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First name: Heather
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Organization:
Title:
Comments: Comment

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To whom it may concern within the United States Department of Agriculture Forest Service,

The conclusion to exempt the Tongass National Forest from the 2001 Roadless Area Conservation Rule do not adequately consider non-market benefits associated with protections provided by the rule. This is revealed in the benefit cost analysis (BCA). The associated BCA has many flaws to the point in which it is infeasible to cover them all. It is important to start by saying that a BCA does not serve the purpose of deciding a specific policy to be put forth, rather it serves to aggregate relevant information regarding tradeoffs. This BCA fails at that purpose and does nothing to distinguish between five of the proposed policies (alternatives two through 6). Instead, it makes sweeping assumptions with regard to future land use, dismisses the value of forest preservation, and offers little information on the possible effects of each of the policy decisions.

Below I will present two brief analyses that could be incorporated into the existing BCA and highlight areas in which this BCA could be improved. These analyses relate to the non-market value of maintaining the 9.2 million acres of the Tongass that are currently inventoried roadless areas (IRAs). While valuation of incommensurables is not without flaw, I believe it would lead to a more robust and impartial analysis. Simplicity in a BCA is useful in aiding in understanding, however, this BCA does not sufficiently address the benefits associated with conservation.

Non-Market Cost of Additional Timber Harvesting

The largest flaw with this benefit cost analysis is that it wrongly ignores the uncertainty surrounding the amount of land that will be used for timber harvest under the various scenarios. It is incorrect to assume that timber harvest will follow current projections regardless of the policy alternative chosen. Further studies must be done on how changes in inventoried roadless areas (IRAs) will alter the amount of land suitable for timber harvesting and affect the amount of timber harvesting that will occur. Once this analysis is done, one can examine the monetary benefits under each alternative as they relate to the amount of land conserved.

In assuming that harvest amounts will remain constant under all scenarios, the relationship between regulation and resource exploitation is ignored. The projected harvest amounts were based on the Record of Decision for the 2016 Forest Plan (Forest Plan) which assumes that the 2001 Roadless Rule will continue to be in place. Because the projections used for the calculations are based off of the present understanding that the roadless restrictions remain in place, applying these projections to all scenarios is unjustified.

As a preliminary analysis of alternatives 1 and 6, one can apply these valuations to changes in harvest activities during the periods with and without the roadless restrictions. The BCA examined cost of harvest per MBF in the 8 years before and after 2011 as a means for comparing costs with and without the roadless restriction. Following the same assumptions, one can compare the harvest amount with and without the roadless restriction. In the period during the exemption (2003 to 2010) the average yearly harvest was 37,500 MBF while the average yearly harvest was 33,200 MBF during the period when the roadless restrictions were in place (2011 to 2018) (Cut

History 1908 to Present, 2019). While this analysis of harvest activities is not comprehensive, it demonstrates the invalidity of assuming forest harvest will remain the same, independent of the roadless regulation.

A 2016 research study by Hjerpe et al. characterizes Alaskans[rsquo] marginal willingness to pay (mWTP) for ecosystem conservation within the Tongass National Forest. Through analyzing

the responses of 384 households, they were able to provide valuation estimates for old-growth conservation, watershed restoration, and second-growth forest restoration. While these values can be used to inform forest management more generally, the values for old-growth preservation are particularly relevant in this policy context. The mWTP for 50% conservation (222,500 acres) of the old-growth scheduled for harvest was 146.87 (2012 U.S. dollars) (Hjerpe et al., 2016). The updated projection for old-growth harvest is 42,500 acres after 100 years (USDA Forest Service, 2016). The mean, state-extrapolated WTP in the study was $33.3 million which corresponds to $150 per acre and $7.50 per thousand board feet (MBF) (Hjerpe et al., 2016). This assumes a linear scaling by acres. The updated harvest projection corresponds to an ecosystem conservation value of $6.4 million. Bounds for this value are $4.8 million and $7.9 million.

The difference in yearly harvest (4,300 MBF) and the mWTP valuation of the forest can be used to estimate the annual monetary cost associated with the restriction removal. This value comes out to be $32,400 per year based on the value of $7.50 per MBF and can be added to the $77,000 per year displacement cost for recreation and tourism. While this cumulative cost still falls below the stated benefits, a switchover analysis reveals that a difference in yearly old-growth harvest of around 130,000 MBF or 6,700 acres to would support continued roadless area conservation restrictions. This harvest amount falls below the Forest Plan[rsquo]s 25-year total projected old-growth harvest amount of 24,000 acres and is legally feasible for a given year (USDA Forest Service, 2016).

