

# CO Chipper Programs

## Starting a Chipper Program?

Here are several examples of successful Colorado Programs to help you develop an effective program in your community.



Chipper Programs can come in many forms and are a valuable and important element to a successful mitigation strategy. Cutting trees is pretty easy with the right skills and equipment. Trying to figure out what to do with the slash, or branches, is one of the biggest

challenges we all face. Below are three successful examples of programs that COCO Affiliate organizations have implemented to confront the slash problem head on. Feel free to contact any of the organizations to learn more.



*The Action, Implementation, and Mitigation Program (AIM) seeks to increase local capacity and support wildfire risk reduction activities in high-risk communities. Coalitions and Collaboratives, Inc. (COCO) provides direct support to place-based wildfire mitigation organization through pass-through grant funding, on-site engagement, mentoring and training on proven best mitigation practices; provides ongoing mentoring and support to funded groups focused on accomplishing wildfire risk-reduction actions, in order to ensure programmatic sustainability at a local level; and provides technical expertise and subject matter expert resources to help high-risk communities achieve their wildfire adaptation goals.*

### ABOUT COALITIONS AND COLLABORATIVES, INC



to lessen the impacts of wildfire on the ecosystem and our communities.

COCO, a national nonprofit, formed in 2014, is dedicated to working with you

Our **Mission** is to foster on-the-ground conservation efforts that protect and restore natural resources and local communities by supporting collaborative conservation organizations, who produce collective impacts through stakeholder driven efforts. To learn more or become a member please visit <https://co-co.org>.

## ITEMS TO CONSIDER WHEN STARTING A CHIPPER PROGRAM

Regardless of the chipper program model you select or develop it is important to consider a few crucial elements in the design of your program. First, do you plan to **purchase a chipper, rent or hire a contractor?**

If you **plan to purchase** and operate you must consider:

1. Maintenance. Inherent to the task, chippers take a beating. Bearings, tires, lighting, bumps and dents are common. Be prepared to properly maintain the equipment and make sure you have the skills and tools to do so. CUSP has an arrangement with the County Public Works to maintain their chipper.

2. Operation cost (fuel, oil, hydraulic fluid, chipper knives, anvil blade, etc...

3. Safety and liability concerns. Chippers are dangerous. Ensure you have the proper insurance coverage for your staff and volunteers. Create liability release forms and ensure everyone signs them (if using volunteers to help). Develop safety programs and plans to ensure compliance with OSHA and applicable laws and regulations.

4. Owning a chipper requires additional equipment. A suitable tow vehicle is a must. Consider what you will do with the chips. Are you able to broadcast the chips and/or pile them? Do you have to haul them away offsite? Consider the trade offs for each of these options and select a vehicle that will give you the greatest flexibility in operations. You must also have the proper safety gear for your staff.

5. Purchase the right tool for the job. Chippers come in many shapes and sizes. Drum style chippers are great for the wispy materials, however, are usually longer than the disk versions. Grapples and winches help to move material to the machine. Engine guarding reduces noise, but is vulnerable to damage during heavy use.

If you plan to **rent a chipper** you must consider:

1. Ensure size is suitable for the material you plan to chip.
2. Rent from a reputable company that takes care of their equipment. Often rental chippers are

used and abused with dull knives and tired engines.

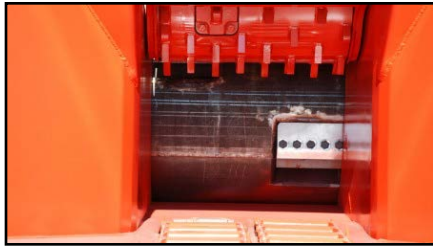
3. Rentals can be very expensive overtime and are often hard to get scheduled during the peak season. Call around and get the best price. Tell the rental company your story and see if you can get a discount.
4. Plan projects well to minimize rental costs. Chip as much as you can as fast as you safely can.

If you plan to **hire a contractor** you must consider:

1. Cost. Contractors, like many of us hate cleaning up after someone else's mess. Work with a contractor before you start collecting slash. Make sure the piles meet the specifications. The cost is directly related to quantity of material and individual contractor costs. Make sure the piles are easily accessible. If a contractor has to haul slash a great distance, your budget will be spent on time moving piles vs. chipping.
2. Get multiple bids and review past experience. Look at the proposed equipment; is it in good condition? No leaks? Is it the right tool for the job?
3. Ensure that the contractor has the proper insurance, and safety policies in place. Even having a contractor do work can impact your organization directly. If the selected contractor damages private property, hires unethical employees, or has no safety policies your organizations reputation and liability may be impacted.
4. Consider the scale of your project. Often you can negotiate better pricing for large projects.

