EXHIBIT 1
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HB 457

State of Montana v. USDA Forest Service

A Discussion

Society of American Foresters' National Convention 2012

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by

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Contention:

Throughout Montana, two historical factors overwhelmingly exist: Senior Water Right holders were established in the mid-1860s onward, and were generally located in valley bottoms so as to take advantage of the best crop land and the availability of surface water to irrigate; second, the headwaters from whence these senior water rights develop are headwater areas that almost exclusively are now managed by the Forest Service (or a lesser extent, the National Park Service).

The Northern Rockies and Montana have been in an elevated wildfire cycle now since about 1985, and lightning caused wildfires have burnt hundreds of thousands of acres on Forest Service and Park lands in Montana. This contention does not challenge the fire based ecology of the region; rather, the failure of the federal agencies to adopt resource management and wildfire suppression policies to minimize impacts on both the water quality and the timing of water runoff (flow) from their lands. This management failure is a direct assault on Montana, damaging its agricultural based economy, and it peoples.

Background:

In 1889, upon statehood, the Federal government ceded to Montana all waters until reaching navigable rivers downstream. There were few, and limited reservations to this grant, mainly recognizing requirements of Indian treaties and military reservations. This authority was implied through the US Congressional

Organic Act of 1864, the Statehood Enabling Act of 1889, and documented in Article III, Section 15 of Montana's 1889 State Constitution.

In turn, the Montana State Constitution, revised in 1972 within its Article 9, Section 3 unequivocally clarified that "All surface, underground, flood and atmospheric waters within the boundaries of the state are the property of the state for the use of its people are subject to appropriation for beneficial uses as provided by law"

Subsequent Court proceedings have further affirmed Montana's primacy over non-navigable waters. *Case No. 40E-A, In the Water Court of the State of Montana, filed June 2005* that has stood without challenge.

Over the years, various issues cropped up between the Forest Service, and Montana regarding water use, allocation and rights. Negotiations were initiated between Montana and the Forest Service in 1992 to establish a Water Rights' Compact for the Forest Service, which ultimately was negotiated and ratified by the 2007 Legislature.

There were several relevant key points within this Compact. First, the Forest Service may either divert or withdraw water as needed for emergency fire suppression. Second, both specific and *in situ* rights for the agency were defined. Third, the US Forest Service has the right to object and participate as an objector to any water right claim for water use, or storage on, or water conveyed across National Forest System Roads. Fourth, and for this discussion, most important, the Forest Service committed itself **"... to be subject to the same regulations as all other holders of a Water Right Recognized Under State Law."** (*emphasis added*). Specifically, in this compact, within Article VII Section B: "Nothing in this compact may be construed or interpreted ...to limit the rights of (Montana) or a Person to litigate an issue not resolved by this Compact".

Nationwide, for States' Water Rights, three overarching doctrines exist: Riparian, Prior Appropriation and a Hybrid of the first two. In the west, where drought is a common visitor, the doctrine of Prior Appropriation prevails in nine states, and the gist of that doctrine includes:

1) Intent of Use (i.e.: irrigation, industrial, community, domestic)
2) Diversion (physical point of acquisition)

3) The necessity of a Beneficial Use (domestic consumption, agricultural, industrial)
4) Priority of Access (First in time...First in Line!)
and
5) A Definite Quantity. (gallons per minute and total volume in acre feet)

Evidence to support Contention:

There were countless scientific and policy papers generated predominately from the 70s onward that studied the hydrologic impacts of the silvicultural practice of *Clearcutting* both within academia as well as the research arm of the Forest Service. Mentioning but a few:

Metcalf *"A University View of the Forest Service"* (Bolle Report) Congressional Record, Nov 1970

Cline,Haupt & Campbell *"Potential Water Yield Response Following Clearcut Harvesting on North and South Slopes in Northern Idaho"* USDA FS Res Paper INT-191, 1977

Dombeck *"Protecting and Restoring a Nation's Land Health Legacy"* included in the proceedings of Water in the West, Plum Creek Lectures, O'Loughlin ed., University of Montana School of Forestry 1999

More recently, there have been scientific efforts to analyze the issue of fuel loading, harvest and disease impacts on water yield:

Elliott & Vose *"Fire effects on water quality: a synthesis of response regulating factors among contracting ecosystems"* 2006 included in the Second Interagency Conference on Research in the Watersheds 2006

Troendle, MacDonald, Luce & Larson *"Fuel Management and Water Yield"* Chapter 7, Cumulative Watershed Effects of Fuel Management in the Western United States, USDA FS RMRS-GTR-231 2010

