



# Increasing the Flow of the Reforestation Pipeline: It's Plumb Crazy

**R. Kasten Dumroese**

Senior Scientist, Research Plant Physiologist

Rocky Mountain Research Station

Moscow, ID



Forest Service

Rocky Mountain Research Station

National Center for Reforestation, Nurseries and Genetic Resources

Combined Meeting of the Western Forest and Conservation Nursery Associations

Missoula, Montana

27 Sep 2022

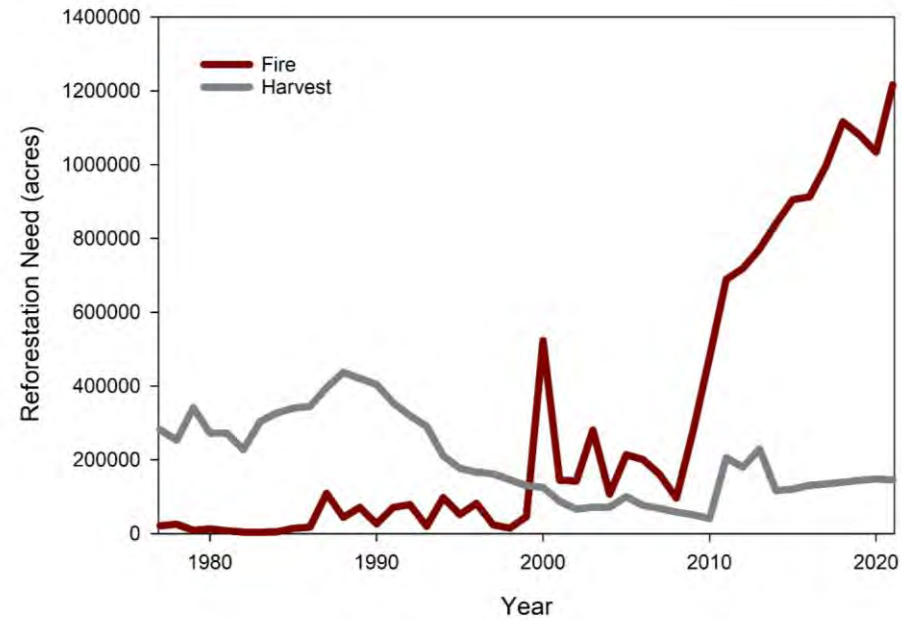
# 1985

- Gorbachev becomes Soviet leader.
- Reagan starts second term with tax reform.
- Kas is half-way through his MSc and still combing his hair.
- The last emphasis on USFS reforestation starts... R.I.P.

# Reforestation Improvement Program

- 1976 National Forest Management Act
- Mid to late 1980s...
- Across the Agency
- Evaluate the reforestation chain
- Research-driven improvements
- More efficiency / success

# Forest Service Efforts



Updated from: Dumroese RK, Balloffet N, Crockett JW, Stanturf JA, Nave LE. 2019. A national approach to leverage the benefits of tree planting on public lands. *New Forests*. 50: 1-9. <https://www.fs.usda.gov/treesearch/pubs/57828>.



# Forest Service Efforts

- 2015 Reforestation Summit
- Partner Support and Engagement
- 2020+ The Nature Conservancy papers
- And then came 2021 and 2022!

# Appropriations and Policies

- 2021

- Dec: Infrastructure Investment and Jobs Act (IIJA)
  - aka Bipartisan Infrastructure Law (BIL)

- 2022

- Apr: Executive Order
- Jul: Secretary Vilsack's Memo
- Aug: Inflation Reduction Act (IRA)



# Infrastructure Investment and Jobs Act (BIL)

## **Wildfire Risk Reduction (~\$3.4 billion)**

Post-fire restoration  
Collaborative Forest Landscape  
Restoration Act projects

## **Ecosystem Restoration (~\$2.1 billion)**

Ecosystem restoration  
Good Neighbor Agreements  
Abandoned mine land restoration  
Public & private reforestation

