

State of California**Natural Resources Agency****M e m o r a n d u m**

To: External CAL FIRE Cooperators
 External Foresters
 Reforestation Companies
 Research Professionals
 Resource Conservation Districts
 Cone Vendors, Interested Individuals

Date: 6/10/2025

Telephone: (530) 753-2441

Website: www.fire.ca.gov

From: Erika Teach, Seed Bank Manager
California Department of Forestry and Fire Protection (CAL FIRE)

Signed by:

Erika Teach
 031A253B13AD4E5...

Subject: Seed Bank Update: 2025 Cone Crop Survey

Help requested by JULY 31, 2025

The CAL FIRE Lewis A. Moran Reforestation Center (LAMRC), located in Davis and part of Sacramento Headquarters, houses the Reforestation Services Program (RSP). RSP operates the sole remaining state-run conifer Seed Bank. CAL FIRE shoulders the responsibility for supplying seed in the State Responsibility Area (SRA) and depends on the expertise of CAL FIRE cooperators, including individuals trained in cone hunting by the non-profit American Forests to assist in completing the yearly Cone Crop Survey. The Seed Bank requests your valuable assistance in this effort, as subsequent monitoring activities may lead to cone collections.

RSP has revised numerous resources to bolster support. A meeting hosted by our partner California Association of Resource Conservation Districts (CARCD) will go over the contents of this memo on Monday, June 23 from 1500-1600 hours (3 – 4 PM PST). The meeting link will also be shared by the University of California Agriculture and Natural Resources (UCANR) to reach a broader audience. Please contact the LAMRC Seed Bank Manager, Erika Teach, at erika.teach@fire.ca.gov, or RSP at reforestation@fire.ca.gov if you have questions regarding the contents of this memo.

Links and Attached Documents

1. 2025 [Assessment of Needs \(AON\) for seeds](#)
 - a. Exceptions: [Climate-Adapted Seed Tool | Reforestation Tools](#)
2. [2025 CA Cone Crop Survey](#) (Survey 123 - no paper surveys)
3. Tree/Site Selection – What to Survey
4. Cone Collection Standards – What to Monitor in Preparation For/ During Collection
5. Timeline, [“Reforestation Because of You” \(RBY\)](#) & Cone Procurement Program
6. Additional Resources and Training Opportunities

This attachment goes over how to use the AON, how to determine exceptions, and how to use the excel version instead of the online viewer.

2025 Assessment of Need:

<https://experience.arcgis.com/experience/e338af3ee15845f5b6cc5a8e949fb390/page/Page/?org=CALFIRE-Forestry>



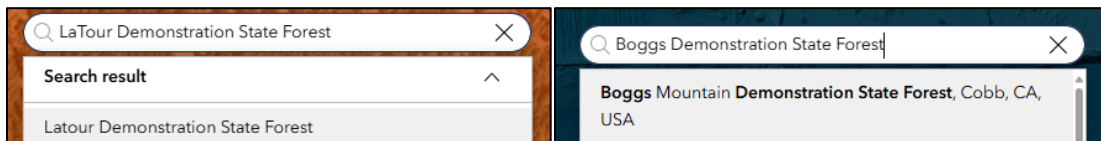
About This Viewer

Video explanation of viewer: [CAL FIRE Assessment of Needs \(AON\)](#)

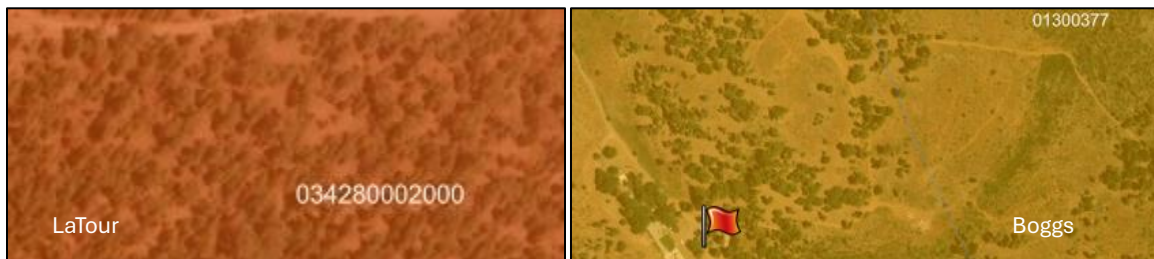
Welcome! This app is a lookup tool designed for individuals interested in California's reforestation efforts. The app maps statistics on the number of cone bushels needed to meet the 25 percent reforestation goal in non-federal conifer timberlands for 15 common conifer species in California. This information is broken down by seed zones and 500-foot elevation bands. For more information on the underlying analysis, use the **Layers** widget and click on details for the Seed Assessment of Needs layer. Displayed seed zone and elevation band areas are color-coded by collection priority. Priority ranges from the highest colored in red (level 1, more than 100 cone bushels needed across all species of interest to meet reforestation goals) to the lowest in yellow (level 3, 10 cone bushels or less). Areas that appear without a color do not grow any of the 15 conifer species included in this analysis.

The AON is a public-facing tool available on the [Reforestation Services Program | CAL FIRE](#) website that is updated yearly.

