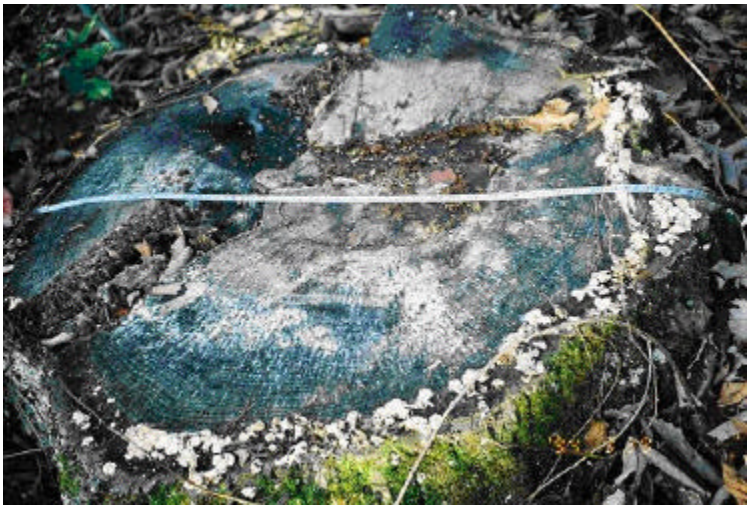
And Still They Fall

A Report on Old Growth Logging in the George Washington National Forest



Sierra Club
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I. Introduction

"We sensed that these two piles of sawdust were something more than wood: that they were the integrated transect of a century; that our saw was biting its way, stroke by stroke, decade by decade, into the chronology of a lifetime, written in concentric annual rings of oak."

Aldo Leopold,
On the Cutting of a Dead Oak Tree

Hoover Creek flows down the western slopes of Little Mountain, an area of steep rolling ridges within the George Washington National Forest of western Virginia. By 2003, the Hoover Creek timber sale project area was among the last virgin and unspoiled forests in the southeastern United States. Ancient trees, some over three hundred years old, towered high above the surrounding canopy, and giant decaying trunks lay scattered across the forest floor, returning nutrients to the ground and giving Hoover Creek the distinct quality that only comes with age. Reports indicate that there were between one hundred and two hundred acres of old growth forest in the area[1] - a significant amount considering that there is currently one half of a percent of old growth forest left in the Southeast.[2]

Because of the scarcity of these forest types, the United States Forest Service is directed to conserve the last remaining old growth in the Southeast and to restore many of the areas that have been degraded by centuries of resource extraction.[3] However, despite the presence of old growth at Hoover Creek, and despite several concerns raised by the public, the Forest Service sold logging rights for the area to a private timber company in December of 2002. In the spring of 2003, Hoover Creek was cut down.

This report addresses the failure of the Forest Service to conserve and restore old growth forest communities in the Southeast, highlighting the Hoover Creek Timber Sale as a case study. Discussing the ecological values of old growth forests, as well as the obligations of the Forest Service to conserve them, this is a story of some of the most treasured places in the Southeast and an account of the most destructive forest practices still happening on our public lands. Most importantly, this is a tool for individuals and organizations committed to protecting and restoring the living history of our National Forests.

Hoover Creek Timber Sale Unit 9. Photo by Clint Farlinger

[1] Neas, Aubrey O., *Report on Old-Growth Forests: Post Harvest Survey and Monitoring of the Harvest, Hoover Creek Timber Sale, George Washington National Forest, Alleghany County, Virginia,* p. 23 (2005), hereinafter "*Neas Report*."

