

## Marshall Fire Residential Debris Removal & Demolition Permit Conditions

Scan to link directly to the City's Building Department homepage



### BEFORE WORK BEGINS

- In order to access the site, a Restricted Access Pass is required, which will be issued as part of the permit. Prior to issuance of a permit, you may obtain a pass from the Police Department (992 Via Appia Way) on behalf of the homeowner to provide an estimate.
- Contact the City at 303-335-4584 to schedule an on-site Pre-Construction meeting with City Building and Public Works staff. This must occur prior to issuance of the permit.
- Display the building permit and street address on separate placards and t-posts clearly visible from adjoining right of way. The street address placard must be made with reflective text, have a minimum text height of 6-inches, and have a contrasting background. The permit holder name and phone number must also be included on the address placard.
- Install erosion control measures per direction of Public Works. See directions below.
- You must obtain permission from adjoining property owners in order to enter onto another person's property. Trespassing without permission may result in a stop work order or other enforcement actions by the City.
- You may not store materials on City-owned property and may not access the property from adjoining City-owned property, other than public street rights of way.
- CDPHE Disposal Notification Form must be filled out and kept at the job site.
- A Hauler License with Boulder County Resource Conservation Division is required prior to any waste disposal. More information on getting this license can be found [here](#).
- A new water meter is required for each property. Contact Sandy Andretich, in the Public Works Operations Department, at 303-335-4750 before work begins. A [Bulk Water Permit application](#) is required to be filled out at the time of picking up the water meter.
- Demolition work is limited to the hours of 7am to 8pm on weekdays, and 8am to 8pm on weekends and holidays.

### DEBRIS REMOVAL

- Contractor is required to remove all ash and debris, metals, concrete and dead or damaged trees that will not survive for at least 5 years based on the evaluation of a certified arborist, and dispose of all materials properly.
  - a. Contact Chris Lichty, the City Forester, at 303-335-4733 for any tree inspection needed.
- You must adhere to all local and State guidelines for debris removal, including but not limited to the following:
  - a. Contractor must take adequate dust control measures at all times, including applying water to ash and materials during disturbance and loading.

- b. Contractor must completely remove and dispose of the foundation, or submit a letter from a licensed structural engineer certifying the foundation is acceptable for reconstruction. The Chief Building Official shall have final approval authority for any reuse of a foundation and may hire a third party engineer to evaluate a foundation if needed.
- c. Ash/debris must be wetted to minimize dust; packaged inside a container (such as an end-dump roll-off or truck) lined with double 6-mil plastic sheeting with the sheeting completely closed over the material and sealed once the container is loaded.
- d. Ash and debris must then be disposed of at an [approved landfill](#).
- e. You must contact the landfill before you want to dispose your items.
- f. Materials that are to be sorted for recycling must meet any State or County guidelines and be generally free of ash and debris.

#### SOIL TESTING

Due to the risk of soil contamination from fire debris and ash, all demolition contractors must remove debris and ash so that the property is visually clean, and must remove soil over impacted areas using one of the following two options:

- Remove 12" of soil over the ash footprint.
- Remove 3" to 6" of soil over the ash footprint. After removal of the soil, a qualified environmental consultant must conduct an RCRA 8 Metals Testing. If testing shows soil contamination beyond set standards, additional soil removal shall be required and retesting until minimum cleanup standards are met.

#### PERMIT CLOSEOUT OPTIONS

- **REBUILDING IMMEDIATELY:** If a property owner intends to build on the property within 180 days, a temporary construction fence may be installed around the perimeter of the property during this interim period and all erosion control measures must be in place. Hydro mulch must be applied if new construction is not beginning within 14 days. Permit holder must schedule an inspection through the online portal to approve the interim condition. A final inspection will be required as a condition of issuing the building permit for reconstruction. If the property owners decides to not rebuild immediately, the site must be restored to the standards in the following sections and final inspection requested.
- **NOT REBUILDING IMMEDIATELY:** To close out the demo permit if a permit for the reconstruction will not be issued within 180 days, excavated areas must be backfilled and the site graded to a natural grade, areas of disturbed soil must be seeded and hydro mulched per direction by Public Works, and all erosion control must be in place until the vegetation is at least 80% established.
- To close out your demo permit, you must pass these three inspections:
  - a. Utility Capping Inspection
    - i. Schedule this through the online [portal](#)
  - b. Foundation Removal Inspection
    - i. Schedule this through the online [portal](#)
    - ii. Confirmation that the foundation is removed, and the site is cleaned up of all ash/debris and that either fencing is around the open hole or graded to a

natural grade, depending on if property owners will or will not be rebuilding immediately (per the above options)

