

**ACTION MEMORANDUM
FORMER WEST VIRGINIA MANEUVER AREA
NEAR DAVIS, WEST VIRGINIA**

I. PURPOSE: The purpose of this paper is to document the proposed ordnance and explosives (OE) removal action for Dolly Sods Wilderness and adjacent Dolly Sods North which were once part of the West Virginia Maneuver Area in central West Virginia.

II. SITE CONDITIONS AND BACKGROUND: This is a non-time-critical removal action to minimize a threat to the public due to the presence of OE.

A. Site Description

1. Removal Site Evaluation: During World War II this site was a part of the 2,181,000-acre West Virginia Maneuver Area. Due to the need for immediate training during World War II, the Secretary of War leased the area on 6 August 1943 from private companies and used it for less than two years for maneuvers and as an artillery and mortar target area for the Thirteenth Army Corps of the Third Army. Apparently it was also used for a few months by the Office of Scientific Research and Development to test fire rockets and projectiles. The site is now operated by the U.S. Forest Service and is open to the public at all times. It is frequently used for hiking, camping, picnics, and hunting. The southern portion has been designated by Congress as a "Wilderness" area and is thus a federally protected public area known as Dolly Sods Wilderness ^{AREA} and Dolly Sods North, which includes Blackbird Knob (a target site and now a popular recreation area), was privately owned until recent years when it was purchased by the Nature Conservancy and given to the Forest Service in 1992. Within the two areas, the Forest Service has documented approximately 44 miles of mapped trails and 176 camping areas. Other areas of concern are cabins, a trailer dump site, and Blackbird Knob. Although areas were searched and cleared after World War II by military Explosive Ordnance Disposal (EOD) teams, at least three 81-mm mortar shells have been found in recent years by the public in Dolly Sods Wilderness and at least 4 in the vicinity of Blackbird Knob. It has been reported that 105-mm shells have also been found in the area. The U.S. Army Corps of Engineers conducted a Feasibility Study in 1991 and concluded that a hazard to the public exists. During the Feasibility Study remains of 4.2", 57-mm, 60-mm, and 81-mm high explosives and smoke rounds were found.

The site is described in terms of the area

both

2. Physical Location: Dolly Sods Wilderness and Dolly Sods North comprise 10,215 acres and approximately 5,000 acres respectively within the Monongahela National Forest in Grant, Tucker, and Randolph Counties of West Virginia. The site is bordered by private property to the north and west (Cabin Mountain) and Forest Service owned land to the east (Bell Knob) and south.

*FIA - PDC
DLA - MC*

3. Site Characteristics: This portion of the West Virginia Maneuver Area is an undeveloped area of high elevation with wind-swept plains on the Allegheny Plateau. The terrain is rocky and rugged and the plant and animal life is comparable to that of

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northern Canada. Notable features include Red Creek and its tributaries, Breathed Mountain, Blackbird Knob, other knobs, and the "sods" or bogs in the level parts of the Wilderness. Animal life is diverse with the only known endangered species being the Cheat Mountain Salamander and the Northern Virginia Flying Squirrel. There are also areas of archaeological significance and sensitive plant life.

AND NORTH AREA

4. Threat to the Environment: Portions of ^{THE} sites are known target areas for 81-mm mortars and 105 and 155-mm artillery as well as for field maneuvers. Due to the expedited nature of the training, exact records were not kept or have been lost or destroyed. Live ordnance is still being found and removed from the area by the public, creating a hazardous situation.

5. NPL Status: The sites ^{ARE} is neither listed nor proposed to be listed on the National Priority List (NPL). Since there are no known toxic contaminants at the site, it will not receive a Hazard Ranking System rating, be evaluated by the Agency for Toxic Substances and Disease Registry, or be referred to the site assessment program.

6. Maps: Maps indicating the firing locations, targets, and locations of discovered ordnance are attached.

B. Other Actions to Date

1. Previous Actions

a. Shortly after operations ended at the Maneuver Area, the artillery range was searched and discovered ordnance destroyed. After hikers continued to find isolated ordnance, military EOD teams again searched the area and destroyed ordnance. However the extent of these efforts is not known and ordnance continues to be discovered by the public and reported to the Forest Service or local sheriffs. In addition to the 7 recorded incidences of recovered ordnance, there are unofficial reports of ordnance found and removed by hikers and hunters.

b. As part of the Defense Environmental Restoration Program, formerly used defense sites were investigated nationwide by the Corps of Engineers. As a result of this investigation, the Corps conducted the 1991 Feasibility Study. The study included searching a sampling of areas considered to most likely have been used as targets or contain overshots or undershots. A total of 281 acres were searched with magnetometers. Thirteen pieces of ordnance were found from 6 to 24 inches beneath the surface. One piece of ordnance was found within several feet of a site used as a campfire pit. It was concluded that further remediation of the site is needed to reduce the risk to the public. It was also concluded that further study was needed of threatened and endangered species habitats and means to protect them and of steps to preserve the archaeological value of the area.

c. To accomplish this the "Dolly Sods Wilderness Ordnance Removal Project Environmental Assessment" was prepared in 1995. Means to protect threatened and endangered species, their

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Contact

habitat, and archaeologically significant areas were established during the Environmental Assessment (EA) process. A Finding of No Significant Impact (FONSI) was signed by the Commander of the Corps of Engineers, Huntington District and the Supervisor of the Monongahela National Forest in September of 1995. Also more detailed operational instructions, designed to protect the Cheat Mountain Salamander, have been prepared jointly by the U.S. Fish and Wildlife Service and the Corps of Engineers.

d. A risk assessment, using an approach designed specifically for formerly used defense sites containing ordnance, was performed in 1995 for the Wilderness.

e. It was further concluded by the Forest Service and the Corps that Dolly Sods North has almost identical conditions as the Wilderness and that the alternatives considered and conclusions of the Wilderness' EA and Risk Analysis are also applicable to it. Subsequently the Wilderness's EA, Risk Analysis, and operational instructions were adopted for the entire site.

2. Current Actions: There are no known actions by the U. S. Environmental Protection Agency (EPA), other regulators, or private entities at this site.

C. State and Local Authorities' Role

1. State and Local Actions to Date: Ordnance found onsite is reported to the Forest Service who arranges to have it destroyed in place by an EOD team from Ft. Belvoir, VA. Ordnance removed from the area is often turned over to the local sheriffs who have it destroyed.

2. Potential for Continued State/Local Response: Support from the Forest Service, local sheriff departments, and Fort Belvoir should continue.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare: The actual amount of ordnance is undetermined but the risk is illustrated by the discovery of ordnance within several feet of a site used as a campfire pit. If the fire had been located over the buried ordnance, there is the likelihood that the ordnance would have detonated, potentially harming several persons. There is also the potential for tent pegs to be driven into buried ordnance or children to find and pick up pieces of ordnance. A high concentration of ordnance is thought to exist within the Red Creek Valley (where campers are commonly found) of the Wilderness. It is projected that between 45,000 and 76,000 visitors visit the Wilderness annually and another 40,000 visit Dolly Sods North annually.

B. Threats to the Environment: Accidental detonation of ordnance has little impact on the environment unless fires are started, as occurred due to artillery fire when the Maneuver Area was active. Due to its harsh environment the site is extremely slow in

recovering from any detrimental activities. (In the early 1900's, fires destroyed the humus layer, leaving the current, relatively infertile rocky terrain.)

IV. ENDANGERMENT DETERMINATION: The risk of accidental detonation of any remaining ordnance, if not addressed, represents a substantial endangerment to public welfare and the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions: Three alternatives were evaluated for the Dolly Sods Wilderness - (1) No Action, (2) clear hiking trails (20.8 miles) and 20 feet on each side to a depth of one foot, and (3) clear camping areas (101) to a depth of four feet and trails as in alternative 2. For each alternative, the remaining risk to the public was evaluated using the OECert methodology, which was specifically developed for the Corps of Engineers to assess sites containing UXO and is now the OE standard for risk assessment. Risk is evaluated based on the potential for an individual to come within the immediate proximity of UXO and the potential consequences. A comparison of the alternatives considered for the Wilderness is provided in the following table, assuming continued high use of the area by the public. (Exposure is defined as a member of the public being present in the immediate proximity to UXO.)

BOTH DOLLY SODS WILDERNESS AND DOLLY SODS NORTH WILL BE SUBJECT TO WILDERNESS RULES AND REGULATIONS. ALL ACTIVITIES IN BOTH AREAS WILL CONFORM TO WILDERNESS GUIDELINE

Alt.	Area Remediated (acres)	Projected Exposures	Risk Reduction	Costs
1	None	1258/year	None	None
2	103.7	659/year	47.6%	\$1.23M
3	105.2	517/year	58.9%	\$1.29M

Comparable alternatives were also evaluated for Dolly Sods North - (1) No Action, (2) clear 23 miles of trails and 20 feet on each side (114.3 acres) and 98.9 acres of open land on Blackbird Knob to a depth of 1 foot, and (3) clear 75 camping areas (1.1 acres), 3 cabin sites (1.5 acres), and 1 trailer dump site (0.5 acres) to a depth of 4 feet and the trails and Blackbird Knob as in alternative 2. The risk reduction percentages for the Wilderness' alternatives are considered to be applicable for these alternatives for Dolly Sods North as indicated in the following table.

