

Typical and Non-Typical Out-planting Practices Used on National Forest Lands in the Intermountain West



2022 Joint Annual Nursery Meeting: The Reforestation Pipeline in the Western United States

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Topic Outline



Reforestation Pipeline



Outplanting Practices



Implementation Methods



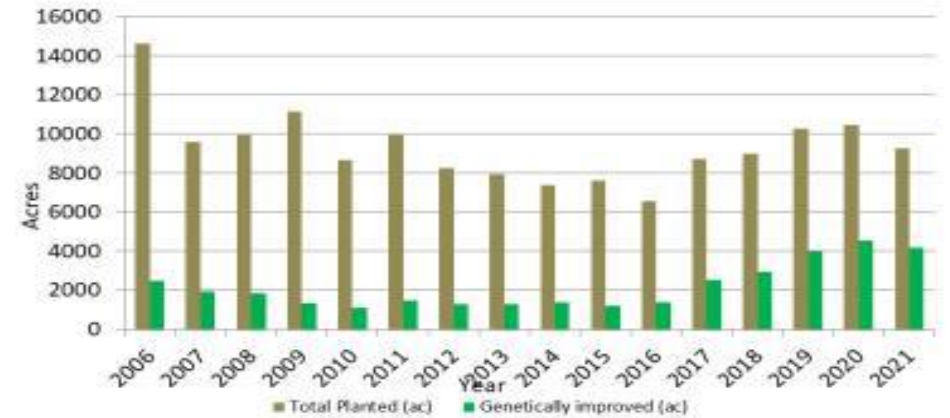
Reforestation Pipeline



Reforestation Pipeline: Planning

Genetics Resource Program
Ten Year Seed Planning

R1 Acres Planted from Seed Orchard, Clone Bank and Seed Production Areas (44.9% (± 10.9) of total acreage)



Source: WO Silvicultural Accomplishment Report, Table 7

Seed Procurement Plan - Flathead National Forest

Initial plan date: 1/31/2022 Complied By: Sam Bailey, Elliott Meyer & Ellen Mering Reviewed By: Karl Anderson & Michael Reichenberg

WESTERN LARCH - Montana Breeding Zones

WL seedlings per pound of seed = 40270 Ref: R1 FSH 2409.26f 131-EX2 Container

Dist.	Spp.	Elev Band	BZ	Operational + Existing Needs Planting							Large-Scale Disturbance Planting							Totals		
				Operational Planting (AC)	Trees per Acre	Seedlings Req'd (M)	Seed Needs * (lb)	Forest Inventory (lb)	Other Inventory (lb)	Seed Available (lb)	Collection Needs (lb)	Large Scale Disturb Planting (AC)	Trees per Acre	Seedlings Req'd (M)	Seed Needs * (lb)	Forest Inventory (lb)	Other Inventory (lb)	Seed Available (lb)	Collection Needs (lb)	Total Seed Needs (lb)
	WL	<1900	MTLL	0		0.0	0.0	0.0	0.0	0.0	0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	WL	1901-2600	MTLL	0		0.0	0.0	0.0	0.0	0.0	0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	WL	2601-3300	MTLL	143		21.2	0.5	0.0	0.5	0.5	97		24.3	0.6	0.0	0.0	0.6	1.1	0.6	
	WL	3301-4000	MTLM	2190		317.9	7.9	2.8	5.2	8.0	400		100.0	2.5	0.0	0.0	2.5	10.4	2.4	
	WL	4001-4700	MTLM	4582.2		897.7	22.3	0.0	10.3	10.3	2000		500.0	12.4	0.0	0.0	12.4	34.7	24.4	
	WL	4701-5400	MTHI	2448.2		440.4	10.9	0.0	11.0	11.0	1425		356.3	8.8	0.0	0.0	8.8	19.8	8.8	
	WL	5401-6100	MTHI	172.6		28.5	0.7	0.0	0.7	0.7	850		212.5	5.3	0.0	0.0	5.3	6.0	5.3	
	Totals - Forest			9536		1705.7	42.4	2.8	27.7	30.5	4772		1193.0	29.6	0.0	0.0	29.6	72.0	41.5	

NOTE:

Agreed upon between the Lolo and IPNF to share 14 lbs and 9 lbs of WL MTHI seed from the Flathead after further adjustments from Fire on the Flathead will need to discuss further with those Forest on how much Seedlings per pound of seed value (Q4) is automatically used in the equation for seed needs (col H and P) based on seedlings reqd (col G and O)
Operational and Existing Need: Current needs plus 10-year needs due to harvest
Large Scale Disturbance: predicted level of planting/seed needed for unforeseen large disturbance events over next 10 years.

