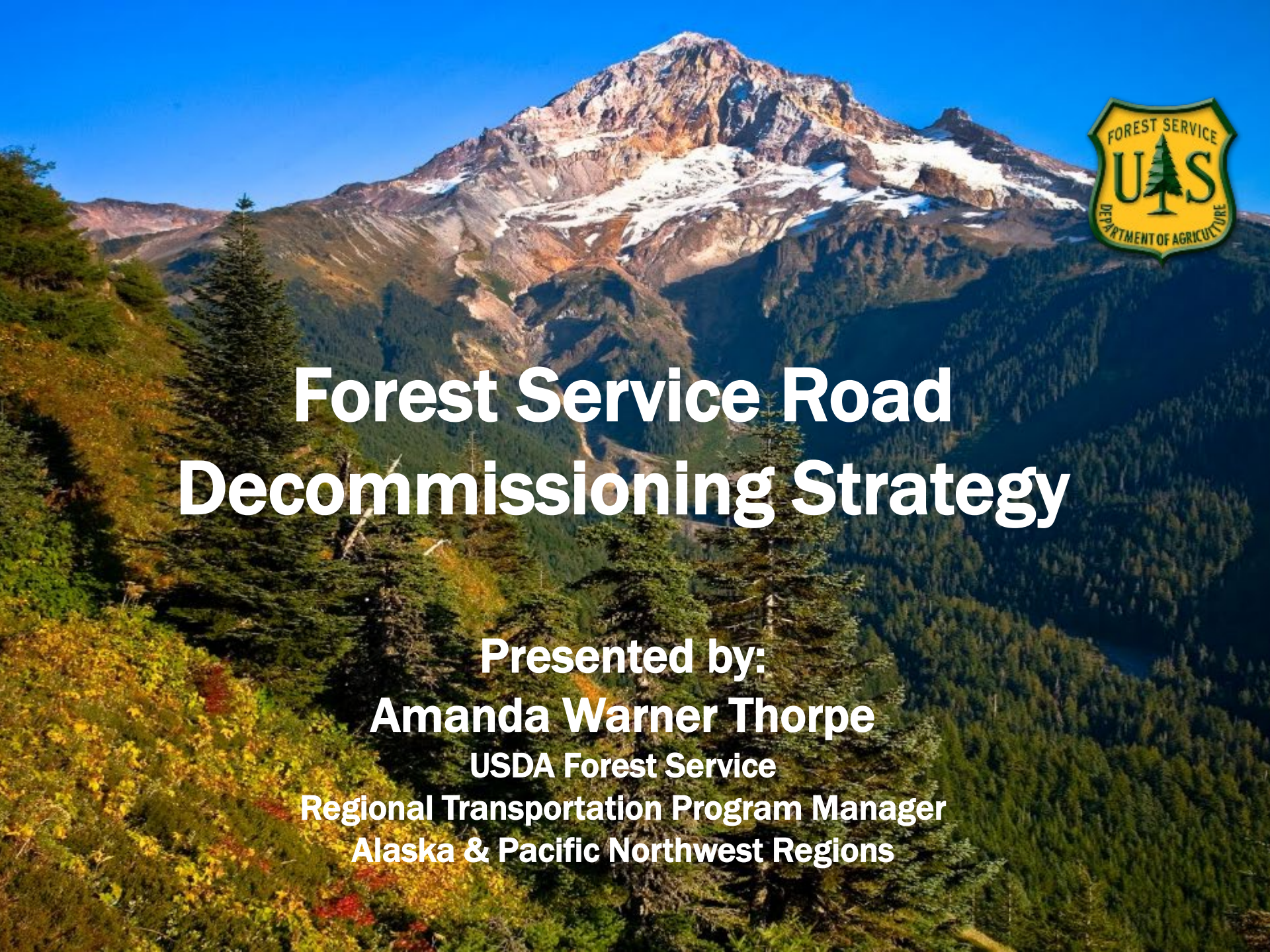


Forest Service Road Decommissioning Strategy

Presented by:

Amanda Warner Thorpe

USDA Forest Service

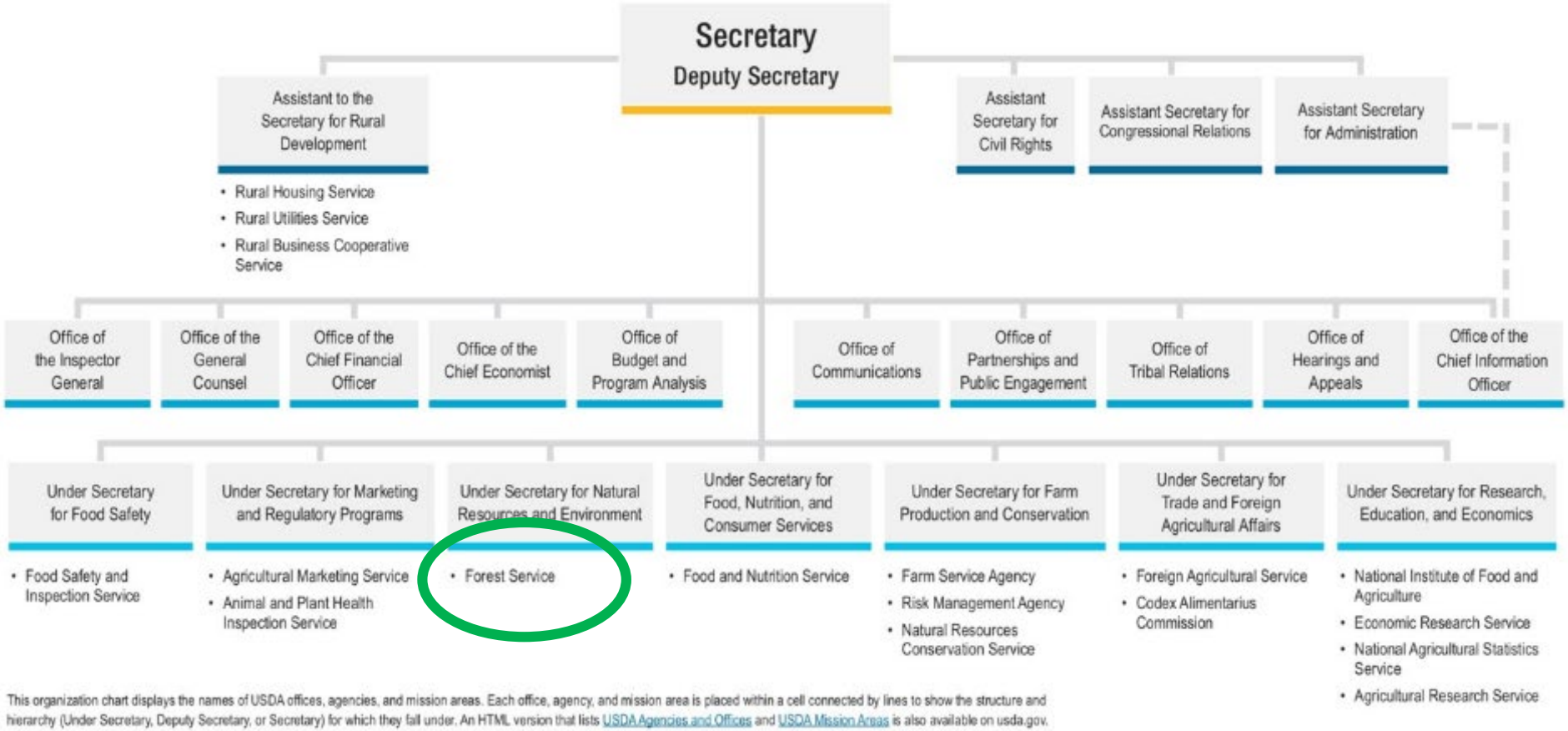
Regional Transportation Program Manager

Alaska & Pacific Northwest Regions

Regional Programmatic Perspective on Road Decommissioning

- Strategic Goals & Direction
- Why we decommission
- How we make the hard decisions to decommission
- Different Decommissioning Objectives & Treatments

USDA Organization Chart



This organization chart displays the names of USDA offices, agencies, and mission areas. Each office, agency, and mission area is placed within a cell connected by lines to show the structure and hierarchy (Under Secretary, Deputy Secretary, or Secretary) for which they fall under. An HTML version that lists USDA Agencies and Offices and USDA Mission Areas is also available on usda.gov.

Secretary Perdue's 7 Strategic Goals for USDA

Strategic Goals for FY2018-2022

1. Ensure USDA programs are delivered efficiently, effectively, and with integrity and a focus on customer service.
2. Maximize the ability of American agricultural producers to prosper by feeding and clothing the world.
3. Promote American agricultural products and exports.
4. **Facilitate rural prosperity and economic development.**
5. Strengthen the stewardship of private lands through technology and research.
6. **Foster productive and sustainable use of our National Forest System Lands.**
7. Provide all Americans access to a safe, nutritious and secure food supply.

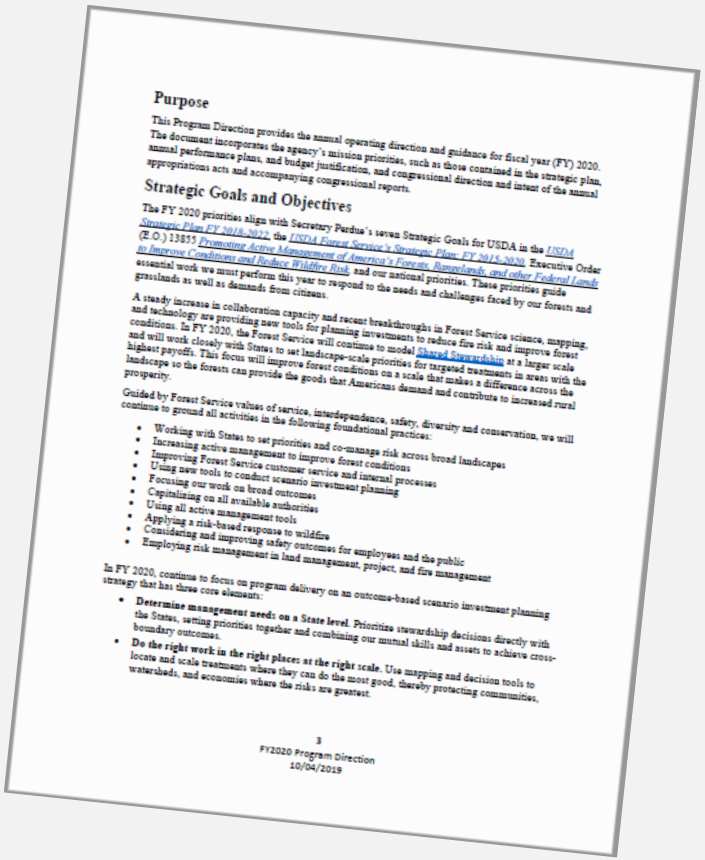
Forest Service Strategic Plan: FY 2015-2020

FY2020 Forest Service National Program Direction

Chapter 2: Citizen Services

For anticipated result to protect and improve public access to National Forests and Grasslands,

“Limit new road closures and road decommissioning only to activities for public safety, significant environmental risk, or as required by law and regulation or as negotiated with state or local governments.”



Purpose

This Program Direction provides the annual operating direction and guidance for fiscal year (FY) 2020. The document incorporates the agency's mission priorities, such as those contained in the strategic plan, annual performance plans, and budget justification, and congressional direction and intent of the annual appropriations acts and accompanying congressional reports.

Strategic Goals and Objectives

The FY 2020 priorities align with Secretary Perdue's seven Strategic Goals for USDA in the *USDA Strategic Plan FY 2018-2022*, the *USDA Forest Service's Strategic Plan: FY 2015-2020*, Executive Order (E.O.) 13855 *Promoting Active Management of America's Forests, Rangelands, and other Federal Lands to Improve Conditions and Reduce Wildfire Risk*, and our national priorities. These priorities guide essential work we must perform this year to respond to the needs and challenges faced by our forests and grasslands as well as demands from citizens.

A steady increase in collaboration capacity and recent breakthroughs in Forest Service science, mapping, and technology are providing new tools for planning investments to reduce fire risk and improve forest conditions. In FY 2020, the Forest Service will continue to model Shared Stewardship at a larger scale and will work closely with States to set landscape-scale priorities for targeted treatments in areas with the highest payoffs. This focus will improve forest conditions on a scale that makes a difference across the landscape so the forests can provide the goods that Americans demand and contribute to increased rural prosperity.

Guided by Forest Service values of service, interdependence, safety, diversity and conservation, we will continue to ground all activities in the following foundational practices:

- Working with States to set priorities and co-manage risk across broad landscapes
- Increasing active management to improve forest conditions
- Improving Forest Service customer service and internal processes
- Using new tools to conduct scenario investment planning
- Focusing our work on broad outcomes
- Capitalizing on all available authorities
- Using all active management tools
- Applying a risk-based response to wildfire
- Considering and improving safety outcomes for employees and the public
- Employing risk management in land management, project, and fire management

In FY 2020, continue to focus on program delivery on an outcome-based scenario investment planning strategy that has three core elements:

- **Determine management needs on a State level.** Prioritize stewardship decisions directly with the States, setting priorities together and combining our mutual skills and assets to achieve cross-boundary outcomes.
- **Do the right work in the right places at the right scale.** Use mapping and decision tools to locate and scale treatments where they can do the most good, thereby protecting communities, watersheds, and economies where the risks are greatest.