- iii. Submit soils test results demonstrating minimum standards are met.
- iv. Submit an industrial hygienist report that any recycled materials are cleaned of asbestos.

c. Final Inspection

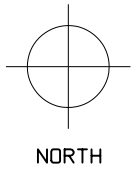
- i. Schedule this through the online [portal](#)
- ii. Confirmation that the site is graded per standards, and hydro mulched, seeded and erosion control is installed.
- iii. An interim inspection may be requested if a property owner intends to build within 180 days following demolition. A final inspection will still be required before issuance of the building permit to reconstruct.

**PUBLIC WORKS PERMIT CONDITIONS**

- Contractor/Applicant shall clean the work area and streets of all construction dirt and debris at the end of each workday.
- To protect paved surfaces provide wood/rubber pads for equipment outriggers, buckets, attachment.
- Dirt ramps in gutter pan or over walk surfaces are not permitted.
- Dumpsters shall be placed on the property beyond the sidewalk. No dumpsters shall be allowing in the streets without Public Works approval.
- 20 feet clear pavement width shall be maintained in the street at all times for fire/emergency access.
- All damages within the city right of way shall be repaired as direct by the City. Repair work may be postponed until all homes have been constructed.
- Water services shall be capped and marked with a 2x4 ten feet from the foundation wall. During reconstruction of the home, the property owner will be required to replace the water service from the curb stop to the new foundation. Water meters will be placed outside 2 feet from the curb stop per current City standards. The City will supply the water meter. All other appurtenances (setter, meter pit and cover) shall be supplied by the property owner.
- Sewer services shall be capped and marked with a 2x4 ten feet from the foundation wall. Services shall be scoped to determine if there are any damages to the service that need to be repaired. All sewer service repairs are the obligation of the property owner.
- Upon reconstruction of the home, the water meter shall be installed directly downstream of the curb stop per the City details. Existing internal water meters shall be removed from the structures during demolition.
- All damages within the city right of way shall be repaired as direct by the City.
- If the property has or had any retaining walls that exceed 36 inches (single or combined height for staggered walls), stabilization and certification by a structural engineer is required prior to any demolition, unless otherwise approved by the Chief Building Official.
- Dry utility shut off (gas, electric, telephone, cable, etc.) shall be coordinated with the dry utility company (Xcel, Century Link, Comcast, etc.)
- Before any work begins, erosion control measures must be installed. See the documents below for more information.

- Before any work begins, erosion control measures must be installed
- Upon completion of the demolition, the entire lot must be hydro-seeded UNLESS new home construction will begin within 14 days of demo permit being closed out.
- No debris may be placed in the right-of-way.
- A [Bulk Water Permit](#) is required if a hydrant meter is desired for City water and is obtainable from Public Works Operations Department at 303-335-4750.

