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Testimony before the Subcommittee on Water and Power and
the Subcommittee on National Parks, Forests and Public Lands joint oversight field hearing:
"Logs in the Road: Eliminating Federal Red Tape and Excessive Litigation to Create Healthy Forests, Jobs and Abundant Water and Power Supplies"

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Chairman McClintock and Chairman Bishop, thank you for the opportunity to testify on this important issue.

My name is Sloan Shoemaker and I am the Executive Director of the Wilderness Workshop based in Carbondale, CO, just over the pass from where we sit today. Wilderness Workshop was founded immediately after the passage of the Wilderness Act of 1964 and has since successfully advocated for Congressional designation of nearly 500,000 acres on Colorado's Western Slope.

But because ecosystems don't stop at wilderness boundaries, the Wilderness Workshop actively engages in the discussion about how the matrix of public lands beyond wilderness areas are managed. Our interest is simple – protect the ecological integrity of public lands so that the innumerable benefits and ecosystem services that flow off of them will continue to undergird the healthy communities and strong economies of Colorado's central mountains.

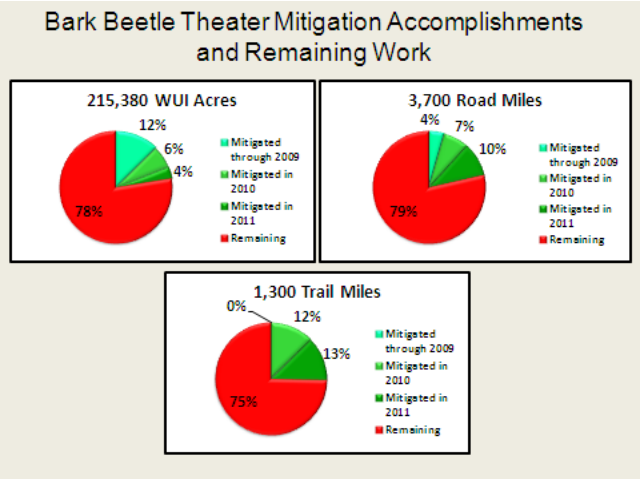
That's why I've been engaged with the Colorado Bark Beetle Cooperative since 2006. I am currently the President of the CBBC non-profit corporation and vice-chair of the Steering Committee. CBBC is a policy level collaborative addressing the ecological, social, and economic impacts of the mountain pine beetle outbreak. CBBC is comprised of a broad spectrum of stakeholders including the timber industry, forest energy industry, conservation organizations, local government, emergency management, USFS, BLM, Colorado State Forest Service, utilities, private property owners, water managers, wildlife managers, interested citizens and more.

Collaboration is the grease
CBBC has worked hard to hammer out agreement on priorities for treating the affects of the bark beetle epidemic. Those priorities include the protection of life, property, communities, critical community infrastructure and water supplies. This broad, diverse stakeholder agreement unified the Colorado Congressional Delegation behind these mitigation priorities and effectively leveraged agency attention and new resources to the state of Colorado. Below is a summary of increased funding resulting from CBBC and partners efforts from 2006 to 2010:

- $12,000,000, Department of Defense via Senate Interior Appropriations Committee
- $44,550,000, Department of Agriculture via FS
- $10,000,000, ARRA funding
- $42,882, National Forest Foundation
- $50,000, Donations from CBBC members
- $5,000,000, State of Colorado through passed legislation
- $300,000, County cost sharing grants
- $50,000, Colorado State Forest Service revolving loan fund

CBBC is proud to have raised public, congressional and agency awareness of the significant impact that bark beetles are having on our mountain communities. And, CBBC is proud that this awareness has translated into chainsaws running in the woods to mitigate those impacts. The hard work we've done to build consensus has

leveraged nearly $70,000,000 worth of on-the-ground work that has reduced the hazards facing our communities, created jobs, and supplied wood to the wood products industry. Yet, there's still a long way to go - as of the end of 2011, less than a quarter of the NEPA ready mitigation work has been accomplished.



