

Generalized Soil and Vegetation Treatment Specifications for Homewood Mountain Resort Redevelopment

The overarching objectives of the soil and revegetation treatments described in these specifications is to control sediment at its source, to maximize hydrologic and biological function in the soil and to develop and support a robust vegetation community. Specific treatment outcomes include:

- maximizing infiltration and minimizing runoff
- protecting the soil surface with functional mulch cover
- re-establishing soil nutrient cycling
- · re-establishing an appropriate, self-sustaining native plant community

Soil and Vegetation Restoration Treatments for Disturbed Areas

- Where a discernable layer of topsoil, mulch and/or duff exists, a minimum of six inches (6") of this material shall be removed and stored appropriately onsite.
- Soil samples shall be collected and analyzed to determine nutrient content. Soil amendment additions will be determined by the soil-revegetation specialist based on these results.
- Aged or composted wood chips shall be used as the primary soil amendment.
- Composted wood chips shall be placed on the surface of disturbed areas to specified depth (approx. 4-6") then incorporated into the soil to a minimum depth of twelve inches (12") using approved loosening method.
- For slopes steeper than 3:1, soil tilling shall be conducted in a manner that mixes the subsurface material with the topsoil-amendment material and leaves the subsurface irregular or "scalloped" (i.e. rough, not smooth).
- Salvaged topsoil/duff shall be applied to surface following soil loosening and amendment incorporation and then lightly mixed into the top 2 inches of the soil matrix.
- Soil surface shall be left in a roughened condition which mimics native soil roughness. Soil relief shall be between four and eight inches (4-8") over a twenty-four inch (24") distance.
- Slow-release organic fertilizer shall be applied to the soil surface and incorporated into the soil to a depth of no more than two inches (2") by raking or other approved methods. Appropriate fertilizer application rate(s) will be determined by the soil-revegetation specialist based on the results of soil nutrient testing. Fertilizer must be incorporated into soil prior to seed application to prevent burning of seed and low germination rates.
- Upland seed mix (see table) shall be spread by hand or hand applicator evenly across treatment area at a rate of 50 PLS lbs/acre in the construction staging area and at two times that rate (100 PLS lbs/acre) for slopes steeper than 3:1. Seed shall be raked into soil using the flat side of a steel rake so that seed is covered by a minimum of ½ inch and a maximum ½ inch of soil material. Hydroseed-type applications shall not be used since it makes raking in of seed difficult and may cause premature germination.
- Mulch shall be applied evenly across all treatment areas so that at least 98% of the soil surface is covered. Mulch depth shall not exceed two inches (2") in any areas where seed mix

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- has been applied. Mulch material shall consist of pine needles and associated duff material, tub grindings or wood chips.
- Following completion of soil and revegetation treatments, all further vehicle and equipment
 traffic (and foot traffic to the greatest extent possible) shall be excluded from treatment areas
 using temporary perimeter fencing or other physical barrier until all construction in the
 project vicinity is completed.
- All slopes steeper than 3:1 shall be irrigated to encourage rapid plant establishment and deep root penetration. Irrigation shall be applied so that water penetrates to at least eight inches (8") below the ground surface within twenty-four (24) hours of irrigation. Irrigation system must be able to meet these specifications without displacing mulch or causing erosion.

Table 1. Generalized upland seed mix for Homewood Mountain Resort Redevelopment LID areas

Species (Common Name)	Species (Botanical name)	Pure Live Seed
Squirreltail (high-elevation Sierra collection)	Elymus elymoides ssp. elymoides (Sierra)	20-30
Blue Wildrye (high-elevation Sierra collection)	Elymus glaucus	20-30
Mokelumne or El Dorado Brome (high-elevation Sierra collection)	Bromus carinatus (Mokelumne)	20-30
Antelope Bitterbrush (high-elevation Sierra collection)	Purshia tridentata	2-5
Sulfur-flower Buckwheat	Eriogonum umbellatum	2-5
Wax Currant	Ribes cereum	0.5-1
	TOTAL PLS POUNDS PER ACRE RATE	75-125

LID Areas

- LID treatment areas shall receive a similar application as described above. LID areas are not
 expected to be wet during much of the growing season and are therefore not under the
 influence of a mesic or wet hydrologic regime.
- Specific seeding and planting in the LID areas will be developed in conjunction with the landscape architect.
- Soil treatment will be identical to the Disturbed Area treatments.

Water Routing

Since water will be routed into LID areas for treatment, LID areas will be designed such that
concentrated flows will be routed through energy dissipaters using rocks or other landscape
elements in order to eliminate scouring flows

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