2013 Task Force Report: Issues and concerns on costs of sale preparation and cruising in the U.S. Forest Service

2013 Sale Prep Task Force Report

"For the past several years, issues and concerns have been raised about the costs of sale preparation and cruising. These were discussed in a conference call with regional forest management directors in February 2013. The concerns centered on (a) conflicts in current direction for designating and accounting for timber that result in unnecessarily higher costs during this time of low product value and (b) the need to accelerate the pace and scale of restoration. A task force was designated to address these issues and develop recommendations for WO forest management directors and the Regional Forest Management Directors."

Overview

- *Issues*
- *Recommendations*
- *Disposition of those recommendations*

Issues

Planning

- 1) NEPA costs.
- 2) Timber sale mitigation costs and complex silvicultural prescriptions.
- 3) Salvaging timber after a fire.

Issues (continued)

Accountability and Sale Preparation Costs

- 4) Designation by description (DxD) and designation by prescription (DxP) opportunities.
- 5) Weight scaling and load count scaling for low-value material.
- 6) Tracer paint and tree marking.
- 7) Cruising sampling error requirements.

Issues (continued)

Training and Technology

- 8) Sale administration certification requirements.
- 9) Cruising certification maintenance.
- 10) Efficient use of resources and technology

Overview

Recommendations

- *43 Recommendations*
- *About 2/3 have been implemented or on-going*
- *Aligning culture, policies, and procedures are important aspects to a modernization effort*
- *Note: this report was completed before the 2014 Farm Bill was passed.*

Top Recommendations

- ***Basic training in sale development, preparation, and administration is needed for line officers,***
- ***Develop a coherent strategy for comprehensive sale prep training.***
- ***Forest Management needs to clarify the legal basis for and establish standards in DxP***
- ***Encourage use of data recorders, lasers, and GPS in the field.***
- ***Use a strike team format to meet the needs of the timber sale preparation needs in at least one more region***

Recommendations

- *Other thoughts*

  Not there yet in aligning our business practices with restoration

  Pg 14 – "Is it possible to obtain a waiver from section 14(g) in the National Forest Management Act (NFMA) to allow the use of DxP on all timber sales?"

  Yes, it's in the 2014 Farm Bill!

Forest Products Modernization

A STRATEGIC EFFORT DESIGNED TO BETTER ALIGN OUR CULTURE, POLICIES AND PROCEDURES WITH CURRENT AND FUTURE FOREST RESTORATION NEEDS, IN ORDER TO INCREASE THE PACE AND SCALE OF RESTORATION

Thirty Minute Orientation Session

Welcome

- *Introductions*
- *Orientation Session objectives*
  - *develop awareness of the purpose and objectives of the forest products delivery system modernization effort*
  - *develop a basic understanding of the overall project framework*
  - *begin to gather input on who should be involved and the methods and timing for gathering input*

This is a first step in a phased approach to stakeholder engagement. Today's session is intended to build awareness and gauge interest. Future opportunities will be provided for those interested that will include more time for sharing ideas.

Project Context

- *Elevator Speech*
- *Purpose Statement*
- *Historic Timeline*

Purpose

The Forest Products Modernization effort is a strategic effort designed to better align:

- *our traditional volume-focused timber culture, policies, and procedures with current and future forest restoration needs, the goals and objectives of our Strategic Plan, and the USDA Secretary's four principles.*

Elevator Speech

- *We want to be the best at forest products delivery*
- *We need to change our systems to ensure sustainable, healthy forests and public benefits*
- *We need help from our agency practitioners & our partners*

Forest Products Modernization

A strategic effort designed to better align our culture, policies and procedures with current and future forest restoration needs, in order to increase the pace and scale of restoration

What

The Forest Service wants to be the best at forest products delivery in the country. The Agency is identifying ways to improve and modernize our systems that produce forest products. By "systems," we mean policies, authorities, practices, and tools that drive how we plan and implement projects that produce forest products. Continuing to be the best means constantly improving and making a commitment to excellence in all that we do.