[2] *Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region,* USDA Forest Service Region 8, p.1 (1997), hereinafter "*Regional Guidance."*

[3] *Regional Guidance,* p. 26; *Final Revised Land and Resource Management Plan for the George Washington National Forest* (1993), 2-3 through 2-6, hereinafter "*GWNF Plan."*

II. Old Growth Forest Communities of the Southeast United States

Hoover Creek Timber Sale Unit 4 Photo by Clint Farlinger

The southeastern United States is one of the most ecologically rich places in North America. From the spruce-fir forests of the high Appalachian Mountains to the mangrove forests of southern Florida, from cypress swamp to longleaf pine savanna, the Southeast has one of the highest concentrations of biological diversity on the planet. Here, there are more fresh water aquatic species and more tree species than anywhere else in North America. Amazingly, many of these species are found nowhere else in the world.

Sadly, the forests of the Southeast are also among the most threatened ecosystems in North America, and the region is home to more endangered species than any other region of the country. Centuries of logging, mining, and farming have reduced the virgin forests of the Southeast by more than ninety-nine percent. The vast majority of forest ecosystems here, once renowned for their richness and complexity, have been altered and simplified by intensive logging. Many have been converted to agricultural land and single species tree plantations, and today the South is home to about half of all industrial tree farms in the world, totaling thirty million acres.

Old growth forest habitat is considered "critically endangered" in the Southeast,[4] and the remaining old growth forests here are almost exclusively on federal lands within National Forests and National Parks. Since forest management practices on private lands are largely unregulated, public lands have become the last refuges for old growth forests and for the species that depend on them.

Even now, these old growth communities are not fully protected, and the federal timber program continues to decrease the already staggeringly small land base of old growth forests in the Southeast.

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[4] *Southern Forest Resource Assessment*, USDA FS Southern Research Station, GTR SRS-53, p 20 (2002); *see also*, *Endangered Ecosystems of the United States: A Preliminary Assessment of Loss and Degradation*, USDI National Biological Service Biological Rpt. No. 28, p50 (1995).

III. Regulatory Scheme for Protecting Old Growth on Federal Land in the Southeast

"Ensuring the conservation of old-growth forests should become among the highest Forest Service priorities."

Michael Dombeck,
Former Chief of the Forest Service

Currently, there are no federal laws that explicitly protect old growth forests on public lands. This is perhaps the most significant hurdle for conservationists, and until Congress enacts legislation to permanently protect old growth, the fate of our ancient forests is left to the discretion of the local forest managers and whatever administration holds office.

This is not to say, however, that old growth forests are completely unregulated. There are wildlife laws, for example, that arguably require the Forest Service to protect old growth forests for the species associated with old growth. There are also procedural laws that require the Forest Service to disclose the environmental impacts of their actions. These disclosure laws allow public opinion to shape Forest Service policies, and as opposition to the federal timber program grows, pressure is placed on the government to protect old growth on public lands.

The following pages provide a brief synopsis of the statutory and regulatory framework by which the Forest Service conducts logging, and a discussion of how these laws are implicated when old growth is at issue.

Ramseys Draft Wilderness, George Washington National Forest, Virginia Photo by Clint Farlinger

National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA)[5] is entirely procedural. NEPA does not, in itself, protect forests or species, but instead requires the Forest Service to follow a specific set of procedures when planning a timber sale on National Forests. These procedures have become an important part of the Forest Services policies, and have been the bedrock of National Forest management.

Most importantly, NEPA requires the Forest Service to incorporate science into their decisions, and to involve the public in the planning process.[6] The Forest Service must conduct scientific analysis of the effects of each proposed timber sale, and publish their findings in an Environmental Assessment (EA) or an Environmental Impact Statement (EIS).[7] NEPA also requires the Forest Service to consider and respond to public comments on the proposed action.[8]

Snag in Unit 4 Photo by Clint Farlinger

The purpose of the NEPA procedural mandate is to ensure that the Forest Service is using the best available science and that its decisions are based on high quality information.[9] Thus, while NEPA does not offer any substantive environmental protections, it is nonetheless an important environmental law, establishing a system of public participation in government activities and requiring government decision-making to be completed in manner that is both open and consistent.