(Provided by Bark Beetle Incident Commander)

This point bears emphasis. This mitigation work - 215,380 WUI acres, 3700 miles of roads, 1300 miles of trails, and 460 recreation sites - has cleared NEPA with no appeals or litigation. So after three years of an all-hands-on-deck effort, why does 75-79% of this urgent mitigation work remain unfinished? There's not enough money to get it done.

What about the market?

The best and brightest minds in Colorado have been struggling for years to figure out how to get this wood to pay its way out of the forest. But, as a 2011 report[1] states:

> Dead standing trees and most green standing trees in the Colorado and Wyoming outbreak area have little or no commercial value due to size, condition, accessibility or marketability. In fact, they have negative value because they must be removed at a cost. p. 10

The economic recession and downturn in the housing market have killed demand for structural wood products. And, the longer the beetle killed lodge pole pine stands, the more defective it becomes, even further reducing its already marginal value. These issues are exacerbated by trade agreement issues with Canada which has been dumping its wood products on US markets. Several pellet mills have sprung up to seize the opportunity this vast wood supply seemingly presents. But, they have limited capacity and...

> ...utilization of large quantities of biomass material is still years away. The benefit/cost ratio for converting municipalities to biomass-fueled heat or power does not favor use of biomass when compared to natural gas because natural gas costs less at this time. p. 12[2]

The bottom line: there isn't a market solution for mitigating beetle kill hazards in a timely manner. It must be paid for with public funds. There's more NEPA ready work on the shelves, indeed several years worth, than there is money to pay for it. These means that even the triaged, highest priority human health and safety related tree removal isn't getting done at the necessary pace due to lack of funds.

It's ironic that this hearing is titled "Logs in the Road." The CBBC's collaborative efforts to build consensus around mitigation priorities cleared the road for the USFS to launch a vast hazard tree mitigation effort across the three national forests in the beetle theater. The USFS calculates 25 acres of tree mitigation per road mile making this a

[1] Review of the Forest Service Response: The Bark Beetle Outbreak in Northern Colorado and Southern Wyoming. A report by USDA Forest Service Rocky Mountain Region and Rocky Mountain Research Station at the request of Senator Mark Udall, September 2011

[2] *Ibid*.

92,500 acre linear clearcut. In a previous day, clearcutting 92,500 acres across 3 national forests would be tangled up in appeals and litigation for years. But this NEPA sailed through. Unfortunately, only 600 miles have been treated to date and the agency is struggling to find the funds to keep moving forward. Given that an estimated 100,000 trees are falling per day in Northern Colorado and Southern Wyoming, *there will literally be logs in the roads* ... not as a result of excessive litigation or red tape ... but due to lack of funding. Downsized government has come home to roost.

Industry and Zones of Agreement

Though today's economics work against a robust timber and wood products industry in Colorado, it is critical that industry remain viable and at the table as it will play a key role in on-going forest management. Colorado will never be a major timber production state. Our growing seasons are too short and our wood quality is too poor to ever support a massive timber program. However, there is room for appropriately scaled industry. In fact, industry is essential to helping meet mitigation and restoration goals. But, how much industry is enough?

One promising way to answer that is to work within the collaborative framework to identify a zone of agreement (ZOA). Industry needs certainty upon which to build a business plan. The ZOA can provide that certainty. If all stakeholders can agree on a set of forest management goals and objectives and the means of achieving them, that agreement can be mapped and wood volume/type can be quantified, laying the basis for wood supply certainty. Industry can then scale and invest appropriate to this supply over the long term.

The recently disbanded Colorado Governor's Forest Health Advisory Council chartered the Lodgepole Pine Zone of Agreement Working Group in April 2010. "The underlying purpose ... is to help the FHAC better understand what wood supply would be available to sustain wood industries in the LPP zone over the long-term, not just during the period of salvaging standing dead trees."[3] Due to time and resource limitations, the LPP ZOA group stopped short of a fine filter quantification of wood supply across the LPP zone. However, it did develop a process framework for converting the philosophical ZOA into an operational ZOA using Summit County as a case study.

