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Temporary Seeding Recommendations							
Common Name	Scientific Name	Rate per Acre	Optimal Planting Date				
Rye Grain	Secale Cereale	30 lbs	Aug. 15 - May 15				
Wheat	Triticum Aestivum	30 lbs	Aug. 15 - May 15				
German Millet	Setaria Italica	10 lbs	May 15 - Aug. 15				
Browntop Millet	Urochloa Ramosa	10 lbs	May 15 - Aug. 15				

Permanent Seeding Recommendations: al Dianting, Mar 4 May 45 July 45 Aug

Temporary Seeding Recommendations:

- Temporary annual seed selection should be based on season of project installation.
- A single species selection for temporary cover is acceptable.
- In some cases where seasons overlap, a mixture of two or more temporary species may be necessary; however, application rates should not exceed the total recommended rate per acre.
- Temporary seed should be mixed and applied simultaneously with the permanent seed mix if optimal planting dates allow.

Permanent Seeding Recommendations:

Optimal Planting: Mar. 1 - May 15, July 15 - Aug. 15					<u>5</u>	Optimal Planting Dec. 1 - Apr. 15							
Common Name	Scientific Name	Туре*	% of Mix	Soil Drainage Adaptation	Shade Tolerance	Height	Common Name	Scientific Name	Cultivars	Type*	% of Mix	Soil Drainage Adaptation	Sha Toler
Indian Woodoats	Chasmanthium Iatifolium	Cold Season	1-10%	Well-drained to Droughty	Moderate	4			Cave-in-rock well drained			•	
Virginia Wildrye	Elymus virginicus	Cold Season	5-25%	Well-drained to Droughty	Moderate	3	Switchgrass	Panicum virgatum	Blackwell well drained Shelter well drained Kanlow poorly drained	Warm Season	10-15%	Cultivar Dependent	Po
Eastern Bottle-brush	Elymus hystrix	Cold Season	5-10%	Well-drained to Droughty	Moderate	3		Sorghastrum	Carthage well drained	Warm		Well-drained to	
Grass Winter	Argostis	Cold					Indiangrass	nutans	Rumsey, Osage, Cheyenne	Season	10-30%	Droughty	Po
Bentgrass	hyemalis	Season	10-20%	Well-drained	Moderate	3	Deertongue	Dichanthelium clandestinum	Tioga	Warm Season	5-25%	Poorly-drained to Droughty	Mode
Rough Bentgrass	Agrostis scabra	Cold Season	10-20%	Poorly-drained	Poor	2.5	Big Bluestem	Andropogon gerardii	Roundtree, Kaw, Earl	Warm Season	10-30%	Well-drained to Droughty	Po
Permanent Seeding Recommendations:						Schizachyrium		Warm		Well-drained to			
Optimal Planting: Dec. 15 - May 15, Aug. 15 - May 15					Little Bluestem	scoparium	Aldous, Cimarron	Season	10-30%	Droughty	Po		
Common Name	Scientific Name	Type*	% of Mix	Soil Drainage Adaptation	Shade Tolerance	Height	Sweet Woodreed	Cinna arundinacea		Warm Season	1-10%	Poorly-drained to Well-drained	Mode
Soft Rush	Juncus effusus	Wetland	1-10%	Poorly-drained	Poor	4	Rice Cutgrass	Leersia oryzoides		Warm Season	5-25%	Poorly-drained	Pc
Shallow Sedge	Carex lurida	Wetland	1-10%	Poorly-drained	Poor	3	Redtop Panic Grass	Panicum rigidulum		Warm Season	10-20%	Well-drained	Pc
Fox Sedge	Carex vulpinoidea	Wetland	1-10%	Poorly-drained	Poor	3	Eastern Gammagrass	Tripsacum dactyloides		Warm Season	10-20%	Well-drained to Poorly-drained	Pc
Leathery Rush	Junucus coriaceus	Wetland	2-5%	Poorly-drained	Poor	2	Purple Top	Tridens flavus		Warm Season	5-10%	Well-drained to Droughty	Pc

- No specific seeding rate is given in order to allow for custom seed mixes based on site characteristics and season. However, permanent seed inclusion in the mix should total 15 pounds of pure live seed (PLS) per acre drilled or 15-20 pounds PLS per acre broadcast applied.

- At least 4 species should be selected for the mixture, including one species from each type(warm and cold season and wetland); selection of more than four species is recommended for increasing chances of successful vegetation establishment.

- If other species such as wildflowers are added to the mix, they should not be counted in the minimum seeding rate for grasses.



RIPARIAN AREA SEEDING (MOUNTAIN REGION)



bhade Ierance	Height
Poor	6
Poor	6
oderate	6
Poor	6
Poor	4
oderate	5
Poor	5
Poor	3.5
Poor	4.5
Poor	2.5

Permanent Seeding:

- Soil analysis should be performed to determine nutrient and lime needs of each site.
- Riparian buffers regulated for nutrient management may be limited to a single application of fertilizer.
- Apply seed uniformly with a cyclone seeder, drop-type spreader, drill or hydroseeder on a firm, friable seedbed.
- When using a drill, equipment should be calibrated in the field for the desired seeding rate.
- Mulch all plantings immediately after seeding (see 6.14, Mulching). If planting on stream banks steeper than 10% or areas subject to flooding, a biodegradable RECP (6.17, Rolled Erosion Control Products) is recommended to hold seed and soil in place.

Maintenance:

- Many of the recommended permanent grass species may require two years of establishment, depending on site conditions.
- Inspect seeded areas for failure and make necessary repairs, soil amendments, and reseedings.
- If weedy exotic species have overtaken the area after the first growing season, the invading species must be eradicated to allow native species to grow.
- Monitor the site until long term stability has been established.

Effective Date: 9/1/2023 In accordance with the 2013 Design Manual Updates