PEER

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SAVAGE SALVAGE

The Timber Feeding Frenzy Within BLM

Part Three of a
Comprehensive Study of the

Forestry Program
of the
Bureau of Land Management

September 1996

About PEER

Public Employees for Environmental Responsibility (PEER) is an association of resource managers, scientists, biologists, law enforcement officials and other government professionals committed to upholding the public trust through responsible management of the nation's environment and natural resources.

PEER advocates sustainable management of public resources, promotes enforcement of environmental protection laws, and seeks to be a catalyst for supporting professional integrity and promoting environmental ethics in government agencies.

PEER provides public employees committed to ecologically responsible management with a credible voice for expressing their concerns.

PEER's objectives are to:

1. **Organize** a strong base of support among employees with local, state and federal resource management agencies;
2. **Inform** the administration, Congress, state officials, the media and the public about substantive issues of concern to PEER members;
3. **Defend** and strengthen the legal rights of public employees who speak out about issues of environmental management; and
4. **Monitor** land management and environmental protection agencies.

PEER recognizes the invaluable role that government employees play as defenders of the environment and stewards of our natural resources. PEER supports resource professionals who advocate environmental protection in a responsible, professional manner.

For more information about PEER
and other White Papers that cover a variety of issues, contact:

Public Employees for Environmental Responsibility
East Coast: 2001 S Street, N.W., Suite 570
Washington, D.C. 20009-1125
Phone: (202) 265-PEER
Fax: (202) 265-4192

West Coast: PO Box 30
Hood River, OR 97031
Phone: (541) 387-4781
Fax: (541) 387-4783

E-Mail: 76554.133@compuserve.com

About This Report

For the past year and a half, Public Employees for Environmental Responsibility has studied the forestry and timber program of the U.S. Bureau of Land Management (BLM).

The BLM in the Department of Interior manages more land than the Forest Service, Park Service and the Fish & Wildlife Service combined. In fact, BLM manages 270,441,663 acres of land in the West. Despite its size, the BLM forestry program receives relatively little attention.

Savage Salvage is the third installment in a series of reports on the Bureau of Land Management forestry program. After the final installment, PEER will release its entire study, the most comprehensive review of BLM forestry ever undertaken.

Unlike other installments in this series, *Savage Salvage* covers *all* BLM lands, including the west side of Oregon and California (the "O &C" lands), not just the 12 state area designated as the Public Domain lands. Also unlike the other installments, *Savage Salvage* focuses on the brief period of time in which the salvage rider has been in effect.

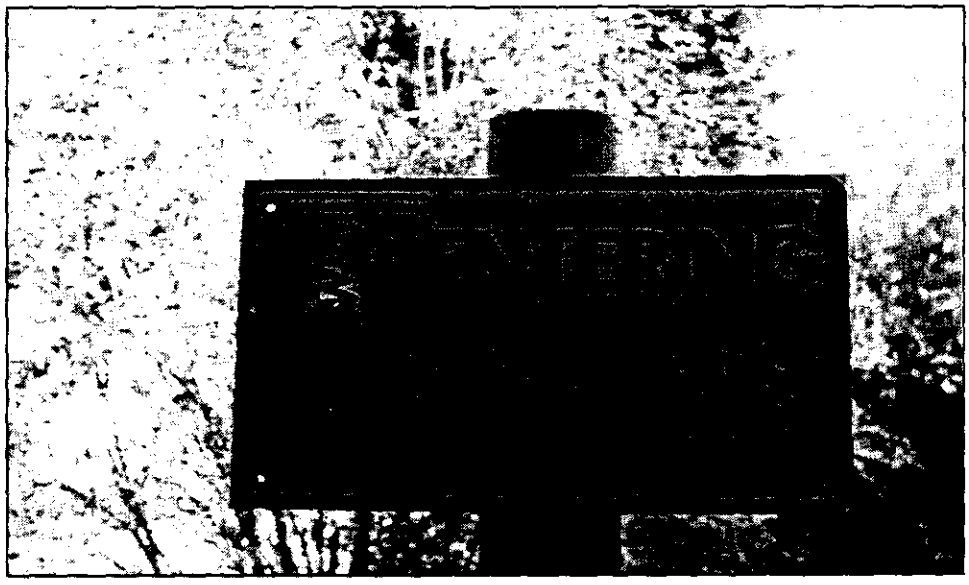
The purpose of this massive study is to evaluate the BLM forestry and timber sale programs and to determine whether, and to what extent, these programs have been and are conducted in accordance with the laws, regulations and policies mandated for public lands. Additionally, PEER sought to discover what, if any, environmental problems might be associated with BLM's timber management activities.

PEER concentrated its review in the five western states where BLM has the most active forestry program: California, Idaho, Montana, Oregon and Washington. PEER examined resource management plans, BLM manuals and directives, internal memoranda, timber sale records, National Environmental Policy Act documents and other related records.

