

SECTION 01030 - SEEDING

(Follow all instructions and make all edits with “Track Changes” turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the Project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 01030 of the Standard Specifications modified as follows:

(Use the following subsection .13(a) when alternate labeling for native plant seeds is required. Obtain information from the Erosion Control Designer.)

01030.13(a) Label - Add the following to the end of this subsection:

Provide alternate labeling for native plant seeds as follows:

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(Use the following subsection .13(f) to include seed mix formulas. Obtain the information from the Erosion Control Designer. Delete what does not apply. Detail seed mixes according to the following instructions:

- Use the format in .13(f) which follows. Show seeding categories as needed: Permanent Seeding, Temporary Seeding, Wildflower Seeding, Plant Seeding, Water Quality Seeding, Wetland Seeding, or Native Plant Seeding. To add more categories, blank columns, or lines, copy from the blank seeding category below.
- Fill in the botanical and common names and the PLS seeding rate. For Oregon Certified Seed, show an asterisk (*) at the beginning of the botanical name.
- For several mixes within the same category, use (Category Name) Seed Mix No. 1, No. 2, etc. and each mix will be a bid item. When using these numbered mixes, a brief mix description may also be added that doesn't show in the bid item name. An example is Wetland Seeding, Mix No. 1 (Emergent Areas.)
- When more than one seed mix needs to be specified but quantities seem too small to be more than one bid item, this format can be used: Under a single bid item such as Wetland Seeding, detail multiple mixes by showing Seed Mix A, Seed Mix B, etc. Give an approximate quantity for each mix that equals the quantity of the bid item.)

01030.13(f) Types of Seed Mixes - Add the following to the end of this subsection:

Provide the following seed mix formulas:

• _____ **Seeding:**

Botanical Name (Common Name)	PLS Specified Rate (lb/acre)
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()	_____
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()	_____
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* Oregon Certified Seed

• **Lawn Seeding:**

Name	PLS Specified Rate (lb/acre)
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Fine Fescue**	_____
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Perennial Ryegrass**	_____
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Kentucky Bluegrass**	_____
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Colonial Bentgrass**	_____
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** Furnish strong growing, site appropriate, disease resistant varieties

(Use the following lead-in paragraph and subsection .14(b)(4) when organic fertilizer is required. Obtain information from the Erosion Control Designer.)

Add the following subsection:

01030.14(b)(4) Organic Fertilizer - Furnish organic fertilizer that analyzes ___ % nitrogen, ___ % phosphoric acid, and ___ % soluble potash. Furnish fertilizer that has no toxicity to sites where it will be applied.

(Use the following subsection .15 and bullet(s) to specify other types of mulch not listed in the Standard Specifications, or when hydromulch may be used for temporary erosion control seeding. Delete "(s)" or parentheses as applicable, such as composted yard debris. Use the generic name for the mulch and include Specifications, or cite the ODOT QPL if applicable. Obtain information from the Erosion Control Designer.)

01030.15 Mulch - Add the following paragraph(s) and bullets to the end of this subsection:

Use the following paragraph and bullet(s) to specify other types of mulch not listed in the Standard Specifications, such as composted yard debris. Use the generic

name for the mulch and include Specifications, or cite the ODOT QPL if applicable. Obtain information from the Erosion Control Designer.)

Furnish mulch for seeding according to the following:

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(Use the following paragraph and bullets when hydromulch may be used for temporary erosion control seeding. Obtain the Erosion Control Designer's approval before using.)

Furnish straw mulch for all temporary roadside erosion control seeding, except hydromulch may be used under the following conditions:

- Spring planting west of the Cascades between March 1 and May 15.
- Slopes are steeper than 1V to 1.5H and longer than 16 feet.
- Residential or commercial sites with low erosion potential such as sidewalk, Median, or parking lot planter strips.

Projects that have variable slopes may include straw mulch and hydromulch when approved.

(Use the following subsection .17 when the Federal Aid Highway Program Biological Opinion is applicable to the project and herbicide use will be allowed. Coordinate with the Region Environmental Coordinator and include the weed control pay item.)

