

Larimer Conservation District: Healthy Forest Initiative

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What is the Healthy Forest Initiative?

The Healthy Forest Initiative is a joint effort between the Larimer Conservation District, the Natural Resources Conservation Service (NRCS), and numerous local partners to bring the knowledge, technical experience, and funding to private landowners for forest restoration activities on their land. This collaborative approach to private land management addresses multiple resource concerns on the Front Range including wildfire hazards, water quality, erosion control, wildlife diversity, and many more. Through the NRCS and The Farm Bill, the Environmental Quality Incentives Program (EQIP) helps subsidize the costs of restorative efforts on private land. Even though many restoration projects already occur on federal land, approximately 30% of forested acreage is privately owned, requiring additional effort and focus on private lands to achieve broad-scale effects.

The philosophy of the Conservation District and NRCS is to restore forests to their historical state prior to human influence. Since the mid-1800s, human influence on forestland has resulted in forests that are very different than those prior to settlement. In general, tree densities have increased and forests have become more uniform in age, species type, and structure (less variety in meadows, streams, etc.). As a result, diversity in our forest habitats has declined over time. Since wildlife species require a variety of habitat types to thrive, forest diversity is critical to the success of wildlife populations. Insects and diseases can kill an entire forest when the trees do not reflect historical conditions. In addition, our highly dense forests lead to intense and far-reaching wildfires that impact human lives.

By restoring our forests to a state that is more representative of how they were structured over 100 years ago, our forest land will have higher a degree of resilience to wildfire, bugs and diseases, and droughts or floods. When creating a forest improvement plan, we consider all of these ecosystem impacts to ensure we're providing an all-inclusive and ecology-based management plan.

The Larimer Conservation District has a dedicated Conservation Forester that can help you determine if you are a good candidate for the program. Additional information can be found on LCD's website:

<http://www.larimercd.org/>

The Need for Forest Management

The forests, meadows, and water sources in our mountains provide valuable ecosystem services to us --the inhabitants of the mountains and downstream plains of Colorado. These watershed services include beautiful places to recreate, clean drinking water, a place for native wildlife and plants to exist, and many other natural resources that we value in our surroundings. In the Western United States, forests have become overcrowded with trees as a direct result of decades of fire suppression. Because our forests have co-evolved with frequent low-intensity fires, fire suppression and the resulting high tree densities has created an entire new set of problems for the forest. Forests today are at much greater risk of high-severity and far-reaching wildfires, pest outbreaks, and diseases that threaten forest and watershed health.

In June of 2012, the High Park Fire west of Fort Collins, CO burned more than 87,000 acres over the course of only 21 days. The intensity and severity of the fire's impacts on the watershed was largely due to the overly-dense tree conditions adding abundant fuels to the extreme weather conditions. Large wildfires such as this result in a loss of vegetation and soil on hillsides. In turn, rain events lead to much higher rain runoff, increased sediment loads in water sources, loss of native seed banks in the soil, loss of live seed sources, and an increase in noxious and invasive weed species. The consequences of high-severity fires diminish the ecosystem services that our watersheds provide. The same results have been seen more recently, post Cameron Peak and East Troublesome wildfires.

To address the uncharacteristic risk of severe wildfire in the future, we must look to the past for clues on how our forests survived for centuries amidst frequent fires under all weather conditions. Historical stand reconstruction studies indicate that tree densities in the late 19th century were much lower than today. Low tree densities support low-intensity fires, thriving understory native plant communities, abundant wildlife, and clean water. Forest restoration practices such as mechanical removal of trees from dense stands allow us to change the trajectory of our forests into a more sustainable and functioning ecosystem for many years to come.

What does a naturally-functioning forest look like?

When you visit a restored or naturally healthy Ponderosa Pine forest, you'll notice that tree densities are perhaps a lot lower than what you're used to seeing in the Front Range of Colorado. There will be many tree-less openings up to a few acres in size. These openings will have a healthy grass, forb, and shrub population and will help support wildlife browsing and livestock grazing in the area. The trees will make up an uneven-aged, patchy mosaic of canopy cover, with some trees existing in groups of 2-5, with other individual trees remaining solitary. Healthy Ponderosa Pine forests look this way because historically, fire played a major role in these ecosystems. Historically, low-intensity surface fires were a part of the Cache La Poudre watershed every 5-25 years. While rarely burning mature trees, these low-intensity fires move through the understory burning grasses, shrubs, small trees, and any accumulated fuel such as needles and fallen branches.