# EXAMPLE EROSION AND SEDIMENT CONTROL PLAN FOR GRADING TYPE A LOT



## LEGEND:

DRAINAGE SWALE

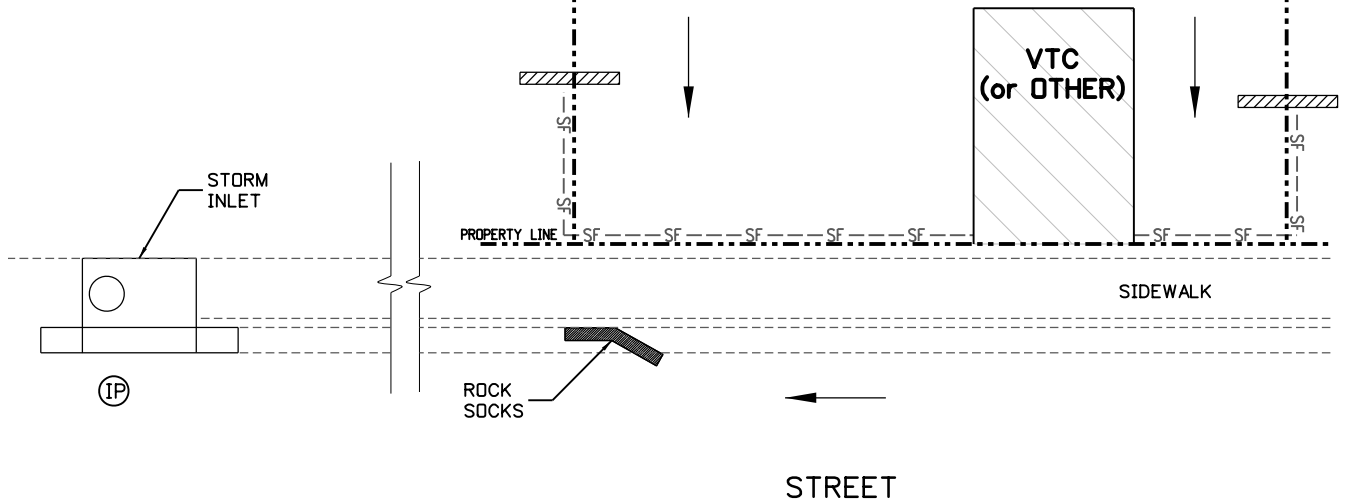
DIRECTION OF FLOW

HP = HIGH POINT

= INLET PROTECTION

SILT FENCE (SF) or  
SEDIMENT CONTROL LOGS  
STRAW WATTLES (SCL) or  
OTHER  
(SPECIFY AS PER APPLICATION)

VEHICLE TRACKING CONTROL (VTC) or  
OTHER (SPECIFY)



## NOTE:

- 1) THE PLOT PLAN FOR THE LOT CAN BE USED IF DESIRED.
- 2) UPDATE PLAN AND LEGEND AS NEEDED FOR INDIVIDUAL USE TO MATCH INFORMATION ON THE APPLICATION (i.e. SHOW APPROXIMATE LOCATION OF PORTABLE TOILET, TRASH CONTAINER, CONCRETE WASH-OUT AREA, ETC.)

SUBDIVISION:		
ADDRESS:		
LOT #		BLOCK #
SIGNATURE:		
DATE:		

# EXAMPLE EROSION AND SEDIMENT CONTROL PLAN FOR GRADING TYPE B LOT

**LEGEND:**

DRAINAGE SWALE

DIRECTION OF FLOW

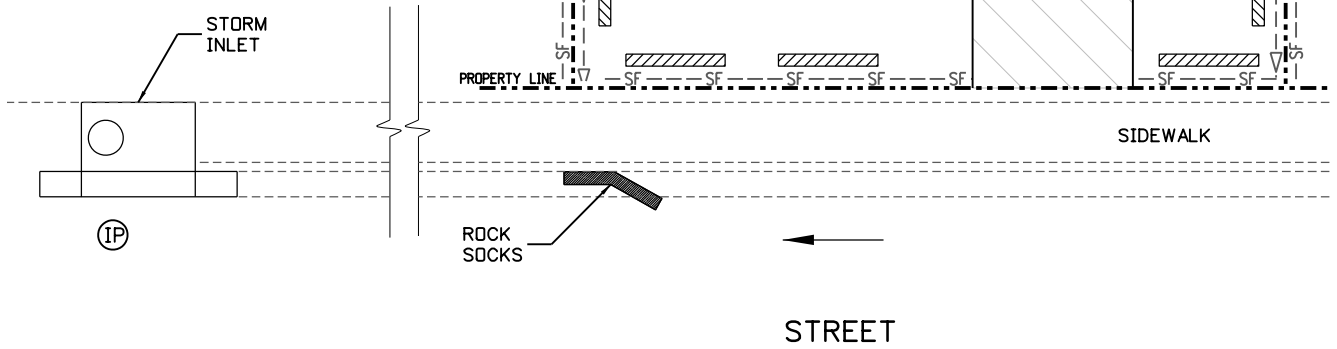
HP = HIGH POINT

(IP) = INLET PROTECTION

SILT FENCE (SF) or  
SEDIMENT CONTROL LOGS  
STRAW WATTLES (SCL) or  
OTHER  
(SPECIFY AS PER APPLICATION)

VEHICLE TRACKING CONTROL (VTC) or  
OTHER (SPECIFY)

SILT FENCE OR LOGS



SUBDIVISION:		
ADDRESS:		
LOT #		BLOCK #
SIGNATURE:		
DATE:		

## Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.



**Photograph MU-1.** An area that was recently seeded, mulched, and crimped.

## Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeded. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

## Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

<b>Mulch</b>	
<b>Functions</b>	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).
- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)
- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

## **Maintenance and Removal**

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.



## Description

Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparing a seedbed, selecting an appropriate seed mixture, using proper planting techniques, and protecting the seeded area with mulch, geotextiles, or other appropriate measures.



