

Why Project Clean Water is Relevant to Missoula

Retaining Missoula's Values

Missoula is a community that relies on its natural resources to sustain a vibrant economy. The beautiful Clark Fork, Blackfoot, and Bitterroot rivers flow pristine water that we take advantage of to float, raft, and guide. Our over a dozen breweries pull water directly from our aquifer to brew the cherished beer we have available for locals and visitors alike. Our watersheds are home to magnificent native species of fish including the endangered bull trout, birds of abundance, and otters and other furry critters that we Montanans all co-exist with and value.

The steadily increasing size and intensity of our wildfires threaten our watersheds by sterilizing the ground, making it unstable by eliminating its vegetative integrity and eroding sediment into our creeks and rivers. This worsens water quality and even re-routes streams, making uninhabitable conditions for waterlife, murky and non-aesthetic water that deters recreators, and threatens our ability to consume the clean water we need for both our homes and businesses. Excessive smoke from 2017 has proven through recent studies to cause a significant decrease in lung function to residents that live in these areas, studies have shown that lung function still decreased even a year after the 2017 fires.

It is undeniable that the 2017 fire season not only hurt the health of the public from the excessive amounts of smoke in the air but also hurt business by deterring the amount of visitors that come to Missoula (56% of businesses experienced a decrease in customer volume). In 2017, water levels were abnormally low, moisture was absent for the entire summer, and a total of \$378 Million dollars were spent in Montana alone battling the blazes. While the incoming firefighter traffic added some business and dollars that were missed from visitors back into our economy, is that really what is ideal for Missoula? Do we want to be known as the community that gets its money from our heroes that risk their lives to retain our livelihood?

Inevitably, fire is a natural part of our landscape, it was here before us and will be here after us. Our forests rely on fire, Montana has native tree species that are fire adapted and actually rely on it to scarify (not sterilize) the ground in order to establish reprod. Fire cleans up ground fuels that accumulate, making room for tree seedlings to establish. Birds and nesters use fire-killed trees for shelter. Fires naturally made parks and burned "patches" of forest each year, resembling a mosaic.

So what has changed? If fire is good and natural why is it so devastating today? In 1935, the Forest Service adopted the "10 a.m. Policy". This policy held until 1978 and mandated that all reported fires be put out and controlled by 10 am the next day. Putting fires out encouraged continuous build-up of fuel across forests. This also let less fire-adapted and more shade-tolerant trees accumulate in mass quantity under sun-loving fire adapted species, creating a ladder of fuel from the forest floor to the canopies of large trees. A recent study shows that Montana has over 30% more trees now than ever before. Warmer climate and denser forests encourage widespread epidemics of insects and disease that easily spread from tree to tree, killing trees and adding more dead wood for fuel for fires. What used to be an area that a 100 acre fire would burn is now a 100,000 acre inferno in our backyard. Combine this with the fact that we have created communities adjacent to these potential infernos and not managing those private lands accordingly either and we are left with more complexities faced today than ever before.

So the relevant question is not how can we prevent fire but how can we prevent "bad" fire? And what can we as a community do to sustain our economy and our natural resources that we hold dear? While there are many layers to this, there are a few applicable solutions we as a community can be proactive in doing to fix it.

First, We can mimic good fire through restoration efforts, cutting the trees that fire would have taken out long ago. This not only restores forests but reduces fire intensity . Some trees can be sold as wood products to underwrite the costs of the work and put money and resources back into our local economy. We have an infrastructure in Montana to create these products that most states lack and this infrastructure is essential to our way of life. Products can be made from trees that hold little to no structural integrity. Did you know that your paper plates and coffee cups come locally from trees that wouldn't make any other product? Technology and utilization efforts have advanced in the field of forest products to even convert wood to energy. We can not only put our forests back in a historical composition but we can use resources from nearly every acre we treat to our advantage.

Secondly, After our forests are back in a historical composition we can implement prescribed burns to clean up the ground fuels and fertilize the ground to stimulate reprod of the trees that are there, ensuring fire will not be detrimental for the rest of its rotational period. Did you know that fire in a treated acre in the Spring has 17 times less amounts of particulates in the smoke than it would in the Summer? We can reduce health risks and smoke filled valleys in the summer by putting fire on the ground at the

right times, introducing only a few weeks of mild smoke in the Spring and Fall as a replacement.

What a community member can do:

1. **Start with understanding and sharing these issues.** Educate yourself and others about the current state and what can be done. Diverse people and thinking will streamline application of solutions. Much of these issues stem from a lack of social license.
2. **Support government agencies that represent our public lands.** While we may not all agree with decisions that are made by government agencies, it is important to remember that they do represent us as a community and they work for us. It is also important to understand the current difficulties our local agencies face when making decisions and that there are many political hoops to jump through on a higher level to get work done. Patience, persistence, and collaboration will go much further than expressing grief to the wrong players.
3. **Partner with local organizations.** While it will take time to meet all objectives, there is work happening now on both public and private lands and there are local organizations poised to work together for the greater good. Consultants, contractors, and local non-profits all share similar values in working together towards a better quality of life for Missoula. Get to know these organizations and find out what similarities your businesses share and how you may help each other.

Below are some local Non-Profits poised for achieving this goal together:

Blackfoot Challenge
Trout Unlimited
Clark Fork Coalition
Rocky Mountain Elk Foundation
5 Valley's Land Trust
National Forest Foundation
The Nature Conservancy
Bitterroot Resource and Conservation District
United Way of Missoula County
Missoula Area Chamber of Commerce
University of Montana
National Wild Turkey Federation
Destination Missoula