3
FY2020 Program Direction
10/04/2019

USFS Transportation Data

- Nationally – About 267,000 miles of open road and 103,000 miles of closed (stored) road

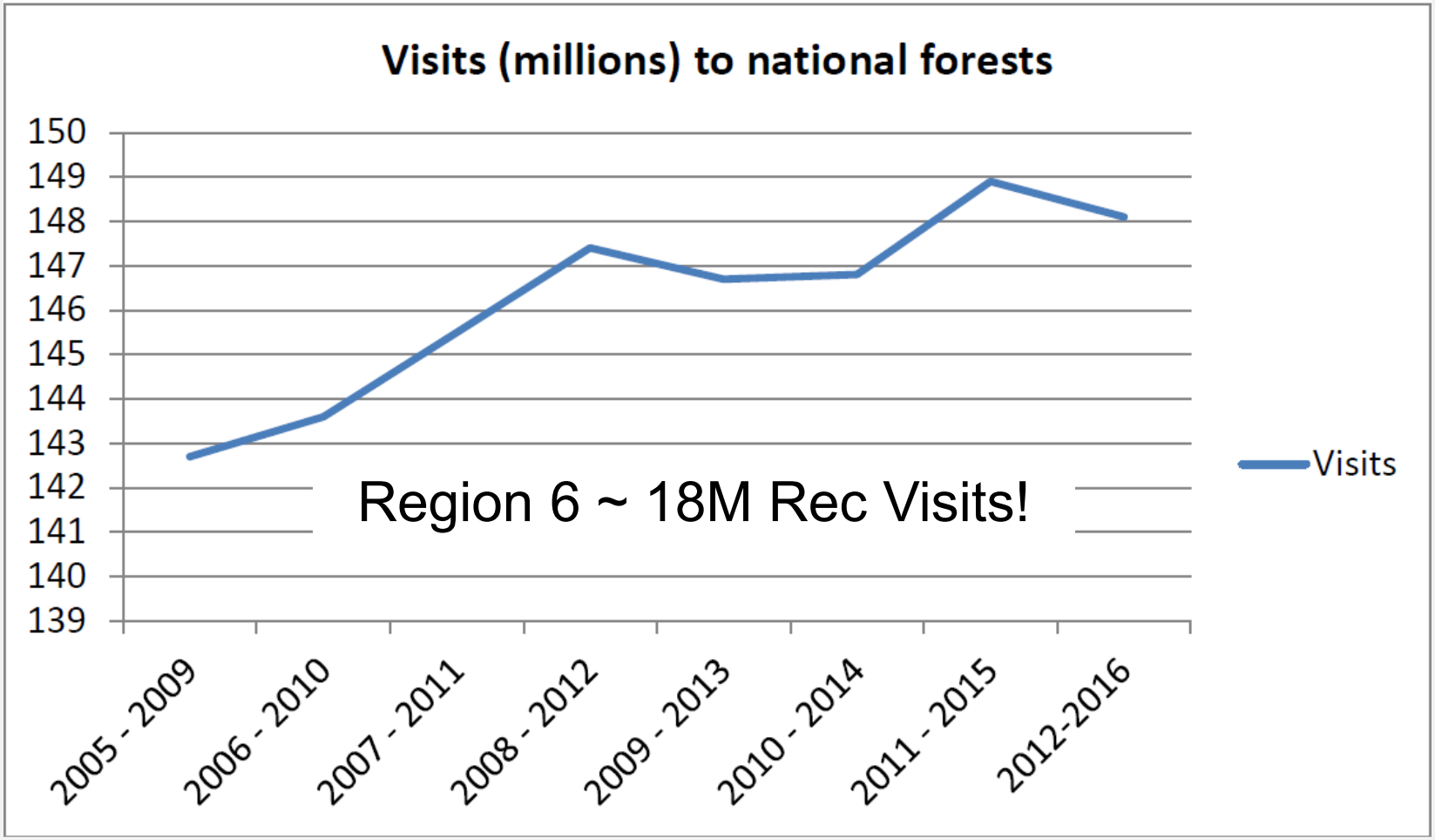
Earth's C = 24,900 mi
Total System can Circle the Globe **11 Times!**

- Regionally – About 89,500 miles (24% of the nation)
  - ~65% open roads (maintained for public/admin purposes)
  - ~35% closed roads

ODOT = 7,990 miles
WSDOT = 7,050 miles
} 15,040 miles

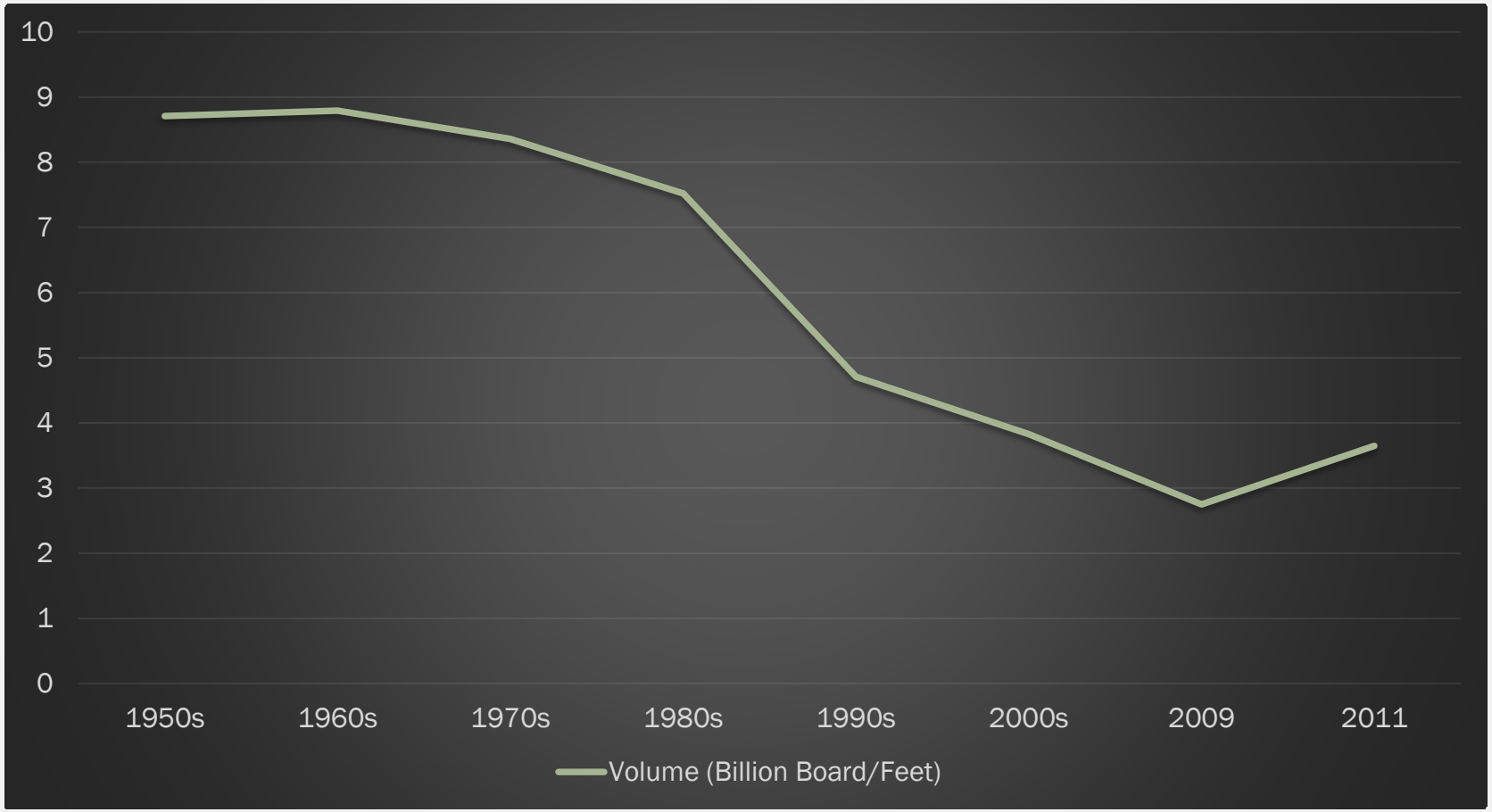
This is only <u>17%</u> of USFS roads!

