U.S. DEPARTMENT OF ENERGY
FINDING OF NO SIGNIFICANT IMPACT FOR THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY WILDLAND FIRE MANAGEMENT ENVIRONMENTAL ASSESSMENT

Agency: U. S. Department of Energy (DOE)
Action: Finding of No Significant Impact (FONSI)

Summary: DOE prepared an environmental assessment (EA) for wildland fire management activities on the Idaho National Engineering and Environmental Laboratory (INEEL) (DOE/EA-1372). The EA was developed to evaluate wildland fire management options for pre-fire, fire suppression, and post fire activities. Those activities have an important role in minimizing the conversion of the native sagebrush steppe ecosystem found on the INEEL to non-native weeds. Four alternative management approaches were analyzed: Alternative 1 – maximum fire protection; Alternative 2 – balanced fire protection; Alternative 3 – protect infrastructure and personnel; and Alternative 4 – no action/traditional fire protection.

The EA was prepared in accordance with the Council on Environmental Quality (CEQ) Regulations for implementing the National Environmental Policy Act (NEPA) (40 CFR 1500-1508), and the DOE NEPA Implementing Procedures (10 CFR 1021).

During the development of the draft EA, DOE requested input from entities with expertise in wildland fire management or the management of resources affected by wildland fire management activities. The draft EA was released for a 30-day public review and comment period on September 16, 2002. DOE received comments from the U. S. Fish and Wildlife Service, the INEEL Citizens Advisory Board, the Idaho Department of Fish and Game, The Nature Conservancy, the Sagebrush Steppe Reserve Project, and five members of the public. DOE responded to those comments and revised portions of the EA, as appropriate. Based on the analysis in the EA, DOE has decided to implement a modified Alternative 2, Balanced Fire Protection Approach, as described below.

Selected Action:

DOE has decided to implement the following actions:

Wildland Fire Management Committee

DOE will create a Wildland Fire Management Committee similar to one described in Section 2.1.1 of the EA to address pre-fire and post-fire activities. DOE will select committee members during the development of the charter for the committee. DOE may request individuals from other agencies or independent technical advisors to participate on that committee.

PRE-SUPPRESSION ACTIONS

Fuel Management Zones Along Improved Roads

As appropriate, the INEEL will mow vegetation or conduct prescribed burns along the following highways and roads that pass through or border the INEEL.

1. A minimum of 10 feet to a maximum of 300 feet on each side of State Highways 20, 26, and 20/26.
2. A minimum of 10 feet to a maximum of 50 feet on each side of State Highways 22, 28, and 33.
3. A minimum of 10 feet to a maximum of 50 feet along:
   a. Each side of Lincoln Boulevard and Adams Boulevard from Lincoln Boulevard to the Radioactive Waste Management Complex; and
   b. Approach roads to the Central Facilities Area Gun Range Facility, Argonne National Laboratory-West, Idaho Nuclear Technology and Engineering Center, Test Reactor Area, Naval Reactors Facility, Waste Reduction Operations Complex, and the Specific Manufacturing Capabilities site areas.
4. A minimum of 100 feet to a maximum of 300 feet around the Central Facilities Area gun range.
5. A 5- to 10- foot strip along facility perimeter roads.

Fuel Management Zones Along Unimproved Roads
No fuel management activities will occur along unimproved roads.

Unimproved Road Upgrade
The INEEL will maintain the following strategic unimproved roads as passable for 4X4 equipment: T-12, T-13, and Main Street from the intersection of T-13 to State Highway 20/26, T-16, T-4, T-3, T-5, T-20, T-9, and the existing power line roads. Upgrading unimproved roads will be limited to filling ruts with gravel or dirt and leveling the fill material. Improvements will be restricted to only those segments where they are necessary.

The INEEL will install signs identifying each unimproved road at their intersection with other unimproved roads and at the head of each unimproved road.