PEER wishes to thank BLM staff members who assisted our review of field sites and agency files for their valuable time and expertise.

PEER's study of the BLM forestry program received the generous support of the Bullitt Foundation, the Educational Foundation of America, the Richard and Rhoda Goldman Fund, the Strong Foundation, the Janelia Foundation and the W. Alton Jones Foundation.

Jeff DeBonis
Executive Director



I. Executive Summary

An investigation by Public Employees for Environmental Responsibility (PEER) reveals that the Bureau of Land Management (BLM) is aggravating wildfire potential in the West through bad timber sale practices. PEER also found that the agency has abused the salvage timber sale process by cutting healthy stands and exceeding sustainable harvest levels producing erosion, desertification and the spread of the very infestations that salvage was supposed to control.

In 1995, Congress enacted a measure called the "salvage rider" ordering agencies to log salvage sales on an emergency basis while suspending the application of environmental laws and citizen appeals. PEER found that implementation of the salvage rider has completely distorted the BLM forestry program to the extent that now virtually all agency sales are conducted under the new salvage provisions.

Timber sales previously rejected because they would violate environmental laws are being repackaged and sold as salvage. As a result, substantial amounts of healthy or "green" timber is being sold as salvage while the dead or diseased trees are left because they are uneconomical to remove. BLM timber sales, previously rejected because they would violate environmental laws, are being repackaged and sold as salvage.

Because the salvage rider expires on December 31, 1996, BLM has acted with haste to release salvage sale units. In several instances, saw crews have been rushed to tracts to cut before equipment is available to skid, yard, or haul it. Consequently, much of the salvage cut is left onsite without ever being taken to the mill.

The agency's salvage frenzy has resulted in timber harvests well above the sustainable levels defined by the BLM itself. The agency has set "hard" salvage harvest targets without regard to the sustainable ceiling, called the allowable sale quantity or ASQ. As a result long-term timber yield on the salvaged tracts is being sacrificed.

The 1996 salvage target for the five state area of California, Idaho, Montana, Washington, and Oregon is **more than five times** the sustainable harvest ceilings for those states.

PEER, a national organization of resource-management employees dedicated to environmental ethics, surveyed timber sales, inspected sites and reviewed records in BLM districts in five western states. Over a year-and-a-half period, experienced BLM and Forest Service timber planners and silviculturists observed sales, photographed tracts, both before and after sales, combed agency files and spoke to knowledgeable employees on PEER's behalf.

The BLM in the Department of Interior manages more land than the Forest Service, Park Service and the Fish & Wildlife Service combined. In fact, BLM manages 270, 441,663 acres of land in the West. Despite its size, the BLM forestry program, covering all "Public Domain" western lands as well as west side forests in Oregon and California (the "O & C" lands), receives relatively little attention. This PEER study is the first major review of these BLM timber practices in the last twenty years.

This report on BLM salvage timber sales is the third in a series by PEER focusing on the agency's timber program. PEER's first report, *Phantom Forests* documented that BLM forest inventories used as the basis for planning timber sales are outdated, inaccurate and incomplete despite Bureau policy to the contrary. That report also revealed that BLM has vastly exaggerated the success of reforestation efforts, counting barren tracts as fully reforested.

BLM Forest Study: Part 3

The second PEER report, *Where Timber Beasts Rule the Earth*, detailed how BLM is destroying the fragile, transitional Public Domain forests in its charge through overcutting. That report revealed that BLM has no guidelines for calculating sustainable timber quotas. Despite the legal mandate to harvest timber in a sustainable manner, many districts exceed maximum allowable cut levels or manipulate the calculation of allowable harvests by using unrealistic assumptions or obviously erroneous data. Significantly, no matter how disastrous the environmental consequences, BLM applied no administrative sanctions against its own managers for overcutting.

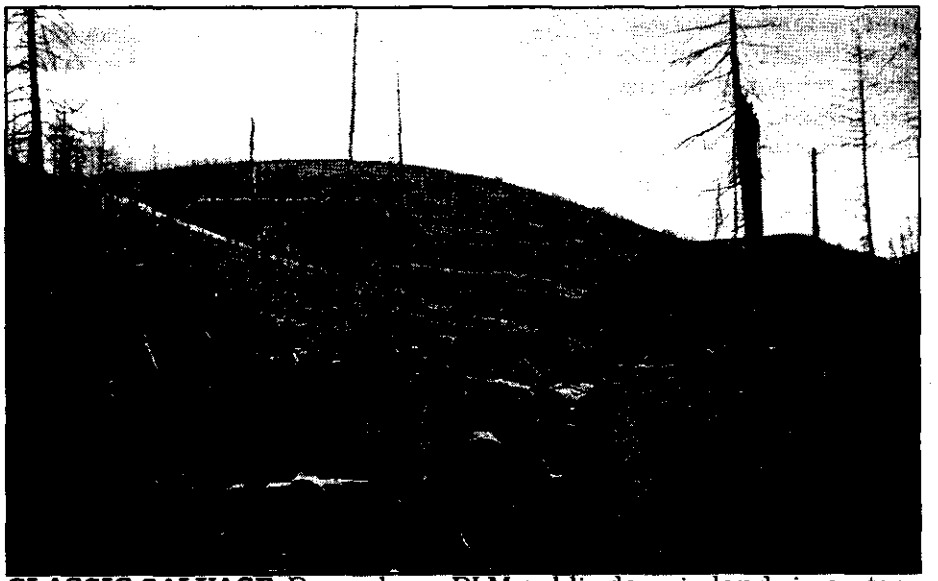
II. The Evolving World of Timber Salvage

