

Voluntary Forest Resource
Improvement Programs:
Sustainable Contributions
to Climate Change
Mitigation and Adaptation

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Outline of Talk

- Mitigation and Adaptation Roles
- Review of RP&I Program Areas:
 - Roles in Mitigation and Adaptation;
 - Ecosystem Sustainability
 - Opportunities and Challenges

Program Roles

Mitigation: AB 32 Scoping Report

- Forest Conservation
- Better Forest Management to Increase Productivity/Carbon Sequestration
- Reforestation and Aforestation
- Fuels Management and Biomass
- Urban Forestry

Adaptation: CA Climate Adaptation Strategy

Forestry Landowner Assistance Programs

- Target audience is small, private forestland owners who hold about 25% of CA forestland
- Technical and Educational Assistance
- Cost Share Grant Programs (CA Forest Improvement Program, CFIP)
- Working Forest Conservation Easements

Technical and Educational Assistance

- CAL FIRE field foresters provide technical information to landowners
- Field visits, phone calls
- Provided by specialist staff, as well as other forestry staff
- Collaborate with NRCS on delivery of EQIP
- Newsletters, workshops, website, collaboration with UC Cooperative Extension

Cost Share Assistance (CFIP)

- Provide grants to small private landowners for forest management.
- Landowner pays 10-25% of costs; state pays the rest.
- Management plans.
- Forest health and productivity improvement.
- Wildlife habitat improvement
- Fuel hazard reduction.

Forestry Assistance Climate Role

- Reforestation/afforestation
- Improved forest management sequesters more carbon, provides biofuels, and reduces fire risk
- Conservation of forestland through working forest easements
- Adaptation through improved forest health, reduction of risks, and choices of reforestation planting stock

CFIP and Sustainability

- PRC 4791 stresses sustainability
- Programmatic EIR
- Environmental Checklist for All Projects
- Requires involvement of Registered Professional Forester
- CAL FIRE reviews and approves management plans and projects

Forest Legacy Program

- Keep lands from development through working forest conservation easements
- Joint program with US Forest Service
- Most projects have multiple funding partners (state, feds, local land trusts, private foundation, landowners)
- Completed 12 projects covering over 17,000 acres since 1999

Nursery Program

- Two main program elements:
 - Seedbank
 - Seedling production

Seedbank--Davis

- Stores a large volume (40,000 pounds) of primarily conifer seed, native to a broad range of areas and elevations of the state.
- Large number of seed zones ensures the availability of genetically appropriate seed
- Provides seeds for reforesting private and state forestlands in California.

Nursery--Magalia

- Produce up to 2.5 million seedlings yearly.
- Target customers are small, private forest owners.
- Used for reforestation after fire, harvest, or losses to pests.
- Used to improve understocked stands.
- Fill a niche not well served by private sector.
- Suspending operations due to a overall \$3 million budget cut this year.

Nursery Program Climate Role

- Planting for improved forest productivity and reforestation/aforestation increase sequestration
- Adaptation through great diversity of genetic material as captured in seeds from a wide range of zones and elevation bands

Nursery Program and Sustainability

- Seedbank collects and stores great genetic diversity of native tree species.
- Grow and promote planting of native species on correct sites using appropriate seed sources.
- CEQA: tree planting generally does not require substantial CEQA analysis.

Pest Management Program

- Purpose is to protect forest health and productivity through prevention and management of insect and disease problems.
- Staff of four field pest management specialists located throughout the state.
- Monitor and report on forest health conditions.
- Provide technical assistance to private forest landowners.
- Make recommendations on regulatory measures for pests.

Pest Management Climate Role

- Reduced loss of trees to insects and disease results in increased sequestration in healthy trees and forest products.
- Reduced tree mortality results in lower fuel hazards, less wildland fire risk and resultant decrease in potential GHG emissions.
- Dead and diseased materials provide biofuels opportunity that is, in some cases, substantial.