**REPLANT Act**

Repairing Existing Public Land by Adding Necessary Trees Act

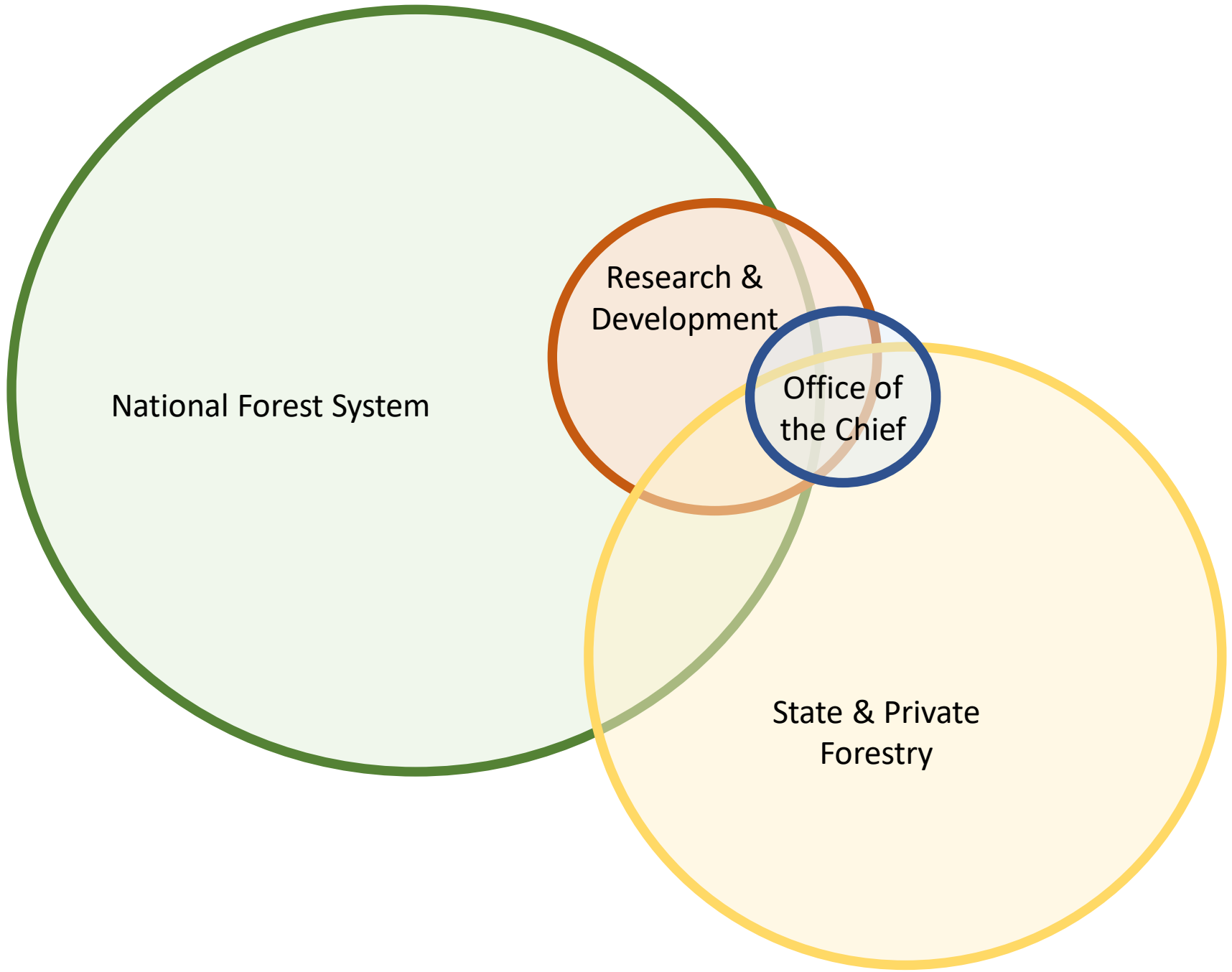
# Inflation Reduction Act

## **Inflation Reduction Act (~\$1.5 billion)**

Urban landscapes

Underserved communities



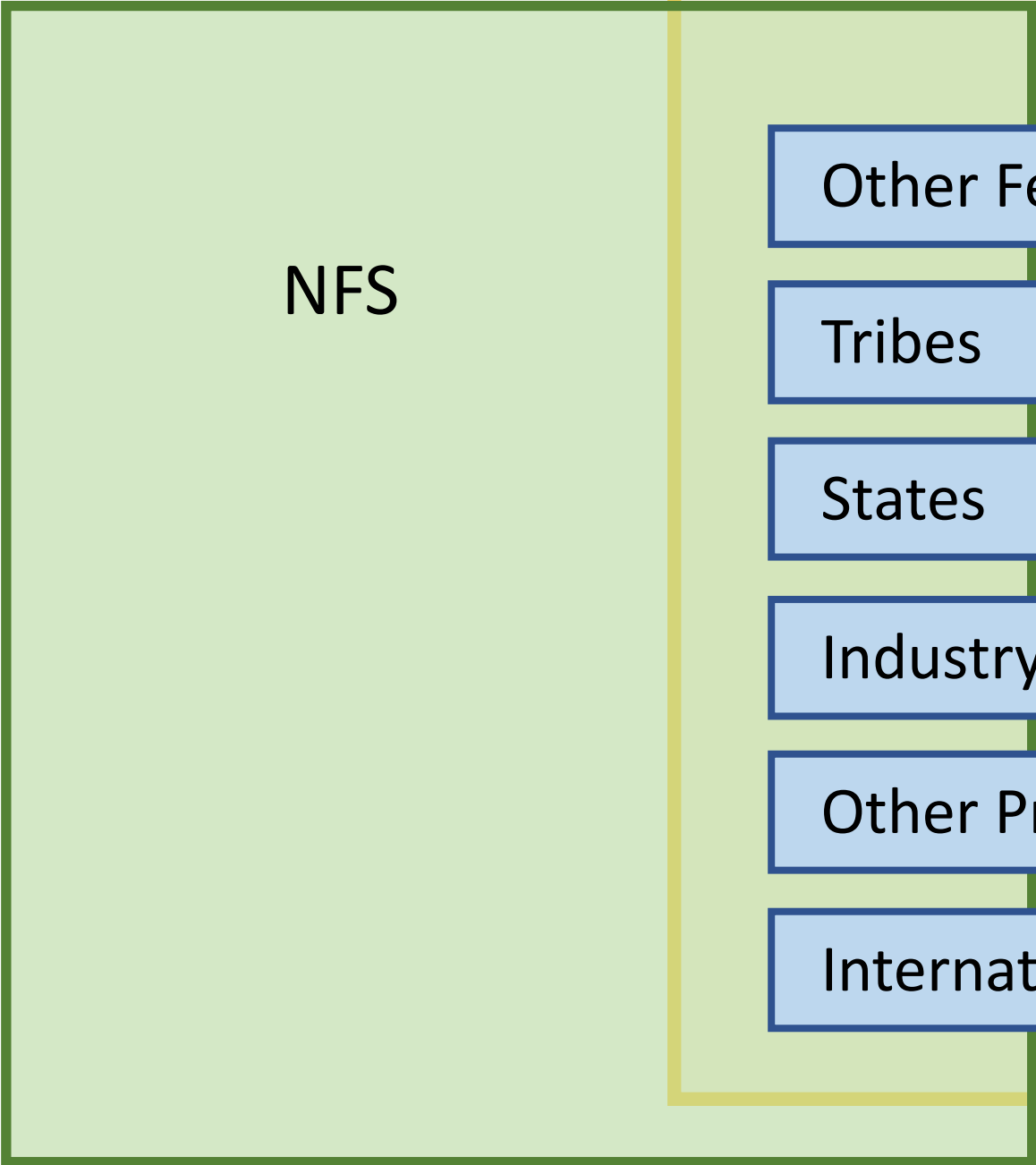


National Forest System

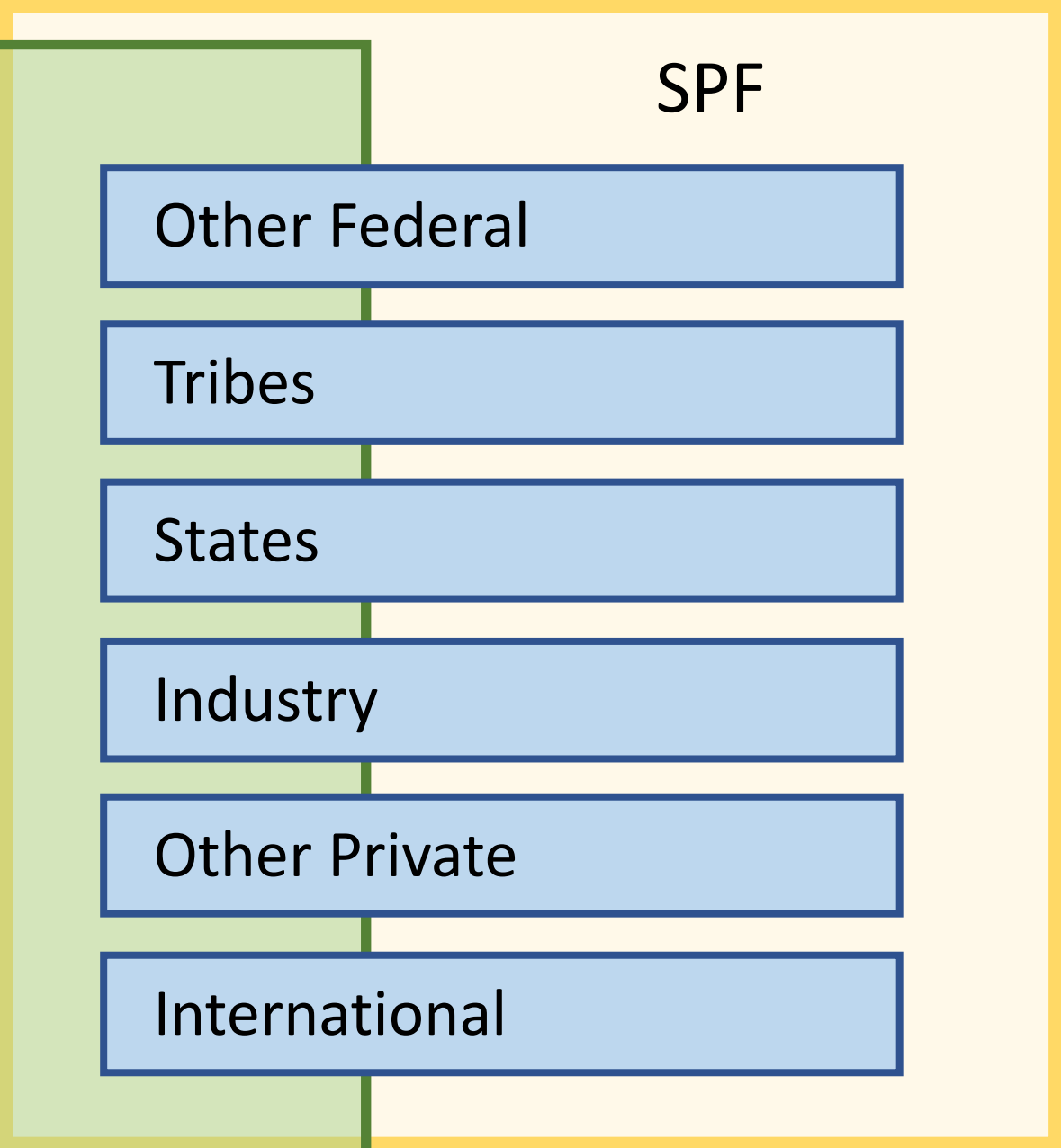
Research &  
Development

Office of  
the Chief

State & Private  
Forestry



NFS



SPF

Other Federal

Tribes

States

Industry

Other Private

International



# Unprecedented Opportunity

**IIJA aka BIL  
Ecosystem Restoration  
10-y Funds**

**IRA  
10-y Funds**

**REPLANT Act  
Forever Funds**

Tribes

States / Communities

Private

NGOs

Other Federals

# State & Private Forestry

National Association of State Foresters,  
Tribes, National Fish and Wildlife  
Foundation, other partners....

- \$1.1 million – Revegetation of Formerly Mined Land
- \$7.7 million – National Revegetation and National Seed Strategy for Rehab and Restoration



# State & Private Forestry

- Nursery funds – 30 States and Puerto Rico
  - \$4.96 million allocated this FY (\$160,000 each); \$6.2 million (\$200,000) requested next FY.
- Nursery funds – 7 Island Territories and Commonwealths
  - Up to \$75,000 each allocated this FY; \$100,000 requested next FY.
- Nursery Specialist & Policy Coordinator
  - New staff position to coordinate all S&PF work related to BIL funding for revegetation.