Chipping programs can be a very effective approach to engaging landowners and residents. When developing your chipper program it is important to look at all of your options, desired outcomes and sustainability of the program. Time spent planning and reviewing how others have done it in the past will ensure that you create the most effective and efficient program that fits you and your community's needs.

COMMON CHIPPER TYPES AND RESOURCES



**Top:** A drum style Chipper.  
**Bottom:** Disc chipper wheel

Chippers for residential use come in many different configurations. Here is a quick review of the two primary types of chipper systems. This information has been developed by fuel program practitioners within the state of Colorado. You may have other experiences, so please consider this as only one source of information.

**Drum style chippers** have a drum with knives attached. The drum rotates within the safety housing and cuts as the blades travel down vertically onto the material.

**Drum Chipper:**

- Usually a lighter weight
- Less space in between the in-feed rollers and the blades

allowing for smaller diameter materials

- Less clogging

**Disc Style Chippers** have a disc with knives attached. The disc is offset to the in-feed rollers at a slight angle to slice material at an angle. As the disc rotates it cuts the material.

**Disc Style Chipper:**

- The disc is very heavy increasing the weight of the chipper.
- Disc systems have a large space between the knives and the in-feed rollers. This space can make it harder to chip smaller, wispy materials.
- Disc chippers may be better for larger materials.
- Due to the dead space between knives and in-feed, they may clog more frequently.

THE BASIC CHIPPER (DISC STYLE)

Discharge Chute

Disc and cutting knives (enclosed in housing)

Feed tray and in-feed mechanism



Control Panel

Clutch mechanism and clutch housing

Anvil Knife (enclosed in housing) & anvil knife adjustment bolts

THERE ARE NUMEROUS CHIPPER MANUFACTURERS, BUT HERE ARE TWO COMMON CHIPPERS USED IN COLORADO. COCO DOES NOT RECOMMEND ANY CHIPPER OVER ANOTHER - DO YOUR OWN RESEARCH.

1. Morbark - [www.morbark.com](http://www.morbark.com)
2. Vermeer - [www.vermeer.com](http://www.vermeer.com)

**COLORADO CHIPPER PROGRAM EXAMPLES**

**FIREWISE OF SOUTHWEST COLORADO - CHIPPER RENTAL REBATE PROGRAM**



This program of FireWise of Southwest Colorado is very simple to run and puts the duty back on the homeowner and/or the HOA

This has also been a good program for second homeowners because they can get the work done in their own timeframe (vs. chipping on a certain day of a certain month). The program is advertised by Neighborhood Ambassadors via the community website, bulletin board or word of mouth. About 10% of the rebates given by FireWise go to second homeowners.

or other governance structure. The program provides an incentive to residents that are doing mitigation on their own or using a contractor. The organization will need to promote the program and be prepared to write a rebate check, collect photos, and track rebate requests.

Basically, it offers the homeowner the lesser of a \$100 day or 50% of the cost to rent a chipper or have a mitigation contractor do the chipping. If a Homeowners Association / Property Owners Association / Metro District / Road District or other governance structure sponsors a chipping day for residents, they can get reimbursed up to the lesser of \$300/day or 50% of the cost, up to \$1500.

The information collected from the resident/HOA includes an estimate of acres treated, volunteer hours, and cost of chipping and/or mitigation work. This is a great program to leverage with other mitigation grants where you need a match. For example, in one year, FireWise of SW CO gave out approximately 110 rebates totaling \$20,000 which residents matched with over 4,000 volunteer hours and \$130,000 of qualifying expenses.

**FireWise of South West Colorado's purpose is to:**

- Provide a coordinated, consistent, interagency, and consensus-driven approach to wildland fire education in southwest Colorado.
- Encourage and motivate homeowners and communities to take an active role in preparing for wildfire.
- Coordinate the development and delivery of key messages.
- Facilitate information sharing across agencies and jurisdictional lines.
- Establish and grow partnerships with private and public entities that have a stake in wildfire prevention and education.
- Develop resources and support for educational and other community led activities in southwest Colorado.



To learn more visit

<http://www.southwestcoloradofires.org>

*FIREWISE OF SOUTHWEST COLORADO INSPIRES, MOTIVATES, EDUCATES AND SERVES INDIVIDUALS, ORGANIZATIONS, AND COMMUNITIES JOINING TOGETHER TO PROTECT LIVES AND PROPERTY FROM WILDFIRE.*

WEST REGION WILDFIRE COUNCIL - COMMUNITY CHIPPING PROGRAM

The West Region Wildfire Council (WRWC) Chipping Program is run largely on community collaboration and organization. The Community Chipping Program assists communities and homeowners in reducing their wildfire risk by providing a curb-side chipping service.