[5] 42 U.S.C. §§ 4321 et. seq.
[6] 40 CFR § 1506.6.
[7] 42 U.S.C. § 4332.
[8] 40 CFR § 1503.4.
[9] 40 CFR § 1500.1.

National Forests Management Act

In 1976, Congress enacted the National Forest Management Act (NFMA).[10] This law requires the Forest Service to "provide for diversity of plant and animal communities,"[11] and to manage wildlife habitat "to maintain viable populations of existing native and desired non-native vertebrate species."[12] Further, NFMA requires the Forest Service to develop and publish a Forest Plan for each National Forest to ensure that all of its standards are being achieved on the local level.[13]

There are a host of native vertebrate species in the Southeast that use old growth forests for habitat, including a variety of songbirds, mammals, and salamanders. The Forest Service is arguably required, under the diversity and viability standards of NFMA, to protect old growth forests for the species that use them. The Forest Plan for the George Washington National Forest, for example, identifies different types of old growth forest communities, defining them largely by the habitat they provide, and establishes a management direction for each.[14] For almost all forest types in the GWNF, logging of old growth is flatly prohibited.[15] However, for the forest types most commonly logged in the GWNF, those composed of mixtures of oaks and hickories, cutting old growth is still allowed.[16]

[10] 16 U.S.C. §§ 1600 et. seq.
[11] 16 U.S.C. § 1604(g)(3)(B).
[12] 36 C.F.R. § 219.19 (1982).
[13] 16 U.S.C. § 1604(a).
[14] *GWNF plan*, 2-3 through 2-6.
[15] *GWNF plan*, 2-4, 2-6.
[16] See old growth forest-type-group number 21 at *GWNF plan*, 2-5, 2-6.

Regional Old Growth Guidance

In addition to having Forest Plans for each National Forest, the Forest Service published a regional report in 1997 titled, *Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region*. The Regional Guidance covers a broad geographic area, including several National Forests in the Southeast. Standing alone, the Guidance does not impose any rules on the Forest Service like those in the local Forest Plans and agency handbook. Instead, it provides a framework upon which each individual National Forest in the region can develop its own old growth conservation strategy.

The Regional Guidance sets forth policy, not law. It is not a mandate, but a tool for National Forest managers to use in their effort to conserve and restore old growth communities. Importantly, the Guidance establishes a classification system for old growth forests that aims to universalize the much-debated definition of "old growth." This classification system can be broken down into three main components:

First, the Regional Guidance establishes four defining criteria for old growth. These are: age, disturbance, basal area, and tree size, and all must be met for a forest to qualify. [17] Second, the forests meeting these criteria are classified by size.[18] Large-sized areas (more than 2,500 acres), medium-sized areas (100 to 2,499 acres) and small-sized areas (less than 100 acres) serve different ecological functions and have different management objectives.

Third, each forest stand is classified as one of sixteen old growth forest types, depending on the altitude, rainfall, soil composition, species present, and many other factors.[19] These sixteen different categories represent what the Forest Service considers to be all "old growth forest community types with the potential of occurring on National Forests in the Southern United States."[20]

While this classification process tends to compartmentalize and isolate old growth stands, the Forest Service is also directed to consider the relationship and connection of all old growth in the Southeast. "The planning guidance includes developing a network of old-growth areas of varying sizes to provide for the distribution, linkages, and representation of all old-growth forest community types on national forest lands."[21]

Post-logging landscape at Hoover Creek

Though the Regional Guidance has helped individual National Forests in many respects, the scheme has some significant limiting factors. National Forest managers are exploiting these limitations, and old growth has continued to fall since the Guidance was published in 1997.