Alt.	Area Remediated (acres)	Risk Reduction	Costs
1	None	None	None
2	213.1	47.6%	\$2.53M
3	216.2	58.9%	\$2.65M

1. Proposed Action Description: The areas described in alternatives 2 and 3 will be searched by UXO specialists using hand held ordnance detection devices such as metal detectors. If metal

is indicated, the area will be excavated by hand to the given depth. Small undergrowth, grasses, and fallen trees will be cleared only if necessary to search an area and only if the area is accessible to hikers, campers, or hunters. Earth will be excavated only if metal objects are detected. Discovered UXO will be destroyed in place or in designated areas by detonation. Before any onsite work commences, trained personnel will work closely with the U.S. Forest Service and the State of West Virginia Division of Natural Resources to define potential archaeologically significant areas, sensitive plants, and animal habitats that must be protected and to establish steps to avoid or minimize impacts. Prior to any excavation or detonation, the impacted area will be investigated and endangered or threatened plants and animals removed and archaeologically significant items removed or protected. Disturbed areas will be covered with leaves and other materials found in the area to minimize exposure to the elements.

*will be
with State
historic
reservation
to be
in accordance
with ESA.*

2. Contribution to Remedial Performance: As noted in the previous tables, remediation alternatives 2 and 3 will reduce the risk of exposures by a projected 47.6% and 58.9% respectively. Lessons learned from other sites indicate that searching and clearing areas outside of the established trails, campgrounds, and open areas will be infeasible due to the large area, terrain, and costs.

3. Description of Alternative Technologies: In this project there are no practical alternatives to manually searching the areas and detonation in place. It is not safe to move UXO.

4. EE/CA: ~~In lieu of an Engineering Evaluation/Cost Analysis (EE/CA),~~ a Feasibility Study, a separate Risk Assessment, and an EA were performed. The described alternatives were evaluated in the Risk Assessment dated February 1995 and the EA.

*not comprised
in Environmental
EE/CA.*

5. Applicable or Relevant and Appropriate Requirements (ARARs): Federal ARARs determined to apply to this site are the Defense Environmental Restoration Program (DERP) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Remediation shall be in accordance with the Occupational Safety and Health Administration (OSHA) Standards, the National Contingency Plan, and the Department of Defense Explosive Safety regulations.

6. Project Schedule: For recommended alternative 3, the Corps plans to commence work in May 1997 and complete all work within seven months.

B. Estimated Costs: The total estimated cost is \$3.66M for alternative 2 and \$3.94M for alternative 3.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN: Popularity of the area is steadily increasing. Consequently the potential for accidental detonation of ordnance

and subsequent injury to or death of members of the public will increase as use of the area increases.

VII. Outstanding Policy Issues: Before any onsite work commences, trained personnel will work closely with the U.S. Forest Service and the West Virginia Division of Natural Resources to define archaeologically significant areas, sensitive plants, and animal habitats that must be protected and to establish steps to avoid or minimize impacts. These steps and procedures will be explained in a workplan.

VIII. Enforcement: Since no nonfederal entities are known to have contributed to the contamination, no enforcement strategy is needed.

IX. Recommendation: For both areas, alternative 3, clearing a total of 316.8 acres to a depth of one foot and 4.6 acres to a depth of 4 feet at a total estimated cost of \$3.94M, is recommended. Alternative 3 is preferred over alternative 2 because with less than a 5% increase in cost, another 24% reduction in the projected risk is achieved. The No Action alternative is not recommended because of the increasing risk to the public.

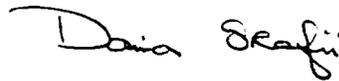
CEHNC-OE-DC

6 May, 1997

MEMORANDUM FOR CELRH-DL-M, ATTN: Mr. Richard Meadows

SUBJECT: Revised Action memorandum for Ordnance and Explosives (OE) Removal Action at Dolly Sods Wilderness, West Virginia

1. Attached is a revised copy of first Action Memorandum for Dolly Sods Wilderness area. The changes have been incorporated per your request.
2. Point of Contact is the undersigned at (205)895-1443.



DAVID N. SHAFII
Project Manager, Design Center
For Ordnance and Explosives Team



DEPARTMENT OF THE ARMY
HUNTSVILLE CENTER, CORPS OF ENGINEERS
P.O. BOX 1600
HUNTSVILLE, ALABAMA 35807-4301

REPLY TO
ATTENTION OF

CEHNC-OE-EM-A (200-1c)

24 February 1997

MEMORANDUM FOR Commander, U.S. Army Engineer District,
Huntington, ATTN: CEORH-DL-M (Mr. Richard
Meadows), 502 8th Street, Huntington, WV
25701-2070

SUBJECT: Revised Action Memorandum for the Former West Virginia
Maneuver Area, near Davis, WV, Project Number: G03WV001304

1. Reference the Action Memorandum for the Dolly Sods Wilderness, Former West Virginia Maneuver Area, WV, signed 8 May 1996.
2. Enclosed is a Revised Action Memorandum for the above referenced project number. At the request of the U.S. Forest Service and in consultation with the Huntington District, we have revised the action memorandum to include the area known as Dolly Sods North. These two areas are adjacent to each other and were an original part of the Former West Virginia Maneuver Area, and they are both currently owned by the U.S. Forest Service.
3. The added areas to be cleared in the Dolly Sods North, include hiking trails, camping areas, cabin sites, a trailer dump site, and Blackbird Knob. The hiking trails, with twenty (20) feet on each side, will be cleared to a depth of one (1) foot. There is estimated to be approximately twenty-three (23) miles of recorded trails. Camping areas will be cleared to a depth of four (4) feet. There are 75 recorded camping areas. Cabin sites and the trailer dump site will be cleared to a depth of four (4) feet. There are three (3) recorded cabin sites and one (1) recorded trailer dump site. The Blackbird Knob area is estimated to cover approximately 99 acres and will be cleared to a depth of one (1) foot. Ordnance found during previous field investigations in the former maneuver area, includes 4.2", 81mm and 60mm mortar rounds, and a 57mm projectile. There are also reports that 105mm and 155mm projectiles have been found in the area. Blackbird Knob was an identified target site.
4. Live ordnance is still being found and removed from the area by the public, which is creating a hazardous situation. The risk of accidental detonation represents a substantial endangerment to public welfare and environment. The remediation alternatives selected will reduce the risk of ordnance exposure approximately

CEHNC-OE-EM-A (200-1c)

24 February 1997

SUBJECT: Revised Action Memorandum for the Former West Virginia Maneuver Area, near Davis, WV, Project Number: G03WV001304

50% on the trails and Blackbird Knob area and approximately 60% in the camping, cabin, and trailer dump site areas. Searching and clearing the areas outside of the established trails, campgrounds, Blackbird Knob, cabin sites, and trailer dump site will be unfeasible due to the large area, terrain, and the costs.

5. The enclosed Revised Action Memorandum requires the signature of the Commander, concurring with the alternative proposed. The Ordnance and Explosives (OE) Center of Expertise (CX) concurs with the proposed action. Request a copy of the signed Revised Action Memorandum be returned to this Center prior to the modification to the current Task Order for ordnance removal in the Dolly Sods Wilderness being issued. These proposed actions are currently scheduled to take place during the spring and summer of 1997.

6. Questions regarding this matter should be directed to Mr. Bill Sargent (Project Manager, Huntsville) at 205-895-1562 or facsimile 205-895-1819.

FOR THE COMMANDER:



C. David Douthat, P.E., CSP
Director, Ordnance and
Explosives Team

Encl

CF:

U.S. Department of Agriculture Forest Service, Monongahela
National Forest, Potomac Ranger District, ATTN: District
Ranger, Ms. Nancy Feakes, HC 59, Box 240, Petersburg, WV 26847

**ACTION MEMORANDUM
FORMER WEST VIRGINIA MANEUVER AREA
NEAR DAVIS, WEST VIRGINIA**

Terry
Mont 5645
This is what you wanted incorporated. I checked their latest version & it appears they did do that. I would like this back.
THANKS

I. PURPOSE: The purpose of this paper is to identify ordnance and explosives (OE) removal action in the West Virginia Maneuver Area in central

II. SITE CONDITIONS AND BACKGROUND: This memorandum describes the removal action to minimize a threat to the presence of OE.