By scientific definition and in professional forestry practice, "salvage" has always meant the removal of dead or dying timber. In practice, it also has meant the removal of trees in certain and imminent danger of dying. For example, sometimes there are near-homogeneous stands of Douglas fir and lodgepole pine in which many or most trees are dying from bark beetles, and whose as-yet-uninfested green, healthy trees are certain to suffer the same fate.

In any salvage operation an incidental number of healthy green trees are expected to be damaged by logging activities and require removal. Until the advent of the salvage rider, however, the term never meant wholesale removal of healthy, green trees or trees of normal (for their age and location) condition existing with natural levels of insects and under a normal risk of fire. The term also never meant wholesale removal of associated healthy trees merely because of proximity to unhealthy trees. Nor does the terminology used in the salvage rider, "imminently susceptible to fire or insect attack," exist in the professional literature of forestry practice. It exists as a political and not a silvicultural construct.

Natural, non-catastrophic mortality generally occurs on an individual-tree basis, with dead and dying trees widely scattered. These scattered trees, even large, valuable trees, are often unprofitable to harvest unless they lie close to roads. Combine these conditions with low market value and high logging costs, and the result is that very few sales of individual dead trees are economically feasible. Industry has a long record of not bidding on such sales.

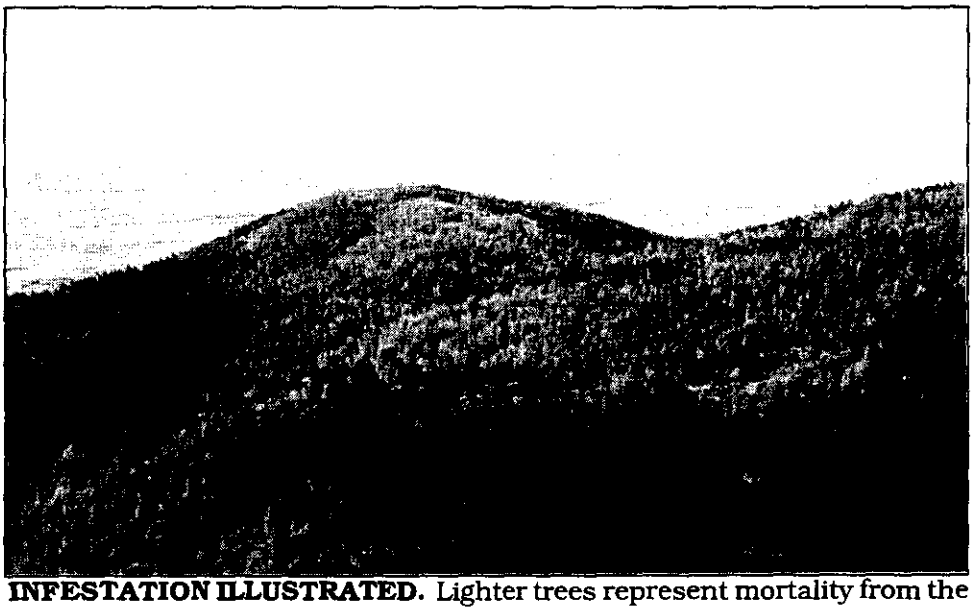
In contrast, catastrophic events such as fires and large-scale insect infestations often produce concentrations of dead and dying—salvageable—timber. On easily logged land close to roads, these are accepted by most forest users as reasonable and logical logging opportunities, as long as environmental laws are followed. If the burnt or infested trees are harvested before they deteriorate, they are also profitable enough to interest loggers and mills. Black, dead trees usually dry out, and split making them useless for timber after only one summer's heat. Almost none survive a second summer.



CLASSIC SALVAGE. Burned over BLM public domain lands in eastern Oregon after salvage logging.

The Salvage Rider

In June 1995 the 104th Congress attempted to change existing logging requirements by tacking a timber rider on to an appropriations rescissions bill which had as its main purpose deficit reduction. President Clinton vetoed the rescissions legislation partly on grounds that it would cut the wrong programs, but he also cited concerns about the rider.



