A Message from Chas Vincent,

Vincent Logging conservationist

15,000 years after the ice cap receded and two centuries past when the Native American's heavy use of fire within the forest landscape has been largely removed, the forested landscape I live in, work in, play in and love has issues.

A century of well-intentioned Smokey The Bear led efforts to suppress all fires in the forest has yielded an overstocked and unhealthy landscape that threatens watersheds, communities and the forest animals with whom we co-exist.

Some think that the answer lies in letting uncontrolled fire naturally reintroduce itself to the landscape. This may work in some places, but not where the fuel load is large and the resultant fires will be more destructive than beneficial.

Adaptive management may well be the way we balance the needs of the forest and forest species with the current reality of the forested landscape.

Hecla Mining Company, owners of Lake Creek 1, has several hundred more forest acres in the Bull Lake area that need fuel treatment [see pictures throughout this booklet] They have given the greenlight to have me work with a planning team to Firewise the property and, just as was done at Lake Creek 1, improve habitat conditions for the grizzly bear and other species.

We are assembling a team of experts to assist in gathering species habitat effectiveness information before, during and after the management regime is planned and implemented. We 'think' this type of management will achieve our desired future outcome and need data to prove or disprove our management theories.

This adaptive management experiment on private lands is incredibly exciting since it could be instructive for future management of hundreds of thousands of acres within the Kootenai National Forest.

For information on adaptive management, I encourage you to pour through the nearly 40 years of forest management information collected at the Evergreen Foundation website www.evergreenmagazine.com

In time, I hope to see you on a field trip to take a look at our adaptive management project as it is implemented.

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EVERGREEN

What do you want from your forest?

How Adaptive Forest Management Can Increase Biological Diversity

Adaptive forest management

In this eight-page booklet we explain how Adaptive Forest Management can be used to increase Biological Diversity. The photos in this booklet were taken 30 months apart in a forest thinning on Hecla Mining Company land on Lake Creek in the Bull River Valley south of Troy, Montana.

For your convenience, we have assembled parts of this booklet in a question and answer format. After you've studied the booklet, we believe you will agree that our more hopeful forest future is taking root here. But we need to encourage landowners to do more of this, especially close to our communities.

Q What is adaptive forest management?

A Managing the forest to develop a wide range of forest stand structures.

Q Why adaptive forest management?

A The objective is to promote biological diversity by creating habitat that includes security as well as food sources for a wide variety of species found in nature.

Q What steps are involved in adaptive management?

- We start by finding a forest that holds too many trees for the natural carrying capacity of the land. This forest is slowly dying and will all too often provide the fuel for conflagrations that remedy the overcrowding situation with stand-destroying forest fires.
- The planning process for the forest stand includes input from foresters, silvicultural and fire experts, forest hydrologists and biologists. The team identifies forest health and watershed issues, security and food source needs of species of concern in the area, fire resiliency needs of the stand and the forest stand structures that need to be developed to achieve these long-term objectives.
- During the fuel removal process of thinning, some trees are removed for commercial use, and some woody debris is left on the site to enrich the soil in which new plants will take root. If needed, prescribed burning will be administered to minimize the future risk of wildfire spreading to the neighboring forests or communities.
- After fuel removal and if desired, planting of native grasses, bushes and trees can be undertaken to improve the ability of the stand to provide a food source for a variety of species.

Q What does adaptive management look like?

A The photos on Page 3 illustrate the four stages of Adaptive Management.

Photo No.1 [Top left] is our starting point. It was taken 30 months ago on Hecla land south of Troy. The forest is too thick. It shows evidence of an invasion of insects and root disease and is already a fire hazard for neighboring homeowners.

Photo No.2 [Top right] shows the aftermath of the thinning completed 30 months ago by Libby logger, Chas Vincent. The best trees have been left to grow larger in full sunlight, the soil has been disturbed to promote growth in herbs, forbs and other wildlife forage. Some woody debris has been left on enrich the soil and increase habitat and structural diversity.

Photo No. 3 [Bottom left] was taken on the south end of this thinning. It shows a slightly different treatment. More trees were removed but new natural regeneration in western larch and ponderosa pine is filling in the clearing. This site is already an excellent feeding ground for deer and elk, habitat for small mammals and good hunting for birds of prey, but because it is more open than Photo No. 1, wildfire risk is significantly reduced.

Photo No. 4, [Bottom right] was taken on nearby Montana state forest land. It shows what the forest in Photo No. 3 will look like in about 80 years. Trees of all ages and species are present. Structural diversity is in place and biological diversity will increase with time. There is still plenty of sunlight for herbs and forbs that colonize the forest beneath its canopy. It will soon be time to thin this forest again to promote growth and reduce wildfire risk.