USFS Data – National Visitor Use Monitoring Data (FY12-16)



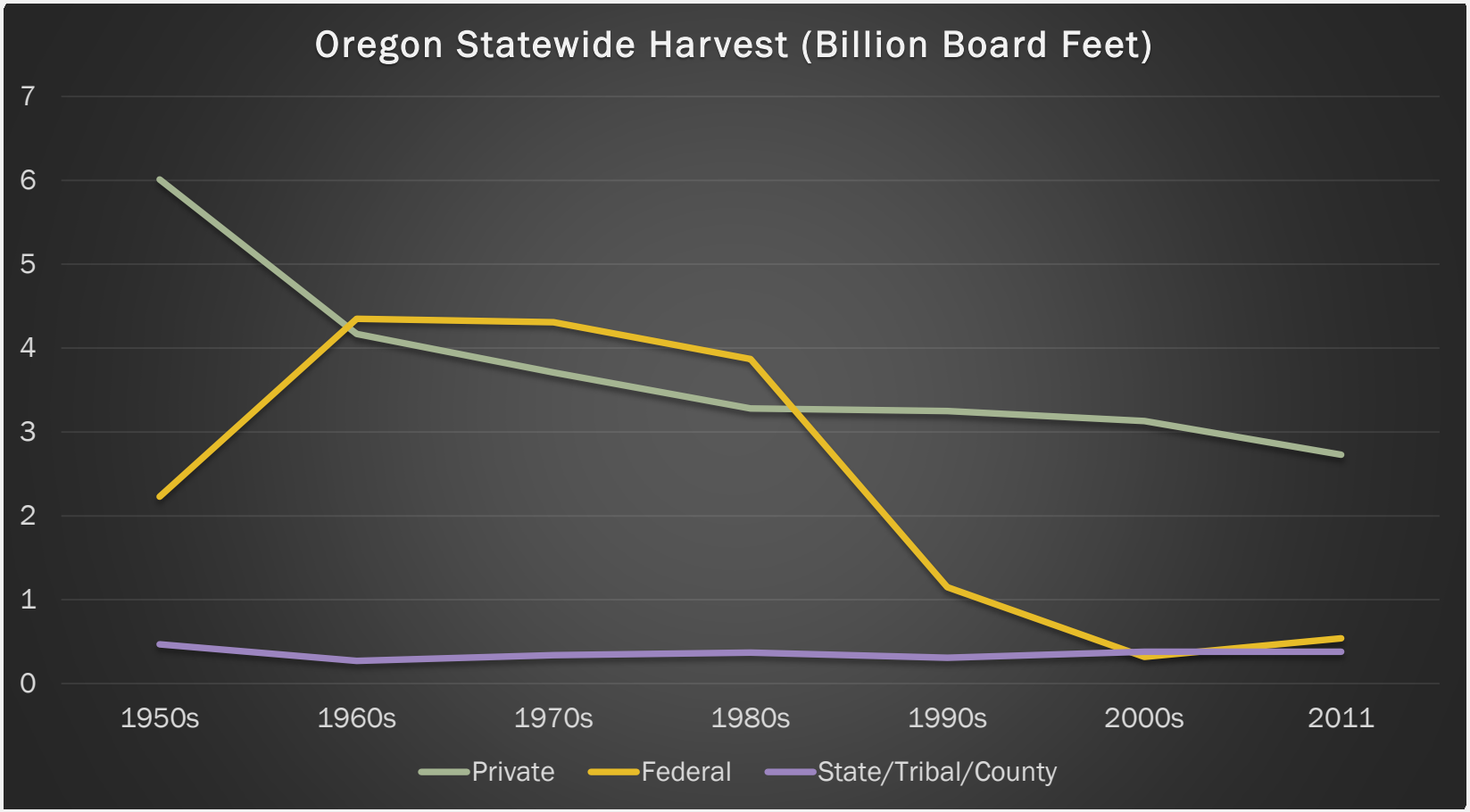
ECOLOGY TECHNOLOGY PROTECTION INTERACTIONS SAVINGS ADAPTATION ECO
RESOURCES
ADAPTATION