1. To use the online viewer version, enter your location or address:



2. The viewer will populate at the approximate location, indicated by a red flag, and parcel numbers. As indicated in the "About" window, the map will be color coded by need



3. Clicking the viewer will open a gray pop-up window (see sample screenshot at the top of the next page) with species statistics (the projected bushel need based on current seed inventory), for the selected Seed Zone and Elevation band (SZ.E), and display a smooth aqua-color contour line indicating the upper or lower boundary of the selected elevation band (at 500-ft intervals):



The species that display were generated by vegetation data. The AON **does NOT reflect what is present at a location**, only what the Seed Bank might be interested in if the species is present.

SZ 522, Elevation 5,501-6,000 ft

Zoom to

Current Seed Need Statistics

LaTour

Total bushels needed:	316
Bushels by species:	Douglas Fir: 2 Giant Sequoia: 1 Incense Cedar: 37 Jeffrey Pine: 82 Lodgepole Pine: 1 Ponderosa Pine: 30 Red Fir: 61 Sugar Pine: 16 Western White Pine: -1 White Fir: 86





SZ 380, Elevation 3,001-3,500 ft

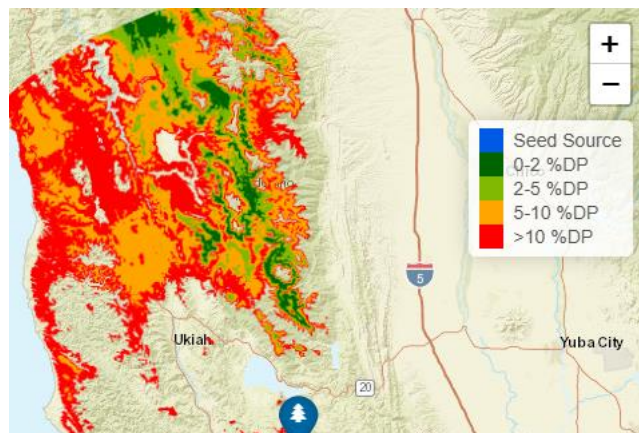
Zoom to

Current Seed Need Statistics

Boggs

Total bushels needed:	15
Bushels by species:	Coast Redwood: 1 Douglas Fir: 8 Incense Cedar: 1 Jeffrey Pine: 1 Knobcone Pine: 1 Lodgepole Pine: 1 Ponderosa Pine: -3 Western White Pine: 1 White Fir: 1

- The values shown correspond to the bushels needed for the entirety of the selected Seed Zone and Elevation (SZ.E) band. **Negative values indicate that the species is already represented in the Seed Bank inventory** (for which we are not pursuing collections). **Positive values indicate a need in the Seed Bank.**
 - The AON methodology is based on the forest acreage footprint and current density of any given species in any selected elevation band. While collections prioritize species with greater bushel need, “lower-need” species will still be considered for collection depending on survey data, resources available, and cone cut test results.
4. **EXCEPTIONS** – Many species with “low need” per the AON, are located in lower elevation bands that are climate-adapted to hotter climates.
- Currently, landowners reforesting after fire often find that there is no seed in the Seed Bank for their respective SZ.E. As such, we use the [Climate-Adapted Seed Tool | Reforestation Tool](#) (CAST) to identify seed that is climatically suitable.
 - Nurseries may use the  button
 - Foresters surveying in the field may find where that seed might be planted with  and entering a coordinate or SZ.E  OR 
 - In the example of Boggs Demonstration State Forest, which showed “low” bushel need in the AON, the CAST tool reveals that the seeds sourced from that location are climatically-similar to an extensive area of the Coast Ranges (the orange and green areas have the lowest projected decline in productivity or “DP”.)
 - If crops are identified in these “low” but positive need areas, standard tree selection and cone collection standards apply.



To use the EXCEL version of the AON, you may use the “AON Main” tab to find raw data, or you may expand the pivot table to view information specific to your area

Sum of Bushel Need		Elevation band (top of band)																		
Seed Zones		0	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9
⊕090 Group - North Coast Redwood		1059	2427	1846	821	172	88	97	59	54	9									
⊕100 Series - Central Coast		-12	-26	56	65	39	-52	13	21	32	7									
⊕300 Series - North Coast Interior		50	427	484	859	791	822	1225	915	1236	1244	693	380	-3	69	15	6			
⊕500 Series - West Slope Sierra		9	48	68	58	766	1314	1023	1428	1710	3394	3365	2097	924	719	423	133	88		
⊕700 Series - East Slope Sierra							24	-20	172	2008	1956	2235	3383	2347	1044	605	330	105		
⊕952 - Great Basin											4	4	4	4						
⊕960 Group - Central Valley		1	8	8	9	11	13													
⊕980 Group - SoCal Desert								1	2	5	5	37	62	23	6	6	8	8	4	
⊕990 Group - SoCal Mountains		2	2	6	5	14	51	25	-68	-513	-501	-679	-704	27	-96	-80	-23	51		

- To find a list of your Unit's SZ, type your three-letter unit after the equal sign in any cell to the right of the pivot table. You may then elect to use the filters provided to find information relevant to your area.