Why

Our forests need careful management more than ever in the face of changing climate, wildfire, insects and diseases and other forces that threaten their future sustainability. And our rural and urban communities need the many benefits of healthy forests. Our systems served us well in the past, but they need to evolve to keep up with changes in technology, markets, and in some places, changed forest conditions, while better supporting rural economies. We have the opportunity to change how we work so we can more effectively address forest health conditions, create sustainable landscapes, and increase the amount of forest products coming from National Forests.

How

We need great ideas and support from the field, thus, we are designing engagement sessions to build support and make progress. A small team of line officers, directors, and national staff have identified a preliminary list of systems that are working well, not working well, or need improvement. The team will engage a representative sample of practitioners to validate what's on the list and identify what is missing. These engagement sessions will range from 1-hour to multiple day engagements. Feedback gained in these sessions will further inform how we will become the best forest products delivery organization in the country.

Purpose, continued

- *We have estimated restoration treatment needs on National Forest System lands between 65 and 82 million acres*
- *Our forests need careful management and stewardship more than ever in the face of changing climate, wildfire, insects and diseases and other forces that threaten their sustainability;*
- *Healthy forests and delivery of timber and other forest products support rural and urban communities and economies*

Purpose, continued

- *Successful forest restoration efforts cannot be exclusively timber-based yet many of our timber sale policies, procedures and practices are based in timber as a commodity*
- *Our systems served us well in the past, but they need to evolve to keep up with changes in technology, markets, and in some places, changed forest conditions, while better supporting rural economies*
- *We have new authorities (Good Neighbor Authority, Farm Bill) that provide more flexibility but are not fully utilized across the agency*

Purpose Statement, continued

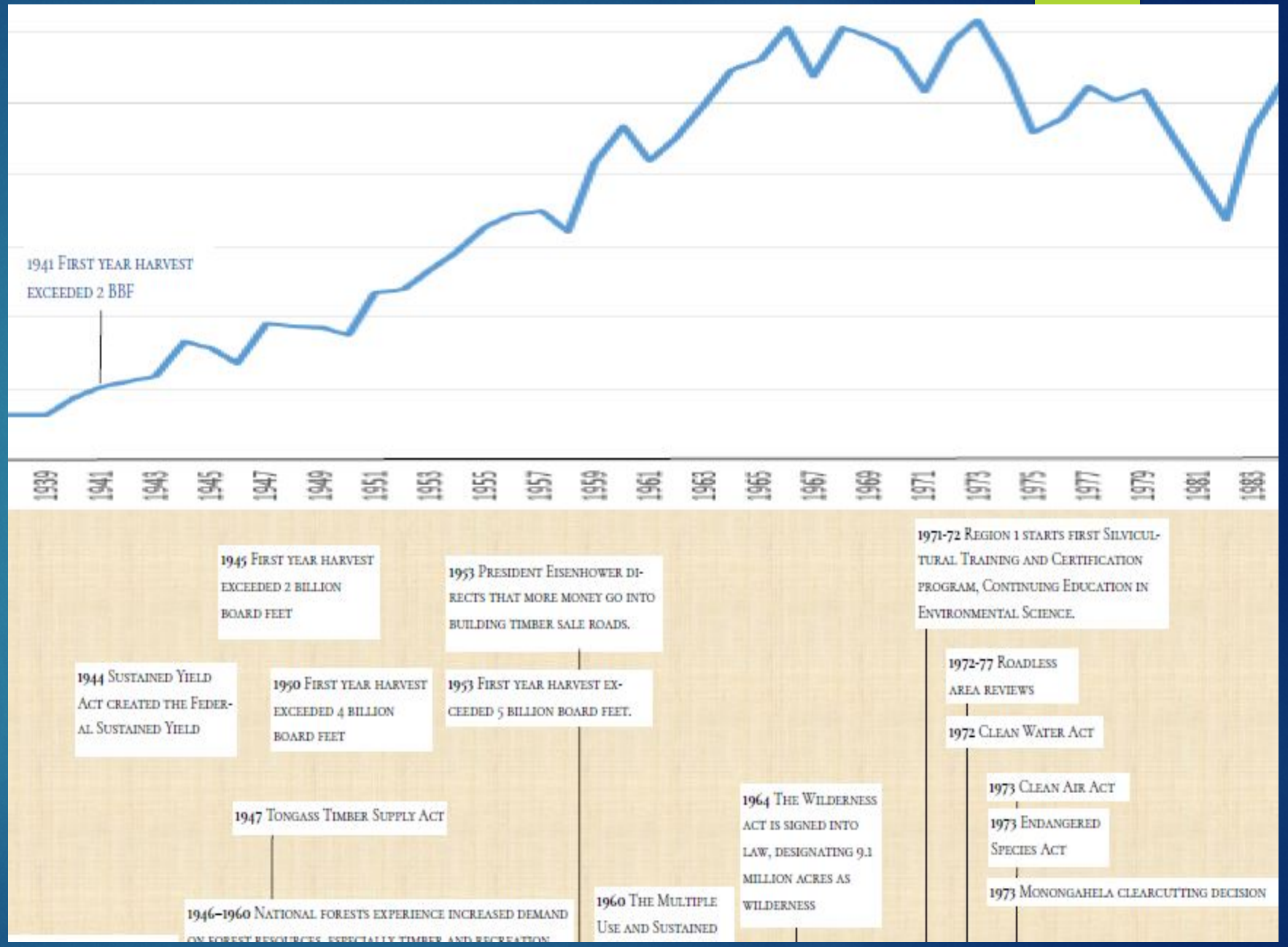
This adds up to a continued and urgent need to increase the pace and scale of restoration at the regional-, forest- and district-level.