Reforestation Pipeline: Planning, Assessments & Field Surveys

Reforestation Needs Assessments, Data Entry, and
Field Verification of Modelled Assessments

Mobile App Development

- Pre-Plant Surveys
- Stocking Surveys
- Survival Surveys

R1234 Reforestation Pre-Plant Survey

R1 2 3 4 Reforestation Pre-Plant Survey

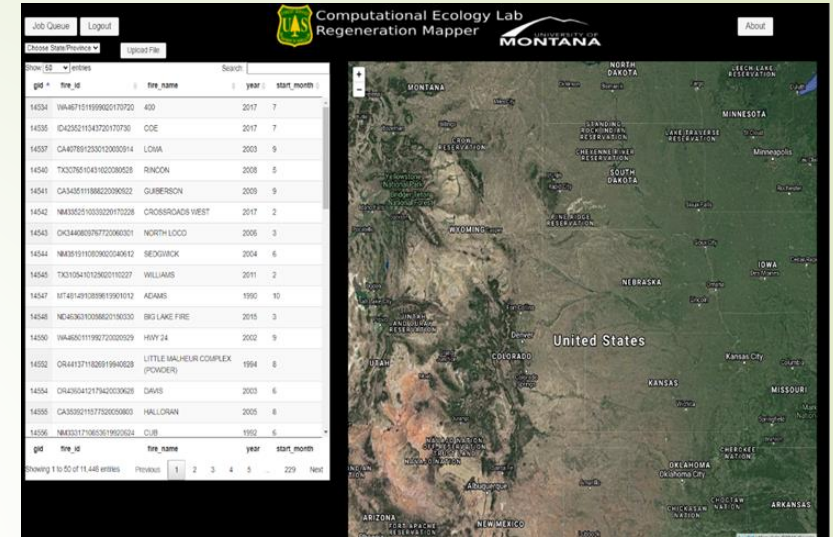
Enter name(s) of data collector(s):

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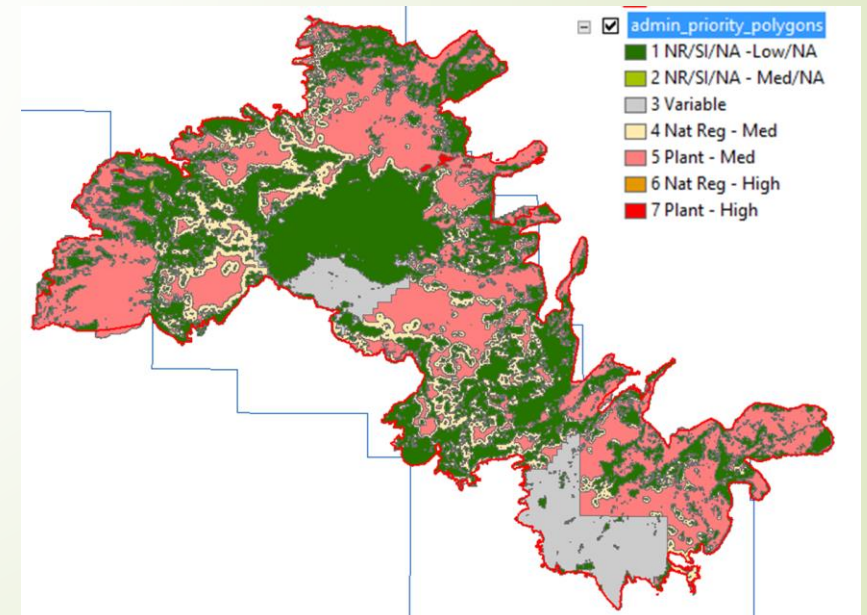
Tuesday, April 28, 2020 10:45 ...

