“What do I do now?”
The next step in the wildfire re-vegetation process

Spring is an amazing time of transformation in the Rockies. As the temperature rises the snow melts away, the land begins to green up, and Coloradans start itching to work and play outdoors. Unfortunately, this spring may not feel as magical to the folks who are recovering from the catastrophic wildfires that swept through our state in 2012. Fires are a natural part of the ecosystem but under some conditions can be very damaging to the environment we now live in. Do not despair, with a bit of help and moisture the beauty that first drew you to your home will return.

Those that were able to re-seed immediately after the fire have benefited from recent moisture while circumstances have prevented others from beginning the restoration process. Regardless of what stage of recovery folks are in many are asking “What do I do now?” Take a walk or a drive around and reflect on what the land looked like prior to the fire. Make notes and observations on what is growing now. In some cases the landscape may not look much different than it did pre-fire. On the other hand severely burned areas may have nothing left or some vegetation may be returning but the composition is different. Landowners that observe the second or third scenario need to re-seed immediately to prevent erosion and invasion of weedy species.

Re-seeding is like giving Mother Nature a vitamin. It helps return healthy and desirable vegetation to the landscape faster than if left to fend for itself. Dense forest canopy shades the ground and out competes other vegetation oftentimes leaving little to no vegetation in the understory. When intense fire removes the tree canopy, logic says the surviving vegetation should thrive. In truth, years or decades with the lack of understory have left little in the seed bank, therefore, leaving the soil vulnerable to erosion and invasion by weedy species.

"What do I plant?" Contacting your local seed supplier, NRCS, Conservation District, or County Extension Agent is a great start. When designing a seed mix there are four main things an experienced seedsman takes into consideration. The first is the latitude of the site. This tells us the intensity of the sun, the average temperature, and the length of the days. Latitude has the biggest effect on what will grow in a given area. The elevation of the site is also very important, especially in Colorado. Plants that are adapted to lower temperatures and shorter growing seasons will do better at higher altitudes. Soil type is the third thing to consider. There are three basic types of soil; sand, silt, and clay. Soils that are made up of mostly sand, referred to as light soils, have high infiltration rates but poor water retention. Clay, known as heavy soil, has a low infiltration rate but retains water and tends to be poorly drained. Loamy soil is made up of part sand, silt, clay and organic matter. Loamy soil is ideal because it retains water while allowing for good drainage. Whether the soil is sand, clay, or something in between, planting species adapted to the soil conditions is critical. If you plant cactus in a clay soil it becomes waterlogged and dies during wet spells. Conversely, a wetland species planted in a desert will desiccate and die. The aspect of slopes will also play a major role in determining the right species to recommend. Plants, such as shrubs, that require more direct sunshine or a drier climate are better suited to south facing slopes while plants that are adapted to northern aspects, such as evergreens, require more moisture and less sunlight.

A good seed mix will be diverse and contain a number of species. This increases the probability of establishment. Environmental and climatic conditions vary over time and a diverse seed mix has species that will thrive better under certain conditions. In other words, a type of grass that may have

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flourished in a specific area last year may not be as prominent this year due to hotter drier conditions. A diverse mix should also contain a combination of early, mid, and late seral species. When thought of in terms of a flower garden, it is more aesthetically pleasing to have flowers that bloom at different times throughout the growing season than all at once. In the case of native grasses the growing season could be years or decades. Early seral species will be the first to emerge and establish on bare soil. They are the principal line of defense against erosion and invasion. Mid seral species become more predominant after 3-5 years while the early seral species decline. As the mid seral species mature the early seral species are waning and the late serial species are beginning to emerge. Planting a combination of early, mid, and late growing species will result in fewer invasive plants and less erosion because there will always be vegetation competing for water, sunlight, and soil nutrients during the growing season.

Restoration after a wildfire is not just the responsibility of the landowner. It is the responsibility of the entire community. Invasive species that are not properly mitigated in the beginning will produce seed and spread throughout a neighborhood. Heavy rains on bare slopes can cause severe soil erosion and even mudslides causing permanent damage to nearby properties and waterways. One property owner, not mitigating erosion, could damage the watershed for an entire community or region. Imagine being the landowner at the bottom of a hill with a neighbor at the top of the hill that decides not to control erosion. When the rain begins there is a little excess runoff but nothing to worry about. During the second hour of the storm a shallow channel begins to appear on the property. By the third hour there is a ditch a foot wide and six inches deep. As the rain continues the water washes out a deeper and wider path taking soil and newly planted seed with it. All of a sudden an entire chunk of the neighbor’s land gives way and comes roaring down like an avalanche. The path of destruction widens with every square inch the mud and muck travels. Working together to restore the neighborhood will not only reduce the chances of further damage to property, it will strengthen the community. Sharing tools and equipment, buying seed in larger quantities, and distributing the workload will make a daunting and expensive task much more manageable.