INFESTATION ILLUSTRATED. Lighter trees represent mortality from the Douglas fir tussock moth in northern Idaho.

Faced with what it considered to be a huge backlog of dead and dying trees as a result of widespread forest fires, the logging industry wanted to increase its ability to harvest salvageable timber. At the request of Senator Slade Gorton (R-Wash.), timber lobbyists drafted legislation that called for opening up public lands to intensive salvage logging. In order to expedite and expand the existing salvage program, the rider invoked "sufficiency language" to suspend standard environmental assessment and compliance procedures, essentially superseding or nullifying existing regulatory requirements for the processing of timber sales. In other words, the rider ensured that federal laws like the Endangered Species Act and the Clean Water Act no longer applied to salvage sales.

The rider also prohibited public participation and citizen-based legal challenges in order to bypass the timber sale appeals process. Finally, a provision of the rider allowed the release of timber sales that previously had been ruled illegal by the courts. These "318 sales" consisted largely of ancient and old-growth forests located in Oregon, Washington and northern California, areas that had been protected under President Clinton's "Option 9" plan because of their habitat importance to endangered species such as the spotted owl.

In July, President Clinton signed into law a bill (P.L. 104-29) authorizing assistance to victims of the Oklahoma City bombing. Attached to that bill was a slightly altered version of the original timber rider that went immediately into effect and which is set to expire on December 31, 1996. Known as the salvage rider, it has come to be known by its detractors as the "logging without laws" rider.

The president eventually admitted that he had made a mistake in supporting the measure because it "overturned environmental laws." Although Clinton expressed hope that the rider would be repealed by Congress, so far legislative attempts to do so have failed. For instance, a recent effort by Rep. Elizabeth Furse (D-Ore.) to reverse the salvage rider fell short by just two votes, 211 to 209. In the last quarter of the 104th Congress, other such attempts are likely to come up in the Senate possibly along with proposals to de-fund the rider.

Throughout the often contentious debate surrounding passage of the salvage rider, propo-

nents offered three primary reasons for its enactment: economic stability, fire prevention and improved forest health.

1. The Economic Rationale

A core justification for the salvage rider was the need to provide jobs to depressed areas and support local economies that were hard-hit by a decrease in harvestable timber. Politicians and the timber industry bemoaned the financial hardships caused by reductions in the available federal timber supply. These forces pressed for the right to harvest large quantities of burned forests left after widespread fires had swept through the western United States in 1994.

"We are talking not about green timber that needs to be harvested. We are talking about dead and dying trees," explained Rep. Charles Taylor (R-N.C.), co-author of the original rider. "We are talking about timber that has been burned. We are talking about almost 30 billion board feet of timber in this country that will rot and die and be wasted unless some of it is harvested," Taylor argued.

Rep.Taylor further appealed to his colleagues to support the salvage rider by saying, "It will create jobs, and that is why the home builders and realtors and many others are supporting this. It will create thousands of jobs all across the country in a much needed area, putting timber in the pipeline."

Sen. Gorton joined Taylor in this sentiment by asking, "Do we care at all about people, not just in the Pacific Northwest but all across the United States, who live in timber communities? Do we care about our supply of lumber and of paper products?"

In the short term, the salvage rider has achieved some economic benefits. Since its passage mills have re-opened and work has been provided for loggers on a temporary basis. As Sen. Larry Craig (R-Id.) has said, the rider was never intended as a permanent solution to the economically depressed timber situation.

Although economic factors are usually the primary motivation behind salvage logging, during last year's debate over the rider the rationale for salvage was expanded to include issues designed to widen political support for the legislation. Some legislators claimed that an aggressive salvage program of dead and dying trees would not only ease the economic hardships of logging communities, albeit temporarily, but would also reduce the risk of forest fires and solve the forest health crisis.

2. The Fire Rationale

An integral component of the salvage rider is its stated purpose to prevent the spread of fire

BURNING OFF BUILT UP FUEL. Controlled burn in progress to remove underbrush in a stand of Ponderosa Pines in eastern Oregon.

through the forest. According to Section 307, subsection (a) (4), a timber sale qualifies as a "salvage" timber sale if an important reason for the sale is the removal of diseased or insect-infested trees; dead, damaged or down trees; or *trees affected by fire or imminently susceptible to fire* or insect attack.