A. Site Description

1. Removal Site Evaluation: During World War II this site was a part of the 2,181,000-acre West Virginia Maneuver Area. Due to the need for immediate training during World War II, the Secretary of War leased the area on 6 August 1943 from private companies and used it for less than two years for maneuvers and as an artillery and mortar target area for the Thirteenth Army Corps of the Third Army. Apparently it was also used for a few months by the Office of Scientific Research and Development to test fire rockets and projectiles. The site is now operated by the U.S. Forest Service and is open to the public at all times. It is frequently used for hiking, camping, picnics, and hunting. The southern portion has been designated by Congress as a "Wilderness" area and is thus a federally protected public area known as Dolly Sods Wilderness. Dolly Sods North, which includes Blackbird Knob (a target site and now a popular recreation area), was privately owned until recent years when it was purchased by the Nature Conservancy and given to the Forest Service in 1992. Within the two areas, the Forest Service has documented approximately 44 miles of mapped trails and 176 camping areas. Other areas of concern are cabins, a trailer dump site, and Blackbird Knob. Although areas were searched and cleared after World War II by military Explosive Ordnance Disposal (EOD) teams, at least three 81-mm mortar shells have been found in recent years by the public in Dolly Sods Wilderness and at least 4 in the vicinity of Blackbird Knob. It has been reported that 105-mm shells have also been found in the area. The U.S. Army Corps of Engineers conducted a Feasibility Study in 1991 and concluded that a hazard to the public exists. During the Feasibility Study remains of 4.2", 57-mm, 60-mm, and 81-mm high explosives and smoke rounds were found.

Legislation designating area as wilderness area

Which area? Wilderness? Knob?

2. Physical Location: Dolly Sods Wilderness and Dolly Sods North comprise 10,215 acres and approximately 5,000 acres respectively within the Monongahela National Forest in Grant, Tucker, and Randolph Counties of West Virginia. The site is bordered by private property to the north and west (Cabin Mountain) and Forest Service owned land to the east (Bell Knob) and south.

Which is this?

3. Site Characteristics: This portion of the West Virginia Maneuver Area is an undeveloped area of high elevation with wind-swept plains on the Allegheny Plateau. The terrain is rocky and rugged and the plant and animal life is comparable to that of

~~release~~

northern Canada. Notable features include Red Creek and its tributaries, Breasted Mountain, Blackbird Knob, other knobs, and the "sods" or bogs in the level parts of the Wilderness. Animal life is diverse with the only known endangered species being the Cheat Mountain Salamander and, possibly, the Northern Virginia Flying Squirrel. There are also areas of archaeological significance and sensitive plant life.

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4. Threat to the Environment: Portions of site are known target areas for 81-mm mortars and 105 and 155-mm artillery as well as for field maneuvers. Due to the expedited nature of the training, exact records were not kept or have been lost or destroyed. Live ordnance is still being found and removed from the area by the public, creating a hazardous situation.

5. NPL Status: The site is neither listed nor proposed to be listed on the National Priority List (NPL). Since there are no known toxic contaminants at the site, it will not receive a Hazard Ranking System rating, be evaluated by the Agency for Toxic Substances and Disease Registry, or be referred to the site assessment program.

6. Maps: Maps indicating the firing locations, targets, and locations of discovered ordnance are attached.

B. Other Actions to Date

1. Previous Actions

a. Shortly after operations ended at the Maneuver Area, the artillery range was searched and discovered ordnance destroyed. After hikers continued to find isolated ordnance, military EOD teams again searched the area and destroyed ordnance. However the extent of these efforts is not known and ordnance continues to be discovered by the public and reported to the Forest Service or local sheriffs. In addition to the 7 recorded incidences of recovered ordnance, there are unofficial reports of ordnance found and removed by hikers and hunters.

b. As part of the Defense Environmental Restoration Program, formerly used defense sites were investigated nationwide by the Corps of Engineers. As a result of this investigation, the Corps conducted the 1991 Feasibility Study. The study included searching a sampling of areas considered to most likely have been used as targets or contain overshots or undershots. A total of 281 acres were searched with magnetometers. Thirteen pieces of ordnance were found from 6 to 24 inches beneath the surface. One piece of ordnance was found within several feet of a site used as a campfire pit. It was concluded that further remediation of the site is needed to reduce the risk to the public. It was also concluded that further study was needed of endangered species habitats and means to protect them and of steps to preserve the archaeological value of the area.

who included
why?
NHPA req 7
ESA req 2

c. To accomplish this the "Dolly Sods Wilderness Ordnance Removal Project Environmental Assessment" was prepared in 1995. Means to protect endangered species, their habitat, and

archaeologically significant areas were established during the Environmental Assessment (EA) process. A Finding of No Significant Impact was signed by the Commander of the Corps of Engineers, Huntington District and the Supervisor of the Monongahela National Forest in September of 1995. Also more detailed operational instructions, designed to protect the Cheat Mountain Salamander, have been prepared jointly by the U.S. Fish and Wildlife Service and the Corps of Engineers.

d. A risk assessment, using an approach designed specifically for formerly used defense sites containing ordnance, was performed in 1995 for the Wilderness.

e. It was further concluded by the Forest Service and the Corps that Dolly Sods North has almost identical conditions as the Wilderness and that the alternatives considered and conclusions of the Wilderness' EA and Risk Analysis are also applicable to it. Subsequently the Wilderness's EA, Risk Analysis, and operational instructions were adopted for the entire site.

2. Current Actions: There are no known actions by the EPA, other regulators, or private entities at this site.

C. State and Local Authorities' Role

1. State and Local Actions to Date: Ordnance found onsite is reported to the Forest Service who arranges to have it destroyed in place by an EOD team from Ft. Belvoir, VA. Ordnance removed from the area is often turned over to the local sheriffs who have it destroyed.

2. Potential for Continued State/Local Response: Support from the Forest Service, local sheriff departments, and Fort Belvoir should continue.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare: The actual amount of ordnance is undetermined but the risk is illustrated by the discovery of ordnance within several feet of a site used as a campfire pit. If the fire had been located over the buried ordnance, there is the likelihood that the ordnance would have detonated, potentially harming several persons. There is also the potential for tent pegs to be driven into buried ordnance or children to find and pick up pieces of ordnance. A high concentration of ordnance is thought to exist within the Red Creek Valley (where campers are commonly found) of the Wilderness. It is projected that between 45,000 and 76,000 visitors visit the Wilderness annually and another 40,000 visit Dolly Sods North annually.

B. Threats to the Environment: Accidental detonation of ordnance has little impact on the environment unless fires are started, as

occurred due to artillery fire when the Maneuver Area was active. Due to its harsh environment the site is extremely slow in recovering from any detrimental activities. (In the early 1900's, fires destroyed the humus layer, leaving the current, relatively infertile rocky terrain.)

IV. ENDANGERMENT DETERMINATION: The risk of accidental detonation of any remaining ordnance, if not addressed, represents a substantial endangerment to public welfare and the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions: Three alternatives were evaluated for the Dolly Sods Wilderness - (1) No Action, (2) ~~clear~~ hiking trails (20.8 miles) and 20 feet on each side to a depth of one foot, and (3) ~~clear~~ camping areas (101) to a depth of four feet and trails as in alternative 2. For each alternative, the remaining risk to the public was evaluated using the OE Cert methodology, which was specifically developed for the Corps of Engineers to assess sites containing UXO and is now the OE standard for risk assessment. Risk is evaluated based on the potential for an individual to come within the immediate proximity of UXO and the potential consequences. A comparison of the alternatives considered for the Wilderness is provided in the following table, assuming continued high use of the area by the public. (Exposure is defined as a member of the public being present in the immediate proximity to UXO.)

define: too vague

<u>Alt.</u>	<u>Area Remediated (acres)</u>	<u>Projected Exposures</u>	<u>Risk Reduction</u>	<u>Costs</u>
1	None	1258/year	None	None
2	103.7	659/year	47.6%	\$1.23M
3	105.2	517/year	58.9%	\$1.29M

Comparable alternatives were also evaluated for Dolly Sods North - (1) No Action, (2) ~~clear~~ 23 miles of trails and 20 feet on each side (114.3 acres) and 98.9 acres of open land on Blackbird Knob to a depth of 1 foot, and (3) ~~clear~~ 75 camping areas (1.1 acres), 3 cabin sites (1.5 acres), and 1 trailer dump site (0.5 acres) to a depth of 4 feet and the trails and Blackbird Knob as in alternative 2. The risk reduction percentages for the Wilderness' alternatives are considered to be applicable for these alternatives for Dolly Sods North as indicated in the following table.

