

April 8, 2021

ELECTRONIC DELIVERY

Mr. Elliott Russell
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

**RE: Permit No. M-1980-244; Cripple Creek & Victor Gold Mining Company; Cresson Project;
Technical Revision 126 – Reclamation Tree Planting Methods and Success Criteria**

Mr. Russell,

Newmont Corporation's Cripple Creek and Victor Gold Mining Company (CC&V) hereby provides Technical Revision (TR) 126 to fulfill a commitment of the Amendment 13 Third Adequacy Review Response dated December 16, 2020, providing additional detail on reclamation tree planting methods and success criteria for the Reclamation Plan included as Exhibit E of Permit No. M-1980-244 for the Cresson Project. Tree planting methods and success criteria relative to Section 1.4.3 (Revegetation) of the Reclamation Plan and proposed in this technical revision are based on Colorado State Forest Service (CSFS) and United States Forest Service (USFS) guidance, and are listed by DRMS's approval conditions below.

Size of container stock. As described in the Reclamation Plan, CC&V will source varying evergreen and deciduous tree species (e.g., Engelmann Spruce, Bristlecone Pine, and Aspen) as tree seedlings. CC&V may use the CSFS or other vendors to source trees during reclamation activities, depending on product availability. Per CSFS guidance¹ there are over 50 species of trees and shrubs at the CSFS Nursery and seedlings are available in bare root stock, small tube, large tube, tray, and extra-large potted container stock. The container stock sizes vary depending on tree species and age of seedling. Example container sizes include 1.5-inch x 8.0-inch (small) tubes, 2.0-inch x 7.0-inch (large) tubes, 2.0-inch x 6.0-inch tray cells, and 6.0-inch x 7.0-inch (extra-large) pots. Because both the vendor container stock sizes can vary and the tree species will vary, CC&V anticipates the exact container stock sizes will be finalized upon purchase of the seedlings at closure.

Fertilizers. Fertilizer will not be used during tree planting, per CSFS Planting Guide recommendations. Fertilizer or soil amendments may be used during the establishment of other vegetation (e.g., grasses, forbs,

¹ Reference the Colorado State University program presentation, "2017 Seedling Tree Program: Selecting the right plant for your site." https://csfs.colostate.edu/media/sites/22/2017/03/Seedling_Plant_Selection_2016_Final.pdf.

and shrubs). The CSFS Planting Guide is included as Attachment 1, and available to the public via online access at the Colorado State Forest Service website.

Protections from herbivory, desiccation, and wind. Due to the large planting areas it is impractical to provide protection to the tree seedlings. CC&V will evaluate success rates and re-plant or interplant as needed, as described in the description of measures of success, below. Initially the areas will be seeded with the approved grass and shrub seed mix and, upon successful establishment of grasses, forbs and shrubs and sequential weed control, CC&V will plant trees into those areas of established vegetation and designated tree plantings. The existing vegetation will provide some protection from desiccation and wind for the first few years of the seedling growth.

Tree planting will be the last step in CC&V re-vegetation efforts and will most likely occur 3 to 5 growing seasons after the establishment of a successful grass, forb, and shrub community. A variety of tree plantings and sizes will be installed, which may aid to provide protections from wildlife, desiccation, and wind.

Appropriate transplanting practices and care of forest planting stock. CC&V will adhere to the planting guidance created by the CSFS. Planned tree planting will come from greenhouse stock. Forest planting stock will be stored on site according to CSFS guidance. The goal will be to minimize the duration between stock delivery and planting. Per CSFS Planting Guide recommendations (Attachment 1), if seedlings cannot be planted within 48 hours after delivery, seedlings will be temporarily planted into the ground until final planting can occur.

Weed control methods around tree plantings. As stated above, CC&V will be planting tree stock within an established grass, forb, and shrub community. Noxious weeds will be managed according to the CC&V Noxious Weed Management Plan, as approved by DRMS through TR 75. Tree planting areas will be treated for noxious weeds during the growing seasons until final bond release of an area.

Expected measure of success for tree plantings. Guidance varies based on slope, compaction, growth medium acidity/alkalinity, moisture, slope aspect, elevation, and planting specie. Based on a review of guidance issued from the United States Forest Service (USFS) and the CSFS, success rates vary between 50% to 80%. Based on this wide-ranging guidance and the factors listed above, CC&V will commit to establishing a success criteria of 50% or greater after the third growing season over a square acre. CC&V will monitor growth and viability of trees via field reviews of tree plantings beginning the year of plant installation. Success of the plantings will be evaluated after the third growing season based on successful growth estimates conducted via field review. Various guidance (e.g., USFS, CSFS, etc.) suggests a success rate of 50% or greater for tree plantings, combined with a variety of planting types and species as is proposed, will yield a long-lasting, diverse tree stand capable of self-regeneration.

CC&V has placed this report on a ShareFile site for review, which was linked in the email submission of this TR along with this electronic cover letter. Hard copies may be provided upon request.

The technical revision fee payment in the amount of \$1,029 was made electronically via the DRMS webpage on April 8, 2021. The payment confirmation number associated with this payment is 166253892. Should you require further information, please do not hesitate to contact Katie Blake at 719-689-4048 or Katie.Blake@Newmont.com or myself at Justin.Raglin@Newmont.com.

Regards,



Justin Raglin
S&ER Manager
Cripple Creek and Victor Gold Mining Company

EC: E. Russell – DRMS
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ATTACHMENT 1
CSFS PLANTING GUIDE



Planting Guide



Planting and Caring for Trees

Trees and shrubs are a permanent part of a home landscape. When properly selected, and planted correctly in an appropriate location, they can improve a home's appearance and increase its value, as well as provide shade, weather protection, privacy, and year-round enjoyment. Because your trees and shrubs are such an important investment, take care with their planting.