Defensible Space
The INEEL will provide defensible space as described in Section 2.1.1 except that blading with or without sterilization will not be used, and placing gravel over areas that may require long-term weed control will be minimized. Defensible space will be provided by:
1. Maintaining a 30- to 50- foot defensible area around all INEEL buildings, structures, and significant support equipment; and
2. Maintaining a 30-foot defensible area around parking lots, storage pads, designated buildings, designated perimeters, designated propane and fuel tanks, substations, and along the rail system within the INEEL.

FIRE SUPPRESSION ACTIONS

Staged Response
The INEEL will use a staged fire suppression response and will incorporate minimum impact suppression tactics (MIST) as specified in Section 2.1.2 of the EA whenever conditions allow, as determined by the on scene commander. Those tactics include minimum width and depth containment lines, avoiding waterways, using cold-trail tactics, and using existing roads as containment lines.

Direct Tactics
The INEEL may use the following direct tactics:

1. Hose line application of water and/or foam suppressants on burning vegetation using off-road fire-fighting equipment.
2. Aerial delivery of water and/or chemical retardant using helicopters and air tankers.
3. Construction of containment lines (generally up to 24 feet unless the on scene commander determines that larger containment lines are necessary) on the fire perimeter using dozers, graders, other mechanical equipment, and hand tools.

Indirect Tactics
The INEEL may use the following indirect tactics:

1. Constructing containment lines ahead of advancing fire. This generally involves the construction of a single or double blade (generally up to 24 feet unless the on scene commander determines that larger containment lines are necessary) containment line using dozers, graders, and discs, or the widening of existing breaks.
2. Burning vegetation from a containment line to the fire edge of the advancing fire, as required.

Pockets of unburned vegetation within the fire perimeter will be preserved to the extent practicable.

Parallel Tactics
The INEEL may use the following parallel tactics:

1. Construct containment lines parallel to but further from the fire edge than in direct attack.
2. Burn the fuel between the containment line and the fire edge.
3. Construct containment lines only as large as necessary to effectively check the fire.

POST-FIRE ACTIONS

Dust Suppression and Control
The INEEL may suppress and control dust by:

1. Applying a soil tackifier and/or mulch; and/or
2. Installing water cannons or snow fences upwind of affected facilities.

Site Restoration
The INEEL will implement site restoration activities, as identified in Section 2.1.3, as necessary to determine impacts to cultural resources and ensure the establishment of a native plant community in areas disturbed by suppression activities. Until such time as a native plant community is established, the INEEL will control non-native weeds, including noxious weeds and invasive species, on those areas.

Analysis: Based on the analysis in the EA, the selected action would not have, and would likely prevent, a significant effect on the human environment within the meaning of NEPA. The term "significantly" and the significance criteria are defined by the CEQ Regulations for implementing NEPA at 40 CFR 1508.27. The significance criteria are addressed below and referenced to the corresponding analysis in the EA.

1) **Beneficial and adverse impacts [40 CFR 1508.27 (b)(1)]:**
The selected action provides an approach to wildland fire management that will balance the need to minimize the size of wildland fires, thus protecting sagebrush and INEEL facilities, with the need to reduce habitat fragmentation and soil disturbance with its associated impacts on cultural resources and increased potential for the conversion of the sagebrush steppe ecosystem to non-native weeds.

2) **Public health and safety [40 CFR 1508.27 (b)(2)]:**
The two primary public health and safety issues are blowing dust and the spread of radiological contamination from burned-over areas. Radiological contaminants spread by wind are at very low-levels and unlikely to cause human health and ecological concerns (Section 3.2 and 4.2.1 of the EA). The amount of blowing dust resulting from the implementation of the selected action may be greater than Alternative 1 because of the use of MIST tactics in some situations. However, the trade-off of using MIST instead of an aggressive fire response is the reduced chance of invasion of cheatgrass and, therefore, decreased fire frequency and associated blowing dust events.