Today, much of the ponderosa pine forest in the Cache La Poudre watershed barely resembles its historic structure. As a consequence, wildfires have become much greater in intensity and severity, often burning thousands of acres of whole trees. These crown fires do not restore the forest to its historic function, and instead have devastating effects on the landscape (soil quality, air quality, water quality, wildlife habitat, etc.). The Larimer Conservation District's Healthy Forest Initiative aims to mimic a characteristically historical disturbance such as fire with mechanical treatment. This can help restore the forest to its historically functioning state. After treatment, if a fire were to come through a treated area, those acres would be more likely to decrease fire intensities and allow existing trees and structures to survive. Additionally, healthy wildlife habitat and soil, air, and water quality can be maintained.

Ponderosa Pine Restoration Before and After Photos:

BEFORE



AFTER





Lodgepole Pine/Mixed Conifer Restoration Before and After Photos

BEFORE



AFTER



Healthy Forest Initiative FAQ

Am I eligible for cost-share through the EQIP?	The general eligibility requirements for EQIP are: 1.) You own or have control over 40+ acres of non-industrial forest land, 2.) You are in compliance with Adjusted Gross Income (AGI) requirements of earning less than \$900,000 per year, 3.) You are willing to allow LCD to create an EQIP plan of operations for your forest improvement project.
What is an EQIP plan of operations?	An EQIP plan of operations is the basis of having an EQIP contract, and is required before you can even apply to the program. LCD will help assess your resource concerns on your property, and build the plan of operations.
How can I apply for EQIP funding?	Call/visit your local Conservation District Office at: Farm Services Administration/NRCS Field Office 2150 Center Ave., Building A, Ste. 116 Fort Collins, CO 80521 970-599-0640
How are applications chosen?	EQIP applications are ranked based on a number of factors, including the environmental benefits and cost effectiveness of the proposal. Certain factors are given higher weights, and the calculation of your project's rank is done through an objective worksheet. Your NRCS District Conservationist will help with this portion of your application, and will be your contact regarding whether or not your project gets selected for EQIP funding.
What portion of costs does EQIP cover?	The amount of money that EQIP will provide to conservation efforts depends on the work being done. EQIP can cover up to 75% of restoration costs, in some cases. Your Conservation Districts will work hard to find other organizations or grants that will cover the rest of the costs, but there is no guarantee of 100% cost-coverage.
When does EQIP funding pay for my project?	If your EQIP project is accepted and funded, the Conservation District will manage the distribution of funds to the logging contractor on your behalf. EQIP pays for every "unit" once it's complete. The funds from EQIP will be deposited into the LCD account for payment to the contractor. Between EQIP and additional grant funds, most (or all) of the cost of the project will be covered and you will not need to personally pay for the project up front.
How long does it take to apply and find out if my project is funded?	EQIP applications are accepted throughout the year, but final submissions for projects are generally due in December. Applicants will be notified within 2 months of the deadline through the NRCS District Conservationist whether or not their project is funded. If EQIP funding was not approved, your NRCS District Conservationist will work with you to determine the reasons why, and potentially reapply the following year. If EQIP funding was approved, you will work with the LCD forester to start implementing your plan of operations in that year.