Oregon Timber Harvest Annually – All Ownerships



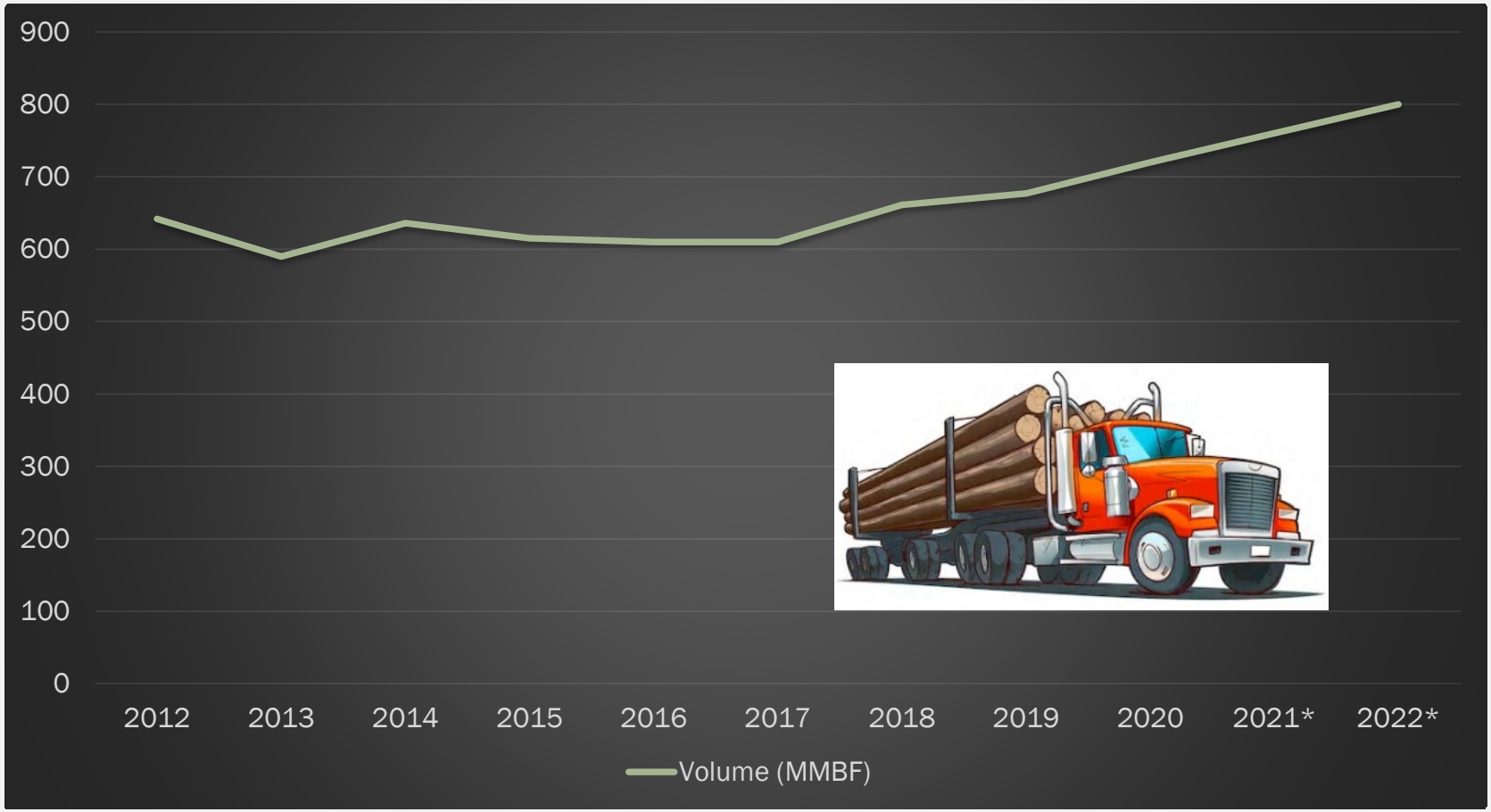
Per Associate Oregon Loggers, Inc.

Oregon Timber Harvest by Jurisdiction



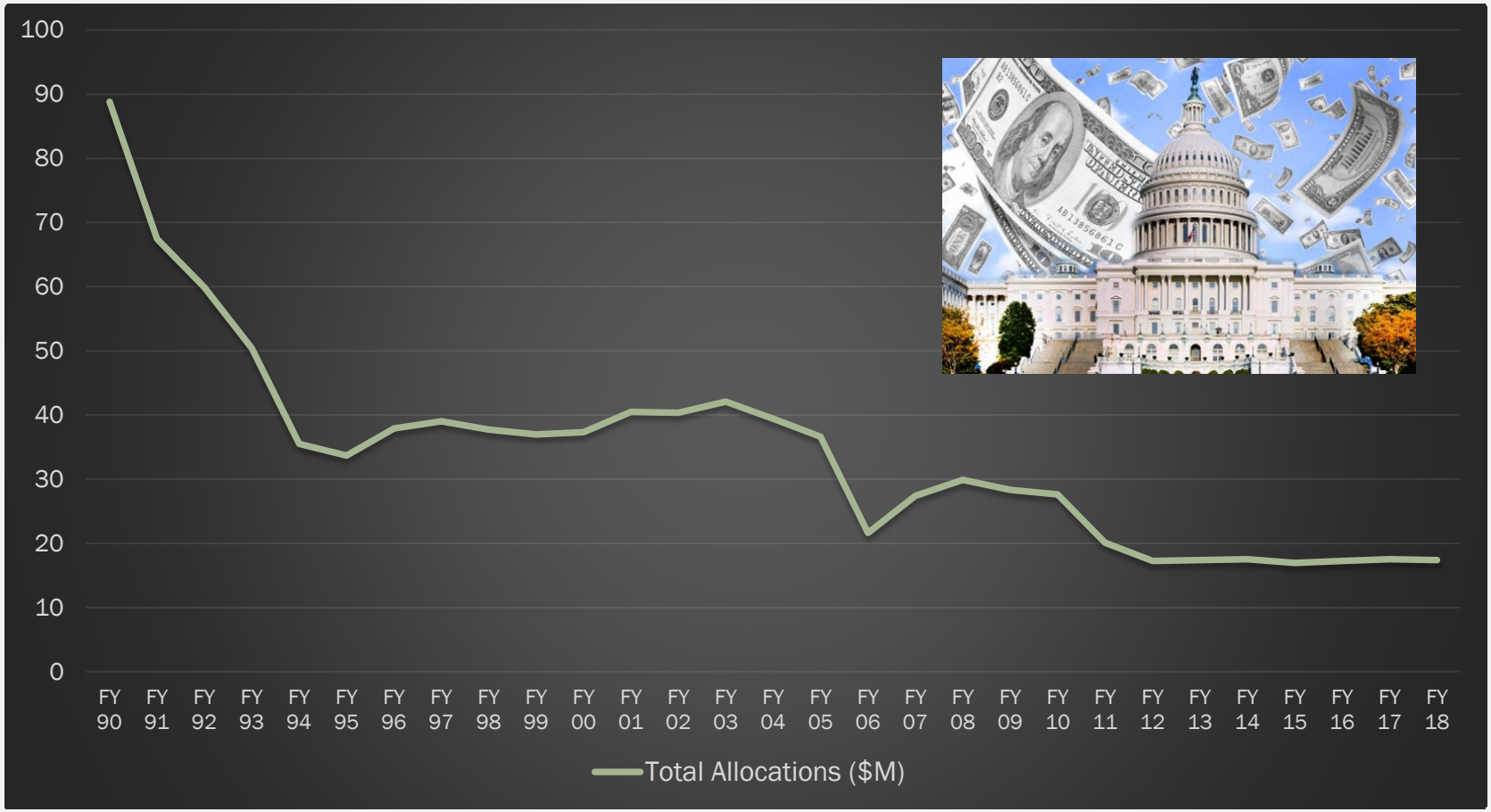
Per Associate Oregon Loggers, Inc.