Most notably, the sixteen identified forest types are overly broad. In 2001, the Virginia Natural Heritage Program inventoried 62 forest types in the George Washington and Jefferson National Forests,[22]

[17] *Regional Guidance*, p. 7.
[18] *Regional Guidance*, p. 16, 17.
[19] *Regional Guidance*, p. 31-102.
[20] *Regional Guidance*, p. 4.
[21] *Regional Guidance*, p. 14.
[22] G.P. Fleming and P.P. Coulling, *Ecological Communities of the George Washington and Jefferson National Forests, Virginia: Preliminary Classification and Description of Vegetation Types*, VDCR - DNH, Tech. Rep. 01-14 submitted to the USDA Forest Service, at 10 (2001).

yet the Forest Service remains committed to its original classification system. As a consequence, many rare and endangered forest communities have been improperly grouped with more common forest types and receive little or no protection.

The Regional Guidance also fails to account for one of the most significant changes in the ecology of the Southeast in the past hundred years: the decline of the American chestnut. Once a dominant species in eastern forests, the American chestnut succumbed to blight and was almost entirely wiped out in the 1930s and 1940s. As a result, many of the remaining virgin forests in the eastern United States were laced with canopy gaps and are now patched with sixty to eighty year old tracts. Therefore, individual "plots" in these forests, though unspoiled by human activity, do not meet the age criteria for old growth under the Regional Guidance, and are unprotected.

The Forest Service excludes individual "plots" of old growth because it makes official findings in regard to the presence of, and impacts to, old growth on a "stand" basis. For inventory purposes, the Forest Service first divides the National Forest into compartments, then sub-divides compartments into "stands" generally 20-40 acres in size. "Stands" on the Forest are delineated by boundary lines that do not actually exist on the ground. The conditions within "stands" can vary considerably. Delineated "stands" typically encompass different growing and site conditions, as well as different histories of disturbance (both natural and human-caused).

When examining a project area for the presence of old growth, the Forest Service does so by analyzing individual "plots" within "stands". Every "plot" within a "stand" must meet all old growth criteria for a "stand" to be considered old growth. So although there may be "plots" of old growth present, the Forest Service will find there are no old growth "stands." Furthermore, because of the canopy gaps remaining after the chestnut blight and other natural disturbances, tracts that do meet the Forest Service criteria for old growth are oftentimes small and do not cover an entire delineated "stand."

Cumulatively, these small tracts of old growth are among the most valuable old growth left in the region. Instead, however, the Forest Service refuses to recognize tracts of old growth that exist within "stands". As a consequence, such tracts of old growth are not identified and considered for protection as "small patches" of old growth as called for in the Regional Guidance.

The old growth on Little Mountain is found along its ridge top, distributed among and constituting parts of numerous different "stands." The "stands" as delineated include areas on lower slopes where logging occurred perhaps 80-100 years ago. So then the entirety of the "stands" did not meet all the criteria for being considered as old growth, and the Forest Service was able to cut part of a medium-sized area of old growth while declaring that "stands" of old growth were not being cut.

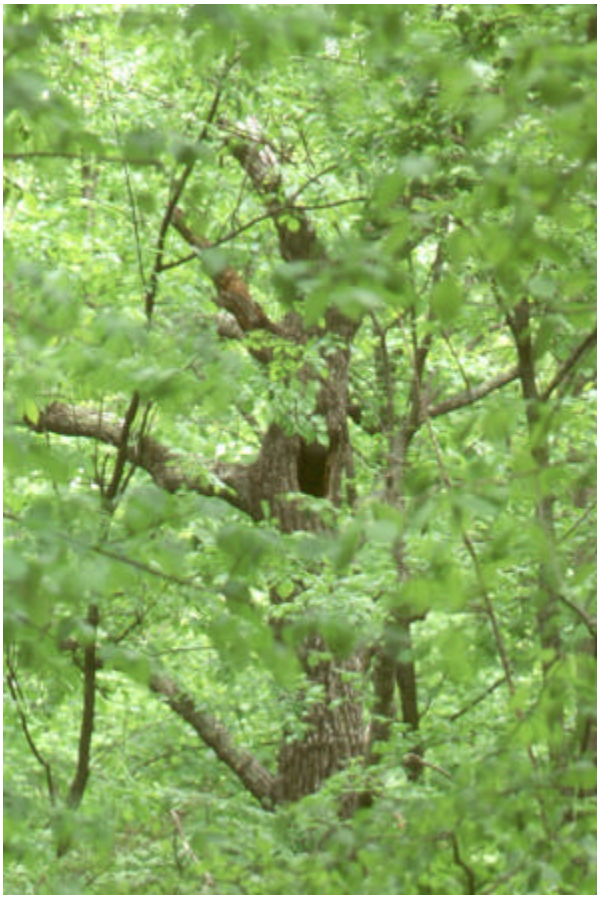
Although the individual tracts impacted by these policies are relatively little, the effects are enormous. Small patches of old growth are important not only for the habitat each one provides, but also for the linkages they create between larger old growth stands. As the Guidance states, small patches are necessary to "provide a 'stepping stone' effect between large-sized and medium-sized patches."[23] Failing to recognize small areas of old growth not only opens many acres of old growth to logging, but it weakens the entire network of old growth throughout the forest, and undermines the ecosystem-based management directives the Forest Service is supposed to follow.