3) **Unique characteristics of the geographical area [40 CFR 1508.27 (b)(3)]:**
The INEEL has been a federal reservation with restricted public access since the mid-1940s. A result of the restricted public access is a well-preserved cultural resources record within the boundary of the INEEL (Section 3.5 of the EA). In addition, the limited access has resulted in the INEEL containing the largest remnant of undeveloped, un-grazed sagebrush steppe ecosystem in the Intermountain West (Section 3.4 of the EA). The selected action is intended to conserve the unique characteristics of the INEEL while protecting INEEL facilities from wildland fire.

4) **Degree to which effects on the quality of the human environment are likely to become highly controversial [40 CFR 1508.27 (b)(4)]:**
The analysis of the selected action, including information gained through consultation with various entities with expertise in resource management and public comment, indicates the proposed action is not highly controversial. However, not taking action could contribute to the eventual loss of the sagebrush steppe ecosystem and that would be highly controversial.

5) **Uncertain or unknown risks on the human environment [40 CFR 1508.27 (b)(5)]:**
The analysis indicates no unique, uncertain, or unknown risks to, or effects on the human environment will result from impacts associated with implementing the selected action.

6) **Precedent for future actions [40 CFR 1508.27 (b)(6)]:**
The selected action does not set a precedent for future action that may have significant effects, or represent a decision in principle about a future consideration.

7) **Cumulatively significant impacts [40 CFR 1508.27 (b)(7)]:**
The analysis indicates the selected action, when combined with present, past, and reasonably foreseeable future actions, would result in less cumulative impact to the overall landscape in terms of cultural resources and the potential to convert sagebrush steppe to non-native annual weeds than if DOE continues its current wildland fire management strategy. The Bureau of Land Management is also concerned with the irreversible conversion of sagebrush steppe to non-native annual weeds and is in the process of analyzing the potential impacts of a new

management strategy for public lands that responds to ecological linkages between fire and fuel management. The INEEL is surrounded by those public lands and is part of the landscape evaluation BLM is performing. That new management direction may also reduce, from current levels, the impacts from fire management activities on public land surrounding the INEEL and help minimize the conversion of sagebrush steppe communities to non-native annual weeds.

8) **Effect on cultural or historical resources [40 CFR 1508.27 (b)(8)]:**
While implementation of the selected action may have adverse impacts to cultural resources during wildfire suppression, those impacts would be reduced by the implementation of MIST. Advanced planning and coordination by the Wildland Fire Management Committee would also minimize impacts to cultural resources during pre- and post-suppression activities (Section 4.2.4 of the EA).

9) **Effect on threatened or endangered species or critical habitat [40 CFR 1508.27 (b)(9)]:**
The analysis indicates no threatened or endangered species or critical habitat will be adversely impacted by the selected action (Appendix D, response to FWS comment #1). Implementing the selected action is intended to conserve habitat critical to sagebrush-obligate species of concern including the greater sage grouse and northern sagebrush lizard.

10) **Violation of Federal, State, or Local law [40 CFR 1508.27 (b)(10)]:**
None of the actions identified in the selected action will be conducted in such a manner that will violate Federal, State or Local laws (Section 6 of the EA).

Determination: Based on the analysis presented in the attached EA, I have determined that the selected action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, preparation of an environmental impact statement is not required.

Issued at Idaho Falls, Idaho on this 24th day of April, 2003.

M. Christine Ott

M. Christine Ott
Acting Deputy Manager, Idaho Operations Office

Copies of the EA and FONSI are available from: Brad Bugger, Office of Communications, MS-1214, Idaho Operations Office, U. S. Department of Energy, 850 Energy Drive, Idaho Falls, Idaho, 83403-3189, or by calling (208) 526-0833 or the toll-free INEEL citizen inquiry line (800) 708-2680.

For further information on the NEPA process contact: Jack Depperschmidt, Deputy NEPA Compliance Officer, MS-1216, U. S. Department of Energy, 850 Energy Drive, Idaho Falls, Idaho, 83403-3189, (208) 526-5053.