TESTIMONY Robert Mitchell Joseph E. Jones Ecological Research Center Before the House Resources Subcommittee on Forests and Forest Health

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The current disaster associated with hurricanes Katrina and Rita with the loss of life, family, home, community and livelihood has captured the nation's attention. While many of the issues highlighted by that destruction are conspicuous, I would like to speak to a less conspicuous, but extremely important, issue. Specifically, I want to address the destruction of the forests and its impact on family, home, community and livelihood. Even more specifically, the subject of my testimony will be how the salvage and restoration efforts will influence the future forests of the area.

The forests of the region contribute to its richness in multidimensional ways. Economically, forest industry and outputs from forests in Alabama fueled a \$10 billion dollar industry and was the leading employer of the state. The importance of forests as a raw product for industry is further illustrated by the forest industry ranking at 5 in Mississippi, and trailing only tourism and energy as major employers in Louisiana.

However, these forests are not only noteworthy in their exceptional productivity and their economic contribution to the region, but they are among the most critical to conservation in the region. Native southern pine uplands (and their associated wetlands), are among the most diverse, both in terms of species richness, and rareness. In addition, they are among the most threatened, with this type of forest being extirpated from 95% of sites that they once dominated.

Forests are critical to many issues facing the people of the area trying to rebuild community, including jobs and training (more thoughts on addressing this will follow). Moreover, any conservation plan for the region will need to take into consideration the socio-economic context that it operates within. For instance, globalization of forestry markets has put considerable pressure on the forest industry of the country and specifically the southeast. In the region, an unprecedented transfer of land from industry to a variety of landowners is taking place. Plant closures, particularly, but not exclusively, aging pulp mills, have softened both price and demand for smaller lower quality products. Georgia Pacific recently announced that it will open several mills that were previously closed. **Congress should look into incentives that might foster similar opening of markets that would encourage utilization of wood damaged by the hurricane.** That could come through tax incentives or other policies that would help move to a profitable tipping point. Some examples of potential changes in taxation of gains resulting from the sale of timber damaged by hurricane damage:

a. Exclude from taxable income all gains resulting from the sale of timber damaged by Hurricane Ivan.

- b. The tax on gain from salvaged timber (timber cut in a salvage area) would not exceed a rate of 5%.
- c. The tax on gain from salvaged timber (timber cut in a salvage area) would not exceed a rate of 10%.

Since many timber owners have little or no tax basis in the timber, allow a loss deduction equal to the greater of the tax basis, or 50% of the amount of the loss. For instance, if an individual taxpayer has an economic loss of \$500,000 and a related basis of \$10,000, allow a casualty deduction equal to \$250,000 (basis in the tract will be reduced to zero). At maximum tax rates, the loss will equal a benefit of approximately \$100,000 which the taxpayer may use to clear and reforest.

In determining the amount of the casualty loss, the ordering rules established in the Weyerhaeuser case would be followed. Determined in Weyerhaeuser v. United States, KTC 1994-707 (Ct. Cls.1994) and affirmed in Weyerhaeuser Company v. United States, KTC 1996-294 (Fed. Cir. 1996).

Taxpayers could elect to expense (deduct in arriving at adjusted gross income) all payments (cost of) for reforestation; restoration of the entire property (including but not limited to roads, culverts, bridges, fences, etc.) to the state it was in before the casualty; and other (similar) silvicultural, habitat, and erosion control expenses. (This should be a permanent change.)

Allow taxpayers to average over 3 or 5 years any gains from sale of damaged timber (timber cut in a salvage area).

The AMT exemption amount would be increased by any casualty gains (gain on the sale of timber cut in a salvage area).

Pass existing 631(b) correcting language (revenue neutral) to allow and expedite the sale of the salvage timber under either

lump sum (would expedite transaction processes) or pay-as-cut and qualify for capital gains (This should be a permanent change). This was introduced: Sessions (S. 968) and Collins (H.R. 974) and has passed both the House and Senate with identical language on their separate versions of FSC-ETI (Section 283 and Section 333 of the bills, respectively).

Mill incentives:

Allow the converting facilities (mill, etc.) a current deduction against taxable income for all purchases of wood from Ivan (as opposed to an addition to cost of sales or inventory) effectively accelerating deduction into an earlier year.

Allow converting facility a credit against its tax due based on dollar amount of wood from Ivan purchased.