[23] *Regional Guidance*, p. 18.

IV. The Hoover Creek Timber Sale

The George Washington National Forest (GWNF) covers over one million acres of Virginia and West Virginia, and is managed by the United States Forest Service. Little Mountain is in the James River Ranger District of the GWNF, and lies eight miles north of Covington, Virginia in Alleghany and Bath Counties. Hoover Creek flows down the west side of Little Mountain directly into to Jackson River.

The Forest Service first announced the Hoover Creek Timber Sale on August 24, 1999. The project area for the sale was 2,171 acres, "bordered by Little Mountain to the east and private land to the west."[24] On May 31, 2001, the Forest Service published an Environmental Assessment (EA) identifying five possible alternatives for the timber sale and analyzing the impacts of each alternative on soil, water, old growth, wildlife, and several other forest resources.



Hoover Creek Unit 9 Photo by Clint Farlinger

As a final administrative step in the planning process, a Decision Notice for the Hoover Creek Timber Sale was released on September 21, 2001. Finding that "timber harvest…would move the area towards its desired future condition by improving the currently unbalanced age class distribution of the stands,"[25] the Forest Service decided to implement the fourth alternative analyzed in the EA. Under this alternative, two hundred and eight acres would be logged, a quarter of a mile of road would be built, and a one acre helicopter landing pad would be constructed.[26]

On December 9, 2002, the rights to log Hoover Creek were sold to Jayfor Logging Company for an average of about two thousand dollars an acre.[27] Though conditions were cold, icy, and wet, felling started on January 29, 2003, and continued for over a year. By the summer of 2004, the timber sale units of Hoover Creek were cleared. Ancient forests that stood long before the United States had gained its independence were leveled to the ground.

Commenting on the enormous size of the trees at Hoover Creek, one logger noted that he had averaged 450 board feet of lumber per tree, "the best he has ever done on the East Coast."[28]

[24] *Environmental Assessment for the Hoover Creek Timber Sale*, p. 17 (USDA), hereinafter "*Hoover Creek EA.*"

[25] *Decision Notice and Finding of No Significant Impact for the Hoover Timber Sale*, p. 2, hereinafter "*Hoover Creek Decision Notice*."

[26] *Hoover Creek Decision Notice*, p. 1, 2.

[27] *Hoover Creek Timber Sale Contract*, USDA Contract Number 100077, Dec. 9, 2002.

[28] *Hoover Creek Timber Sale Spot Inspection*, Feb. 6, 2003 (USDA).