Species

Big-Cone Douglas Fir

Coast Redwood

Coulter Pine

Douglas Fir

Giant Sequoia

Incense Cedar

Seed Zone

100

110

120

130

140

161

162

163

164

165

301

302

303

311

312

321

322

331

332

340

351

352

360

371

=LMU	522
LMU	523
	524
	525
	720
	731
	732
	742
	751
	752
	760
	771
	772
	952

Be sure “multi-select” is off to start, or toggling the buttons will remove the selections from the table.

To toggle on the selections, be sure to hold the control key down when selecting additional criteria in the same filter.

2. Example for the 500 series in the 3001-3500 elevation band:

Elevation band	
Sum of Bushel Need	(top of band)
Seed Zones	3500
500 Series - West Slope Sierra	
522	195
523	-102
524	
Incense Cedar	49
Jeffrey Pine	11
Ponderosa Pine	-289
Sugar Pine	66
525	
Incense Cedar	90
Jeffrey Pine	2
Ponderosa Pine	-28
Sugar Pine	2

2025 Cone Survey form in Survey123:

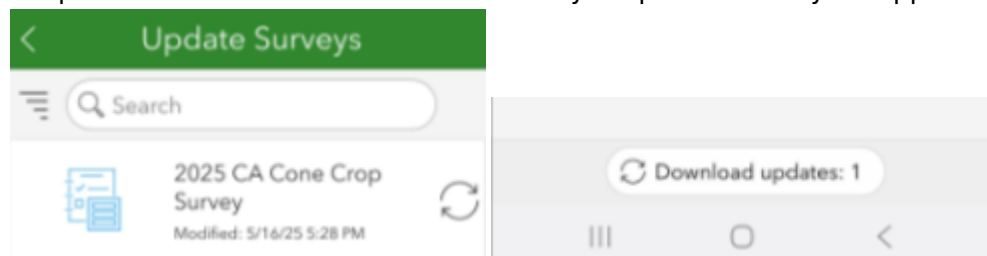
The Reforestation Services Program (RSP) program is no longer using paper surveys, as digital records can be tracked readily and easily compared year to year.

The 2025 Cone Observation Survey via Survey123 has been updated based on user feedback. This survey is a collaboration between American Forests (AF), the United States Department of Agriculture: Forest Service, Region 5 (USFS), CAL FIRE, private industry, to have uniform cone survey datasets and enable future collaboration.

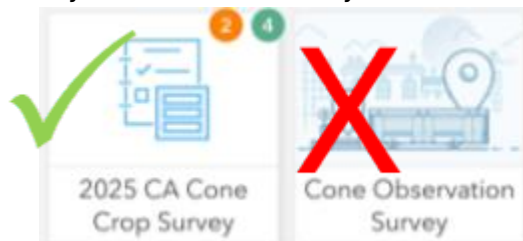


Getting the Survey:

1. Download the Survey123 phone application directly onto your phone for offline use in the field by going to your App Store > downloading Survey123.
2. Obtain the 2025 Cone Survey Form
 - a. If you have the 2024 Cone Crop Survey Form from last year, you should be prompted to update the form to the 2025 version when you open the Survey123 app.



- b. If this is your first time accessing the Cone Crop Survey Form, scan the QR code on your mobile device or use the link: [2025 CA Cone Crop Survey](#)
 - i. Note: the direct link also works on desktop, but you must select geolocation
 - c. You will know you have the updated survey form on your mobile device if the title says 2025. If the form says 2024 or has no year at all, it is not the correct form



The number in orange indicates drafts, and the number in green indicates surveys in the outbox collected offline that must be submitted when cell or data service is regained.

Using the Survey:

1. If you have an AGOL account, you can sign in so that you may view your survey data later, but you can also submit surveys without signing in. After selecting to sign-in or not, Section

1 in the survey requests surveyor information. The Cone Crop Survey was designed so anyone can use it to report cone crops, including landowners and members of the public

2. Section 2 on location automatically grabs geolocation data, but this must be adjusted/ entered manually if entering surveys on desktop and not in the field

- a. The geolocation automatically populates in the grey box after it has been searched
 - b. SZ.E can also be found in a separate GIS viewer [Seed Zone and Elevation Lookup App](#) – This viewer, like the AON viewer, shows parcel numbers. If you survey trees from public access roads, find an especially lucrative stand, but do not know who the landowner is, Unit Staff or Seed Bank staff may be able to initiate a cone collection agreement with the landowner based on the parcel number/ location.
3. Section 3 is the tree and cone section of the survey. Photos of the stand and close-ups of the cone-bearing part of the canopy are encouraged. Fill and submit or save to outbox to send later. Please don't forget to submit!

Accessing your survey data:

For privacy purposes, there is an additional step that needs to occur if you are interested in viewing the backend data from the survey points you submitted.

1. You must request to be added to the “State” (CAL FIRE RSP, DSF, etc.) group via [CA Cone Observation Data Viewing | ArcGIS Group Request](#)
2. You must log in to your ArcGIS account and approve the group request.