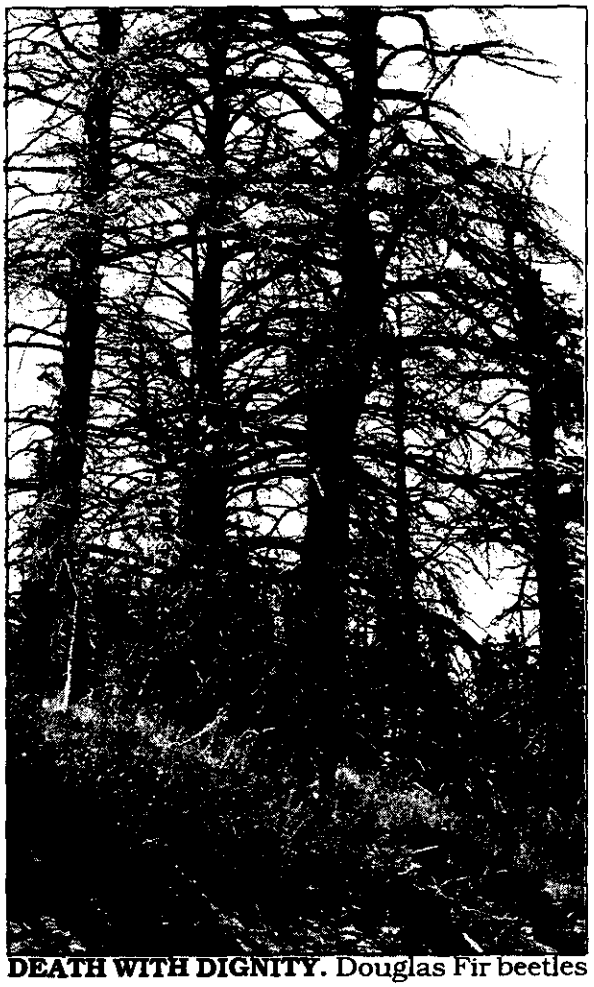
Fire is a natural phenomenon in forests throughout the nation, but particularly in the public lands of the arid West. Although fire is often used as a management tool to manipulate desired forest conditions on public lands, it is usually considered a "disturbance" to be controlled in order to preserve the value of healthy timber or to protect private property.

Members of Congress, aware of 1994's huge wildfires and the amount of trees destroyed in those conflagrations, and reacting to warnings by the timber industry of the potential for recurring fires and environmental damage, advocated accelerating the cutting and salvage of the "waste" left behind. They claimed that, unless the fire-killed trees were logged, and logged immediately, the build-up of dead fuel and snags would inevitably result in massive, devastating forest fires like those of the previous year.

Sen. Craig stressed the need to act quickly by stating on the Senate floor, "The value of burned trees drops rapidly over time. Time is the primary factor in accomplishing timber salvage and replanting the burn. The consequences of leaving burned forests untreated are both environmental and financial. Not only is it a waste of potential revenue to the U.S. Treasury and the counties, it encourages future wildfire. If left standing, dead trees...may cause a re-burn, fueled by the ready supply of fallen trees never removed from the first fire."

3. The "Forest Health" Rationale

In March of 1995, approximately four months before the salvage rider was enacted, Rep. Charles Taylor, a professional tree farmer by trade, stood on the House floor to dispel accusations that the measure was nothing more than a quick fix for depressed timber economies. Despite his earlier pleas for job relief,



DEATH WITH DIGNITY. Douglas Fir beetles left these large diameter trees standing dead in the Big Canyon area of southern Idaho.

Taylor stated that "it is not just jobs that are involved. Forest health is involved...All across this nation, we need for forest health to address the question of harvesting salvaged timber."

Rep. Taylor was joined by his colleague Sen. Craig who claimed that the salvage rider was an "emergency measure" that was desperately needed "to protect the environment." Again echoing the cry of "forest health," Craig argued that once implemented, the salvage rider would insure that "benefits will be gained for fish and wildlife habitat, water quality, scenic values and for all components of the ecosystem. That is the end result we want."

The mantra of "forest health" was echoed throughout debate on the salvage rider in an

attempt to link intensive and extensive timber cutting with beneficial impacts for the environment. The crux of this argument depended on the ability to generate profits for the federal government from salvage sales. A major selling point was that these funds could then be used to cover the costs of replanting trees, repairing watersheds, restoring stream quality and enhancing wildlife habitat.

A welcome offshoot of salvage logging burned stands in the name of "forest health," according to Sen. Craig, would be the generation of forest products, thousands of jobs, economic returns to local economies impacted by the shrunken timber supply and millions of dollars to the federal Treasury. Still, Sen. Craig insisted, "That is not the first goal. That is the fallout. That is the receipt from what we are trying to do." So the true objective or "receipt" of the salvage rider, according to Craig and others, was the overall improvement in the condition of forest ecosystems.

III. The Post-Rider BLM Salvage Program

Prior to the salvage rider, agency foresters considered salvage to be dead and dying timber only, the classic definition recognized and practiced by all professional foresters and forestry organizations. Consequently, salvage sales contained only dead and dying trees. All other sales were "green" sales that counted against the unit's allowable sale quantity or ASQ (see PEER's white paper, *Where Timber Beasts Rule the Earth*, for an extended discussion of the role of ASQs).