**Photograph TS/PS -1.** Equipment used to drill seed. Photo courtesy of Douglas County.

## Appropriate Uses

When the soil surface is disturbed and will remain inactive for an extended period (typically determined by local government requirements), proactive stabilization measures, including planting a temporary seed mix, should be implemented. If the inactive period is short-lived (on the order of two weeks), techniques such as surface roughening may be appropriate. For longer periods of inactivity of up to one year, temporary seeding and mulching can provide effective erosion control. Permanent seeding should be used on finished areas that have not been otherwise stabilized.

The USDCM Volume 2 *Revegetation* Chapter contains suggested annual grains and native seed mixes to use for temporary seeding. Alternatively, local governments may have their own seed mixes and timelines for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

## Design and Installation

Effective seeding requires proper seedbed preparation, selecting an appropriate seed mixture, using appropriate seeding equipment to ensure proper coverage and density, and protecting seeded areas with mulch or fabric until plants are established.

The USDCM Volume 2 *Revegetation* Chapter contains detailed seed mixes, soil preparation practices, and seeding and mulching recommendations that should be referenced to supplement this Fact Sheet.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand seed and mulch. Some jurisdictions do not allow hydroseeding or hydromulching.

### Seedbed Preparation

Prior to seeding, ensure that areas to be revegetated have soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil and compaction, resulting in poor quality subsoils at the ground surface that

Temporary and Permanent Seeding	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	No

## **EC-2      Temporary and Permanent Seeding (TS/PS)**

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have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other soil amendments and rototill them into the soil to a depth of 6 inches or more.

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content. The rooting depth of most native grasses in the semi-arid Denver metropolitan area is 6 to 18 inches. If present, at a minimum of the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the upper 12 inches of the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placing a stable topsoil layer on steeper slopes, and allow infiltration and root penetration to greater depth. Topsoil should not be placed when either the salvaged topsoil or receiving ground are frozen or snow covered.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

Refer to MHFD's Topsoil Management Guidance for detailed information on topsoil assessment, design, and construction.

### **Temporary Vegetation**

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Temporary grain seed mixes suitable for the Denver metropolitan area are listed in Table TS/PS-1. Native temporary seed mixes are provided in USDCM Volume 2, Chapter 13, Appendix A. These are to be considered only as general recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

### **Permanent Revegetation**

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. Each site will have different characteristics and a landscape professional or the local jurisdiction should be contacted to determine the most suitable seed mix for a specific site. In lieu of a specific recommendation, one of the perennial grass mixes appropriate for site conditions and growth season listed in seed mix tables in the USDCM Volume 2 *Revegetation* Chapter can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment. These are to be considered only as general

recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush (*Chrysothamnus nauseosus*), fourwing saltbush (*Atriplex canescens*) and skunkbrush sumac (*Rhus trilobata*) could be added to the upland seed mixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, planting root stock of such species as American plum (*Prunus americana*), woods rose (*Rosa woodsii*), plains cottonwood (*Populus sargentii*), and willow (*Salix spp.*) may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen for perennial grasses.

Timing of seeding is an important aspect of the revegetation process. For upland and riparian areas on the Colorado Front Range, the suitable timing for seeding is from October through May. The most favorable time to plant non-irrigated areas is during the fall, so that seed can take advantage of winter and spring moisture. Seed should not be planted if the soil is frozen, snow covered, or wet.

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-2 for appropriate seeding dates.

## EC-2 Temporary and Permanent Seeding (TS/PS)

**Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses**

Species <sup>a</sup> (Common name)	Growth Season <sup>b</sup>	Pounds of Pure Live Seed (PLS)/acre <sup>c</sup>	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Winter wheat	Cool	20-35	1 - 2
7. Winter barley	Cool	20-35	1 - 2
8. Winter rye	Cool	20-35	1 - 2
9. Triticale	Cool	25-40	1 - 2

<sup>a</sup> Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

<sup>b</sup> See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

<sup>c</sup> Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

**Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses**

Seeding Dates	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
	Warm	Cool	Warm	Cool
January 1–March 15			✓	✓
March 16–April 30		1,2,3	✓	✓
May 1–May 15			✓	
May 16–June 30	5			
July 1–July 15	5			
July 16–August 31				
September 1–September 30		6, 7, 8, 9		
October 1–December 31			✓	✓

## Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the USDCM Volume 2 *Revegetation* Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) for additional guidance.

## Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

If a temporary annual seed was planted, the area should be reseeded with the desired perennial mix when there will be no further work in the area. To minimize competition between annual and perennial species, the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the perennial mix, it should be seeded during the appropriate seeding dates the second year after the temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed heads should be removed and then the area seeded with the perennial mix.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.