<u>Alt.</u>	<u>Area Remediated (acres)</u>	<u>Risk Reduction</u>	<u>Costs</u>
1	None	None	None
2	213.1	47.6%	\$2.53M

1. Proposed Action Description: The areas described in alternatives 2 and 3 will be searched by UXO specialists using hand held ordnance detection devices such as metal detectors. If metal is indicated, the area will be excavated by hand to the given depth. Small undergrowth, grasses, and fallen trees will be cleared only if necessary to search an area and only if the area is accessible to hikers, campers, or hunters. Earth will be excavated only if metal objects are detected. Discovered UXO will be destroyed in place or in designated areas by detonation. Before any onsite work commences, trained personnel will work closely with the U.S. Forest Service and the Department of Natural Resources to define potential archaeologically significant areas, sensitive plants, and animal habitats that must be protected and to establish steps to avoid or minimize impacts. Prior to any excavation or detonation, the impacted area will be investigated and endangered or threatened plants and animals removed and archaeologically significant items removed or protected. Disturbed areas will be covered with leaves and other materials found in the area to minimize exposure to the elements.

*Coordination
would be
with State
Historic
Preservation
Office
in charge
of EST.*

2. Contribution to Remedial Performance: As noted in the previous tables, remediation alternatives 2 and 3 will reduce the risk of exposures by a projected 47.6% and 58.9% respectively. Lessons learned from other sites indicate that searching and clearing areas outside of the established trails, campgrounds, and open areas will be unfeasible due to the large area, terrain, and costs.

intensive

3. Description of Alternative Technologies: In this project there are no practical alternatives to manually searching the areas and detonation in place. It is not safe to move UXO.

*and captured the
Government's EP/CA*

important!

4. EE/CA: In lieu of an Engineering Evaluation/Cost Analysis (EE/CA) ~~and~~ Feasibility Study, a separate Risk Assessment, and an EA were performed. The described alternatives were evaluated in the Risk Assessment dated February 1995 and the EA.

5. Applicable or Relevant and Appropriate Requirements (ARARs): Federal ARARs determined to apply to this site are the Defense Environmental Restoration Program (DERP) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Remediation shall be in accordance with the Occupational Safety and Health Administration (OSHA) Standards, the National Contingency Plan, and the Department of Defense Explosive Safety regulations.

6. Project Schedule: For recommended alternative 3, the Corps plans to commence work in May 1997 and complete all work within seven months.

B. Estimated Costs: The total estimated cost is \$3.66M for alternative 2 and \$3.94M for alternative 3.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN: Popularity of the area is steadily increasing. Consequently the potential for accidental detonation of ordnance and subsequent injury to or death of members of the public will increase as use of the area increases.

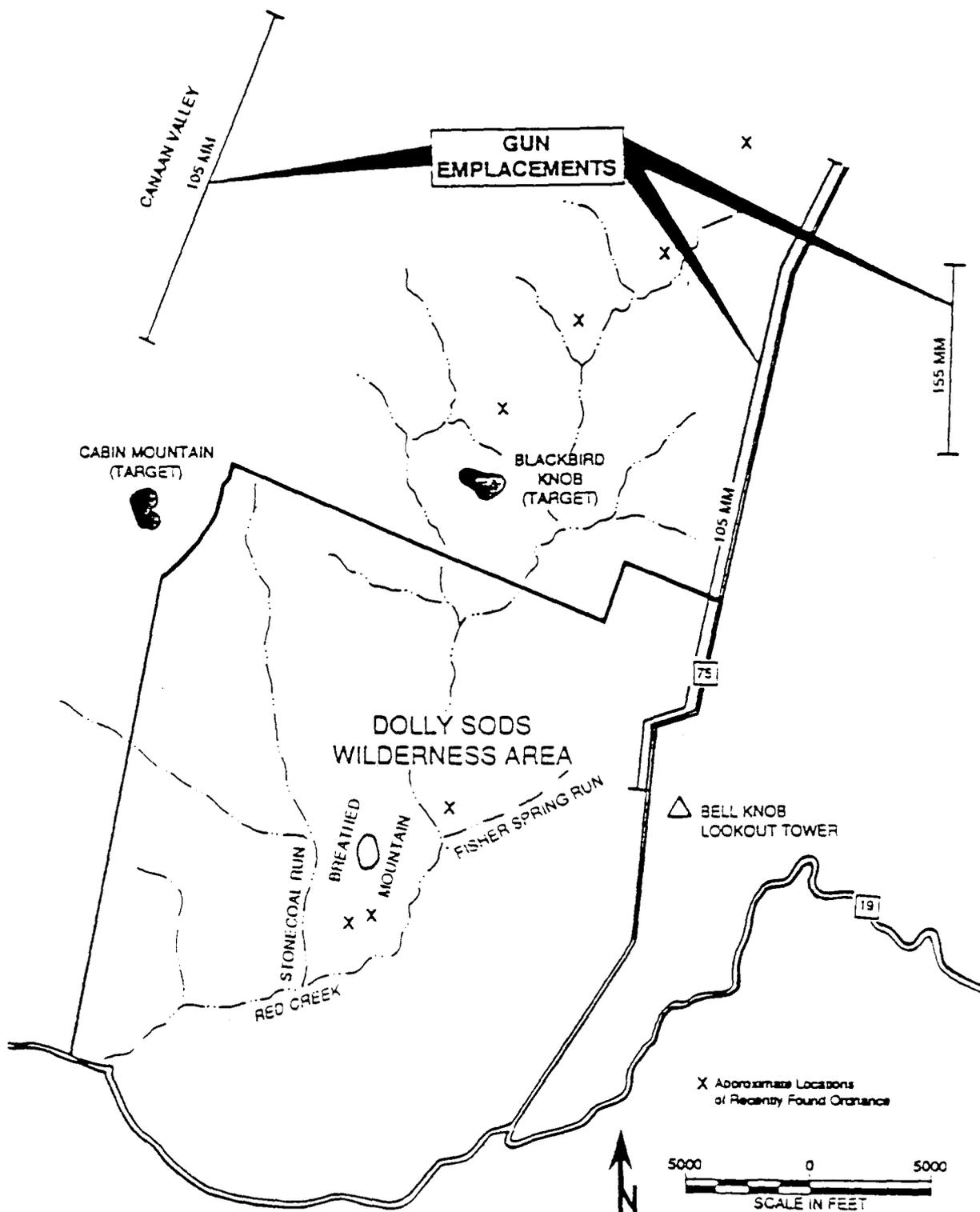
VII. Outstanding Policy Issues: Before any onsite work commences, trained personnel will work closely with the U.S. Forest Service and the Department of Natural Resources to define archaeologically significant areas, sensitive plants, and animal habitats that must be protected and to establish steps to avoid or minimize impacts. These steps and procedures will be explained in a workplan.

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IX. Recommendation: For both areas, alternative 3, clearing a total of 316.8 acres to a depth of one foot and 4.6 acres to a depth of 4 feet at a total estimated cost of \$3.94M, is recommended. Alternative 3 is preferred over alternative 2 because with less than a 5% increase in cost, another 24% reduction in the projected risk is achieved. The No Action alternative is not recommended because of the increasing risk to the public.

Joint Historic Preservation
ABD
NU
8/18/01

Dolly Sods Wilderness Ordnance Removal Project



Firing locations and general target areas at Dolly Sods.