CUTTING EDGE. BLM clearcut boundary in cedar, Douglas fir and lodgeppole pine forest in Spokane District, eastern Washington.

With the advent of the rider, however, and increasing budget pressure from downsizing efforts, the agency embraced the rider's loosened meaning of salvage, essentially redefining it. The agency now considers almost any merchantable tree as meeting the definition of salvage and eligible for cutting, regardless of its health or the absence of disease, insects or indicators of mortality. Any trees that might otherwise escape harvest are caught by the rider's "imminently susceptible to fires and insect attack." Every tree is now conveniently considered "imminently susceptible," and with the removal of citizen appeal rights, the agency is free to cut where and how much it wants.

BLM does so by categorizing almost all sales, regardless of the amount of green timber involved, as "5900 Fund" sales. The figure refers to line item 5900 in the BLM budget. The fund, the "Forest Ecosystem Health and Recovery Fund" (P.L. 102-381), was created by Congress in 1993. While its purported intent was to promote ecosystem "health," it has become a self-perpetuating "slush fund" that underwrites the entire BLM timber sale program in the name of salvage. Any sale that contains dead, dying or "imminently susceptible" timber—every sale, in other words—can be included. The agency has taken advantage of this convenient opportunity.

The result is that nearly all post-rider BLM sales, regardless of their content of green volume, are now termed "salvage" or have a "forest health" component in order to qualify for 5900 Fund dollars.

The internal budgetary pressures favoring salvage have also produced separate salvage harvest targets that are being created without regard to allowable sale quantities (ASQ) or their impact on long-term sustained yield. In fact, the salvage targets are added on to the ASQs with a resulting harvest volume that is not sustainable. This unsustainable high level of logging will eventually cause forests to "crash"

and force a reduction in future timber outputs because there will be nothing to cut.

As a result of the salvage rider and budgetary dynamics, unprecedented timber volumes are being harvested or proposed for harvest in 1996. The original 1996 ASQ for the five-state timber e area of BLM (CA, ID, MT, WA and OR) was 10 MMBF (million board feet). With the advent of the rider, the BLM's 5900 Fund "Minimum Level of Performance" timber target for 1996 is now set for 52 MMBF, more than ***five times*** *those states' original ASQs.*

These target levels are not theoretical goals; they are "hard" targets required by directive and the production of lesser volumes is unacceptable. As acting BLM Director Mike Dombeck wrote in a June 15, 1995 memo to all state directors:

> "Let me restate, the state [timber and salvage harvest] levels in the accompanying Tables must be met and met within the timeframes indicated. These are commitments which I have made, which the Secretary has made, and which the President has made."

If that were not enough, individual administrative units were also threatened with fiscal penalties for not meeting targets. For example, the BLM Oregon state director prompted his districts by writing:

> "If you do not plan to meet your assigned timber sale offering level, funds from your original budget allocation...will be available to other districts to offer the total assigned volume."

These fiscal pressures also favor salvage. Almost all sales in the Coeur d'Alene District of Idaho have been sold as 5900 Fund sales in recent years. This, despite the large volume of healthy green timber included. The Brown Creek Road Salvage sale, for instance, a typical sale in the district, contained this internal pre-sale report: "An inspection of this site identified no 'salvage trees'...."

The BLM's insect- and disease-control activities are funded by the Forest Service's Forest Pest and Disease Control money, and the use of salvage cutting to control these pathogens maintains the agency's timber budget and guarantees continued funding.

There is also a political benefit to BLM administrators from salvage. Salvage of dead and dying trees does not count against an agency's

GONE TODAY. Site of Salmon District, Idaho salvage operation to control mistletoe. Mountain sides in foreground were clearcut.

regulated volume (ASQ), which is normally based exclusively on living, green trees. Thus, an agency can harvest "dead and dying" volume far above its assigned ASQ yet can deflect any internal or public criticism by noting that the unit is still cutting below its sustainable ASQ level.

To be sure, industry is much less interested in the dead-and-dying component of sales than in the high-value healthy green trees. And they are getting them—by the millions of board feet. Because of the suspension of laws under the salvage rider, old BLM sales once rejected because of environmental violations have been resold—regiven—to the original purchasers at the original bid prices, all of which are far below current market value.

The average sale price of eight old sales being resold as salvage in Oregon's Umpqua River basin, for instance, was $337/MMBF, while recent bid prices for new, 1995 green sales averaged $621/MMBF. Taxpayers subsidized industry at a rate of $283/MMBF for a total of $16 million in Oregon alone. This $16 million was lost not only to the U.S. Treasury but was felt as lost income to their counties, who receive payments-in-lieu of taxes from timber sales. In addition, taxpayers now must foot the bill for extensive restoration and repair of the environmental damage caused by the sales.