Tree and Site Selection:

Once you have familiarized yourself with the seed needs in your area or work (per the Assessment of Needs viewer, or through the excel data as described in “Attachment 1”), it is time to conduct some Cone Surveys. Cone Surveys are recorded digitally and sometimes offline in the field using Survey123. Please refer to “Attachment 4.” Knowing what trees and structure constitutes a collectable stand can help you determine if a location is worth surveying/ logging in Survey123.

Stand criteria

- The entire stand must be edaphically the same. E.g. same slope, same side of a watercourse.
- Minimum of 10 collection trees per species. Usually the stand area must be > or = to 10 acres
 - Exception: in locations where the AON indicates that the bushel “need” is a positive value but less than 20 bushels, the tree number for a viable collection might be smaller. Determined on a case-by-case basis.
- Trees must be mature, cone-bearing, and dominant or co-dominant in the stand
- Stand must be large enough for genetic diversity, i.e. not collecting from adjacent/ sibling trees

Goal: 200’ spacing between collection trees



Example: In the satellite view at left there are 9 pins designating the location of 9 trees. The trees were spaced >150’ apart, which was verified using Avenza. There were 3 additional trees to the right of the screengrab, along the driveway of the property. The track indicates where vehicles were able to drive to haul heavy climber gear while also reducing the distance to haul cone sacks from trees to trucks.

Tree criteria

- No competing leaders, a.k.a. double leaders, also known as “co-dominant” stems (see photo→)
- Good phenotype (straight branches preferred, per standard silviculture practices/ sawmill considerations regarding knots in the bole / log)
- Viable cone crop volume (2+ bushels in the top third of the canopy). Note: a dry bushel is equivalent to 8 gallons. If the total volumes of cones in the top third of the tree canopy is roughly equivalent to three 5-gallon buckets, it is a worthwhile climb for climbers.
- Good cone cut test – this might be determined at a monitoring visit post-survey, or samples might be assessed upon receipt in Seed Bank (overnight shipping in paper bags, boxed normal).



Photo by Justin Marble

Cone Collection Standards:

These standards apply to all CAL FIRE collections, regardless of who is the collection supervisor.

Description of Work:

Collect seed cones from general conifer populations. All collections must be approved PRIOR to collection by the CAL FIRE Seed Bank staff. Cone sacks, tags, and ties are provided by LAMRC.

All collected cones will be bagged, tagged, tied, and transported to LAMRC in Davis within 24 hours of collecting. If cones will not be delivered within 24 hours, they must be interim stored in a cool and ventilated environment and stand free from each other until they can be transported to LAMRC. During transport, cones must be protected and well-ventilated.

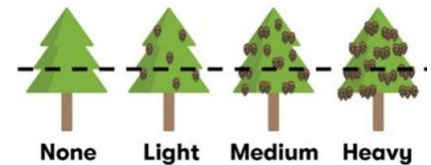
Cone Collection Standards:

Prior to any collections, CAL FIRE staff or other previously determined Registered Professional Forester will assess the viability of a collection through cone cut tests and site assessment.

Crop Rating and Stand Assessment:

1. Each seed lot should have a **minimum** of 10 trees represented. The aggregation of these ten trees, within a 500' elevation band, will be referred to as a “stand.”

2. Crop ratings are to be given at the stand level. For example, if out of 10 trees there are 2 that have a heavy crop, but the rest are light, then the average rating for that stand will be light.



Crop rating visual courtesy of American Forests

3. When evaluating crop rating, only the top third of the tree canopy is to be assessed. Any cone lower in the tree is likelier to have insect damage, if present, and is also much more difficult for climbers to access (not cost-efficient)

Crop rating	Bushel Volume	Gallon Equivalent	Visual Aid	Cost Economics
Light	<2 bu.	<16 gallons	Less than ↓	Not collectable
Medium	2 bu.	=16 gallons	~Three 5-gal buckets	Collectable
Heavy	>2 bu.	>16 gallons	More than ↑	Desirable

Note: None and light crop ratings are still survey options for data-collection purposes. Having survey data is preferable to having no data, which could be interpreted as having no eyes on the forest. Additionally, data regarding none and light crops can serve as part of a long-term data set.

4. Collectable trees shall be dominant or co-dominant, disease-free, of cone-bearing age, at least 12" DBH, with good stem and crown form, no split tops, fast growth rate (inferred from spacing between branches), and other favorable phenotypic characteristics as determined by a Registered Professional Forester, environmental scientist, or other qualified staff.
5. Seed trees shall be widely spaced and well distributed, generally not closer than 200' apart.
6. Stands are separated by at least 200 yards.

Viability:

1. Cone cut tests are to be done to assess viability. This will be done by LAMRC Seed Bank staff in the field or in the lab when samples are mailed overnight. Cones from each sample tree should be marked and placed in separate paper bags to avoid sweating in transportation.
2. Cones and seed must be relatively free of insects. Cones of *Pinus* shall have at least 75% sound, filled seeds per cut surface; for all other species the minimum is 50% per cut surface.
3. Embryo length shall be at least 90% of the embryonic cavity for all species. *P. menziesii* seed - mature appearance with embryo → fully extended. B.C. Ministry of Forests. 1989
4. Megagametophyte shall be opaque, not translucent, and with a firm, nut-like texture.
5. Seed wings shall be separate from the scale and slightly brittle (like parchment paper).