01030.17 Pesticides - Add the following to the end of this subsection:

Do not apply herbicides that include any herbicide carrier (i.e. solvent) other than water or vegetable oil. Utilize only the following herbicides for Project Work:

- aquatic imazapyr
- aquatic glyphosate
- aquatic triclopyr-TEA
- chlorsulfuron
- clopyralid
- imazapic
- imazapyr
- metsulfuron-methyl
- picloram
- sethoxydim
- sulfometuron-methyl

Apply only the herbicide adjuvants described in Table 01030-1 for Project Work.

Table 01030-1

Adjuvant Type	Trade Name
Surfactant	Agri-Dex
Surfactant	LI 700
Drift Retardant	41-A
Drift Retardant	Vale

(Use the following subsection .42 to list Specified Weeds and plant species to be removed. Obtain list from the Erosion Control Designer.)

01030.42 Weed Control - Add the following paragraph and bullets after the paragraph that begins "If a pesticide has been approved for..." and before subsection (a):

The Specified Weeds and plant species to be removed include the following:

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01030.42(b) Weed Control Inspections - Replace the paragraph that begins "Inspect the Project for new growth..." with the following paragraph:

Inspect the Project for new growth of specified weeds at least monthly and apply weed control measures as appropriate. This requirement may be waived by the Engineer during the period that weeds are fully dormant. To ensure satisfactory Weed removal, the last WMA inspection will occur at least 30 Days after growing has begun or as directed.

(Use the following lead-in paragraph and subsection .42(e) and table(s) when the Federal Aid Highway Program Biological Opinion is applicable to the project and herbicide use will be allowed.)

Add the following subsection:

01030.42(e) Herbicide Application - Obtain written approval from the Engineer prior to application of herbicides in sensitive areas. Apply herbicides at the lowest effective label rates. Mix herbicides a minimum of 150 feet away from natural water bodies. Wash spray tanks a minimum of 300 feet from any natural water body. Utilize a non-hazardous indicator dye during herbicide applications within 100 feet of natural water bodies. Keep spray nozzles as low as possible and utilize the largest droplet size possible in order to minimize drift. Provide documentation of wind speed and direction, air temperature, ground temperature, and date of application to the Engineer within 5 Days of broadcast herbicide applications.

Do not apply herbicides during the following conditions:

- When soil is saturated, except for soil-activated herbicides.
- Within 48 hours prior to and during a forecasted rain event of 0.5 inches or greater in a 24-hour period.
- When wind speeds exceed 10 miles per hour, or are less than 2 miles per hour.
- During temperature inversions.
- When ground temperatures exceed 80 °F.

Adhere to the adjuvant application limitations in Table 01030-2. Regulated work area (RWA) is defined in 00290.34(a).

Table 01030-2

Adjuvant Type	Trade Name	Limitations
Surfactant	Agri-Dex	Do not apply within RWA
Surfactant	LI 700	Do not apply within RWA
Drift Retardant	41-A	Do not apply within RWA
Drift Retardant	Vale	Do not apply within 150 feet of natural water bodies

During herbicide application, adhere to the buffer distance requirements in Table 01030-3 through Table 01030-10.

Table 01030-3: Application Buffer Width for Perennial Streams and Wetlands, and Intermittent Streams and Roadside Ditches with flowing or standing water present, Labeled for Aquatic Use

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
aquatic glyphosate	100 feet	Waterline	Waterline
aquatic imazapyr	100 feet	15 feet	Waterline
aquatic triclopyr-TEA	Not Allowed	15 feet	Waterline

Table 01030-4: Application Buffer Width for Dry Intermittent Streams, Dry Intermittent Wetlands, Dry Roadside Ditches, Labeled for Aquatic Use

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
aquatic glyphosate	50 feet	No buffer	No buffer
aquatic imazapyr	50 feet	No buffer	No buffer
aquatic triclopyr-TEA	Not Allowed	No buffer	No buffer

Table 01030-5: Application Buffer Width for Perennial Streams and Wetlands, and Intermittent Streams and Roadside Ditches with flowing or standing water present, Low Risk to Aquatic Organism

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
Imazapic	100 feet	15 feet	RWA boundary
Clopyralid	100 feet	15 feet	RWA boundary
metsulfuron-methyl	100 feet	15 feet	RWA boundary