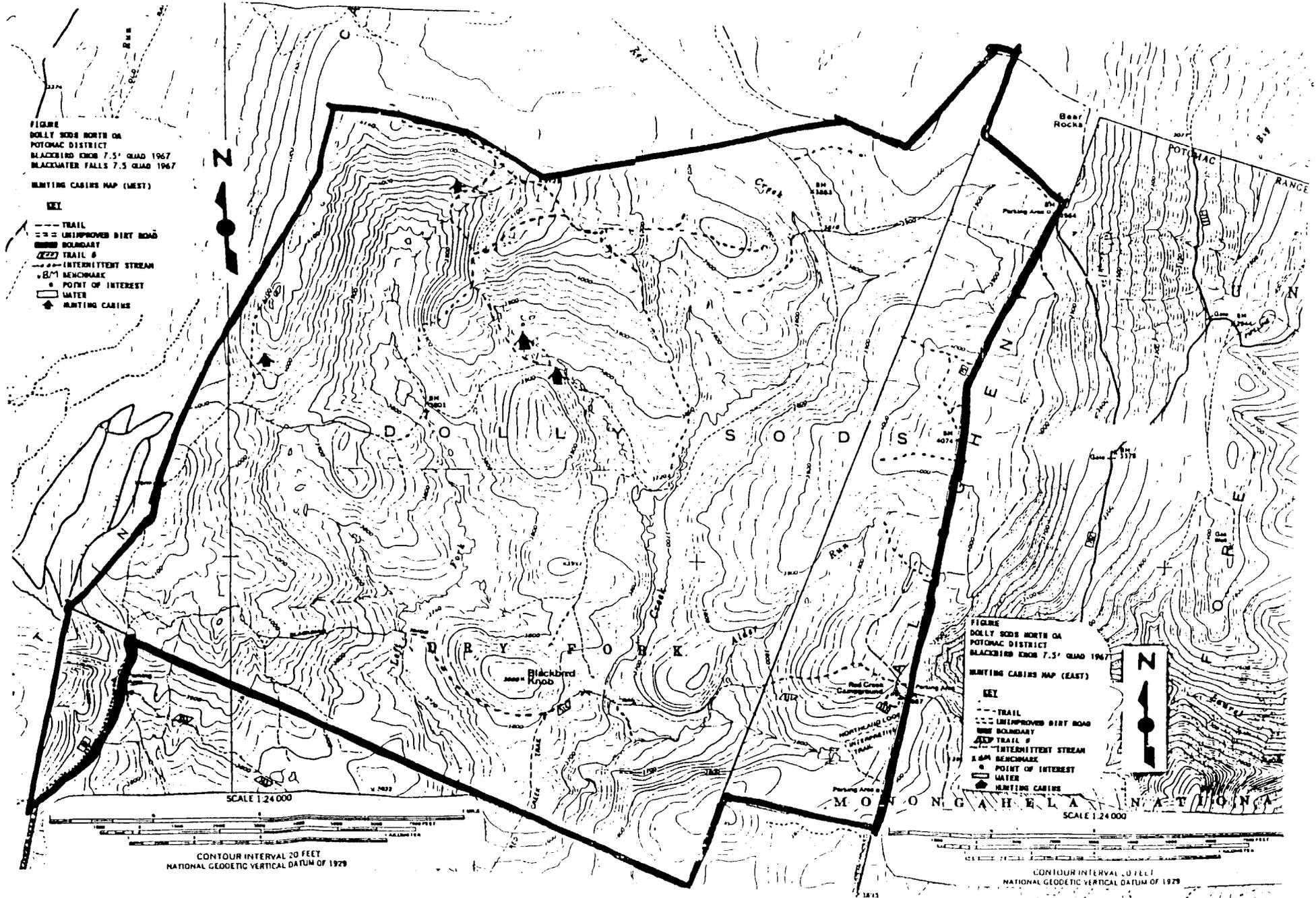


FIGURE
DOLLY SODS NORTH ON
POTOMAC DISTRICT
BLACKBIRD KNOB 7.5' QUAD 1967
BLACKWATER FALLS 7.5 QUAD 1967

HUNTING CABINS MAP (WEST)

KEY

- TRAIL
- - - UNIMPROVED DIRT ROAD
- BOUNDARY
- TRAIL 6
- INTERMITTENT STREAM
- B.M. BENCHMARK
- POINT OF INTEREST
- WATER
- ▲ HUNTING CABINS

FIGURE
DOLLY SODS NORTH ON
POTOMAC DISTRICT
BLACKBIRD KNOB 7.5' QUAD 1967

HUNTING CABINS MAP (EAST)

KEY

- TRAIL
- - - UNIMPROVED DIRT ROAD
- BOUNDARY
- TRAIL 6
- INTERMITTENT STREAM
- B.M. BENCHMARK
- POINT OF INTEREST
- WATER
- ▲ HUNTING CABINS

CONTOUR INTERVAL 20 FEET
NATIONAL GEODEIC VERTICAL DATUM OF 1929

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NATIONAL GEODEIC VERTICAL DATUM OF 1929

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**ACTION MEMORANDUM
FORMER WEST VIRGINIA MANEUVER AREA
NEAR DAVIS, WEST VIRGINIA**

I. PURPOSE: The purpose of this paper is to document the proposed ordnance and explosives (OE) removal action for Dolly Sods Wilderness and adjacent Dolly Sods North which were once part of the West Virginia Maneuver Area in central West Virginia.

II. SITE CONDITIONS AND BACKGROUND: This is a non-time-critical removal action to minimize a threat to the public due to the presence of OE.

A. Site Description

1. Removal Site Evaluation: During World War II this site was a part of the 2,181,000-acre West Virginia Maneuver Area. Due to the need for immediate training during World War II, the Secretary of War leased the area on 6 August 1943 from private companies and used it for less than two years for maneuvers and as an artillery and mortar target area for the Thirteenth Army Corps of the Third Army. Apparently it was also used for a few months by the Office of Scientific Research and Development to test fire rockets and projectiles. The site is now operated by the U.S. Forest Service and is open to the public at all times. It is frequently used for hiking, camping, picnics, and hunting. The southern portion has been designated by Congress as a "Wilderness" and is thus a federally protected public area known as Dolly Sods Wilderness. Dolly Sods North, which includes Blackbird Knob (a target site and now a popular recreation area), was privately owned until recent years when it was purchased by the Nature Conservancy and given to the Forest Service in 1992. Within the two areas, the Forest Service has documented approximately 44 miles of mapped trails and 176 camping areas. Other areas of concern are cabins, a trailer dump site, and Blackbird Knob. Although areas were searched and cleared after World War II by military Explosive Ordnance Disposal (EOD) teams, at least three 81-mm mortar shells have been found in recent years by the public in Dolly Sods Wilderness and at least 4 in the vicinity of Blackbird Knob. It has been reported that 105-mm shells have also been found in the area. The U.S. Army Corps of Engineers conducted a Feasibility Study in 1991 and concluded that a hazard to the public exists. During the Feasibility Study remains of 4.2", 57-mm, 60-mm, and 81-mm high explosives and smoke rounds were found.

2. Physical Location: Dolly Sods Wilderness and Dolly Sods North comprise 10,215 acres and approximately 5,000 acres respectively within the Monongahela National Forest in Grant, Tucker, and Randolph Counties of West Virginia. The site is bordered by private property to the north and west (Cabin Mountain) and Forest Service owned land to the east (Bell Knob) and south (Flat Rock Plains).

3. Site Characteristics: This portion of the West Virginia Maneuver Area is an undeveloped area of high elevation with wind-swept plains on the Allegheny Plateau. The terrain is rocky and rugged and the plant and animal life is comparable to that of

northern Canada. Notable features include Red Creek and its tributaries, Breathed Mountain, Blackbird Knob, other knobs and the "sods" or bogs in the level parts of the Wilderness. Animal life is diverse with the only known endangered species being the Cheat Mountain Salamander and the Northern Virginia Flying Squirrel. There are also areas of archaeological significance and sensitive plant life. *and North Area*

4. **Threat to the Environment:** Portions of ^{the} sites are known target areas for 81-mm mortars and 105 and 155-mm artillery as well as for field maneuvers. Due to the expedited nature of the training, exact records were not kept or have been lost or destroyed. Live ordnance is still being found and removed from the area by the public, creating a hazardous situation.

5. **NPL Status:** The site ^{is} neither listed nor proposed to be listed on the National Priority List (NPL). Since there are no known toxic contaminants at the site, it will not receive a Hazard Ranking System rating, be evaluated by the Agency for Toxic Substances and Disease Registry, or be referred to the site assessment program.

6. **Maps:** Maps indicating the firing locations, targets, and locations of discovered ordnance are attached.

B. Other Actions to Date

1. Previous Actions

a. Shortly after operations ended at the Maneuver Area, the artillery range was searched and discovered ordnance destroyed. After hikers continued to find isolated ordnance, military EOD teams again searched the area and destroyed ordnance. However the extent of these efforts is not known and ordnance continues to be discovered by the public and reported to the Forest Service or local sheriffs. In addition to the 7 recorded incidences of recovered ordnance, there are unofficial reports of ordnance found and removed by hikers and hunters.

b. As part of the Defense Environmental Restoration Program, formerly used defense sites were investigated nationwide by the Corps of Engineers. As a result of this investigation, the Corps conducted the 1991 Feasibility Study. The study included searching a sampling of areas considered to most likely have been used as targets or contain overshots or undershots. A total of 281 acres were searched with magnetometers. Thirteen pieces of ordnance were found from 6 to 24 inches beneath the surface. One piece of ordnance was found within several feet of a site used as a campfire pit. It was concluded that further remediation of the site is needed to reduce the risk to the public. It was also concluded that further study was needed of threatened and endangered species habitats and means to protect them and of steps to preserve the archaeological value of the area.

c. To accomplish this the "Dolly Sods Wilderness Ordnance Removal Project Environmental Assessment" was prepared in 1995. Means to protect threatened and endangered species, their

habitat, and archaeologically significant areas were established during the Environmental Assessment (EA) process. A Finding of No Significant Impact (FONSI) was signed by the Commander of the Corps of Engineers, Huntington District and the Supervisor of the Monongahela National Forest in September of 1995. Also more detailed operational instructions, designed to protect the Cheat Mountain Salamander, have been prepared jointly by the U.S. Fish and Wildlife Service and the Corps of Engineers.

d. A risk assessment, using an approach designed specifically for formerly used defense sites containing ordnance, was performed in 1995 for the Wilderness.

e. It was further concluded by the Forest Service and the Corps that Dolly Sods North has almost identical conditions as the Wilderness and that the alternatives considered and conclusions of the Wilderness' EA and Risk Analysis are also applicable to it. Subsequently the Wilderness's EA, Risk Analysis, and operational instructions were adopted for the entire site.