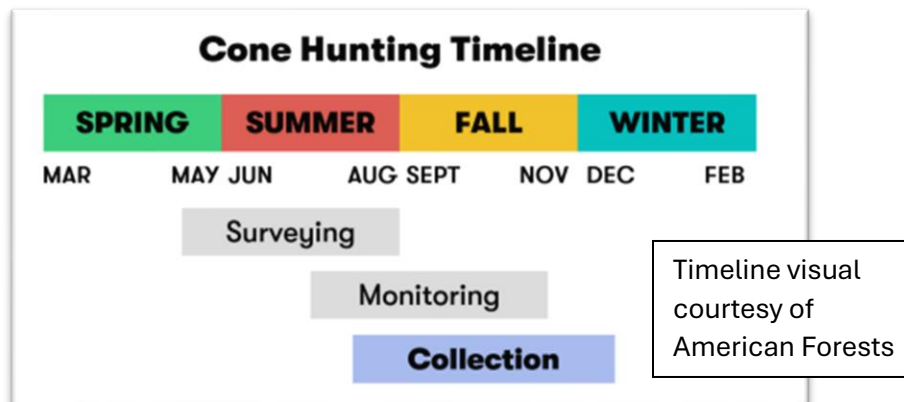
Collections:

1. Trees should be flagged or identified before collections occur.
2. Douglas fir, incense cedar, white fir, red fir, coast redwood and other species with small or sensitive cones shall be bagged in the tree so as not to incur impact damage to the cones and seeds from free falling to the ground. Larger cone species may be dropped to the ground.
3. The peduncle shall be removed from redwood cone and sugar pine cones before bagging. This can be done with hand-held clippers.
4. Cone sacks shall be properly identified with one tag inside and one tag fastened to the outside with the species, lot number (assigned by Seed Bank Manager), seed zone & elevation, location (T R Sec) and date of collection on the front; the back of the tag shall have decimal degree coordinates (DD). Tags shall be marked with waterproof ink or sharpie.
5. Only one bushel of cones per sack allowed and secured at the top to allow for cone expansion. Fill line is clearly marked on CAL FIRE sacks.
6. Only current year or living cones are acceptable – cones must contain viable seed.
7. General collection trees may be climbed with ladders, ropes, or other methods that are not damaging to the trees. Spurs shall NOT be used for special collections, white pines, or thin bark species except for emergency life-saving rescue.
8. Collections shall contain at least 95% seed bearing cones by volume. Unacceptable material includes branches, large twigs and tufts of needles, rocks, cones of the wrong species, spent cones or other foreign matter.

Estimated Start Date: Varies by species, area, and elevation of the site.

Permission & Insurance: Collections require advance notice and agreement.

Timeline, Reforestation Because of You (RBY), and Cone Procurement Program



In June and July, available CAL FIRE staff and CAL FIRE Cooperators survey in the field. Surveying may extend into August if arranged and communicated with the Seed Bank Manager, if regionally appropriate, such as delayed cone visibility/ ripening along the coast due to maritime influence.

Surveys are due at the end of July to allow for some monitoring prior to scheduling collections with contract climbers. Monitoring includes obtaining sample cones from the trees to perform cone cut tests in the field, or in the Seed Lab in Davis if cones are mailed overnight in paper bags to prevent sweating. The Seed Bank Manager is responsible for pre-scheduling climbers based on information obtained from monitoring. Optimal collection time is determined based on monitoring results.

Collections for any given stand are time-sensitive as there is only a 1-2 week window when the crop is harvestable. Lower elevations tend to ripen earlier, as do south-facing slopes. If cones are collected too soon before the cone changes color and scales start flexing, the cones risk case-hardening when processed in the kiln at LAMRC. If cones are monitored too late, or after a heat wave, the cones may have already released their seeds.

Of the 33 million acres of forested land in California, only 3% belongs to the state of California. That 3% includes state agencies other than CAL FIRE. Less than 1% of all forested land in California is under stewardship by CAL FIRE through the Demonstration State Forests (DSFs). Yet the DSFs do not represent all 87 seed zones where native conifer trees might be found. This means that when individual landowners need seed from CAL FIRE, there is a probability that seed does not exist in the Seed Bank. For CAL FIRE to be able to serve all landowners' reforestation needs in the State Responsibility Area, we must collect on private land.

A. The "Reforestation Because of You (RBY)" Program



[RBY interest form](#)

RBY is a program that started in 2023 with a small group of 40 landowners. In 2024, many of the pilot year landowners who had promising trees were revisited, and more landowners signed up. Over 100 landowners had a cone survey conducted on their land by RSP staff. Several dozen with promising trees had monitoring visits, and subsequently a couple dozen had cones collected on their land. A total of ~1600 bushels from RBY participants were collected for processing at the Reforestation Center in Davis, comprising almost a third of all intake bushels for the 2024 cone season.