While this approach may seem time intensive and unwieldy, sometimes we have to go slow to go fast. The most valuable lesson learned from the numerous collaboratives around the state is that time invested upfront to build trust, deepen communication, explore differences and hammer out agreements expedites projects to the ground and creates the climate of certainty necessary to sustain a robust but appropriately scaled industry. Effective collaboration can improve the rate of implementation more effectively than trying to reduce environmental reviews and public involvement. The formula is simple; develop locally-relevant science within a solid collaborative process thoroughly supported by local agency and community leadership to arrive at a strategy that does not result in appeals or litigation - science, collaboration, and leadership.

Protecting water supplies

Millions of people rely on water from watersheds now dominated by beetle killed lodgepole pine trees. Given how vast the epidemic is and how few resources are available to address its impacts, a strategically targeted approach to protecting water supplies is imperative. The first order of business is to treat hazard trees that threaten to fall on or block water delivery infrastructure. This infrastructure is readily locatable and hazardous trees that threaten it can be readily identifiable and treated. Hazard tree removal also reduces fuel loading around infrastructure to reduce or eliminate direct impacts from wildfire.

A larger and more worrisome threat is posed by the risk of massive post-fire debris flows. This threat isn't restricted to beetle killed forests. *Any fire dependent forest will eventually burn*, posing the same debris flow hazard to reservoirs and the water supply system. Again, because of the scale of the potential problem and the fact that predicting where the next fire will be is impossible, a targeted and strategic approach that will give the most bang for the buck is warranted.

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[3] Colorado Governor's Forest Health Advisory Council, Lodgepole Pine Zone of Agreement Working Group Report. April, 2010. Colorado Forest Restoration Institute.

A group of scientists, land managers and water suppliers was convened in the fall of 2007 to examine ways to protect Front Range water supplies. The Data Refinement Work Group was formed with the purpose to "identify and prioritize those watersheds that provide or convey water used by communities and municipalities. This identification of watersheds will, in turn, assist in prioritizing watersheds for hazard reduction treatments or other watershed protection measures."[4] Four components were identified to assess watershed risks. They are:

- wildfire hazard
- flooding or debris flow hazard
- soil erodibility
- water uses ranking

These layers are then overlain to develop a composite hazard ranking.

This watershed assessment methodology identifies and prioritizes sixth-level watersheds based upon risks to water supplies posed by debris flows and increased sediment yields following wildfires that could have impacts and is intended to be the first phase of the process. It results in the identification of Zones of Concern that warrant a closer look. Because the data is too coarse at the 6th level watershed scale, the next step is convening local stakeholders with expert knowledge of the watershed to focus at a finer scale on these Zones of Concern. This will result in identification of specific treatment areas, methods and priorities for on-the-ground projects. Having been fairly widely vetted, there's general consensus and comfort that this strategic approach to water supply protection has great merit, especially in time when resources are few and priorities must be identified to yield the most efficient use of the very limited resources available. Because this methodology is scientifically sound and enjoys broad support, resulting projects are likely to be uncontroversial and the biggest barrier to implementation is likely to be funding.

How did we get here and what happens next?

No discussion of the bark beetle epidemic is complete without reflecting on how we got here and looking forward at what future forests might look like.

> Across vast acres in the West, even-aged stands of pine forests have formed as a result of years of fire suppression and large-scale, intense logging at the turn of the century. Many of these tree species life histories are fire-adapted, and lodgepole pine, for example, naturally regenerates in the presence of fire. These homogeneous and overly dense forests have provided an extensive food source for beetles, and they have responded with large population build-ups. In addition, climate change has resulted in warmer winters that have not been cold enough to reduce beetle populations. This phenomenon, combined with multi-year drought, has allowed beetles to proliferate at higher elevations and latitudes and has resulted in more beetle generations per year in some areas.[5]

This intersection of macro-scale factors has allowed the beetle outbreak to cross a threshold, blooming into an epidemic at a scale impossible to stop. It seems each successive generation must relearn this lesson.