2. **Current Actions:** There are no known actions by the U. S. Environmental Protection Agency (EPA), other regulators, or private entities at this site.

C. State and Local Authorities' Role

1. **State and Local Actions to Date:** Ordnance found onsite is reported to the Forest Service who arranges to have it destroyed in place by an EOD team from Ft. Belvoir, VA. Ordnance removed from the area is often turned over to the local sheriffs who have it destroyed.

2. **Potential for Continued State/Local Response:** Support from the Forest Service, local sheriff departments, and Fort Belvoir should continue.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare: The actual amount of ordnance is undetermined but the risk is illustrated by the discovery of ordnance within several feet of a site used as a campfire pit. If the fire had been located over the buried ordnance, there is the likelihood that the ordnance would have detonated, potentially harming several persons. There is also the potential for tent pegs to be driven into buried ordnance or children to find and pick up pieces of ordnance. A high concentration of ordnance is thought to exist within the Red Creek Valley (where campers are commonly found) of the Wilderness. It is projected that between 45,000 and 76,000 visitors visit the Wilderness annually and another 40,000 visit Dolly Sods North annually.

B. Threats to the Environment: Accidental detonation of ordnance has little impact on the environment unless fires are started, as occurred due to artillery fire when the Maneuver Area was active. Due to its harsh environment the site is extremely slow in

recovering from any detrimental activities. (In the early 1900's, fires destroyed the humus layer, leaving the current, relatively infertile rocky terrain.)

IV. ENDANGERMENT DETERMINATION: The risk of accidental detonation of any remaining ordnance, if not addressed, represents a substantial endangerment to public welfare and the environment.

X - 7

II A Wilderness Regulations

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions: Three alternatives were evaluated for the Dolly Sods Wilderness - (1) No Action, (2) clear hiking trails (20.8 miles) and 20 feet on each side to a depth of one foot, and (3) clear camping areas (101) to a depth of four feet and trails as in alternative 2. For each alternative, the remaining risk to the public was evaluated using the OECert methodology, which was specifically developed for the Corps of Engineers to assess sites containing UXO and is now the OE standard for risk assessment. Risk is evaluated based on the potential for an individual to come within the immediate proximity of UXO and the potential consequences. A comparison of the alternatives considered for the Wilderness is provided in the following table, assuming continued high use of the area by the public. (Exposure is defined as a member of the public being present in the immediate proximity to UXO.)

<u>Alt.</u>	<u>Area Remediated (acres)</u>	<u>Projected Exposures</u>	<u>Risk Reduction</u>	<u>Costs</u>
1	None	1258/year	None	None
2	103.7	659/year	47.6%	\$1.23M
3	105.2	517/year	58.9%	\$1.29M

Comparable alternatives were also evaluated for Dolly Sods North - (1) No Action, (2) clear 23 miles of trails and 20 feet on each side (114.3 acres) and 98.9 acres of open land on Blackbird Knob to a depth of 1 foot, and (3) clear 75 camping areas (1.1 acres), 3 cabin sites (1.5 acres), and 1 trailer dump site (0.5 acres) to a depth of 4 feet and the trails and Blackbird Knob as in alternative 2. The risk reduction percentages for the Wilderness' alternatives are considered to be applicable for these alternatives for Dolly Sods North as indicated in the following table.

<u>Alt.</u>	<u>Area Remediated (acres)</u>	<u>Risk Reduction</u>	<u>Costs</u>
1	None	None	None
2	213.1	47.6%	\$2.53M
3	216.2	58.9%	\$2.65M

1. Proposed Action Description: The areas described in alternatives 2 and 3 will be searched by UXO specialists using hand held ordnance detection devices such as metal detectors. If metal

X - II *Both Dolly Sods Wilderness and Dolly Sods North will be subject to Wilderness rules and regulations. All activities in both areas will conform to Wilderness Guidelines.*

is indicated, the area will be excavated by hand to the given depth. Small undergrowth, grasses, and fallen trees will be cleared only if necessary to search an area and only if the area is accessible to hikers, campers, or hunters. Earth will be excavated only if metal objects are detected. Discovered UXO will be destroyed in place or in designated areas by detonation. Before any onsite work commences, trained personnel will work closely with the U.S. Forest Service and the State of West Virginia Division of Natural Resources to define potential archaeologically significant areas, sensitive plants, and animal habitats that must be protected and to establish steps to avoid or minimize impacts. Prior to any excavation or detonation, the impacted area will be investigated and endangered or threatened plants and animals removed and archaeologically significant items removed or protected. Disturbed areas will be covered with leaves and other materials found in the area to minimize exposure to the elements.

2. Contribution to Remedial Performance: As noted in the previous tables, remediation alternatives 2 and 3 will reduce the risk of exposures by a projected 47.6% and 58.9% respectively. Lessons learned from other sites indicate that searching and clearing areas outside of the established trails, campgrounds, and open areas will be infeasible due to the large area, terrain, and costs.

3. Description of Alternative Technologies: In this project there are no practical alternatives to manually searching the areas and detonation in place. It is not safe to move UXO.

4. EE/CA: In lieu of an Engineering Evaluation/Cost Analysis (EE/CA), a Feasibility Study, a separate Risk Assessment, and an EA were performed. The described alternatives were evaluated in the Risk Assessment dated February 1995 and the EA.

5. Applicable or Relevant and Appropriate Requirements (ARARs): Federal ARARs determined to apply to this site are the Defense Environmental Restoration Program (DERP) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Remediation shall be in accordance with the Occupational Safety and Health Administration (OSHA) Standards, the National Contingency Plan, and the Department of Defense Explosive Safety regulations.

6. Project Schedule: For recommended alternative 3, the Corps plans to commence work in May 1997 and complete all work within seven months.

B. Estimated Costs: The total estimated cost is \$3.66M for alternative 2 and \$3.94M for alternative 3.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN: Popularity of the area is steadily increasing. Consequently the potential for accidental detonation of ordnance

and subsequent injury to or death of members of the public will increase as use of the area increases.

VII. Outstanding Policy Issues: Before any onsite work commences, trained personnel will work closely with the U.S. Forest Service and the West Virginia Division of Natural Resources to define archaeologically significant areas, sensitive plants, and animal habitats that must be protected and to establish steps to avoid or minimize impacts. These steps and procedures will be explained in a workplan.

VIII. Enforcement: Since no nonfederal entities are known to have contributed to the contamination, no enforcement strategy is needed.

IX. Recommendation: For both areas, alternative 3, clearing a total of 316.8 acres to a depth of one foot and 4.6 acres to a depth of 4 feet at a total estimated cost of \$3.94M, is recommended. Alternative 3 is preferred over alternative 2 because with less than a 5% increase in cost, another 24% reduction in the projected risk is achieved. The No Action alternative is not recommended because of the increasing risk to the public.