There is a need to:

- *Continue to develop and strengthen integrated, collaborative approaches to forest restoration emphasizing strong partnerships*
- *Ensure forest restoration efforts support jobs, rural economies and local milling infrastructure and encourage the development of additional infrastructure*
- *Better align our agency culture and internal policy, direction, and guidance to be more agile and flexible to more efficiently meet current, and readily adapt to future, forest restoration needs and challenges*

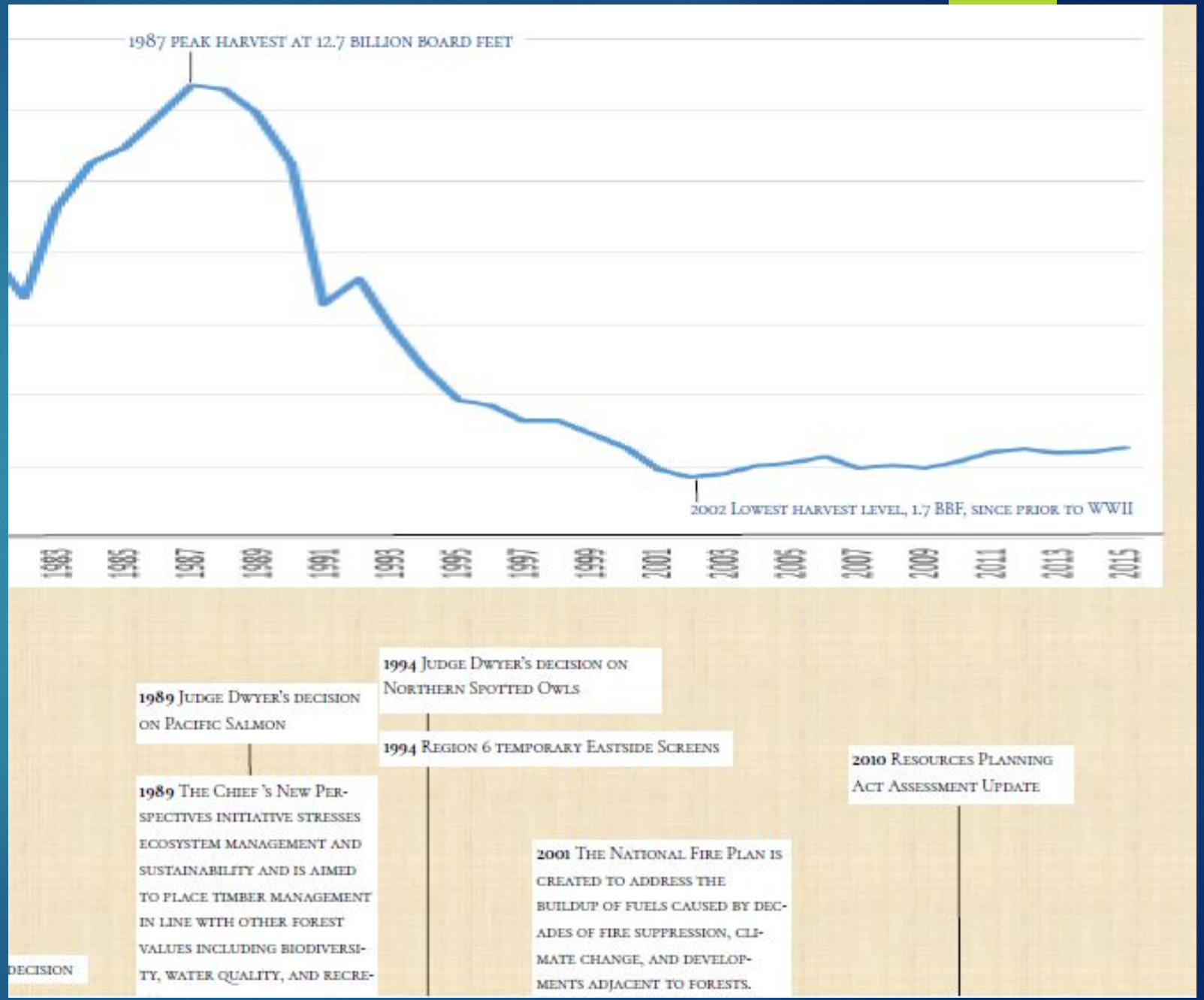
Historic Timeline

- National Forests were established as working forests
- During post-WW II housing boom, national forests were viewed as a ready supply of building material : high volume outputs peaked in 1980s
- 1908: 25% of gross receipts go to national treasury.
- 1953: exceeded 5 billion board feet
- 1970's: first silviculturist training
- 1976: NFMA & marking, tracer paint, etc.