PHOTO 1

PHOTO 2

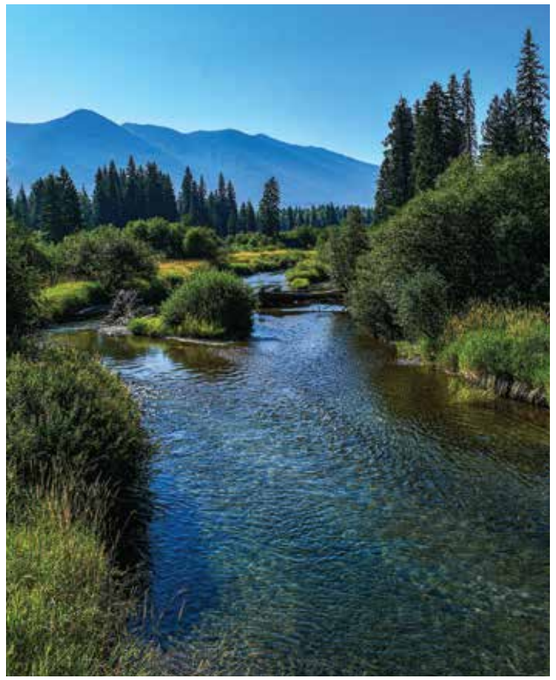

PHOTO 3

PHOTO 1

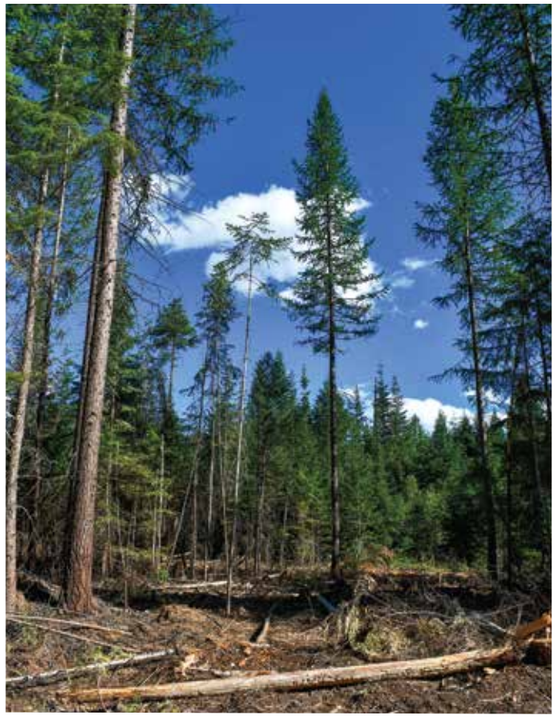

PHOTO 2

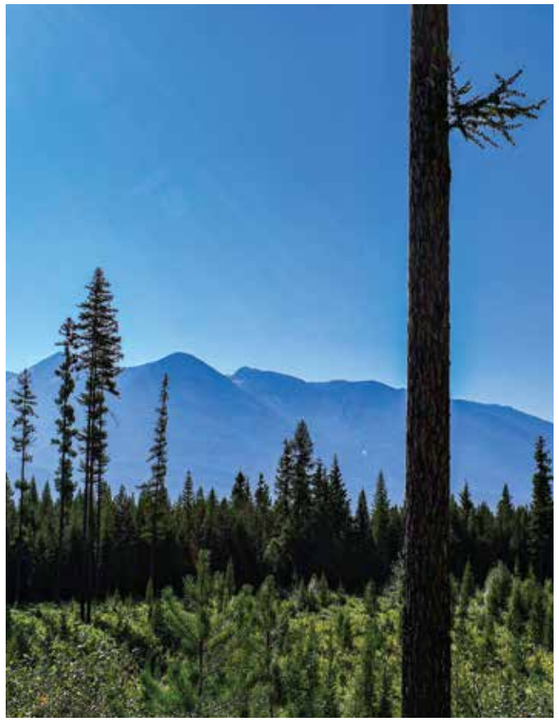

PHOTO 3

PHOTO 4

Adaptive management benefits

The Hecla Site 1 photographs on Page 7 illustrate three of the four main benefits of using adaptive forest management to increase structural diversity. With care and patience, the longer term benefit is increased biological diversity.

Photo No. 1 [Top] depicts the benefits of increasing wildlife habitat diversity by creating sunlit openings. These food-filled niches, and the hiding cover they provide, attract songbirds, voles, mice, squirrels, deer, elk, moose, lynx, caribou, black bears and grizzly bears.