United States
Department of
Agriculture

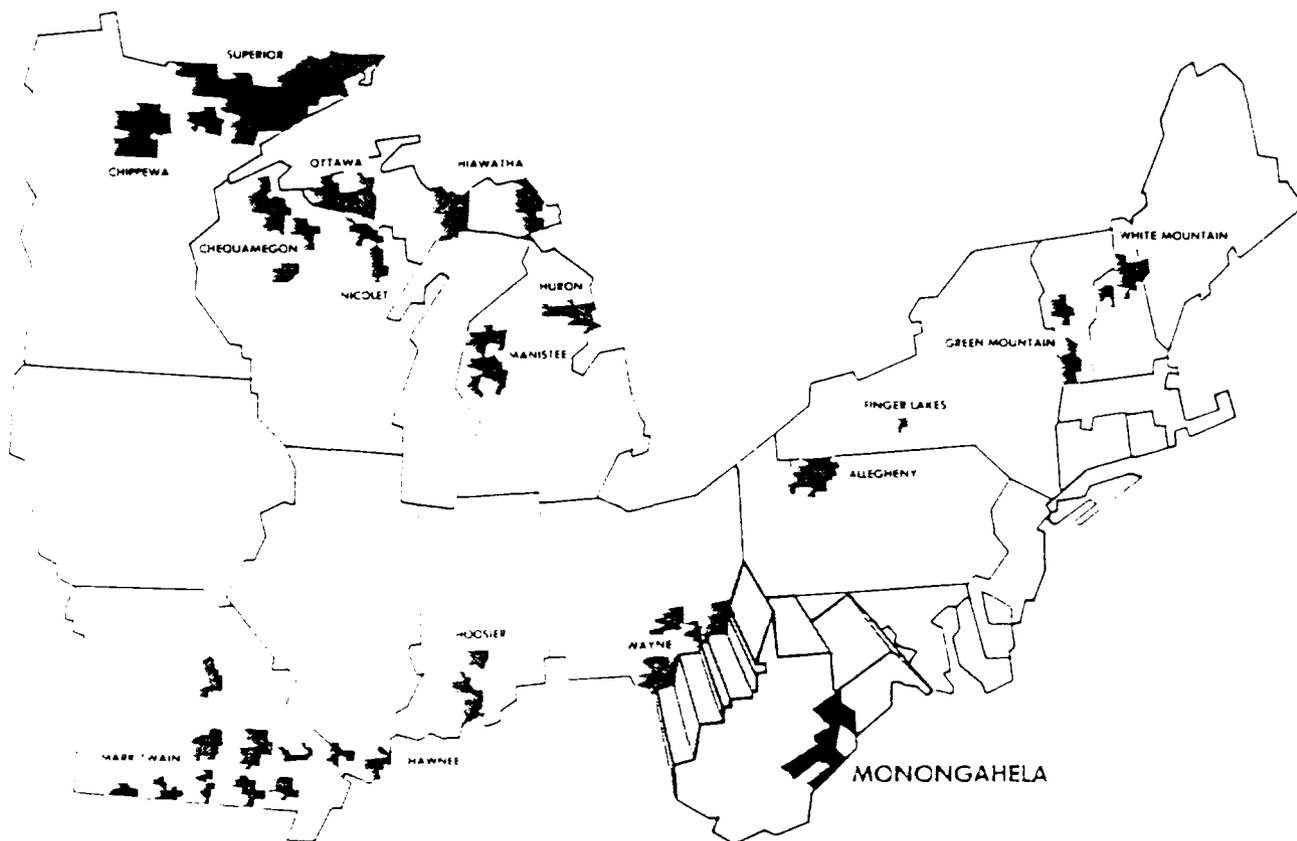
Forest
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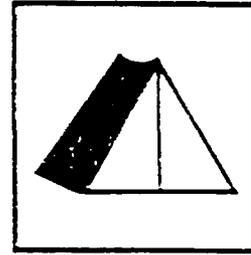
Eastern
Region



Land and Resource Management Plan

MONONGAHELA NATIONAL FOREST





MANAGEMENT PRESCRIPTION 5

Purpose

This prescription will emphasize management of congressionally designated wilderness to:

- Protect the wilderness attributes for future generations.
- Provide a wilderness experience.
- Preserve natural ecosystems.

Area Description

The following five areas are assigned to this prescription:

Cranberry Wilderness	35,864 acres
Dolly Sods Wilderness	10,215 acres
Laurel Fork North Wilderness	6,055 acres
Laurel Fork South Wilderness	5,997 acres
Otter Creek Wilderness	20,000 acres
TOTAL	<u>78,131</u> acres

These areas are primarily forested, with access provided by trail. They offer a natural setting for dispersed forms of recreation use.

Desired Future Condition

Vegetation will be affected by natural succession. The areas will continue to provide a wilderness experience with little evidence of other users and low interaction between users. Facilities of a primitive nature may be present to protect the resources and the safety of visitors. Natural succession will eventually result in a climax Forest of predominantly tolerant vegetation with reduced plant and animal diversity.

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

Management Activity			General Direction	Standard/Guideline
FM	Related Goal	Subject		
1530	XII	Interdepartmental	A. Cooperate in Wilderness management.	1. The Forest Service will coordinate with the Federal Aviation Administration and the military to prevent undesirable aircraft noise resulting from low altitude commercial and military flights across designated wilderness.
1530	XIII	State, County, and local Agencies		
1556	III	Search and Rescue	A. Motorized and mechanized equipment may be used for life-threatening situations in search and rescue operations, with Forest Supervisor approval. In situations which are not life-threatening, the Forest Supervisor may authorize the use of motorized or mechanized equipment on a case-by-case basis if circumstances warrant the use of such equipment, for example, to remove a deceased person from the area.	
	IX			
1600	III	Information	A. Wilderness and the recreation use of Wilderness will not be promoted, nor will it be the subject of feature articles originated by the Forest Service. The Recreation Opportunity Guide, brochures, or correspondence will be used to provide for user information needs and requests. Land use ethics and "no trace" camping should be a topic stressed in all public contacts. Questions of users will be answered to the fullest extent possible. There will be no Forest Service interpretive programs or activities within Wilderness.	
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MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

FSM Ref.	Management Activity Related Goal	Subject	General Direction	Standard/Guideline
1900	VI	Vegetation	A. Vegetation manipulation may be used to rehabilitate trails or recreation use sites. It will not be used to create vistas or alter the natural environment. B. Vegetation management may occur as a component of actions needed to protect adjacent lands from fire or pests.	1. Revegetation will use native plants.
1920	III	Planning	A. Operation and maintenance plans will be prepared for areas to guide routine activities and implement the Forest Plan.	
2100	III XVI	Protection	A. <u>Air Quality</u> . Forest will work with Federal (EPA) and State (Air Pollution Control Commission) air quality management agencies to protect Class I air quality in Otter Creek and Dolly Sods Wildernesses.	1. Identify the Air Quality Related Values (AQRV) for each Class I air quality area on the Forest. 2. Define the limits of acceptable change (LAC) appropriate for each AQRV that will protect Wilderness air quality related values. 3. Review all prevention of significant deterioration (PSD) permit applications within a minimum 100 kilometer radius of Class I areas and assure that AQRV's are being protected.
2200	V	Range	A. Section 4(d) (4) (2) of the Wilderness Act provides for continuing livestock grazing where established prior to the designation of Wilderness. The objectives of livestock management in Wilderness must include utilizing the forage coordinated with the established Wilderness objectives for each area.	

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

FSM Ref.	Management Activity Related Goal	Subject	General Direction	Standard/Guideline
2300	I III	Recreation	A. Allow recreation use consistent with protection of Wilderness attributes.	1. Carrying capacities for this Plan are set at: Cranberry 72,400 RMD/Year Dolly Sods 24,200 RMD/Year Laurel Fork North 12,250 RMD/Year Laurel Fork South 12,250 RMD/Year Otter Creek 37,500 RMD/Year
				2. Semiprimitive nonmotorized R/S class will be featured.
				3. Facilities may be provided to support recreation uses provided they conform to Forest Plan standards and their design is of a primitive and low impact nature.
			B. Set policies for recreation use that will protect Wilderness attributes and the quality of Wilderness visit.	1. <u>Party Size</u> . A maximum party size will be 10.
				2. <u>Permits</u> . Permits will not be used unless (1) required by Regional or National Policy or (2) needed to control levels of use, or (3) needed to collect fees.
				3. <u>Cooking Fires</u> . The use of campstoves will be encouraged. <u>Wood fires</u> for cooking or warming will be permitted, but visitors will be encouraged to keep fires as small as possible. Only dead and down wood may be used for fuel-wood.
				4. <u>Horse Use</u> . The use of horses will not be encouraged because trails will not be cleared or maintained for this use.
				5. <u>Campsites</u> . Facilities such as fireplaces, wilderness pit toilets, and gravelled surfaces may be provided where necessary for resource protection. Facilities will not be provided exclusively for the comfort or convenience of users. Where designated campsites are available in trailside and streamside areas, their use will be encouraged (in lieu of "throw-down" sites).
				6. <u>Trail Density</u> . A trail density of one to two miles per square mile may be provided and maintained.