Profiles in Salvage–Oregon BLM

No Alternatives in the Umpqua River Basin
The Old Dillard timber sale in southwest Oregon was sold in March, 1996, and was neither a true salvage sale nor a 318 sale. It was, in contrast, a sale of primarily healthy, green trees lying in the already heavily cutover South Umpqua watershed.

Advised by interested residents that the sale did not meet Option 9 (spotted owl protection) old growth requirements that at least 15% of a watershed is required to be occupied by stands at least 220 years old and that its impacts on the South Umpqua River ignored the National Marine Fisheries Service's "degraded condition" of the river and would destroy fish habitat, and that clearcutting dry south- and southwest-facing slopes generally results in permanently deforested sites, the BLM's decision was to clearcut the entire sale anyway. Clearcutting the 140 acres was the sole action alternative offered in the Environmental Assessment (EA) despite the fact that the National Environmental Policy Act (NEPA) requries more than one action alternative.

The BLM told the residents very clearly that because the salvage rider had been enacted the sale "shall not be subject to administrative review."

Three other new sales of mature, green timber were sold under similar circumstances: Idleyld, Lean Louis and Four Gates, totaling 26 million board feet on 424 clearcut acres. What the agency could not sell when environmental statutes were in effect, they easily could under the salvage rider.

Mount Scott Resource Area in Wonderland
The Cobble Creek timber sale on the Mount Scott Resource Area in southwestern Oregon is another new sale offered under the shield of the salvage rider. As a new sale, it allowed the agency ample opportunity to correct many of the environmental deficiencies noted by its own biologists in the EA and sale layout. It corrected none, electing instead to ignore their own scientists and proceed with the sole action alternative offered in the EA, clearcutting the entire 131 acres.

The cutting was not called a clearcut, however, but a "modified shelterwood" that would leave six to eight trees per acre. No forestry curriculum or trained forester considers six to eight trees per acre a shelterwood, which is a cut leaving 25% of the trees standing to provide shade and shelter for seedlings. With so few trees remaining, there is virtually no sheltering shade provided. Regardless of what it was called, it was clearcut.

But the agency aggravated this original sin by leaving the six to eight trees around the edges of the cutting unit instead of distributing them uniformly across the stand in order to facilitate yarding (hauling away the timber to a

scaling yard). Thus, the already immeasurably small amount of shade that could have been provided by these few trees was dissipated for industrial convenience.

The agency also employs a novel method to "protect riparian areas." In this case it literally meant driving a road directly through it. The Cobble Creek EA does acknowledge the formal opinion of the National Marine Fisheries (NMFS) biologist that the "watershed is not functioning properly because of cumulative disturbance history" and that the "proposed action would further degrade this indicator." In response, the agency asserts that critics of the sale fail to "fully understand the beneficial aspects of the sale." While the ultimate closure and revegetation of the roads will partially ameliorate the impacts on watershed functions; the negative effects are still largely long term. BLM admits that 94% of the landslides within the watershed may be linked to timber cutting and road building.

The bureaucratic doublespeak did not stop there. The Cobble Creek EA statement of "Need for This Action" cites the "need for a healthy forest ecosystem with habitat that will support populations of native species and includes protection for riparian areas and waters...."

The agency also violated the spirit of its own basic planning document, the Resource Management Plan (RMP), with the unit's 131-acre size. The old RMP restricted a clearcut's size to 40 acres because of negative environmental effects from larger clearcuts. The new RMP, which went into effect in 1995, does not limit clearcut size, *though the environmental considerations that constrained unit size under the old plan still exist*

Incredibly, BLM personnel justified the single large clearcut with the claim that it "reduces fragmentation," a statement which is true only in comparison to a number of small clearcuts. Offering 100 plus acre clearcuts as a means to reduce forest fragmentation is akin to using an elephant rifle as a means of reducing the number of flesh wounds inflicted. The best way to reduce forest fragmentation, not cutting at all, was clearly not considered an option.

EX-OLD GROWTH. Douglas fir old growth stand removed in "shelterwood" cut in southern Idaho. Despite a "visual resource plan" for the roadside, the view is only stumps and slash.

IV. Forests of No Return

The BLM has knowingly become a single use advocate of board-foot production. In the process, BLM has abandoned its primary mandate: land management. Given the timber production climate within the agency and the director's admonition that districts must cut 100% of their ASQ, it will take major changes to alter the direction of the agency.

When the post-salvage rider dust clears, the BLM will find that it has disserved the values that salvage logging were supposed to further:

Forest Health

The lessons of counterproductive results is multiplying across BLM lands.