▶ FACTS Spatial Polygon Information

▶ Information about the Planting Unit



Regenmapper Model: <https://orthanc.dbs.umt.edu/regenmapper>



Reforestation Pipeline: Implementation

Seed Collection:

Tree Improvement Area &
Woodsrun

Tree Climbing Task Force



Reforestation Pipeline: Implementation

Sow & Grow:
The Role of National
Reforestation
Partnerships



Forest Service National Reforestation Partnership Proposal - FY: 2023

Proposal #: 0402-FY2023-28

Section 3: Project Details							
Fiscal Year of Implementation	2023						
Species to be Planted	<table border="1"><thead><tr><th>Species Name</th><th>Species Percent</th></tr></thead><tbody><tr><td>PIPO,ponderosa pine</td><td>90%</td></tr><tr><td>PSME,Douglas-fir</td><td>10%</td></tr></tbody></table>	Species Name	Species Percent	PIPO,ponderosa pine	90%	PSME,Douglas-fir	10%
Species Name	Species Percent						
PIPO,ponderosa pine	90%						
PSME,Douglas-fir	10%						
Total Number of Seedlings to be Planted	418,609						
Total Seedling Cost	\$ 293,026						
Implementation Month(s)	April/May						
Project Size in Acres	2,663						



Outplanting Practices



Outplanting Practices: Cooler Maintenance

Annual Maintenance & Pre-Planting Season Checks

REPLANT Act Funding Efforts



REFORESTATION PIPELINE INFRASTRUCTURE RESEARCH DOCUMENTATION (Required for all new awards unless planned as a Task Order/Delivery Order/BPA Call using an existing FS or USDA contract/BPA)

Existing Facilities and/or HVAC Maintenance and Repair Mechanisms

- R1, R2, R4 specific
- Others on schedule not listed here may be applicable nationally (see other links in table).

Information Source/Type	Service Location	Vendor Name /Contact Info	Unique Entity ID#	Contract # (if applicable)	Active in SAM	Services Covered/Notes
Facilities Maintenance/Light Construction IDIQ	R1 RO, Lolo NF, MTDC, AFD Missoula, Granite, Mineral, and Sanders Counties, MT	Abatement Contractors of Montana LLC PO Box 8747 Missoula, MT 59807	DUNS: 187421727 TIN: 13-4303397 CAGE Code: 43BC9	AG-0343-C-17-0035	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Carpenter, Roofer, Laborer, carpet/vinyl flooring installation, Tiler, Electrician, Mechanical/HVAC, Plumber, Painter, Environmental Technician. Expired June 2022; Extended through December 2022
Facilities Maintenance/Light Construction IDIQ	Flathead NF, Flathead, Lake, and Missoula Counties, MT	BioSeal, LLC 191 Canyon View Dr. Livingston, MT 59047	DUNS: 182075064 TIN: 75-3133912 CAGE Code: 50R14	12034319D0020	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Carpenter, Roofer, Laborer, carpet/vinyl flooring installation, Tiler, Electrician, Mechanical/HVAC, Plumber, Painter, Environmental Technician.

Out-planting Practices: Site & Seedling Preparation

Site Preparation
Bareroot Dipping
Clearing and Scalping



Out-planting Practices: Typical Tree Planting Practices

Transport Mechanisms

Micrositing

Tools & Methods

Regular Spacing

Interplanting





Out-planting Practices: Non-Typical Tree Planting

Per thousand tree

Group/Clump
Planting

Aspect Planting

Variable Density
Planting

Per
Planter/Specialized
Tree Planting

Outplanting Practices: Shade & Animal Damage Control



Shade/Rigid Tubes & Tree
Shelters

Flexible and Rigid Netting

Gopher Protection
Baiting –Strychnine Oats





Implementation Methods

Implementation Methods



Contracts

Good Neighbor Agreements (GNA)

Stewardship Contracting

In-House (Force Account)



OFFEROR'S COPY	
NOTE: Attached forms must be completed and submitted intact.	
Issuing Office: U.S. Department of Agriculture Forest Service Northern Region (R-1) 24 Fort Missoula Road Missoula, Montana 59804	
Offers Are Solicited For: R1 TREE PLANTING IDIQ 01 (8A) Lolo National Forest Bitterroot National Forest Flathead National Forest Missoula Area BLM and all of Region 1 if necessary	
Solicitation No. 12034320Q0130	HELP PREVENT FOREST FIRES
IMPORTANT - NOTICE TO OFFEROR 1. This is a complete copy. Information and instructions for submission of proposals as well as contract provisions and specifications are contained in this OFFEROR REFERENCE COPY. This copy should be retained by offerors.	
 FS-6300-45 (11/79)	



Questions?