Raising Questions

The entire Hoover Creek Timber Sale area is categorized as "dry-mesic oak"[29] forest type under the classification system of the Regional Guidance. According to the Forest Service, this forest type "is the most common old growth type found on the Forest (more than 65%),"[30] and it is the only old growth forest type in the George Washington National Forest where logging is permitted to occur.[31]

Contrary to the statements of the Forest Service, however, biologists found several different forest types in the Hoover Creek area, and many were within the timber sale unit boundaries.[32] Scientists documented "white ashes, northern red and white oaks, shagbark hickories, tulip, sugar maples, and cucumber trees with a few American basswoods,"[33] a diversity of species not typical of dry-mesic, or dry to mesic oak forests. The rich and concentrated diversity of Hoover Creek, however, did not fit within the Forest Service classification system. As a result, diverse forest communities were all grouped into one broad category - the category that receives less protection than any other forest type in the George Washington National Forest.

By classifying Hoover Creek in this broad way, the Forest Service violated the NEPA informed decision-making and public disclosure mandates, and evaded many of its old growth management standards - but not all. Even dry-mesic oak forests have conservation standards listed in the George Washington National Forest Plan when there is old growth present.[34] But the Forest Service had a plan to escape even these relaxed standards: they denied that old growth existed.

Throughout the planning process, the Forest Service insisted that no old growth would be cut as part of the Hoover Creek Timber Sale. The Environmental Assessment states, "No existing old growth would be impacted by any of the alternatives of this project, as no old growth exists on the stands proposed for harvesting."[35] Again in the Decision Notice, the Forest Service stated, "No old growth will be harvested."[36] The Forest Service explained that "of the four operational definition criteria [from the Regional Guidance], none of the stands proposed for harvesting met the 'minimum age of the oldest class' criteria."[37] However, the Forest Service reached this conclusion without coring the largest trees to determine age by ring count.[38]

The minimum age of old growth for the type of forest cut at Hoover Creek is one hundred and thirty years.[39] While the Forest Service repeatedly claimed that none of the logging units met this age requirement, numerous reports, including their own, showed otherwise.

In 1998, Forest Service biologists conducted pre-logging surveys at Hoover Creek and documented several stands that exceeded the minimum age for old growth. The field tally sheet for unit four, for example, states that old age trees in plots one through eight were “130+” years old.[40] Other tally sheets "indicate that plots within units 2, 3, 4, 5, 6, 7, 9, and 10 meet old-growth criteria."[41]

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[29] Habitats with intermediate moisture conditions on the dryer side of the moisture spectrum.
[30] Letter from Steve Croy and Mike Donahue, Forest Service Biologists, to John Donahue, Nov. 15,1999, hereinafter "*Croy Letter*."
[31] *GWNF Plan*, p. 2-4, 2-6.
[32] *Neas Report*, p. 16, 20, 25.
[33] *Neas Report*, p. 16.
[34] *GWNF plan*, p. 2-6.
[35] *Hoover Creek EA*, p. 49.
[36] *Hoover Creek Decision Notice*, p. 6.
[37] *Hoover Creek EA*, p. 49.
[38] Coring is not a perfect means of determining age as the corer could be off-center, and the tree could be eccentric in cross-section or even hollow.
[39] *Regional Guidance*, p. 24.
[40] *Old Growth Tally Sheet for Unit Four of the Hoover Creek Timber Sale*. September 1998.
[41] Aubrey Neas, Biologist/Naturalist, letter to Ted Harris, Nov. 6, 2001.

The difference between information gathered by the government biologists and the information presented to the public by the Forest Service is often striking. While the biologists that conducted the 1998 field surveys found that "Units 4 and 5 do contain some acres of old growth,"[42] the EA published by the Forest Service in 2001 claimed, "This field review determined that none of the stands proposed for harvesting are existing old growth."[43]

Surveys conducted by independent biologists in 2004, after the timber sale had taken place, confirmed that old growth did indeed exist at Hoover Creek.[44] In fact, despite assurances from the Forest Service that there was no old growth within any of the logging units, scientists found that logged areas contained "some of the best old-growth forest in the Hoover Creek area."[45]

Counting rings on the remaining stumps, scientists documented old growth in units 4, 9, and 10.[46] Describing the post-logging landscape, their reports states, "few large trees were remaining and the [Forest Service] had logged the majority of the trees that met their criteria for protection under the [Regional] Guidance."[47]