"Forest health" has become the cause celebre' in the already dry southern and eastern Idaho BLM lands, and extended drought has exacerbated insect- and disease-induced mortality. In the Salmon District, cutting to control dwarf mistletoe has frequently resulted in stand regeneration failures, and much of the district's reforestation backlog is attributable to the cutting and the known inability to regenerate dry sites. These sites could be permanently regenerated.

To develop its 5900 Fund timber sale program, the Spokane (WA) District surveyed its stands for forest pest conditions and rated them for risk and priority for silvicultural treatment. Many of the pathogens identified occur naturally at endemic levels in almost all forest stands. As a result, although the process was logical, an insect's or disease's presence may not have justified the prescribed treatment. In addition, the process was biased against old growth stands, which naturally contain more pathogens.

The prescribed treatments often inflict more damage than that caused by the pests or pathogens they seek to treat. Timber sales in eastern Washington often left mistletoe-infected overstory and low-value or cull trees, perpetuating the existing mistletoe problem and creating new genetic problems in the subsequent regeneration.

FOREST HEALTH IN ACTION. Bulldozer tracks through salvaged tract in the Lakeview District, Oregon. Regeneration here will be a challenge.

Nor do the logging revenues from salvage pay the costs of replanting new trees. In fact, sales of fire-damaged

or diseased trees rarely repay even the costs of sale preparation, much less the added costs of planting new trees. Moreover, natural regeneration in unlogged burned stands is the most effective, and obviously the cheapest, method of replacing lost forests.

In essence, the agency is practicing self deception on the forest health benefits of its salvage regime. The basic principle that keeps tripping the agency up is that untreated (unmanaged) ecosystems are always ecologically "healthier" than "managed" ecosystems. In fact, the less management the better. BLM, unfortunately, keeps trying to fix past management failures with more management.

Fire Prevention and Mitigation

In this summer of record wildfires in the West, it is appropriate to ask if salvage has reduced the risk or severity of fires, as predicted by its proponents (avoiding the question of whether fire suppression itself is a wise policy). Far from being the savior of healthy forests, salvage logging, by leaving debris on the ground, actually increases the fuel load thereby enhancing rather than retarding fire vulnerability and the intensity and rate of fire spread.

In the LaPine area near Prineville, Oregon, the BLM accelerated salvage operations centering primarily around old growth lodgepole pine threatened with infestation of mountain pine beetles. In the six-year period from 1983 to 1989, 11,000 acres were clearcut, generating an immense volume of slash. Fall burning of this slash brought complaints from public and state agencies and forced the BLM to stop burning. Huge volumes of slash now remain unburned in the clearcuts and pose the very real probability of uncontrollable wildfires.

Furthermore, the resins of healthy, green trees in dry conditions make them more likely to generate an explosive inferno than dead snags because burnt trees are virtually inflammable. In the Kenai Peninsula of Alaska, for example, fires that raged through stands of green trees laid down and became easily controllable when the flames reached areas containing a concentration of burnt trees. Veteran wildlands firefighters can attest that few, if any, burnt forest areas can even sup-

CYCLE OF SAVAGE. Salvage cutting for mistletoe control where infested overstory was left. As a result, any regeneration will be heavily mistletoed.

port a re-burn because the hotter the fire, the less fuel load that remains. In other words, when a forest blaze leaves nothing but dead and dying timber, not even the hottest weather, the driest day and the highest wind can fan a spark into fire.

The role of salvage in suppressing fire has certainly yet to be proved while evidence to the contrary continues to build.

SALVAGE KINDLING. Untreated slash pile left in a meadow in Spokane District.

WILDFIRE SITE OF TOMORROW. Untreated slash following a mistletoe contract project in eastern Idaho. Grazing has helped highly flammable, noxiousweeds to flourish.

SACRIFICING FUTURE YIELD. Post-salvage reforestation attempts with ponderosa stock shown in protective sleeves in Burns District, Oregon. There was a poor survival of the planting.

Jobs and Timber Yield

At best, it could be said that the salvage binge within BLM is penny-wise and pound foolish because the agency has once again sacrificed long-term sustained yield for short-term political and financial gain. Once the BLM lands have been overcut, the ASQ for the coming decade must again be reduced.

Overcutting destroys far more long-term, sustainable jobs than the short-term jobs it creates. The BLM, by dramatically accelerating its harvest levels, is contributing to depressed economic conditions and social collapse when the timber finally plays out.

While the agency cannot be held accountable for new policies mandated by Congress, such as selling old section 318 sales, it can and must be held responsible for invoking the protection of the salvage rider to sell new sales and other old sales that do not meet current environmental standards. Unfortunately, there are many of these, each an admission of the agency's absent ethics. The cause for concern will not cease when the rider expires on December 31, 1996, for the effects of the salvage frenzy will haunt people and the land for generations.

YOUR TAX DOLLARS AT WORK. Eroded access road in salvage rehabilitation area, eastern Oregon.