Pest Management and Sustainability

- It's all about forest health and sustainability, including adaptation.
- Aggressively addressing invasive pests is a critical sustainability issue.
- CEQA may apply to use of pesticides, sanitation treatments, etc.
- FPRs may apply to removal of trees that are dead or dying due to pests.

Fuels Management Programs

- Vegetation Management Program (VMP)
- Proposition 40 Sierra Nevada Fuels Program
- New Federal Supplemental Fuels Funding Program
- Ongoing substantial fuels management work in Southern CA using federal funds

Fuels Management Programs

- Strategically placed projects per fire plans; treat the highest fuel hazards and protect most valuable assets at risk (life, property, natural resources).
- Prescribed fire, hand, and mechanical treatments to reduce fuel loadings.
- Projects completed by CAL FIRE crews and via grants to local agencies and Fire Safe Councils.
- Most located in or close to wildland/urban interface areas.
- Treated about 175,000 acres in past 10 years.

Fuels Management Climate Role

- Mitigation: Reduce risk for wildland fires results in fewer acres burned and less CO₂ emitted.
- Low carbon fuels: Projects can produce biofuels.
- Adaptation: Thinned areas may be better suited to lower soil moisture availability due to reduced precipitation regimes and warmer temperatures.

Fuels Management and Sustainability

- Programmatic EIR for Chaparral Management Program
- Working on new, broader programmatic EIR
- When working under PEIR, RPF completes environmental checklist for each project;
- Other projects, RPFs prepare Categorical Exemption, Neg. Dec., or Mitigated Neg. Dec.

Urban Forestry Program

- Clients are local governments, nonprofit organizations, community groups, schools
- 9 field staff throughout the state Provide technical assistance and grants
- Grant areas include:
 - Tree planting
 - Forest inventory
 - Management plans
- Up to \$7 million annually in state bond grant funds

Urban Forestry Climate Role

- Sequester carbon in trees and wood products
- Biofuels
- Reduce energy consumption through shading and urban greening water management
- Adaptation through species selection

Urban Forestry and Sustainability

- Urban Forestry Act of 1978 (as amended) recognizes the multiple environmental, social, and economic benefits of urban forests.
- Non-Climate Change Environmental benefits include:
 - Provide habitat
 - Improve water quality and reduce flooding
 - Address forest health (insects, disease, invasives)
- CEQA applicable to urban forestry projects

Wrap UP

Summary of Opportunities and
Challenges for Resource Protection
and Improvement Program Area

Budget Opportunities

- Significant Levels of State Bond Funding for Urban Forestry and Fuels Management in recent years
- Significant Forest Service funds for fuels management, esp. for Southern CA
- ARRA: \$2.3 million for fuels management and pests

Budget Challenges

- Series of cuts to CAL FIRE Resource Management General Fund positions and funding:
 - \$3 million this year (>10%)
 - Cumulative 25% cuts in past 8 years
- Loss of 48 Resource Management positions over past 8 years, including 12 last year.

Budget Challenges, Cont.

- Sustainability of State Bond funds for Urban Forestry and Fuels Management is increasingly questionable.
- Sustainability of Federal funding also questionable.
- No new funds or staff to address mitigation or adaptation strategies.

Other Challenges/Opportunities

- Need better knowledge, quantification, and models for how fuels management, through reduced fire risks, reduced wildfire GHG emissions, and utilization of biofuels contributes to net sequestration.

Other Opportunities/Challenges, cont.

- Need more training of our staff on matters of climate change mitigation, adaptation, carbon flux processes and models, and market and regulatory approaches.
- Newly completed Statewide Forest Assessment and Resource Strategy documents and their identification of Priority Landscapes for treatment.

Final Wrap Up

- Voluntary forestry programs have a large potential to address climate change in both mitigation and adaptation arenas, in an ecosystem sustainable manner.
- CAL FIRE's ability to achieve this potential through its programs is mixed and uncertain due to declining General Funds and temporary funding through bond acts.

Final Wrap Up, continued

- We need more resources (staff and funding) to increase the contribution of Resource Protection and Improvement Programs to climate change mitigation and adaptation.

Thank You!