USFS Timber Volume Trend (2012 – 2022)



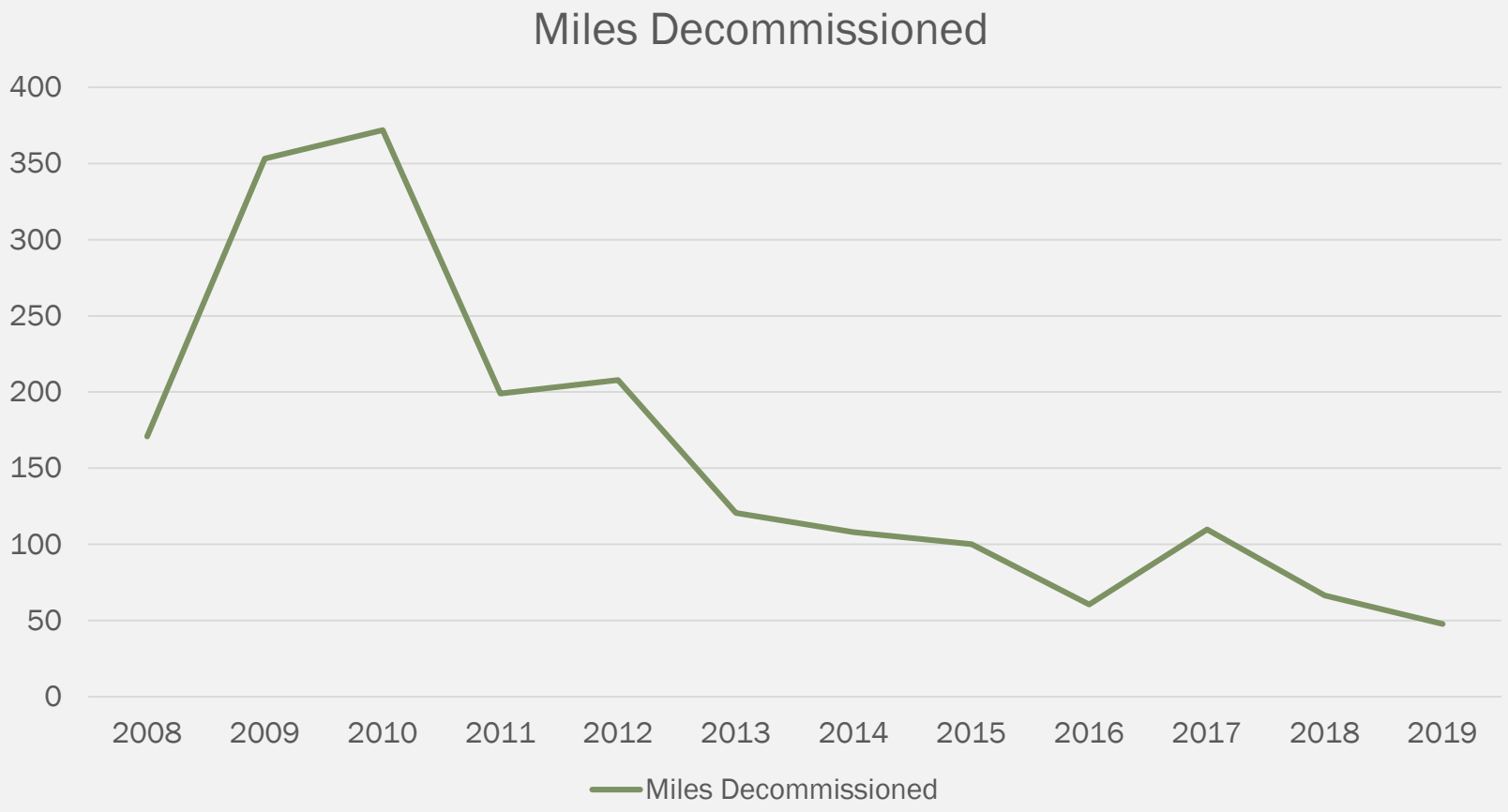
* Projected Target Assignment – Subject to Change

USFS Transportation Budget Trend – Region 6



Per Associate Oregon Loggers, Inc.

Region 6 Decommissioning Trend



Travel Management Overview – 2005 Travel Rule

2005 Travel Management Rule

Subpart A – Administration of the Forest Transportation System

Identify minimum road system to better match available funding with recurrent road maintenance cost.

Identify roads recommended “needed” and “not needed” for future long term land management use.

Subpart B – Designation of Roads, Trails, and Areas for Motor Vehicle Use

Determine where, and if appropriate, when motor vehicles may be operated (with the focus being recreational use of roads, trails, areas, and stop uncontrolled cross-country motorized travel).

Forests were to create a Motorized Vehicle Use Map.

How to Determine IF we Decommissioning Roads?

Collaborate
(public input)

Coordinate
(governments and tribes)

Investigate
(do the proper analyses and address environmental criteria)

Implement

Monitor

First… proper planning.

Second… implementation.

Road Decommissioning Definition, Authority & Policy

Decommissioning a Road: Reestablishing vegetation and, if necessary, initiating restoration of ecological processes interrupted or adversely impacted by the unneeded road.

Authority:

The Forest and Rangeland Renewable Resources Planning Act (16 USC 1608) requires that within 10 years after it is determined that a road is no longer needed, vegetative cover be reestablished on the road by either artificial or natural means.

Objective:

Stabilize, restore, and revegetate unneeded roads to a more natural state to protect and enhance NFS lands. (FSM 7734.1)

Road Decommissioning Treatments

1. Reestablishing former drainage patterns, stabilizing slopes, and restoring vegetation;

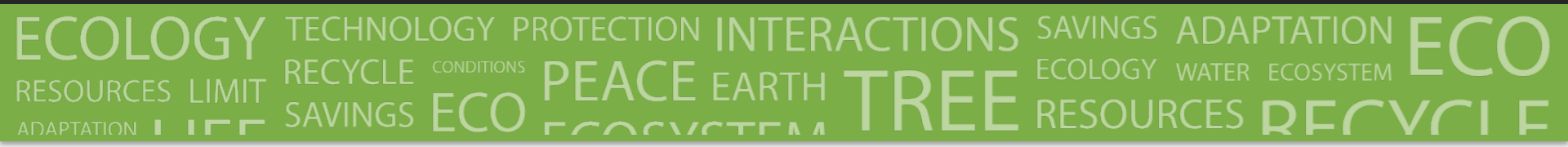
2. Blocking the entrance to a road or installing water bars;

3. Removing culverts, reestablishing drainages, removing unstable fills, pulling back road shoulders, and scattering slash on the roadbed;

4. Completely eliminating the roadbed by restoring natural contours and slopes; and

5. Other methods designed to meet the specific conditions associated with the unneeded road.
(FSM 7734.02)

Treatment Type – Block Road Entrance



Road Entrance Treatments

The objective or road entrance treatment is to physically prevent motor vehicles from entering the road.