It is well documented in the cited literature that the volume and timing of flow can be manipulated by the size, aspect and slope placement of a clearcut. While more flamboyant than scientific, at an April 27, 2012 meeting with US Forest Service Regional Directors with the Chairman of Montana's Water Policy Interim (Senator Brad Hamlett), along with representatives of Montana's Fish, Wildlife &

Parks, Montana's Department of Natural Resources & Conservation Forestry Bureau as well as its Montana's School Trust Lands Bureau, I contended that "...a clearcut by wildfire is more damaging to the watershed than is a clearcut with a chainsaw!" A member of the Regional Hydrologist's staff concurred. In the literature cited previously, removal of roughly 20% of the basal area or more begins a statistically significant change in annual runoff, to the tune of nearly *2.5mm per percent* of basal area removed. With 100% of basal area often killed with wildfire within a drainage, this streamflow increase could then be an increase upwards of 250mm! This is extraordinarily important in the arid west when wildfires cover whole drainages and watersheds. The cumulative effects can be staggering.

Two lightning caused wildfires in 2011, on in the Skalkaho drainage (41 Complex) and one that while ignited on the Salmon-Challis Forest, but burnt over the state line into the West Fork of the Bitterroot River. These two combined fires burnt roughly 35,000 acres of Bitterroot National Forest headwater drainages. At the time of the blazes, a spokesperson for the Forest stated that the 41 Complex fire was being managed for "...natural resource enhancement and habitat". Likewise, the Saddle Fire on the Salmon-Challis had not seen aggressive suppression efforts for days until it "blew up". As the story developed, apparently throughout the National Forest System, the agency has embraced "managed wildfires" (a more palatable spin than "let burn") as a policy to in part reduce the financial burden of suppression. In fact, the District Ranger was nationally acknowledged & received an award for the successful "let burn" management of the 41 Complex, keeping it away from private property and homes. Unfortunately, the agency appears to have acted with no regard for the downstream impacts of its land management policies to the State of Montana and its water users.

At the April 27, 2012 meeting of which I referred earlier, the US Forest Service Regional Director of Fire & Aviation attempted to throw the excuse of the current situation is the result of "...100 years of fire suppression". As a certified forester, I countered that along with the 100 years of suppression efforts, there is the failure to simulate wildfire results through active timber harvest for the last 40 years. The current mountain pine beetle epidemic is a case in point. It was predictable from research conducted by the Forest Service as well as recommendations and warnings by their entomologists from the late 60s onward.

As an aside, it is important to reflect on our professional predecessors ' actions, and motivations. To the 1903 meeting of this Society, then President Teddy Roosevelt stated:

> "And now, first and foremost, you can never afford to forget for a moment what is the object of our forest policy...as of the land policy of the United States is the making of prosperous homes."

Given that Roosevelt was the mentor of Gifford Pinchot, the founder of this Society and the advocate of the science of Forest management, it is no wonder that Pinchot and his successors developed a fire suppression attitude, especially after the 1910 "Big Burn".

Damages to Montana's Water

So to compare, from the eyes of a Senior Water Rights holder in Montana: Consider if a purchaser of a significant ranch upstream either through foolishness, ignorance, whimsy, laziness, malevolence or *malfeasance* impacts the quality, timing or volume of water flow through the ranch downstream toward the senior appropriator, then the impacted Senior Water Rights holder has a justifiable claim against the upstream ranch. The Forest Service is the upstream rancher. Nowhere in any of its forest management or fire suppression documents have I found any acknowledgement of an agency responsibility to the state toward ***timing of flow***.

Historically we might assume that senior water rights typically used surface water. Since the Smith River Court decision in Montana, the linkage between groundwater and surface water has been established in legal precedent. What is the impact on the Agricultural Industry of Montana if irrigation is cut by a week to 10 days for insufficient flows in late August or September? ***Absolutely huge***. In Ravalli County alone, from the 2000 fires onward, the Bitterroot National Forest has burnt over 500,000 acres of Forest Service managed lands.

Conclusion

In the literature cited previously, clearcutting (or the removal of vegetative cover by wildfire) was found to cause earlier spring peak runoffs. While anecdotal, this year's peak spring time flood on the Bitterroot coincided with the April 27th 2012 meeting between Montana State department representatives and legislators with the Region One leadership. This happened in a year with substandard snow packs- and further while it was extraordinarily early, that peak flow exceeded the

previous year's peak even though 2011's snow pack levels were at a record high. Nobody needs excessive water flows in the springtime - not Montana, St Louis, New Orleans or the barge traffic on the Mississippi. Yet, the on-the –ground results of the Forest Service vegetative management policies for the last 40 or so years have been an excessive expansion of unbroken stands of dead timber ripe for wildfire that cause havoc for the water users downstream. The cumulative social and economic effects to Montana of the subsequent systematic burning of headwater basins has been overlooked or ignored.