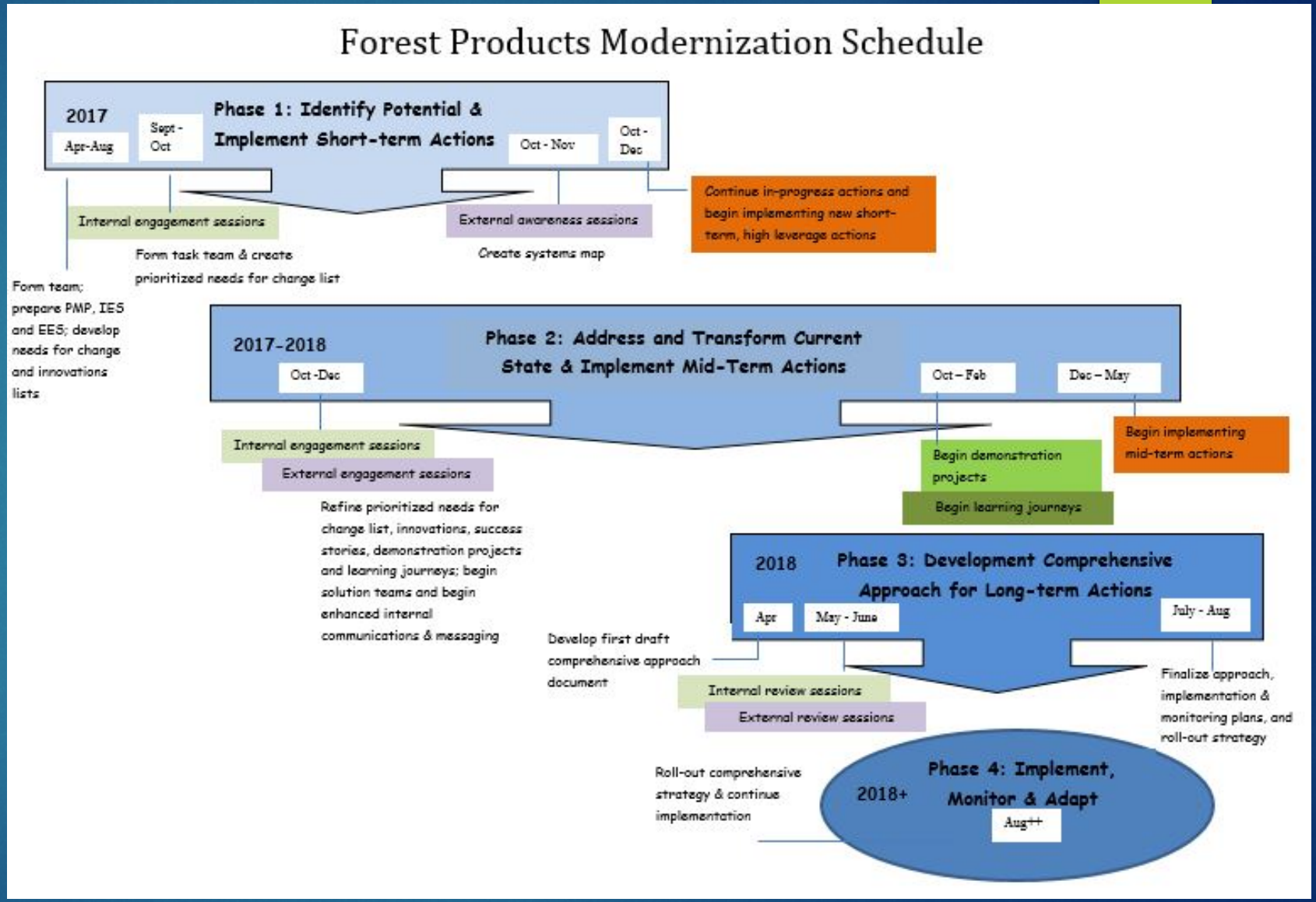
Historic Timeline

- Late 1980's: Salmon in Pacific NW, Chief's New Perspectives and ecosystem management 1989. Timber volume starts to decline.
- 1994: Spotted owls
- Late 1990s – 2000's: Office of Inspector General and timber theft on national forests leading to an increased scrutiny of standards, etc.; building a framework for prosecution for stealing forest timber.
- 2001 Roadless Area rule
- 2008 & 2014 Farm Bill - Good Neighbor Authority and new authorities



Project Schedule

- *Our goal is to continue implementation of in-progress actions and to begin implementing new short-term & mid-term high-leverage actions in phases 1 and 2 (this fall and winter)*
- *We will develop a comprehensive approach for long-term actions by 2018*



Success Stories

- We are highlighting in-progress innovative ideas & sharing these. Some in progress include:
  - Digital Prescription Guide
  - Improvements in hardware and software for cruising timber
  - Digital sample tree cruising
  - Virtual boundary designation
  - Use of Good Neighbor Authority

USDA United States Department of Agriculture

Forest Products Modernization Success Story

Digital Prescription Guide for Increasing Efficiency in Planning and Implementation of the Four Forest Restoration Initiative

The Basics

The Digital Prescription Guide (DPG) involves the use of technology in the form of GPS-enabled tablets that can help increase the amount of acreage prepared for treatments at a lower cost per acre; reduce harvesting costs borne by private industry; and obtain real-time monitoring data to inform adaptive management. The Nature Conservancy in Arizona , working with U.S. Forest Service, Arizona State Forestry, and other stakeholders, is investing in this innovative project to accelerate the pace and scale of forest restoration.