Entrance Treatment – Barrier or Berm

Entrance Treatment – Barrier, Boulders, and Logs

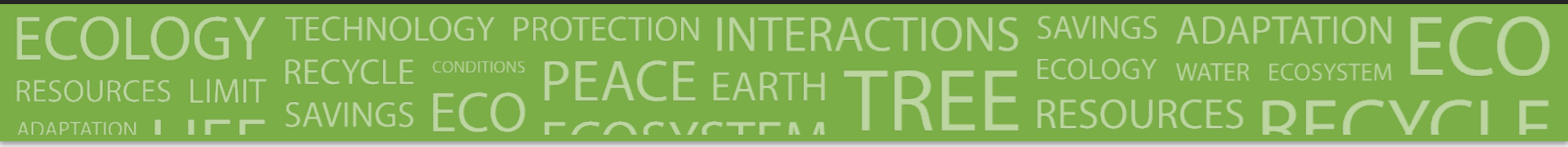
Entrance Treatment – Barrier using Slash

Entrance Treatment by Recontouring

Treating Road Entrances

Treatment	Description	Considerations	Relative cost	Typical equipment
Non-ground-disturbing	Allow road entrance to return to more natural condition by natural means. Remove all unnecessary entrance signs, including route markers and regulatory signs. Install appropriate travel management signs.	No traffic or safety concerns at road entrance. Low risk for resource impacts. Current use is minimal. Entrance can be easily revegetated in a short or reasonable amount of time.	$	None.
Barriers	A closure device (other than a gate) that physically blocks motor vehicles. Examples include: berms, boulders, slash, logs, waterbars, and guardrails.	Road has current use. Barrier mitigates safety concerns. Protect treatment investments. Entrance has not or will not revegetate in a reasonable amount of time.	$	
Recontour	Restore road entrance to a more natural topography by recontouring to provide a more acceptable physical appearance.	Reestablishing natural drainage patterns is a priority. Maintaining effective physical barriers is difficult. Visual quality is a concern.	$$	

Treatment Type – Improve Road Drainage



Road Drainage Treatments

The objective of treating drainage features is to prevent resource damage, eliminate the need for future drainage maintenance, and in some places, to improve aquatic organism habitat.

Drainage Treatment – Outslope Road Prism

Drainage Treatment – Remove Relief Culverts

Drainage Treatment – Remove Live Stream Culverts

Drainage Treatment – Remove Structures

Drainage Treatment – Scarify Roadway

Drainage Treatment – Decompact or Subsoil Roadway

Drainage Treatment – Scatter Slash

Entrance Treatment – Remove Ford Crossing

Drainage Treatments

Treatment	Description	Considerations	Relative cost	Typical equipment
Non-ground-disturbing	No physical work done on the ground.	Existing drainages are functioning and have low risk for resource impacts.	None.	None.
Waterbar	Diverts surface waterflow off of the roadway to reduce erosion.	To prevent concentrated flow of water on roadway. To provide drainage where relief culverts have been removed.	$	
Reestablish natural drainage crossings	Reestablish natural drainage crossings that were altered by road construction or maintenance.	To reduce risk of landslides and erosion.	$$	
Outslope prism	Fill ditches, flatten fill slopes, round shoulders, remove berms, and outslope the roadway to allow for natural side slope drainage.	To disperse flow and reduce or eliminate concentration points.	$$	
Remove relief culvert	Remove relief culvert and associated ditches, inlets, and outlets, and replace with outsloped prism and waterbars.	Where there is potential culvert failure. To reduce risk of landslides and erosion. To reduce risk of ditch degradation. Most appropriate for decommissioning or storing roads for an extended time period.	$$	

Drainage Treatments

Treatment	Description	Considerations	Relative cost	Typical equipment
Remove live stream culvert	Remove culvert and recontour site.	When existing culvert is insufficiently sized. Where there is potential for culvert failure. To reduce negative impacts from culverts that restrict flow. To reduce negative impacts to aquatic organisms.	$$$	
Remove at-grade drainage features	Remove open top culvert and replace with outsloped prism and waterbars, or recontour.	Where there is potential culvert failure. To reduce risk of landslides and erosion.	$$$	
Remove major structures such as large culverts and bridges	Remove structure and recontour site.	To remove insufficiently sized, deficient, or unsafe structures. To reduce negative impacts from structures that restrict flow. To reduce negative impacts to aquatic organisms. To eliminate inspection requirements.	$$$	
Scarify roadway	Break up and loosen compacted roadway. Generally 4 to 6 inches in depth.	To reduce surface water velocity and disperse runoff. To establish vegetation.	$	
Decompact or subsoil roadway	Break up and loosen compacted roadbed. Generally 6 to 24 inches or more in depth.	To allow infiltration of rainwater and improve natural runoff patterns. To restore groundwater movement through the roadbed. To enhance vegetative root growth.	$$	
Scatter slash	Scatter slash on roadway, cut and fill slopes, and other disturbed areas.	To reduce water velocity and concentration points. To allow infiltration of rainwater.	$	
Remove ford crossing	Remove constructed features, reestablish drainage, and recontour site.	To improve and enhance drainage to reduce risk of erosion. To eliminate restricting flow that negatively impacts the stream. To reduce negative impacts to aquatic organisms. To remove insufficiently sized, deficient, or unsafe structures.	$$	

Treatment Type – Modify, Reduce, or Remove Road Prisms

Road Prism Treatments

The objective of treating the road prism is to modify, reduce, or remove prisms from the landscape in order to stabilize the area, reduce erosion, and improve drainage.