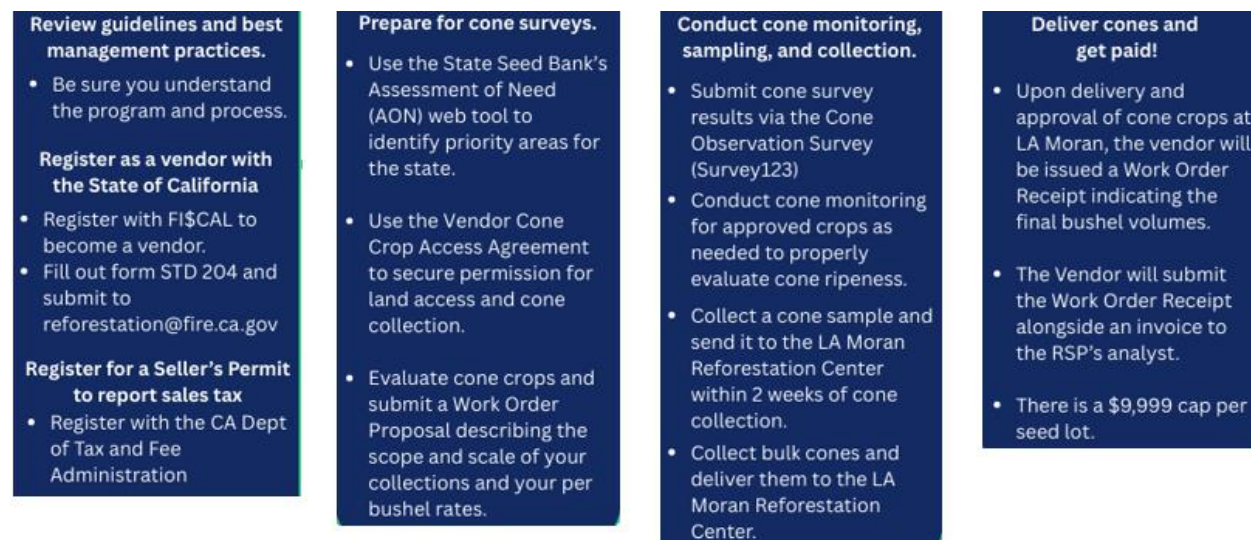
Participating landowners directly benefit as they reserve the right to keep a portion of the clean seed for their future reforestation needs with a limited-term free storage period, as described in the agreement (see the attachment with file name “RBY Cone Survey Access Agreement,” “5 A b”)

In 2025, the RBY program is expanding. CAL FIRE Cooperators can help expand the RBY footprint further by sharing the RBY flyer (“Attachment 5 A a”) and interest survey (a different Survey123) link for new landowners: <https://tinyurl.com/RBY-Survey123> First-time participants will be prioritized in 2025.

Landowners who qualify for the program will be sent a Cone Survey Access Agreement (CSAA) (“5 A b”). The CSAA includes cone survey access, monitoring access, and protection to the landowner regarding collections that occur on their land. The agreement is between RSP and the landowner. RSP staff will never be present on private property without explicit landowner consent to a specified date/ time.

B. The “Cones as Goods” Procurement Pathway

This is a new program that will be piloted in 2025. The purpose of this program is to allow self-sufficient independent climbers to sell cones to LAMRC readily as Vendors, with administrative oversight from the department. Climbers participating in the program would be responsible for conducting their own surveys, their own monitoring, and obtaining landowner permission through a CAL FIRE-approved document.



The Landowner-Climber agreement (Attachment 5B) drafted by CAL FIRE for cone vendors/climbers to use is similar to the RBY CSAA (Attachment 5Ab) in that the Landowner still retains the right to the 10% seed benefit, such that CAL FIRE's RBY program is not in competition with independent cone climbers for access to private land. The agreement also has a built-in CAL FIRE right to inspect cone collection site.

Unit Staff help may be requested to verify a cone collection site prior to, during, or after a collection has taken place. This will be solicited, and landowner approval requested, on a case-by-case basis. Without landowner approval, the collection may be denied, or the seed-banking benefit forfeited.

Both the RBY CSAA (Attachment 5Ab) and the Vendor Cone Crop Verification Access Agreement (Attachment 5B) serve in lieu of the more common CAL FIRE-landowner agreement (CAL FIRE 719) used in fuel reduction work.

We aim to expand the “Cones as Goods” or Vendor Cone Procurement Program in 2026, after the pilot year.



REFORESTATION BECAUSE OF YOU



CAL FIRE
is looking for
private landowners
to be part of the
reforestation
solution!

Are you a forest landowner
who would like to help with
California's reforestation efforts?
We want to hear from YOU!

Reforestation can be made possible because of YOU!

WE NEED **YOUR** HELP!

CAL FIRE's L.A. Moran Reforestation Center, which houses the *only State-run Seed Bank in California* is requesting your collaboration by allowing Cone Surveys to be conducted on your land. We are looking for tree stands that have viable cone crops.

HOW DOES THIS IMPACT **YOU**?