Table 01030-6: Application Buffer Width for Dry Intermittent Streams, Dry Intermittent Wetlands, Dry Roadside Ditches, Low Risk to Aquatic Organism

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
Imazapic	50 feet	No buffer	No buffer
Clopyralid	50 feet	No buffer	No buffer
metsulfuron-methyl	50 feet	No buffer	No buffer

Table 01030-7: Application Buffer Width for Perennial Streams and Wetlands, and Intermittent Streams and Roadside Ditches with flowing or standing water present, Moderate Risk to Aquatic Organism

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
Imazapic	100 feet	50 feet	RWA boundary
sulfometuron-methyl	100 feet	50 feet	5 feet
Chlorsulfuron	100 feet	50 feet	RWA boundary

Table 01030-8: Application Buffer Width for Dry Intermittent Streams, Dry Intermittent Wetlands, Dry Roadside Ditches, Moderate Risk to Aquatic Organism

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
Imazapic	50 feet	15 feet	RWA boundary
sulfometuron-methyl	50 feet	15 feet	RWA boundary
Chlorsulfuron	50 feet	15 feet	RWA boundary

Table 01030-9: Application Buffer Width for Perennial Streams and Wetlands, and Intermittent Streams and Roadside Ditches with flowing or standing water present, High Risk to Aquatic Organism

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
Picloram	100 feet	50 feet	50 feet
Sethoxydim	100 feet	50 feet	50 feet

Table 01030-10: Application Buffer Width for Dry Intermittent Streams, Dry Intermittent Wetlands, Dry Roadside Ditches, High Risk to Aquatic Organism

Herbicide	Broadcast Spraying	Spot Spraying	Hand Selective
Picloram	100 feet	50 feet	50 feet
Sethoxydim	100 feet	50 feet	50 feet

(Use the following lead-in paragraph and subsection .44(c) when organic fertilizer is required. Obtain information from the Erosion Control Designer.)

Add the following subsection:

01030.44(c) Organic Fertilizer - Apply organic fertilizer at a rate of ____ pounds per acre at the following locations:

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(Use the following subsection .45 when soil testing is required.)

01030.45 Soil Testing - Replace this subsection, except for the subsection number and title, with the following:

When the Contract Schedule of Items include items for "soil testing", test soil according to 01040.13.

(Use the following subsection .60 when the "Plant Seeding, ____" or "Native Plant Seeding, ____" Pay Items are included in the Schedule of Items. Delete "(s)" or the parentheses as applicable.)

01030.60 General - Add the following sentence(s) after the last bullet:

(Use the following paragraph when the "Plant Seeding, ____" Pay Item is included in the Schedule of Items. Obtain information from the Erosion Control Designer and fill in the blank.)

The minimum living plant coverage for woody or other plant seeding is ____ percent of ground surface.

(Use the following paragraph when the "Native Plant Seeding, ____" Pay Item is included in the Schedule of Items. Obtain information from the Erosion Control Designer and fill in the blank.)

The minimum living plant coverage for native plant seeding is ____ percent of ground surface.

01030.61(b) All Other Seeding - Replace the bullet that begins "The seeding Establishment Period..." with the following bullet:

- The seeding Establishment Period will end 45 Days after the beginning of the Establishment Period, if the area was seeded within the seeding dates according to 01030.43, and all establishment responsibilities have been met.

Replace the bullet that begins "If the original seeding construction..." with the following bullet:

- If the original seeding construction is completed and accepted outside the permanent seeding dates, the Establishment Period will end 45 Calendar Days after all necessary reseeding is completed and accepted during the following seeding dates according to 01030.43.

01030.62(b)(3) Weed Control - Replace this subsection, except for the subsection number and title, with the following:

Kill and remove Specified Weeds as directed, prior to the Weeds going to seed. Keep WMAs and seeded areas, Weed Free throughout the Establishment Period.

01030.90 Payment – Delete Pay Items (l) and (m) from the Pay Item list.

(Use the following two paragraphs when topsoil, wetland soil soil amendments or bio-amendments are required.)

Add the following to the end of this subsection:

Soil testing, topsoil, wetland soil, soil amendments, and bio-amendments will be paid for according to 01040.90.