In the case of old growth, the Forest Service cannot see the forest for the trees. The tree-measurement criteria in the Guidance are intended to be applied with flexibility while taking other field observations into account in the analysis. [48] "The US Forest Service failed to recognize the continuity of existing old growth forests on steep slopes on the northwest side of Little Mountain []. A consistent pattern of logging access coming-to-an-end at the foot of the steep slopes was found in four main tributaries on the northwest side of Little Mountain. The old growth plot work done by the agency in the ten areas does not reflect this."[49]

Biologists also noted hollow trees, that should have been left standing for wildlife, had been cut down, and that other "reserve trees" had been knocked over, broken, and scarred during the logging operations. General principles of ecosystem based management, it seemed, were thrown away, and stumps, slash, and piles of logging debris maimed one of the last ancient virgin forests in the Southeastern United States. Hoover Creek was ravaged.

Post-logging landscape at Hoover Creek

[42] *Croy Letter*, November 15,1999.
[43] *Hoover Creek EA*, p. 49.
[44] *Neas Report*, p. 8.
[45] *Neas Report*, p. 7.
[46] *Neas Report*, p. 7.
[47] *Neas Report*, p. 8.
[48] *Regional Guidance*, pp 25-26.

[49] Robert Messick, *Site Specifics Regarding Old Growth Forests on Little Mountain, GWNF (2002).*

V. Conclusion

The injury caused by logging the ancient forests of Hoover Creek is irreparable. From the species that once dwelled there, to the hikers and campers who found peace there, to the communities whose drinking water flows from the headwaters of the George Washington National Forest, the destruction of this once pristine place is an utter catastrophe - a tragedy that is only aggravated by the repeated denials and misstatements of the Forest Service.

The failure of the Forest Service is indeed two-fold. On a basic level, they failed to fulfill their legal responsibilities, as logging the old growth at Hoover Creek was against the directions of the Forest Plan and the Regional Guidance. But moreover, the Forest Service failed the public. They published false information, displaced scientific analysis with excuses and rhetoric, and mislead the people whose natural heritage they are entrusted to protect.

The old growth logging at Hoover Creek is not an isolated mismanagement event. The story of Hoover Creek is repeated over and over as it was at Hematite, Johnson Mountain, Sugar Tree, Maybe, Jerry's Run, Tom's Branch, and Chestnut Oak Knob. Each of these named logging projects targeted tracts of old growth that the Forest Service handily denied were old growth for failure of the entirety of the delineated "stands" to satisfy one criterion or another. The Forest Service is dismantling the network of old growth across the George Washington National Forest, while it could instead be embracing a landscape perspective of forest management recognizing the value of these places in relation to the surrounding environment. It is likely no coincidence that these areas are targeted on the eve of the Forest Service mandate to revise the Land and Resource Management Plan for the George Washington National Forest.

There is a great need for the Forest Service to manage National Forests with an ecosystem based perspective. Subdividing and categorizing every square inch of the National Forest System may help in some ways, but not when reason is forfeit in the process. Any classification system developed by the Forest Service, no mater how intricate or involved, must always retain the basic principle that everything in the forest is interconnected and that nothing can be removed or altered without consequence. To do this, however, Forest Service first must stop seeing the forest only for the trees and the trees only for their timber.

There are some acres of old-growth that remain on the upper slopes of Little Mountain, above the cuts. Visit them, then walk down. You will pass from treasure to waste, from wholeness to the broken, from balance to ruin. This was done, as the Forest Service puts it, to "move the area towards its desired future condition."[50] The Forest Service clearly has unhealthy desires.

Post-logging landscape at Hoover Creek

[50] *Hoover Creek Decision Notice*, p. 2.

Unit Four of the Hoover Creek Timber Sale Photo by Clint Farlinger

Acknowledgements

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