Non-Market Cost of Protection Removal

Rather than solely analyze the economic value of avoided harvesting, one can analyze the inherent value of protecting the land from the possibility of timber harvesting. The current BCA does not include ecosystem services of connected roadless areas and citizen[rsquo]s WTP to keep these areas protected under the roadless rule. The existing qualitative analysis ecosystem services is not sufficiently weighted, meriting a quantitative analysis. The subsequent analysis provides a first-cut incorporation of ecosystem services into the BCA.

If one assumes a yearly WTP similar to that found in the study by Lockwood et al., a simple analysis can be done to test the non-market value of additional protections in the Tongass. This study assessed citizen[rsquo]s yearly WTP to reserve the unprotected national estate areas (UNE) in East Gippsland as national parks. Similar to IRA in the Tongass, UNE areas are already subjected to some limitations but not legally restrained from activities such as timber harvesting. Therefore, this annual WTP value assesses a similar service. However, it is important to note, that unlike the Tongass, UNE forests do not have high rates of recreation. This means that the WTP for the continued roadless area conservation in the Tongass is likely even higher. The median annual WTP from the sample was $52 annually and was downwardly adjusted to $25 to account for income variations (Lockwood et al., 2016).

According to Alaska Department of Labor and Workforce Development, the population of the Southeast Economic Region of Alaska is 72,876. Multiplying this annual WTP with the population of Southeast Alaska

results in an annual WTP of $1.8 million. Therefore, the costs associated with removing roadless area restrictions are competitive with the $1-2 million valuation of identified yearly benefits associated with decreased timber harvesting costs.

Rather than assume a direct comparison between East Gippsland UNE forest protection and Tongass IRA protection, further analysis could examine annual WTP for increased preservation and restrictions specifically in the Tongass. This analysis could also examine

marginal WTP as a function of area protected. This would facilitate more robust analysis of each of the alternatives. Each alternative discussed in the BCA protects a different number of acres of old-growth forest within the Tongass and these per-acre values could be used to economically distinguish between the various alternatives.

Additional Recommendations

[ldquo]Harvest in roadless areas is not necessary to meet the purpose and need of the [Forest Plan][rdquo] (USDA Forest Service, 2016). Therefore, removal of roadless area conservation is not justified. Additionally, recommendations for exemption based on cost savings for timber production conceal the fact that timber production in Southeast Alaska is extremely expensive and does not yield profit. Costs to produce timber sales exceed benefits by a ratio of 14 (Hjerpe et al., 2016). Timber production in Southeast Alaska is not an economically efficient use of resources. Reducing restrictions on the basis of timber production cost savings is in conflict with the fact that timber production as a whole does not produce net economic benefits.

Arguments made against the Roadless rule that are based on rural development are unjustified. Implementation of the rule in 2011 has not prevented development activities. As stated in the forest plan, [ldquo]since 2012, the Tongass has requested and received timely approval from the Chief for qualifying activities within roadless areas, including those in support of hydroelectric energy projects and transmission, and road rights-of-way under applicable statutes. Accomplishing the goals of the transition through the Selected Alternative will not be prevented by continued application of the Roadless Rule to the Tongass[rdquo] (USDA Forest Service, 2016).

As stated in the above analyses, the assumption that harvesting will follow Record of Decision for the 2016 Forest Plan projected harvest is illogical given the changes in suitable harvest lands expected under each alternative. A basic analysis of harvest amounts with and without the restrictions reveals the impact of roadless rule regulation on timber production. Perhaps a more appropriate assumption would be that projected harvest scales with the amount of suitable harvest area.

I am not ignorant to the fact that my analyses are rudimentary and incomplete, however, they demonstrate that economic support of alternatives two through six is unwarranted without the inclusion of non-market cost of harvesting and protection removal. People have a demonstrated WTP for avoided timber harvesting and increased protections against timber harvesting. This must be incorporated into the economic analysis. Public preference for conservation should drive decision making with regard to this rule.

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