Pass reforestation expense language (expense \$10,000 in year of occurrence, and amortize remaining cost over 60 months), which would expedite stand re-establishment and recruit industry support of this effort.

Temporarily lifting the weight limits on federal highways to expedite harvesting.

In that regard, another market for low quality products which might be worthy of congressional investigation is fuel wood. In the late 70's and early 80's, fuel wood operations and electrical co-generation were initiated, but were short lived due to declines in the price of oil, high cost of entry and high cost of capital. There should be investigation done because of the fact that energy prices have increased, as well as capital and infrastructure costs being close to the point in which fuel wood could be realized (this could be encouraged through a number of policies, but should be done within the context of the recently passed energy bill).

Forest managers understand that forests are dynamic and any plan has to be forward leaning with respect to how forests will develop over time and how the socio-economic forces are likely to give and constrain opportunity. For instance, markets for salvage are an important issue, but some thought should also be placed on how markets are likely to react after the lump in the snake's throat has passed. Will supply exist in the region that can sustain mills after the glut of salvage, where will it come and how could policies help ensure that mills can pass through the manic timber supply swings caused by the hurricanes both today and in the future are questions that need to be thought about. **Policies that Congress might consider also include study of risks associated with longer rotational forestryand thoughtfully developing policy which encourages longer rotations by dealing with risks without suffering the bizarre market behavior when risk is reduced too great of a degree (for instance the savings and loan, past agriculture policies).**

While this is not meant to exhaust the topic of how economic factors need to be thought of, for there are far more capable people than I that can fill here, my point is to illustrate the need for this type of thoughtful deliberation if conservation consequences are to be realized. To reach the scale necessary for conservation, any plan should be well founded in economic realities and some thought as to unintended consequences that happen when economic markets are impacted by policy.

From a conservation perspective, I would suggest that any salvage and restoration plan start with thinking about what forest (s) should be encouraged in the region and how they will develop over time and space. The disturbance to the forests brought about by the hurricanes will influence forests over the long term, as will the ways in which we manage the salvage and subsequent restoration. How damaged forests from hurricanes should be managed and how to go about that will be the focus of the rest of my testimony.

First and foremost, hurricanes, while they often illicit a reaction as if they are a single (or finite event), have been occurring in southern forests for thousands of years and will continue to challenge our forests and their management. However, there is no formal structure that allows managers who often face such an overwhelming challenge for the first time in their career to learn from others who have faced similar events. **The Congress should consider putting together such a task force and setting up a structure that would allow for its development through time.** This could include both private and public forest managers who develop a document from the lessons learned from previous events. This document would address what is known about managing damaged forests from extreme events, what was done and what have been the subsequent consequences. In its ideal form, this document would address what is thought to be true, but uncertainty warrants well designed, adaptive management projects, including the funding for longer term monitoring of results. Moreover, a research program that directly addresses management issues in which almost nothing is known (for instance, what do you do in stream management zones and drains which often are heavily impacted by these storms, but where the literature and management experience is much less well developed than upland pine areas?) could also be identified.

While this document could develop a thoughtful approach to management of hurricane disturbed forest, **implementation** of any recommendations that would be made could only be done on public lands if funding is available. I suggest the Congress establish a revolving disaster fund, not all that different from that used to deal with management of wildfires. On public land in particular, budgets have been stretched to the point that important conservation properties, including national forests, fish and wildlife refuges and military bases are not only unable to react to these large scale events, they have no ability to restore forests when they are significantly impacted by storms of less intensity such as Ivan. Contingency funds are much more difficult to obtain. In the absence of (or in addition to) establishing the emergency fund, any supplemental funding for habitat restoration will need to be stewarded through the legislative process such that its not eliminated for other priorities. Any thoughtful restoration plan for the forests will have public forests included because even though they represent a relatively small proportion of the southern forested landscape, they provide a disproportionately important contribution to regional conservation of biodiversity. The public land management teams on the ground have done much with less, but their ability to squeeze any more efficiency is long passed.

Any salvage and restoration plan has to recognize variation. There are many sources of variation that need to be considered, however, I would first think about the variation in ownership patterns in the landscape. How differ types of landowners are likely to respond to government policy and how differences in objectives for managing forests might be thought of synergistically to achieve regional goals. Public and private land will differ in many aspects, but there may be considerable overlap depending on direction of the program and priorities.