Devastating wildfires, drought, increasing bark beetle pressure, disease, climate change, other biotic and abiotic factors have created a great demand for seed. As part of our mission, CAL FIRE is responsible for the management and protection of California's natural resources, including vital seed supplies to enable post-fire replanting and other reforestation efforts. To do our work, CAL FIRE uses information from the Annual Cone Survey to identify, assess, and collect viable conifer cone crops.



HOW CAN **YOU** HELP?

In addition to signing a cone survey access agreement, you can help CAL FIRE identify if your trees meet the criteria for collection! We are specifically looking for cone-bearing stands that are robust and large enough to support genetic diversity. Typically, this is at least 10 acres, but forest landowners with less acreage may still participate if their neighbor/s participate as well so long as the cone-bearing trees are still part of the same stand.

HOW OFTEN WILL **YOU** SEE US?

Up to four times a year during the cone season. Initial surveys are completed from late May to early August each year. Monitoring visits are conducted at promising sites from August to September. CAL FIRE staff and collaborators may collect cone samples from your property prior to a full collection effort to test if a crop is promising. CAL FIRE will communicate ahead of time as able when the visits might be.

HOW DO **YOU** BENEFIT?

YOU benefit by knowing that you are assisting in reforestation efforts for your local communities, helping preserve California's natural resources, and being a crucial part of the solution. Additionally, if crops are collected on your land, CAL FIRE can reserve a portion of the seeds from your property for your future reforestation efforts. For landowners who are aggregating acreage with neighbors to meet the minimum stand size criteria, the reserved portion would be split.

TAKE ACTION!
HELP IN CALIFORNIA'S REFOREST

CONTACT US HERE:

Kuldeep Singh
LAMRC Operations Manager
Kuldeep.singh@fire.ca.gov

CAL FIRE


2025 External Cone Survey Memo

MORE
ABOUT CONE
COLLECTION



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Cone Survey Access Agreement

CAL FIRE	State of California Department of Forestry and Fire Protection 5800 Chiles Road, Davis, CA 95618	
Landowner	Name: Address: Email: Phone number:	
Land	Address of site: Or parcel number: Or coordinates of location: Or Legal description attached as Exhibit "A" Acres:	
Purpose	Facilitate CAL FIRE reforestation services conifer cone collection program.	
Termination Date	December 31, 2030	
Signatures	State of California Department of Forestry and Fire Protection  By: _____ Name: <u>Kuldeep Singh</u> Title: <u>Reforestation Services Operations Mngr.</u> Date: <u>April 15, 2025</u>	Landowner By: _____ Name: _____ Title: _____ Date: _____

This Cone Survey Access Agreement ("**Agreement**") is entered into as of the Effective Date between CAL FIRE and Landowner. CAL FIRE and Landowner may be referred to individually as a "**Party**" or collectively as the "**Parties**".

1. **Term and Termination.** This Agreement will be effective upon last signature of the Parties ("**Effective Date**") and ends on the Termination Date ("**Term**"). This Agreement may be terminated by a Party upon 30 days' written notice to the other Party.

2. **Use of Contractors.** CAL FIRE contracts with professional, privately insured, individuals ("**Contractors**") to provide CAL FIRE additional resources and experience. These entities may work on the Land as an agent of CAL FIRE and their presence will be communicated to the Landowner ahead of time.

3. **Grant of Access.** Landowner grants CAL FIRE and its Contractors (collectively "**CAL FIRE Parties**") permission to access the Land for seed collection as a part of the CAL FIRE reforestation services program during the Term. This program is limited to seed tree surveys and collection which includes the CAL FIRE Parties surveying the Land, flagging, and climbing trees, as well as harvesting cones and seeds from the trees as further described below.

3.1. **Survey.** CAL FIRE Parties will conduct an initial site survey on the Land as a preliminary verification to determine if the Land has the potential to be a source for viable seed crop collection.

3.2. **Monitoring.** If potential crops are identified during the initial survey, follow-up visits by CAL FIRE Parties will be needed to verify if the crop is viable and monitor with additional visits until ripe.

3.3. **Collection.** Upon crop ripening, CAL FIRE Parties will access the Land to climb trees and collect cones and seeds for processing at CAL FIRE's facilities.

3.4. **Nonviable Seed.** If at any time during a season the CAL FIRE Parties determine the crop is nonviable, CAL FIRE will notify Landowner that CAL FIRE Parties will not be returning to the Land for that season.

4. **Seed Banking Benefit.** If seed is collected during the Term CAL FIRE will reserve the lesser of 10.00% of the clean seed or five pounds per unique species, seed zone, or elevation collected from the Land for the Landowner in cold storage at no charge for up to three years from the December following the intake germination test (the "Free Storage Period"). Any seed remaining at the end of the Free Storage Period for a particular collection will become the property of CAL FIRE unless other arrangements are made in writing by either Party. Landowner waives any and all claims against State of California, CAL FIRE, and their employees and agents, who, through any type of negligence, recklessness, intentional conduct, or equipment failure might otherwise be liable for damages for the loss or degradation of any seeds stored by CAL FIRE on behalf of Landowner.