<p>What if I am approved for funding, but I change my mind?</p>	<p>EQIP has a 3-year probation for land-owners who apply for EQIP, get approved, and then decide not to implement the plan. The Larimer Conservation District (LCD) and NRCS strive to address all questions and concerns prior to the application process to avoid this situation. Once we are in the middle of a treatment, if you choose not to continue, you will not receive your EQIP funding and you will be liable for all costs incurred by the project.</p>
<p>Where can I get help with my EQIP application?</p>	<p>Step-by-step assistance can be given from a forester with the LCD. Contact: Matt Marshall matt@larimercd.org 970-599-0640</p>
<p>How can the Conservation District Forester help with my project?</p>	<p>Your Conservation District Forester will help you with your EQIP project by: 1.) Creating an inventory of trees on your property to understand the current state of your forest, 2.) Provide all forest-management-related materials required for you to submit your EQIP application, 3.) Write and provide a Forest Conservation Plan, 4.) Help hire contract-labor (loggers, weed control, etc.) for your project, 5.) Ensure that contract laborers are adhering to the management plan, 6.) Sign off on your project progress to facilitate EQIP fund-delivery as conservation practices are completed.</p>
<p>What if I want to create a better habitat for a specific wildlife species?</p>	<p>Your Conservation District Forester can work with you to understand your goals and objectives for your property to ensure it aligns with the specifications of NRCS forest restoration practices. As long as what you have in mind for your property doesn't conflict with the requirements of the program, we can integrate your goals into your forest treatment.</p>
<p>How will this be beneficial to me?</p>	<p>Restoring your forest to its historic condition will make it more resilient to the threats of fire, insects and diseases. This resiliency will help preserve your forestland for future generations. In addition, your property value could increase and your insurance premiums could decrease based on the fact that you have actively mitigated fire threat to your trees and structures by creating a healthy stand of trees on your property.</p>
<p>Will this project keep my house safe from wildfire?</p>	<p>While the NRCS and Conservation District philosophy does not specifically address or guarantee the safety of your home in the event of a wildfire, restoring your forest to its historical structure may inherently provide wildland fire protection near and around your home because the forest itself will be resistant to the intense, destructive, and severe wildfires that we've seen on the Front Range over the last several years.</p>
<p>What other actions would help prevent severe wildfire damage?</p>	<p>Getting your neighbors involved is one of the best things we can do for our privately-owned forests. We can help an entire neighborhood apply for EQIP, enabling treatment to a much larger area of land and maximizing the benefits of a more resilient forest for many residents at a time.</p>

<p>How many trees will get cut down?</p>	<p>Depending on how dense your forest is now, the amount of trees that need to be removed to achieve historical standards could be a few to many. Before we submit your EQIP application, you will have a chance to visit other properties where similar work has been done. This will give you a good idea of how your property will look after treatment and help you understand the forest restoration framework. Since many of us have grown up with very dense forests, it can be surprising to see how open a restored forest is, based on historical research. Your District Forester will do their best to help you visualize the effect to your land before you enter an EQIP application to ensure you understand, and are excited for, the results of your project.</p>
<p>How will the trees on my property be removed?</p>	<p>Generally, since tree stands are so dense that a chainsaw crew could not manage the treatment efficiently, we generally utilize heavy ground-based mechanical logging equipment. Large logs that can remain intact will be removed intact and will support the local lumber industry. Logs that are cut in pieces, branches, and slash can be dealt with in a variety of ways, which your District Forester will help identify and outline in your treatment plan (i.e. firewood, mulch, lop and scatter, etc.).</p>
<p>What happens after logging work is done?</p>	<p>Since improper use of logging equipment can have negative long-term impacts on a landscape, we strive to avoid those potential impacts in the planning process and any impacts on the land will be rehabbed immediately following a treatment. If temporary roads and bridges were installed to facilitate logging equipment, they will be taken out and the area will be restored to as close to its original condition as possible. Most Forest Improvement projects will be paired with weed control and range planting treatments to mitigate invasive species that usually follow ground disturbance. These treatments will be built into your EQIP plan, and the cost-share funding will apply to these practices in addition to the forest improvement work.</p>
<p>How long does a project take to be completed?</p>	<p>The timeframe of your project depends on how large your treatment area is. Generally, we try to create plans that are achievable within 1-3 years. Your Conservation District Forester can help provide you with an estimate of how much can be done per year based on the size of your land and the intensity of forest improvement work that is required to meet historical forest conditions.</p>
<p>How many others have participated in this initiative?</p>	<p>This initiative has been in place for approximately 6 years in Larimer County, implementing forest restoration on over 3,000 acres. In just one year after treatment, landowners are amazed by the regeneration of grasses, shrubs, and flowers in the understory of their forests. The Larimer Conservation District has received great feedback from landowners regarding their completed projects and now have more demand for treatments than they have the capacity for.</p>