Project Overview

To achieve restoration goals within the 2.4 million acre Four Forest Restoration Initiative (4FRI), restoration treatments require removal of small-diameter trees and the residue or remaining biomass. Both have low value, which creates challenges for private sector contractors to develop and maintain sustainable business models.

New authorities in the 2014 Farm Bill allow *Designation by Prescription* (DxP) on all types of sales. In DxP areas, wood harvesters must decide which trees to remove to create the desired conditions in the contract. There can be more than way to achieve desired conditions—thus it is a prescriptive approach to forest management. Traditional timber marking methods take longer to prepare sales. With DxP, however, we estimate a significant cost savings in both sale preparation and harvesting.

Using ESRI ArcGIS online and the newly developed Collector App on handheld tablets (Android or IOS), restoration units can now be designated digitally to supplement written cutting guides. Marking crews use tablets to designate where tree clumps and groups should be placed, and generally how the structure in those areas should look. The digitally designated polygons from handheld tablets can be further labeled before being uploaded to GPS-enabled in-cab tablets. The operator uses

Tree Marker using tablet to digitally mark groups to be thinned.

this digitally-prescribed map to navigate wi
stand and to assist with cutting decisions re
placement and structure of clumps/groups
space. The tablets record productivity data,
the number of trees harvested per unit of ti
bling operators to evaluate efficiency.