# State & Private Forestry

- Tribal Nursery Funds
- 6 tribes with “larger scale reforestation nurseries”
  - Total need of \$4.8 million
  - \$1.5 million allocated this FY
  - \$3 million requested for next FY
- Full-time Tribal Nursery Specialist
  - Currently part-time through RNGR
  - Full-time / service with RNGR
  - Updating 2003 Tribal Needs Assessment a priority



# State & Private Forestry

- National State and Private Forestry Reforestation Strategy
  - Non-Federal land
    - Pipeline bottlenecks and strategies
    - Prioritization process
    - Collaborative opportunities
    - Strategy complements/supports NFS National Reforestation Strategy
    - Stakeholder participation



# Take Some Time and Get It Right



# Other Pipeline Considerations?

- Planning, Seeds, Nurseries, Outplanting, Tending
- Recruiting, Training, and Retaining Employees?
- Predictable Seedling Markets?
  - Federal Program(s)?
- Sustainable Management?



# USDA Thinking Holistically

- Leveraging Mission Areas
  - NRE – Natural Resources and Environment
    - Forest Service
  - FPAC – Farm Production and Conservation
    - FSA – Farm Service Agency
    - NRCS – Natural Resources Conservation Service
  - RD – Rural Development
  - REE – Research, Education, and Economics
    - ARS – Agricultural Research Service
    - NIFA – National Institute of Food and Agriculture







  **Fiori**  
The brand name **Fiori** is prominently displayed in a stylized font. Below it, smaller text reads: "The brand name **Fiori** is registered in the U.S. Patent & Trademark Office. ©2008 Fiori Inc. www.fiori.com" The text is small and difficult to read.

PHOTO: DAVID HARRISON/GETTY IMAGES

# Been There? Done That?

*“The area of pine forested lands requiring planting in the California pine region is very large. Estimates ranging from 300,000 to 2,000,000 acres, though obviously very crude, serve at least to emphasize the magnitude of the planting job. On a large part of these lands all timber growth has been swept away by repeated fires and no chance for natural reproduction remains.”*

S.B. Show, District Forester, California District, Forest Service, 1930

*“...nothing is more universally expected of a forestry agency than that it be able to plant and grow ... trees.”*

Chief R. Max Peterson, 1980

Show SB. 1930. Forest nursery and planting practice in the California pine region. Washington DC: US Department of Agriculture, Circular 92. 75 p.

Peterson RM. 1981. Emerging resource trends in the 80's. Proceedings of Intermountain Nurseryman's Association and Western Forest Nursery Association Combined Meeting. General Technical Report INT-109. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station: 5-6.

After passage of NFMA and establishment of Reforestation Trust Fund.... this successful, decade-long endeavor addressed a reforestation backlog of 3.1 million acres.

TOP 10 REASONS  
I'M RECONSIDERING  
RETIREMENT...

1. FINALLY FUNDED
2. NURSERY UPGRADES
3. NEW PEOPLE
4. A LITTLE RESPECT
5. CHANCE FOR CHANGE
6. A.C.E.S.
7. ENVIRONMENTAL
8. CAN'T GROW BEARD



# Thank You!      Questions?



## R. Kasten Dumroese

Senior Scientist, Research Plant Physiologist

Rocky Mountain Research Station

Director, Western Center for Native Plant Conservation and Restoration Science

National Nursery Specialist, National Center for Reforestation, Nurseries, and Genetic Resources

Moscow, ID

[kasten.dumroese@usda.gov](mailto:kasten.dumroese@usda.gov)

*This work was supported in part by the USDA Forest Service, Rocky Mountain Research Station. The findings and conclusions presented are those of the author and should not be construed to represent any official USDA or U.S. Government determination or policy.*



Forest Service

Rocky Mountain Research Station

National Center for Reforestation, Nurseries and Genetic Resources

Combined Meeting of the Nursery Associations

Missoula, Montana

27 Sep 2022