



REFORESTATION SERVICES PROGRAM AT A GLANCE (2022)

Who We Are

CAL FIRE's Reforestation Services Program (RSP) has been based out of the L.A. Moran Reforestation Center since 1921. The program serves all California forestlands by providing resources to protect and restore disturbed and degraded forests, maximizing their values, enhancing ecosystem functions, and increasing resiliency from climatic impacts. The Reforestation Services Program provides seeds and seedlings genetically suited and climate-adapted to growing sites for landowners and forest managers, while also offering technical and financial assistance.

California's Challenges

The State is facing numerous challenges that CAL FIRE is helping to address:

- Shortage of trained personnel in all aspects of reforestation.
- A lack of quality seed for many forest types.
- Access to productive seed sources.
- Limited capacity for seed processing and storage.
- Inadequate nursery growing space.



With the growing need for seeds and seedlings brought on by catastrophic wildfires, climate change, insects, disease, and other impacts to forests, the demand for reforestation services is unprecedented.

Increasing workforce and partnerships

One of the issues in continuing reforestation has been a lack of training, staff, and communication between affected stakeholders.

The Program has undergone a massive reorganization and expansion, creating new positions in the Seed Bank and Nursery. The RSP has established new entry and mid-level classifications for Environmental Science and Forestry positions for operations at the Reforestation Center as well as in the field.

Outside partners and projects include agreements to assist with:

- Cone surveying, collection, and practical on-site training.
- Nursery establishment in new locations.
- Land access and information sharing on cone productivity.
- Strategic long-term planning to address persistent problems in reforestation.



Processing wild and orchard-raised seeds

To obtain the highest quality conifer seed, CAL FIRE foresters and cooperators conduct cone surveys across California, typically from spring to summer, to identify locations for future cone collection. CAL FIRE works closely with highly trained

climbers to harvest cones produced in the top of the tree canopy. In addition, the RSP invests in seed orchards for production of top-quality cones. Once harvested, the cones return to the Reforestation Center where they are processed to extract seed and are laboratory tested. Finished seeds are housed in the State Seed Bank for long term storage.

Banking on the Future

The State Seed Bank is a long-term repository of quality tree seed stored in zero-degree freezers. RSP inventory can produce up to 100 million seedlings. Using the results of the RSP’s first ever [Assessment of Seed Needs](#) it was concluded that to reforest just 25% of California’s private forestlands, the State Seed Bank will need to expand its capacity by over 300%.

This allowed the RSP to reevaluate its stored seed lots to identify appropriate amounts to maintain current and future reforestation needs.

Total pounds of available seed in storage	22,832
Total pounds of private seed in storage	16,539
Total pounds of all seed in storage	39,371
Total number of species in CAL FIRE inventory	56
Total pounds of seed distributed	395

Seedling net production	193,526
Total number of orders	37
Percentage to private landowners	70%
Seedling production for post-fire	93%
Acreage capable for planting at max production	2,000

Supplying seedlings for restoration

The capacity of state and private nurseries to provide seedlings for reforestation is insufficient to provide for urgent restoration efforts. CAL FIRE’s nursery can grow up to 250,000 seedlings year. Based on requests to CAL FIRE from landowners for seedlings, the RSP estimates 75% of requests go unfilled. The RSP plans to increase production to 1 million annually by 2025 to meet the growing demand, which could plant up to 8,000 acres of forest land.



Growing in 2023

The Reforestation Center is in the early stages of a multi-year infrastructure upgrade to expand Seed Bank capacity, build new greenhouses, and acquire state-of-the-art processing equipment.

CAL FIRE is working as part of the newly created [Reforestation Cooperative](#), where industry professionals are sharing information and resources to overcome challenges and build on success.

Supporting research and innovative designs, strengthening partnerships, and educating constituents – CAL FIRE looks forward to 2023 as we build forward from our historical legacy.

You are invited to visit our website to learn more about our services

Tours and volunteer opportunities can be accommodated at CAL FIRE’s Lewis A. Moran Reforestation Center. For more information, call (530) 753-2441.