This is a **FREE** service to participating communities and residents within the West Region, however, each participant must track and document the amount of time that is spent cutting, dragging and making piles. WRWC chips up to five (5) piles that are a maximum of 5' x 5' x 7' each.

The WRWC uses an online pile registration form (built through Google forms) that residents use to indicate their desired participation in the chipping program. Each enrolled community has a pile registration deadline and all participants within that community must register their physical address, number of hours spent making the piles, and other information on or before that deadline date.



 An informational graphic for the West Region Wildfire Council. At the top left, the title "WEST REGION WILDFIRE COUNCIL" is written in red. Below it is a bulleted list of services:
 

- EDUCATES homeowners and fire professionals on wildfire risk and promotes activities that help communities and homeowners increase fire adaptedness.
- PROMOTES wildfire risk reduction through community preparedness and planning.
- PROVIDES funding to assist landowners with hazardous fuels reduction projects, defensible space and community chipping events.

 To the right of the text is a map of Colorado with the West Region highlighted in green. The highlighted region is divided into counties: DELTA, MONTROSE, SAN MIGUEL, GUNNISON, OURAY, and HINSDALE. An inset map shows the location of the West Region within the state of Colorado. Below the map is a circular logo for the West Region Wildfire Council, featuring a silhouette of a house and trees against a sunset background. Below the logo, the text "COLLABORATION & PARTNERSHIPS" is written in red, followed by a paragraph: "The West Region Wildfire Council brings together wildland urban interface residents, fire districts, agency representatives, and other partners to better prepare for wildfire. Council members are represented by a Steering Committee and WRWC staff. Monthly meetings provide a regional forum for wildfire related educational topics and discussion." At the bottom of the graphic, the website address "[ www.COwildfire.org ]" is displayed in white text against a background image of a mountain range and a lake at sunset.

A WRWC chipping crew will mobilize to each enrolled community after the pile registration deadline and chip piles at registered addresses.

Chips will be piled or broadcast on site depending on the participant's choice on the registration form.

The WRWC Chipping program is funded through County funding commitment, other leveraged grant funds, and homeowner in-kind match.

To learn more visit [www.COwildfire.org](http://www.COwildfire.org).

## COALITION FOR THE UPPER SOUTH PLATTE - NEIGHBORHOOD FUELS REDUCTION PROGRAM

The Coalition for the Upper South Platte (CUSP) has operated an in-house chipper program since 2003. CUSP provides curbside chipping services as well as the staff to chip slash in neighborhoods around our work area. To request chipping residents call the CUSP office or access an online form located on the CUSP website.



The program is designed around the concept that CUSP is not a contracted chipper service and neighborhoods **MUST** participate in the entire process. CUSP only provides chipping services when the neighborhood has worked together, has numerous sites, and has led the planning and coordination efforts. CUSP uses resident volunteers to haul the slash while CUSP staff operate the equipment. Liability issues are limited through the use of liability release forms and tailgate safety trainings. CUSP provides all of the necessary PPE for volunteers. In many communities, CUSP returns every year on the same date. CUSP provides this service to over 500 residents per year.

CUSP requires that residents document slash accumulation hours and be able to pay an \$85/hour fee for two staff (\$25/hr per additional staff).

The CUSP chipper program is an outreach and education tool. Prior to chipping, CUSP may provide a staff forester to review the piles and make

recommendations regarding additional defensible space needs. Throughout the chipper event planning process CUSP provides D-space, Home Ignition Zone, Community Wildfire Protection Plan, FireWise, forest management, and fire information to the homeowner. Emphasis is placed on the “neighborhood” not the individual and the program requires broad community support to be successful. Many of our chipping clients have increased the level of mitigation over the years. CUSP believes the noise of a chipper grinding in the neighborhood moves people to act better than any PSA.

To learn more visit [www.cusp.ws](http://www.cusp.ws).

Since 1998 CUSP has worked to protect the 1.6 million-acre watershed that reaches from the Continental Divide to Strontia Springs Reservoir, southwest of Denver. The watershed is a recreational mecca with over 1 million acres of public lands; it provides municipal water for about three quarters of Colorado’s residents.



CUSP works with partners to provide essential services such as project planning, implementation, and monitoring within the watershed. Our commitment to the land and the people it serves is unparalleled. CUSP’s crews work tirelessly, whether on-the-ground or in the boardroom, to ensure communication, cooperation and completion of vital programs. Working with volunteers, we plant thousands of trees each year, restore habitat, and improve recreational opportunities. Our crews also remove damaged and diseased trees, and help reduce wildfire threats in our communities.