Forest managers threw everything they had at the spruce bark beetle outbreak on the Flattops in the 1940-50s to no avail. The mountain pine beetle got a head of steam in the 1970s and managers tried to cut their way ahead of it, again to no avail. Some long time Forest Service personnel relate that they've been fighting the beetle and losing their entire careers. When the public first started becoming aware of the current epidemic, the cry went up to fight the beetle and do everything in our power to stop it. "Six or eight years ago, we were under a lot of public pressure to stop the beetles from spreading further," says Steve Currey, director of bark beetle operations on the Medicine Bow-Routt National Forests in Colorado and Wyoming. "Now people understand that this thing is too big, and really impossible to stop."[6]

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[4] Front Range Watershed Protection, Data Refinement Work Group. Protecting Critical Watersheds In Colorado From Wildfire: A Technical Approach To Watershed Assessment And Prioritization, Executive Summary, February 2009, p. 2.

[5] Western Bark Beetle Strategy - Human Safety, Recovery and Resiliency, U. S. Forest Service, 7/11/2011, p. 4

[6] Ibid. p.4

The beetle killed LPP forests are routinely referred to as devastated but this characterization misunderstands what is actually happening. While the millions of acres of dead LPP are visually arresting, this isn't an ecological disaster. LPP is an early successional species that co-evolved with this sort of disturbance and consequently regenerates quite well. The beetle attacked the larger, overstory trees killing many but not all. Mortality has been heterogeneous, with isolated pure LPP stands showing 100% mortality while others retain a significant amount of surviving large canopy trees. These survivors lay the foundation for a structurally diverse, mixed age class future forest.

> The beetles have selectively killed the larger trees, whereas most smaller trees and saplings have survived. Often obscured by the red crowns of the larger dead or dying trees, small trees usually are at least as abundant in a surviving understory as dead trees are in the overstory. All of these diverse stand structures are grouped together, however, in the reported acreages of "destroyed" forest.[7]

Further, shade tolerant species like Engelmann Spruce, sub-alpine fir, and Douglas fir have established in the understory of what from a distance look like homogenous LPP forests. Also, aspen trees are now showing up in places where previously there was a homogenous stand of LPP. With the removal of a live overstory, these suppressed understory species are released and thriving on the newly abundant resources (water, sunlight and nutrients) available to them. This advanced regeneration is the future forest already established, ensuring that future forests will be much more heterogeneous and diverse than the one it's replacing.

Whole books could be written about future fire behavior in the beetle killed LPP. There's understandable concern about fire severity and rate of spread in the vast dead LPP forest. But, researchers are demonstrating that it's much more complicated than the simplistic equation that dead trees equal greater fire hazard. Studies show that wind, temperature and humidity have a greater impact of fire behavior than the structural changes wrought by beetles. "It's important to remember that nobody is saying beetle-killed forests won't burn," Turner says. "They will burn perfectly well. The point is that they will burn no more severely than a comparable green forest."[8] The point is that local ecological context and climatic conditions the day of burn matter and broad generalizations serve no purpose. In any case, the fact remains that the highest probability for surviving wildfires lays in treating the fuels within 40 meters or so of structures at risk.[9] If I was a local fire chief, I'd be more focused on educating residents in my district about the common sense measures they can take to protect the Home Ignition Zone than the condition of fuels in the backcountry.

CBBC has chartered a special Future Forests Committee tasked with developing a nuanced understanding of the variability in numbers, sizes, and species of surviving trees and the species diversity and distribution of natural regeneration to get a handle on what future forests will look like if left alone. Armed with this understanding, the committee will then initiate a dialog with local communities to explore what their vision for future forests is. Comparing that vision to the trajectory forests are naturally on will reveal areas of conflict where desired future conditions diverge from the forest's trajectory. This will then inform where forest management actions in the mid- to long-term must occur to reset the forest trajectory towards the desired future condition.

Is NEPA a log in the road?

A 2003 GAO report to Congress found that only ***3%*** of hazardous fuels reduction projects in 2001-02 were litigated affecting only 100,000 acres of the 4.7 million acres authorized by NEPA decisions in those years.

A 2010 GAO report to Congress found that only ***2%*** of hazardous fuels reduction projects in 2006-08 were litigated affecting only 124,000 acres of the 10.5 million acres authorized by NEPA decisions in those years.