Care and Storage of Seedlings

Improper care of seedlings between delivery and time of planting is one of the greatest causes of mortality. Do not store seedlings in heated buildings, or where they are exposed to warm air, sun, or wind.

Potted trees should be watered frequently to keep soil moist. One method is to submerge the entire 30-seedling tray in water for 10 to 15 minutes.

If planting is to occur within 48 hours of delivery, leave bare root bundles intact and store in a cool place (under 50°F). If planting is not planned for more than two days, open the bundle, separate the seedlings and place them in a trench, cover the roots with loose soil, and fill the trench with soil. Keep the soil in the trench moist and protect the roots from exposure to air.

Site Preparation

Site preparation enhances the soil's ability to catch and store moisture, reduces grass and weed competition, and prepares the soil for planting.

Medium to heavy (clay) soils can be summer fallowed the year prior to planting. Leave rough over winter and disk, harrow, or roto-till just before planting.

Do not summer fallow light, sandy soils as they are subject to wind erosion. Instead, plant cover crops such as sorghum, grain, or sudan grass the summer prior to tree planting.

Cultivate just before planting, leaving the strips between rows uncultivated.

Weeds and grasses take much-needed moisture away from newly planted seedlings.

Eradicate weeds such as Canada thistle and bindweed before trees are planted; grasses should also be eliminated.

Preparing Seedlings for Planting

Bare Root: Create a slurry by mixing a shovelful of soil, or two tablespoons of polymer, in a five gallon bucket half-filled with water. Open the bundle and place seedlings immediately into the bucket, submerging the roots completely in the slurry. Plant as quickly as possible. Note: Do not store seedlings this way for more than two hours or root death may occur.

Potted: Remove tar paper completely from tar paper pot seedlings. For styroblock seedlings, grasp main stem of seedling near soil level and pull gently while pushing up through slot in bottom of block. With piñon, bristlecone pine and Douglas-fir, cut away the styrofoam with a knife. Do not break the root ball or leave seedlings in sun or wind following removal from block or tar paper. Seedlings should be removed from the containers just prior to planting.

Hand Planting

Bare Root: Dig a round hole at least one foot in diameter. Make a small mound of soil in the bottom of hole. Take the seedling from the bucket of slurry and spread the roots out in all directions using the mound as a root support. Pull loose soil back over roots, filling the hole half way. Lightly tamp soil down or fill with water. Then, back fill the rest of the hole, tamp soil again or re-water. Do not compact the soil by tamping wet soil! **SOIL COMPACTION ELIMINATES OXYGEN WHICH ROOTS NEED TO SURVIVE!**

Be sure the seedling root collar (where it was planted in nursery) is at the finished soil level. Watering is the best method to settle the soil, eliminate air pockets, and provide moisture to the root system.

Potted: Follow the same planting instructions as for bare root, but do not disturb the roots. Make sure the root ball does not become exposed after final watering.

Machine Planting

When planting more than 1000 seedlings, consider using a planting machine. These are available for rent from your local Colorado State Forest Service Forester. Instructions on machine planting should be obtained at the time of rental.

CARING FOR TREES

Watering

Water each seedling with one to two gallons at planting time. Check soil moisture periodically by digging up soil near the plant. Fabric mulch is highly recommended to conserve water and drip system can be installed. Check with the Colorado State Forest Service for design assistance.

Fertilizing

Fertilizer use on new seedlings is generally a poor idea. Do not put any manure in the planting hole. **DO NOT USE NITROGEN UNTIL THE ROOTS HAVE HAD AT LEAST ONE GROWING SEASON.** Nitrogen can be applied the second year at the rate of three pounds per thousand square feet of area to be covered.

Mulching

Fabric mulch reduces weed competition and water loss from the soil, and can be obtained from the Colorado State Forest Service. Mulch allows rainfall to pass through the fabric to the soil, restrict weed growth, and permit oxygen exchange between the air and the soil. Installation of fabric mulch on large plantings can be done efficiently by renting a weed barrier implement, available from the Colorado State Forest Service. Alternative products include wood chips, straw, peeler shavings, rotted sawdust, and corn cobs. Keep these alternative products less than three inches deep to avoid rodent problems.

Weed Control

Eliminate weeds around each seedling for at least two feet. This may be accomplished by hand pulling, mulching, mowing (watch out for the seedling), hoeing, or chemically treating. Roundup® herbicide can be sprayed, under low pressure, on weeds near seedlings. Cover seedling with bucket or use another form of shield to keep spray from the seedling. When hoeing, use care not to damage shallow roots.

Wildlife Damage

Weed control will discourage rodents from chewing seedlings. Commercial tree guards can be purchased from the Colorado State Forest Service, or use window screen to make a rodent guard. Use poisons as a last resort. Eliminate pocket gophers by placing a half stick of chewing gum in the burrow. Deer or elk may need to be fenced out of the planting entirely. (An

effective deer repellent can be made by mixing whole eggs with tap water to form a 20 percent solution; strain and spray on seedlings. Another homemade method, currently under research, is use of 6.2 percent hot sauce [Capsicum pepper concentrate]. If deer are really hungry, a combination of methods may be required.)

Common Causes of Seedling Mortality

- Roots exposed to hot, dry air
- Roots tangled or not spread out
- Improper storage
- Seedlings planted too deep
- Seedlings planted too shallow
- Lack of water
- Low quality, high salt, water
- Seedling mowed off
- Grasshoppers
- Livestock trampling
- Rodents
- Deer and elk
- Weed killer spray
- Weeds not eradicated before trees are planted
- Poor control of competing weeds/vegetation