable change to air quality or water quality.

A summary of environmental impacts and associated mitigation plans is presented in Table 1-1. A significant effort was invested by citizens' groups, wilderness experts, renowned botanical and zoological experts, scientists and engineers during the development of the EA for Dolly Sods Wilderness to identify potential adverse effects of ordnance removal activities and to develop credible plans to mitigate all adverse impacts. For each adverse impact, a specific mitigation plan has been developed by the COE working in cooperation with the FS and the F&WS. These plans will apply to work at Dolly Sods North as well.

Like the wilderness area, Dolly Sods North is also a place of special beauty. It is the intent of the COE to preserve and protect the character of the area. The ordnance removal project will have no significant impact on Dolly Sods North ecosystems; in fact, it will have several positive impacts. Three of the most significant include:

- New detailed topographical maps will be created by the COE, based on aerial surveys of the wilderness area and Dolly Sods North. These maps will be available to FS managers and users.
- Information about locations of rare and sensitive botanical and zoological species and cultural resources will be collected. This information will be made available to knowledgeable experts, the FS, and the WVDNR to contribute to the database of knowledge about the area.

- Public safety will be enhanced. Closure of Dolly Sods North for public use will not be an issue of consideration.

TABLE 1-1		
Summary of Environmental Consequences and Associated Mitigation		
Resource	Action and Effect	Mitigation Measures
Botanical	Walk through 216 acres; disturb vegetation through excavation and detonation; vegetation will return within 1 year. No brush cutting except to access ordnance. No significant impact. Project will document locations of sensitive and rare species. This will contribute to scientific database, a positive impact.	Document location and transplant sensitive species to suitable habitat or reseed as appropriate. Species will be appropriate for site.

TABLE 1-1 (Continued)
Summary of Environmental Consequences and Associated Mitigation

Resource	Action and Effect	Mitigation Measures
Zoological/Wildlife	Walk through 216 acres; mobile species will move during project, then return. Immobile species may suffer incidental taking. No short-term or long-term effects on wildlife. Project will include documentation of locations of sensitive and rare species. This will contribute to scientific database, a positive impact.	Document location of rare, endangered, threatened, and sensitive species. Collect and hold Cheat Mountain salamander prior to excavation and detonation, then replace. During detonation of ordnance, if found in the habitat of the Virginia northern flying squirrel, noise-deadening techniques will be used.
Recreation	Walk through 216 acres; No visual impact. Use of limited areas for recreation will be limited for up to 6 months during ordnance removal. Ordnance removal crews will be present during summer months, periods of heavy use. Long-term public safety will be improved. Evidence of human use (ordnance) will be removed. This will be a positive impact. New topographic maps will be created by the Corps of Engineers based on detailed aerial photography of the wilderness area and the scenic area to the north. These maps will be available to users; a positive impact.	Disturbed areas will be remediated for esthetics. Visitors to Dolly Sods North will be provided with information regarding alternative use areas. Work will be discontinued during heaviest use periods, including holiday weekends and hunting season.
Wetlands	No waterways will be altered. Ordnance found and detonated in wetlands may cause craters to be formed; original configuration will return within two years.	Ordnance found in waterways will be removed then detonated.
Environmental air/water/soils/noise	No air emissions. No aqueous or solid waste emissions. If ordnance is located in waterways, it will be moved and detonated away from stream. Noise from detonations of ordnance may be heard. All equipment is noise-free, so no contribution to ambient noise will be made. No significant impact.	Soil erosion and stream sedimentation will be controlled through proven techniques. Noise will be dampened by covering ordnance with sandbags. Work hours will be limited to daylight, 8 to 10 hours per day.
Cultural	Project will include survey to document locations of cultural resources. Survey will contribute to archaeological database, a positive impact.	Archaeologist to conduct complete literature review of historic logging activities and develop comparative file to evaluate potential significance of historic remains; on-site investigation by a trained archaeologist.
Socioeconomic	Use levels of the Dolly Sods Wilderness and the northern area may decline for up to 6 months, during ordnance removal. However, UXO work crews will contribute to area economy. No net impact in the near-term. Long-term impact is positive. Maintenance of trails and campsites can be conducted without first searching for ordnance. Funds can be allocated directly for maintenance rather than for ordnance searches.	UXO teams will work in isolated areas and will limit access to one area at a time. Other areas will remain open to users.
Public Safety	Safety for users will be enhanced, as most users stay on trails and in campsite areas; a positive impact. However, risk remains for those who leave trails and campsites, such as hunters. High risk will remain in the event of a forest fire.	Fire control will be implemented by UXO crews and Forest Service employees. Warning signs will be erected.