Photo No. 2 [Bottom left] depicts the benefits of thinning and to improve forest health and increase insect, disease and wildfire resilience - vegetation essential to increasing structural and biological diversity, including older, larger trees that can store carbon, not at the same faster rate as young trees, but for a long time.

Photo No. 3 [Bottom right] underscores the benefits of improving watershed health. This is Lake Creek. Hecla's Site 1 project is nearby on the left and the coming Site 2 project is nearby on the right.

Also on the right is the old mine tailings pond. It no longer has water in it so elk winter here. Grizzly tracks have been photographed in the springtime mud.

A closing perspective: There is no one photograph from Hecla Site 1 or 2 that can depict the essence of Forest-to-Community Health, so we offer this perspective:

Communities adjacent to public lands are by default the primary stewards. Everything that happens - or doesn't happen - first affects communities closest to it. These communities depend on a healthy forest to survive and thrive.

These forests need local caretakers to advocate for them, to be a voice for their longevity and resiliency. Adaptive management strengthens forest-to- community health. Economic stability in the form of jobs, education, and tourism are ensured when you live next to a healthy forest. In turn - education, social services, and community infrastructure are available and strong. Risk factors that impact children and families drop in thriving communities.

Our forest community benefits from adaptive management techniques that provide jobs for loggers, truck drivers, millworkers, foresters, and biologists who work on private and publicly owned land plus those who work in local businesses that provide the goods and services we all need and enjoy.

Our communities will benefit from healthier forest landscapes that help the species we coexist with thrive while protecting our homes from catastrophic loss due to fire. Adaptive management could also be essential to protecting and growing the visually pleasing four-season outdoor recreation assets that underpin a significant portion of forest community's quality of life.

Welcome to Lake Creek 1 !

These photos show thinning work in progress on Lake Creek. Two people designed this project at the request of Chas Vincent, who thought the site might be a good place to create a north-south travel corridor for grizzly bears that frequent the valley - south across the Clark Fork River to Idaho and north from Idaho through the Bull River Valley to Glacier National Park or Canada.

Andy Eckberg, a veteran forester with the Idaho Forest Group at Moyie Springs marked the "leave" trees in groups you see in these photos and Wayne Kasworm, a long-time grizzly biologist with the U.S. Fish and Wildlife Service reviewed Andy's layout and said he thought it was worth trying as a way to direct grizzlies away from communities and into safe areas where they could feed and rest.

The Evergreen Foundation produced a short video that includes interviews with Wayne, Andy and Doug Stiles, Hecla's Director of Environmental Operations. This QR code will lead you to the video. A drone flew the Hecla site in July plus a second nearby Hecla site that Chas will start thinning in October. This QR code will take you to both sites. When the drone pilot finished filming Site 1 he asked Chas where logging had occurred.

Here are our September photographs from Site 1. Photos 1 and 2 show what the site looked like when the thinning was completed 30 months ago and what it looks like today.

Photo No. 3 is taken on Lake Creek inside the project area and Photo No. 4 was taken at the edge, where the thinning abuts Lake Creek. This is an excellent trout stream, so protecting the stream channel from any possibility of soil erosion was essential; hence a wide buffer strip that gives no evidence of actual thinning. This riparian zone holds all of the plants and habitat niches you would expect to find along a healthy trout stream.

PHOTO 1

PHOTO 2

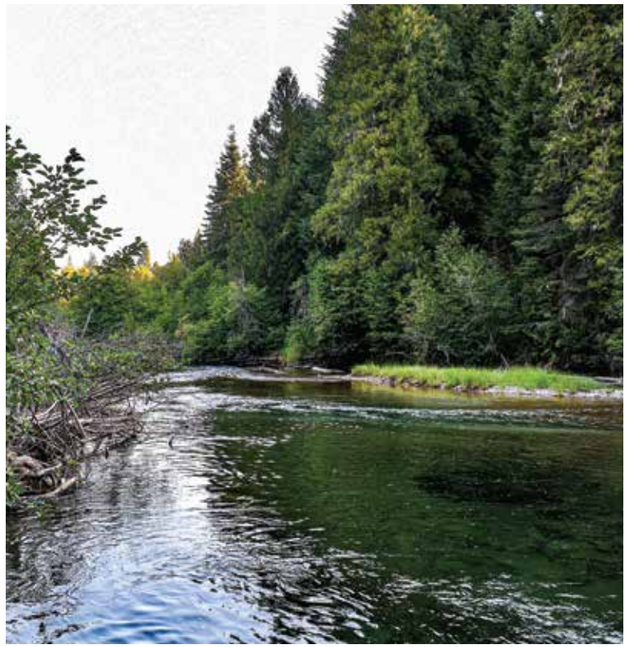

PHOTO 3

PHOTO 4