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[7] Rocca, Monique E. and Romme, William H., *Beetle-infested forests are not "destroyed,"* in Frontiers in Ecology. The Ecological Society of America, publisher. P. 71.

[8] Bark Beetles and Fire: Two Forces of Nature Transforming Western Forests. Fire Science Digest, Issue 12. February 2012. p.6.

[9] Cohen, J. D. (2000). Preventing disaster, home ignitability in the wildland-urban interface. Journal of Forestry 98(3): 15-21.

Congress recently attached a rider to the FY12 omnibus spending bill that the President signed into law requiring a fast-track process that limits citizen participation by applying the streamlined HFRA pre-decisional objection process to every project implementing a Forest Plan. The rider provides:

> FOREST SERVICE PRE-DECISIONAL OBJECTION PROCESS
> SEC. 428. Hereafter, upon issuance of final regulations, the Secretary of Agriculture, acting through the Chief of the Forest Service, shall apply section 105(a) of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 15 6515(a)), providing for a pre-decisional objection process, to proposed actions of the Forest Service concerning projects and activities implementing land and resource management plans developed under the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1600 et seq.), and documented with a Record of Decision or Decision Notice, in lieu of subsections (e), (d), and (e) of section 322 of Public Law 102-381 (16 U.S.C. 23 1612 note), providing for an administrative appeal process: *Provided,* That if the Chief of the Forest Service determines an emergency situation exists for which immediate implementation of a proposed action is necessary, the proposed action shall not be subject to the pre-decisional objection process, and implementation shall begin immediately after the Forest Service gives notice of the final decision for the proposed action: *Provided further,* That this section shall not apply to an authorized hazardous fuel reduction project under title I of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6501 et seq.).

This is an extreme fix for what is apparently more a problem in lore than reality. This is especially troubling because NEPA is essentially conservative in intent – it seeks to hold the government accountable to its citizens. Insulating government from review just means making government less accountable. Further streamlining of NEPA has the perverse effect of allowing government bureaucrats in DC to get away with whatever they want with less public oversight and accountability.

NEPA allows everyone to participate, gives everyone a voice, and opens the courthouse door to all who would hold the government accountable. And, NEPA isn't biased towards one side or the other and provides the opportunity for everyone to have a voice based on the study process required by NEPA. While the conservation community is well known for its skillful engagement in the NEPA process, here are two examples of where miners successfully navigated the NEPA process.

This year, an individual uranium prospector filed suit against DOI for putting 1 million acres of lands off-limits to mining near the Grand Canyon. He didn't even have a lawyer. What he had was NEPA, which permitted him to provide comments to the agency showing why he thought uranium mining could occur without harming the environment. And it gave him rights when he thought BLM had broken the law. While I don't agree with the substance of his suit, I will defend his right to intervene in the process. What could be more American than a single individual trying to hold the government accountable? Should we make it even harder for him – and for others – to do so?

Another mining interest used the NEPA process to challenge and enjoin a uranium leasing program they felt wronged by. A key point to the NEPA injunction issued by Judge Martinez on the DOE uranium leasing program is that the problems at the lease sites and the narrow analysis carried out by private contractors were brought to the DOE's attention in 2006. Instead of taking public input seriously, DOE kept its head in the sand and is now addressing these issues pursuant to court order and oversight. Judge Martinez agreed that DOE failed to comply with NEPA which never would have happened if the public was denied the right to appeal and litigate.

From the conservation community's perspective, there are a few key factors at play that result in project level NEPA delaying on-the-ground action. The lengths entrenched agencies go to avoid disclosure of serious problems is a real culprit. Litigation does not succeed unless an agency truly botches the job. Outsourcing the job to government contractors with deep ties to industry is also a key failure. Our federal agency experts should be doing the analysis, not industry.

Further, agencies can be their own worst enemies, turning a simple NEPA process into an analysis black hole. Our experience suggests that this results from agencies trying to make appeal proof NEPA documents for controversial or unjustifiable projects. As discussed above, a more effective and efficient way to avoid appeals and expedite projects to the ground is through upfront collaboration to build the agreement that allows projects to sail out the back end uncontested.