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MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

FPM Ref.	Management Activity		General Direction	Standard/Guideline
	Related Goal	Subject		
2300 (cont.)				<p>7. <u>Trail Standards.</u> Trail construction will generally be of a more primitive standard than elsewhere on the Forest, so as to provide a challenging recreation experience for the user. This challenge must be tempered, however, with adequate resource protection and reasonable precautions for user safety. For example, trail bridges would normally be regarded as a convenience and not provided.</p> <p>8. <u>Trail Maintenance.</u> Trails will be maintained primarily for resource protection. A range of trail maintenance levels will be applicable depending on the amount of trail use and needed resource protection measures. Hand tools will normally be used, but power or mechanical tools may be used in an emergency condition which threatens the health and safety of human beings. The Forest Supervisor may authorize such use. Cooperative trail maintenance programs will be continued and encouraged.</p>
2360	XVI	Special Interest Areas		<p>1. Cultural resource features within wilderness will be evaluated and may be stabilized and preserved if historically significant.</p> <p>2. On-site cultural resource interpretation will not occur in this Management Prescription.</p>
2380	I III	Landscape Management	A. Management activities will meet the visual quality objectives of Preservation or Retention for all sensitivity levels, distance zones, and variety classes.	<p>1. Only native materials will be used to build and maintain trails and recreation facilities. Milled logs and planks will not be used.</p> <p>2. Mineral exploration and extraction will meet visual quality objective of Retention.</p> <p>3. Preservation will be the primary visual quality objective on-site. Facilities and travelways will meet visual quality objective of retention.</p> <p>4. Structures and remnants of facilities such as old railroad ties, culverts, bridges, etc., are present. Those causing major unacceptable adverse impact on visitor's perception of the wilderness should be removed. No</p>

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

FSM Ref.	Management Activity		General Direction	Standard/Guideline
	Related Goal	Subject		
2380 (cont.)				intensive project to remove all such features is needed, but they should be phased out as the opportunity presents itself. Removal is regarded as suitable projects for volunteer groups.
				1. <u>Firewood</u> . Gathering firewood in wilderness areas for home use is prohibited. Use of dead and down wood for on-site campfires is permitted, however.
2460	VI	Other Than Commercial Sales		
2470	VI	Silvicultural Systems	A. No timber management or management for non-wilderness purposes. Natural succession will occur.	
2500	111 XVI	Water and Soil	A. Control measures to mitigate erosion will be commensurate with the soil characteristics, expected use, and management objectives for the site. B. Natural water quality will be maintained except: 1) Where influenced by water treatment facilities located outside Wilderness boundaries; 2) To correct problems caused by people, or; 3) To correct problems created by natural disasters that threaten downstream health and safety.	1. Trail construction will be located and designed to minimize soil disturbance.
2620	IV	Wildlife Plans	A. Black bear and associated species will be featured in Wildernesses.	1. Wildlife habitat will not be manipulated. 2. Hunting, fishing, and trapping may occur subject to applicable state and federal laws. 3. Fish stocking will be permitted only in those streams or portions of streams where a history of such use exists. Stocking is permitted by non-mechanical means only.

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

Management Activity			General Direction	Standard/Guideline
FS21 Ref.	Related Goal	Subject		
2700	III XIV	Special Uses	A. Corridors for reservoirs, water conservation works, power projects, transmission lines, and other facilities are not permitted, except as authorized by the act establishing the Wilderness, or as authorized by the President according to the Wilderness Act of 1964.	
			B. Other special uses are generally not compatible with Wilderness management, however they will be considered on a case-by-case basis.	1. Outfitter/Guide Permits may be issued <u>provided</u> (1) they contribute to Wilderness objectives in this Plan and O&M Plans and (2) Wilderness attributes are protected. 2. Permits for storage of personal property, equipment, or supplies will generally not be granted.
2800	VIII	Minerals	A. <u>Exploration</u> . Provide for exploration activity that does not disturb or occupy the land surface.	
			B. <u>Development</u> . "Subject to valid existing rights then existing, effective January 1, 1984, the minerals in lands designated by this Act as Wilderness Areas are withdrawn from disposition under all laws pertaining to mineral leasing and all amendments thereto." Sec. 4d(3) of the Wilderness Act, September 3, 1964.	
			C. <u>Private Minerals</u> . Coordinate operations and mitigation measures to the greatest possible extent to minimize adverse effects on wilderness resources.	

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

FSM Ref.	Management Activity Related Goal	Subject	General Direction	Standard/Guideline
3400	III XVI	Integrated Pest Management	A. Insects and diseases may be controlled in Wilderness to protect health and safety, adjacent land values, and Wilderness attributes. Integrated pest management methods will be used to minimize or prevent the development of pest problems. Where pest problems are unavoidable, a solution which provides the most beneficial method based on objectives, effectiveness, safety, environmental protection, and cost will be selected.	1. The NEPA process will be used to determine appropriate control methods. 2. Obtain Regional Forester approval for all pesticide applications in Wilderness.
4000	III	Research	A. The Forest will actively cooperate with research intended to develop basic knowledge on ecological processes, human behavior, or Wilderness management problems.	
5100	III XVI	Fire	A. Fires will be suppressed. This policy is based on the small size of areas, the volume of adjacent private investments, the concern of the state of West Virginia. Fire prevention will be stressed to users of the Wilderness. Maximum protection will be given to ecological values in all prevention and suppression activities. B. The use of chain saws, portable pumps, or retardant drops from aircraft in fire suppression are permitted with the approval of the Forest Supervisor.	

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

Management Activity			General Direction	Standard/Guideline
FSH Ref.	Related Goal	Subject		
5100 (cont.)	XVI		<p>The use of chemicals for retarding fire spread and intensity may be approved by the Forest Supervisor. The Supervisor may permit the construction and use of helispots and the delivery and retrieval of crews and equipment by aircraft if necessary. The Regional Forester may approve the use of tractors, tractor/plows, track or wheeled mechanized equipment for emergency use within Wilderness.</p> <p>C. Action will be taken immediately to revegetate areas disturbed by fireline or helispot construction or other mechanical manipulation during suppression activities. Native species will be used to the maximum extent possible.</p> <p>D. Fire prevention efforts will be directed to reduce specific causes.</p>	
5300	III XVI	Law Enforcement	<p>A. Law enforcement will be used for the control of littering, use of motor vehicles, fire violations, and violation of recreation rules.</p>	
5400	III X	Lands	<p>A. Acquisition of lands, rights-of-way, or minerals for application of this prescription is the highest priority acquisition needed on the Forest.</p> <p>B. Lands allotted to this prescription will not be candidates for exchange.</p>	<p>1. Recommendations for the use of condemnation will be limited to: (1) Rights-of-Way, and (2) to acquire surface and subsurface values where conflicting uses of other ownerships preclude maintenance of Wilderness values, except where otherwise provided for by law.</p>

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MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

FSM Ref.	Management Activity Related Goal	Subject	General Direction	Standard/Guideline
6700	III IX	Public Safety	A. Through normal contacts, alert visitors to safety problems inherent in wilderness areas - steep terrain, severe weather, unsafe drinking water. Inform visitors to Dolly Sods of the presence of old ordnance remaining from military exercises during World War II. Alert the proper authority to remove ammunition discovered by visitors.	
7150	III	Surveying	A. Wilderness boundary lines will not be marked except where needed near projects, entry points, trailheads, and private property lines.	
7160	XV III	Signs	A. Trail signs may be provided within wilderness areas.	<ol style="list-style-type: none"> 1. The number of signs used will be kept to the minimum needed for user safety. 2. Trail blazing will be kept to the minimum necessary for user safety. 3. Non-standard black on gray or yellow on redwood signs will be phased out on a normal maintenance schedule. 4. The sign standard in Wilderness will be a routed wooden sign allowed to weather naturally.
7300	III	Buildings and Structures	A. No buildings or structures will be constructed, except as authorized by the act establishing the Wilderness.	<ol style="list-style-type: none"> 1. Existing shelters will be phased out by removing them when they become unserviceable. Funds will not be expended to bring shelters to facility condition classes one or two.
7420	XVI	Water Supply	A. Drinking water sources will not be developed.	
7450		Air Quality	A. The Forest Service will plan and provide for that air resource related monitoring needed to insure	

MANAGEMENT PRESCRIPTION 5 STANDARDS/GUIDELINES

Management Activity			General Direction	Standard/Guideline
ISM Ref.	Related Goal	Subject		
7450 (cont.)			that Wilderness Class I area air quality related values are protected. See monitoring section.	
7460	XVI	Solid Waste	A. Landfill disposal sites will not be provided in this Management Prescription. B. Wilderness latrines may be provided near established campsites.	1. Emphasize and promote use of carry-in/carry-out method of disposal.
7470	III XV	Transportation System Planning	A. No roads will be constructed or maintained except as authorized by the act establishing a particular area.	1. The use of motor vehicles, motorized equipment, motorboats and other forms of mechanized transportation is not allowed by the Wilderness Act (P.L. 89-577). Secretary of Agriculture's Regulations - General Prohibitions - prohibits possessing or using a motor vehicle, motorboat, motorized equipment, hang-glider or bicycle. Carts, sleds, and tobaggons are authorized under existing laws, regulations, and orders.

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CELRH-DL-M

30 May 1997

MEMORANDUM FOR CEHNC-OE-DC, Attn: Mr. David Shafii

SUBJECT: Revised Action Memorandum for Ordnance and Explosives (OE) Removal Action at the Former West Virginia Maneuver Area, Dolly Sods Wilderness, Davis, West Virginia Project Number: G03WV001304

1. Attached is a copy of the Revised Action Memorandum for Dolly Sods that you sent to Huntington on 6 May 97.
2. Request that the changes as shown be incorporated into the document and returned to us. We have also included a copy of the Land and Resource Management Plan, Monongahela National Forest that needs to be an attachment to the Action Plan (referred to as Wilderness Regulation).
3. If you have any questions, please feel free to contact me at 304-529-5388.

Encl



RICHARD L. MEADOWS
Programs and Project
Management Division