Certainly, any restoration plan should consider encouraging forests that are both more resistant to, and resilient from, hurricane damage. While not without controversy, many pieces of evidence suggest that longleaf forests, particularly those that are multi-aged are less damaged from more moderate winds that occur inland and west of the eye than are loblolly and slash and stands with exposed, well developed edges. **The encouragement of longleaf pine (multiple-aged) could result in tax breaks or direct payment to private lands, and regeneration and restoration programs for public lands.** However, longleaf pine has not had a good seed crop since 1996. In addition, the lower demand of pulp stumpage has lowered the demand for tree seedlings. Any large restoration/regeneration program would have to start with a plan of where to get the seed, how to grow the seedlings and how can seedlings be planted in ways that encourage success. Artificial regeneration of longleaf pine has been successful, but it is much more difficult than other southern pines. Involvement of organizations such as the Longleaf Alliance has helped increase the success of large regeneration efforts such as the conservation reserve program. However, the Alliance, like public land management budgets, suffer from lack of funds to expand.

Variation in the damage from the storm as one goes from sites near the coast inland, in landscapes that, for what ever reason, where overstory trees which were nearly or completely disturbed should be treated significantly differently from those stands in which a number of legacy trees from the pre-disturbance forest remain standing (or leaning?). In this case, it is important to be careful. The tendency is to see the trees leaning and on the ground and miss some important sources that will accelerate the development of the stand with time. That means not only that thought must be given as to stocking levels that would allow for development of multi-aged stands over time and that live trees not be harvested to make the salvage more economical (if conservation of the forest is the reason for the salvage). In addition, logging damage to retained individual adult trees and to advanced regeneration should be minimized. Minimum levels of stocking should be more related to retaining fire than commercial production of wood on public lands in which conservation is the overriding goal.

Restoration of these forests has to be done within a context of burning. The upland pine forests, woodlands and savannas sustain their high biological richness only through prescribed burning. Burning should be started as soon as possible. Large inputs of fuels after hurricanes have sometimes encouraged managers to suppress fires with the thought that they would let fine fuels decompose. In the southeast, if fire is applied to hurricane affected stands early, the fine fuel loads that are uncharacteristically high can be consumed in the first fire, but the large volume of woody debris is too wet to ignite and burn. However, if fire is suppressed for several years and large debris dries sufficiently, when those fuels ignite, either due to a wildfire or prescribed fire, the downed, woody and fine fuels can cause catastrophic burning conditions. This is particularly devastating to any regeneration that was recently initiated. **The Congress could set up a program**, **not unlike current western US wildfire details**, **that would allow wildfire crews to come from the west to the southeast after the fire season for 14 day prescribed fire details**. While this would further their skills in applying prescribed fire, a skill that is needed in the west.

Burning interacts with salvage not only in the amount and distribution of fuels left from pines, but also will control the ability to access areas for burning, the ease in which burns are done and the smoke issues associated with smoldering coarse woody debris. Thought on how burning priorities (high quality land, presence of endangered species habitat, smoke sensitive areas) interact with salvage and restoration priorities is worthy of consideration in any integrated plan. Also, the type of equipment that is used in salvage operations and its impact on the groundstory (not only due to the diversity of plants, but

also the importance of bunch grasses and pines as fuels) should be considered in any restoration plan.

Prescribed burning on private lands is critical to conservation across the landscape. However, encouraging prescribed burning on private land has to address differences from that associated with public lands. **First and foremost, the cost of prescribed burning, if reduced through incentive programs would result in several public benefits.** The upland forests in the southeast burn sometime, either catastrophically, with little control of the impacts, or through careful prescribed burning by trained individuals under conditions likely to reduce negative consequences and accent the positive. Thus, reduction of wildfire risk is one reason for public funds to reduce the costs of prescribed burning. Secondly, frequently burned private lands add considerably to the conservation of habitat and biota. In addition to incentives, the Congress should look into disentwines that the government has developed with prescribed burning. In more urban areas, **air quality standards of EPA are taxing many cities' ability to stay within compliance. While emissions from wildfires are ignored, emissions from prescribed burning are often highly regulated. The wisdom of this approach should be thought about before this becomes a problem in frequently burned pine uplands in the Katrina/Rita hurricane (or for that matter any) areas.**

I thank you for the opportunity to address some ideas of how conservation issues might be thoughtfully incorporated into a salvage and restoration effort. A number of people concerned with conservation of southern forests helped me with thinking this out over the past three days and, collectively, should be credited with any thoughts that may help conservation. Errors and lack of foresight of the comments are, however, all from my efforts.