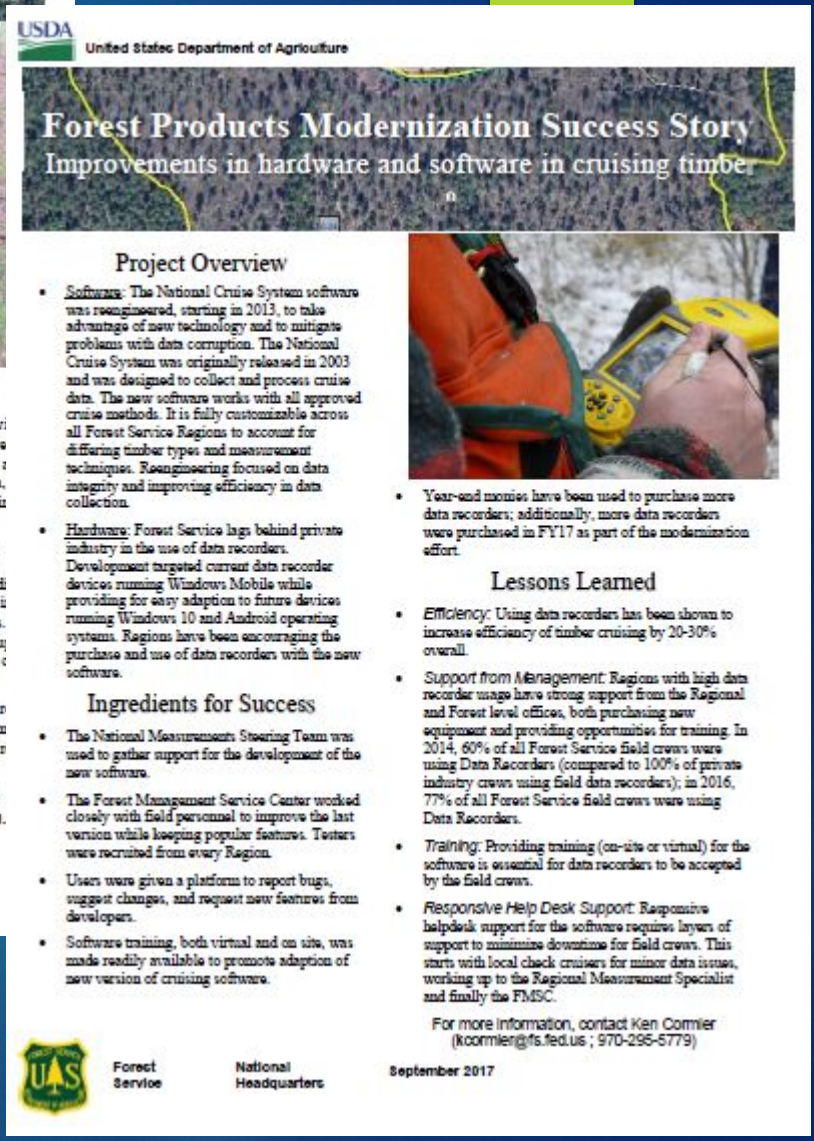
Future Opportunities

Oversight: Having the ability to compare d
scriptions to what occurred on the ground
fashion will help obtain desired conditions.
vest data will either reinforce success or su
well informed adaptive changes if desired
are not being met.

Productivity: The in-cab system collects pr
ty data that can be used to improve econom
els and potentially estimate wood volume

For more information, contact:
Dick Fleishman dfleishman@fs.fed.

Forest Service National Headquarters September 2017



USDA United States Department of Agriculture

Forest Products Modernization Success Story

Improvements in hardware and software in cruising timber

Project Overview

- Software: The National Cruise System software was reengineered, starting in 2013, to take advantage of new technology and to mitigate problems with data corruption. The National Cruise System was originally released in 2003 and was designed to collect and process cruise data. The new software works with all approved cruise methods. It is fully customizable across all Forest Service Regions to account for differing timber types and measurement techniques. Reengineering focused on data integrity and improving efficiency in data collection.
- Hardware: Forest Service lags behind private industry in the use of data recorders. Development targeted current data recorder devices running Windows Mobile while providing for easy adaption to future devices running Windows 10 and Android operating systems. Regions have been encouraging the purchase and use of data recorders with the new software.

Ingredients for Success

- The National Measurements Steering Team was used to gather support for the development of the new software.
- The Forest Management Service Center worked closely with field personnel to improve the last version while keeping popular features. Testers were recruited from every Region.
- Users were given a platform to report bugs, suggest changes, and request new features from developers.
- Software training, both virtual and on site, was made readily available to promote adaption of new version of cruising software.

- Year-end monies have been used to purchase more data recorders; additionally, more data recorders were purchased in FY17 as part of the modernization effort.

Lessons Learned

- *Efficiency:* Using data recorders has been shown to increase efficiency of timber cruising by 20-30% overall.
- *Support from Management:* Regions with high data recorder usage have strong support from the Regional and Forest level offices, both purchasing new equipment and providing opportunities for training. In 2014, 60% of all Forest Service field crews were using Data Recorders (compared to 100% of private industry crews using field data recorders); in 2016, 77% of all Forest Service field crews were using Data Recorders.
- *Training:* Providing training (on-site or virtual) for the software is essential for data recorders to be accepted by the field crews.
- *Responsive Help Desk Support:* Responsive helpdesk support for the software requires layers of support to minimize downtime for field crews. This starts with local check cruisers for minor data issues, working up to the Regional Measurement Specialist and finally the FMSC.

For more information, contact Ken Cormier (kcormier@fs.fed.us ; 970-295-5779)