Prism Treatment – Stabilize Fill Sections

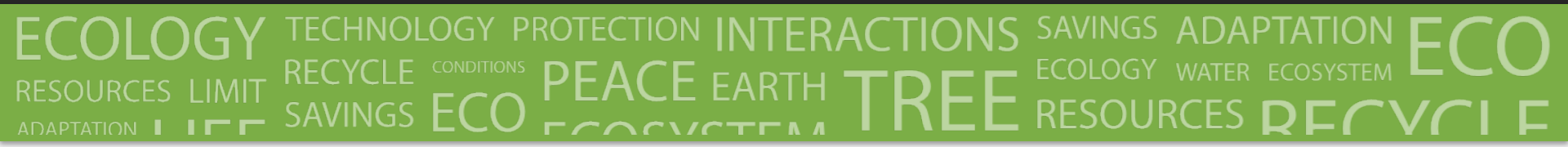
Prism Treatment – Partial Fill Removal

Prism Treatment – Restore Natural Contours

Road Prism Treatments

Treatment	Description	Considerations	Relative cost	Typical equipment
Non-ground-disturbing	No physical work done on the ground.	When there is low risk for future resource impacts from the existing prism.	None.	None.
Stabilize fills	Stabilize portions of fill that are unstable by modifying slopes to reduce risk of erosion or failure.	Use on fills prone to instability due to unstable soils and terrain. When protecting live streams or sensitive habitat is a priority.	$	
Partial fill removal	Place portions of embankment fill in previously excavated areas and recontour to blend into natural slopes.	To enhance revegetation. When restoration of natural slope hydrology is a priority. To enhance or restore aesthetics of disturbed areas.	$$	
Restore natural contour (full recontour)	Remove or replace embankment material in areas where excavation occurred during construction to restore original topography.	When visual quality is a very high priority. To enhance or restore aesthetics of disturbed areas. To enhance revegetation. When restoration of natural slope hydrology is a priority.	$$$	

Treatment Type – Vegetation



Vegetation Treatments

The objective of vegetation treatments is to prevent resource damage, eliminate motor vehicle use, and return areas disturbed by road construction to a more natural state. Establishment of vegetation aids in stabilizing the area and reduces soil erosion.

Vegetation Treatment – Non-Ground Disturbing

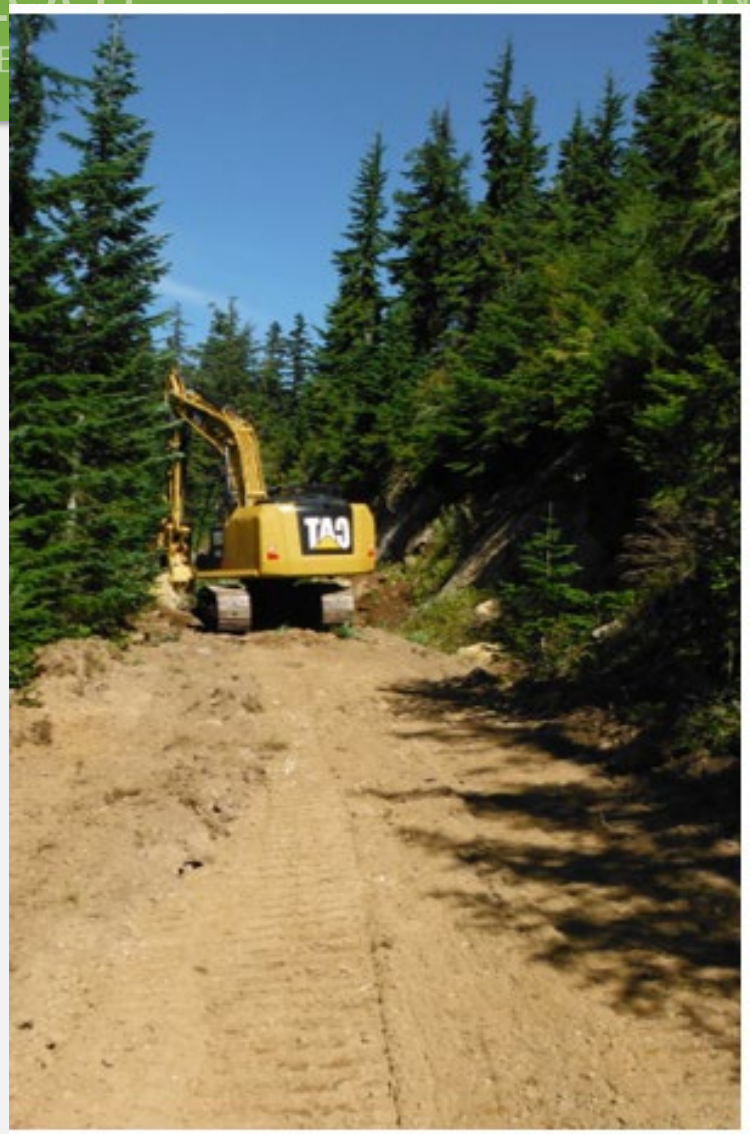
Vegetation Treatment – Scarify/ Decompact Roadway

Vegetation Treatment – Scatter Slash and Brush

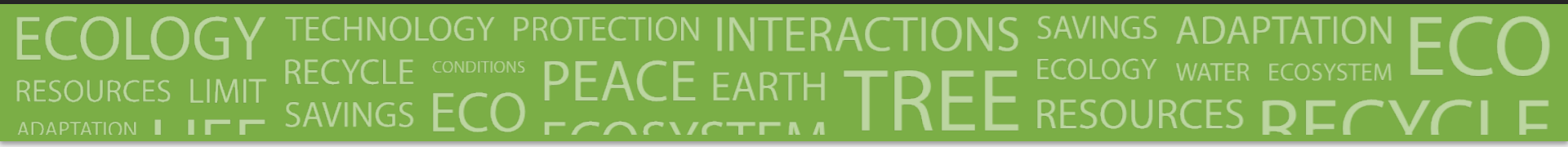
Immediate Results

Long-term Results

Vegetation Treatment – Scatter Slash and Brush



Vegetation Treatment – Transplanting and/or Reseeding



Vegetation Treatment – Mulching

Vegetation Treatments

Treatment	Description	Considerations	Relative cost	Typical equipment
Seeding	Apply seed on disturbed areas.	To reduce and prevent erosion. To establish vegetation.	$	
Mulch	Apply mulch on seeded or disturbed areas.	To reduce and prevent erosion. To establish vegetation. Short-term erosion prevention is needed. Enrich or insulate the soil for seed germination.	$	
Fertilize	Apply fertilizer on seeded or disturbed areas.	To establish vegetation by enhancing soil conditions.	$	

Vegetation Treatments

Treatment	Description	Considerations	Relative cost	Typical equipment
Non-ground-disturbing	Allow road to return to more natural condition through natural revegetation.	Low risk for resource impacts. Current use is minimal. Roadway can be easily revegetated in a short or reasonable amount of time.	None.	None.
Scarify/decompact roadway	Break up and loosen compacted road surface. Generally 4 to 6 inches in depth.	To reduce surface water velocity and disperse runoff. To retain moisture to induce revegetation. Where vegetation will not establish on compacted road surface.	$$	
Scatter slash and brush	Scatter slash and brush on disturbed areas.	To reduce surface water velocity and disperse runoff. To retain moisture to induce revegetation. When camouflaging the road is a priority.	$$	
Transplant	Transplant native plants on disturbed areas.	When aesthetics are a concern. To discourage motor vehicle access. To establish native vegetation.	$$$	

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