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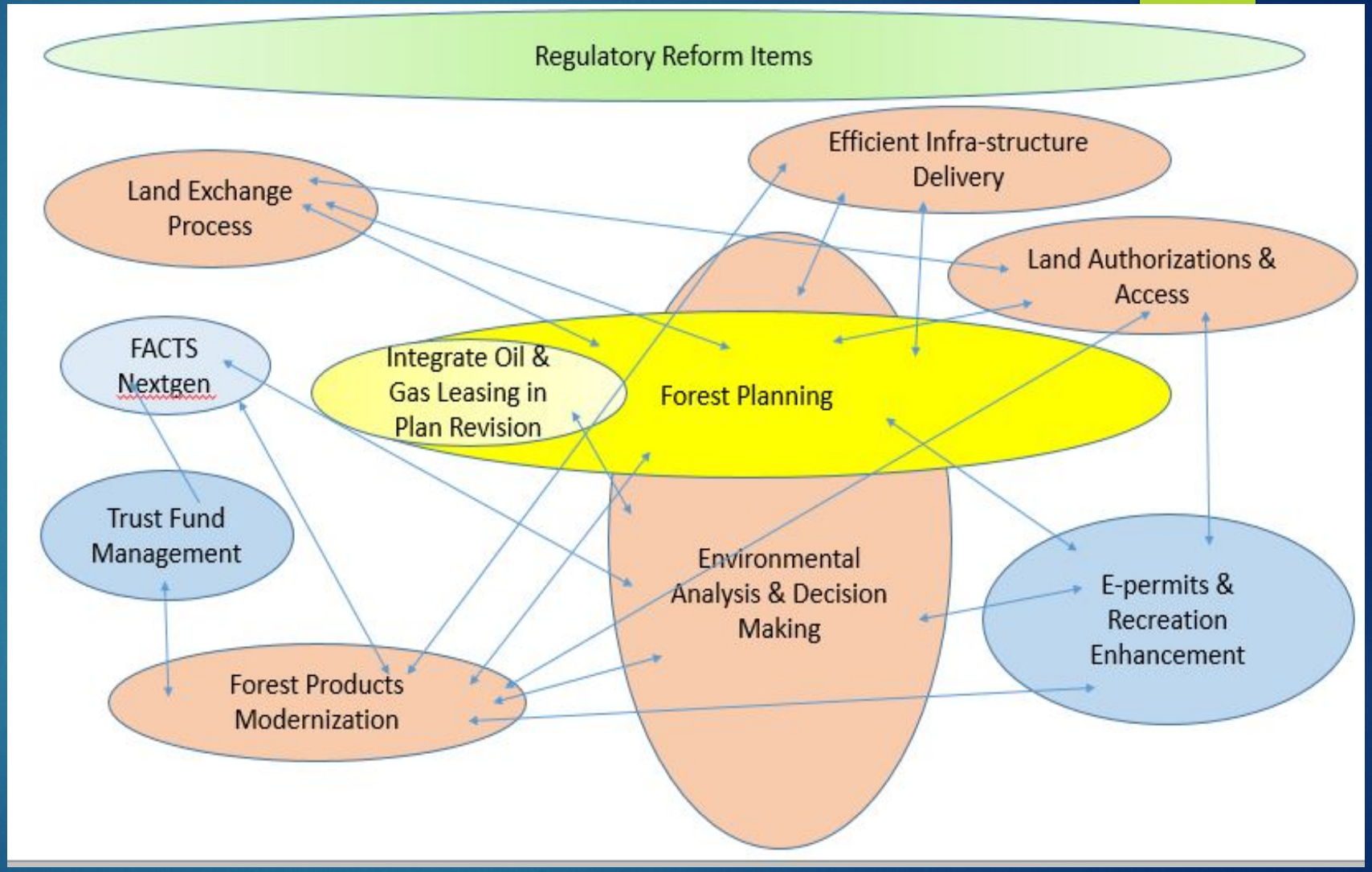
NFS Priority Systems Map

- *Several NFS change efforts underway*
- *Forest Products Modernization has overlap and important connection to several of them*
- *Each are at different stages of planning*



Key Needs for Change Themes (so far)

- *Increase project management skills*
- *Feasibility analysis/NFMA analysis changes to make sure it is the best work and help us select the best tools to accomplish the work*
- *Environmental analysis and decision making in project planning*
- *Sale preparation and contract writing*

Wrap Up & Next Steps

- *We have more orientation sessions planned*
- *We will begin longer engagement sessions soon*
- *Check out our SharePoint site for more information and provide your feedback via the SharePoint site or via our dedicated MS Outlook inbox:*
  - *https://ems-team.usda.gov/sites/fs-fm-fpm/_layouts/15/start.aspx*
  - forestprod_modernization@ms.fs.fed.us

We Need Your Input

- *How would you like to be involved?*
- *Do you have suggestions for others you think we should connect and engage with as we move forward?*
- *What do you think is the one thing we should dig in to or focus on?*