5. **Indemnification.** CAL FIRE will defend and indemnify Landowner pursuant to Government Code 14662.5 as follows:

5.1. **Defense.** CAL FIRE will defend Landowner against any claim, demand, government investigation, or legal proceeding made or brought by a third party against Landowner to the extent arising out of or relating to the negligence or willful misconduct of CAL FIRE Parties.

5.2. **Indemnification.** CAL FIRE will indemnify Landowner against all amounts awarded to the third party making a claim, demand, government investigation, or legal proceeding against Landowner, and all penalties, fines, and third-party costs (including legal fees) paid by the Landowner arising out of or relating to any claim, demand, government investigation, or legal proceeding made or brought by a third party described in this section.

6. **Amendment.** No amendment or variation of this Agreement will be valid unless made in writing and signed by the Parties.

7. **Severability.** If any term of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then this Agreement, including all of the remaining terms, will remain in full force and effect as if such invalid or unenforceable term had never been included.

8. **Notice.** Any notice required to be provided in this Agreement must be given in writing and sent (a) by first-class certified United States mail, postage prepaid, return receipt requested or (b) by email to the addresses listed at the start of this Agreement. Notice is deemed received on the earliest of (i) 3 business days after being sent by physical mail; or (ii) when sent by email unless the message is rejected as undeliverable.

Land Access and Cone Crop Verification Agreement

CAL FIRE	State of California Department of Forestry and Fire Protection 5800 Chiles Road, Davis, CA 95618 erika.teach@fire.ca.gov	
Vendor	Name: Address: Email: Phone number: Work Order Number:	
Landowner	Name: Address: Email: Phone number:	
Land (filled by Landowner)	Address of site: Parcel number: Coordinates of location (decimal degrees): Acres:	
Purpose	Cone collection site inspection for the CAL FIRE Reforestation Services Program.	
Effective Date		
Termination Date	Set by mutual agreement between Vendor and Landowner:	
Signatures	State of California Department of Forestry and Fire Protection By: _____ Name: _____ Title: _____	Landowner By: _____ Name: _____ Title: _____

This Cone Verification Access Agreement ("**Agreement**") is entered into as of the Effective Date between CAL FIRE and Landowner. CAL FIRE and Landowner may be referred to individually as a "**Party**" or collectively as the "**Parties**".

1. Term and Termination. The term of this Agreement starts on the Effective Date and ends on the Termination Date ("**Term**"). This Agreement may be terminated by a Party upon 30 days written notice to the other Party.

2. Vendor Access Verification. Landowner acknowledges that they have voluntarily provided the Conifer Cone Vendor "**Vendor**" access to the Land for the purpose of conifer cone surveying, monitoring, and collection during the Term in furtherance of their cone collection objectives. This access is limited to site and tree surveys to verify cone crop and target stand conditions and should be constrained to areas approved by the Landowner

2.1. Survey. The Vendor will conduct an initial site survey on the Land as a preliminary verification to determine if the Land has the potential to be a source for viable seed crop collection.

2.2. Monitoring. If potential crops are identified during the initial survey, follow-up visits by the Vendor will be needed to verify if the crop is viable with additional visits until ripe.

2.3. Collection. Upon crop ripening, the Vendor will access the Land to climb trees and collect cones and seeds.

2.4. Nonviable Seed. If at any time during a cone season the Vendor determine the cone crop is nonviable, the Vendor will notify the Landowner that they will not be returning to the Land for that season.

3. CAL FIRE Grant of Access. Landowner grants CAL FIRE permission to access the Land for cone crop verification during the Term in furtherance of the quality control and cone collection objectives of CAL FIRE's Reforestation Services Program. This access is limited to site and tree surveys to verify cone crops and target stand conditions as reported by the Vendor.

4. Seed Banking Benefit. If seed collected during the Term is sold to CAL FIRE under a current and approved Cone Verification Access Agreement, CAL FIRE will reserve the lesser of five pounds or 10.00% of the clean seed per seed lot (unique species, seed zone, and elevation) collected from the Land for the Landowner in cold storage at no charge for up to three years from the December following the intake germination test (the "**Free Storage Period**").

Any seed remaining at the end of the Free Storage Period for a particular collection will become the property of CAL FIRE unless other arrangements are made in writing by either Party. If the Landowner violates any term of this agreement, they forfeit their Seed Banking Benefit. Landowner waives any and all claims against State of California, CAL FIRE, and their employees and agents, who, through any type of negligence, recklessness, intentional conduct, or equipment failure might otherwise be liable for damages for the loss or degradation of any seeds stored by CAL FIRE on behalf of Landowner.

5. Indemnification. CAL FIRE will defend and indemnify Landowner pursuant to Government Code 14662.5 as follows:

5.1. Defense. CAL FIRE will defend Landowner against any claim, demand, government investigation, or legal proceeding made or brought by a third party made against Landowner to the extent arising out of or relating to the negligence or willful misconduct of CAL FIRE.

5.2. Indemnification. CAL FIRE will indemnify Landowner against all amounts awarded to the third party making a claim, demand, government investigation, or legal proceeding against Landowner, and all penalties, fines, and third-party costs (including legal fees) paid by the Landowner arising out of or relating to any claim, demand, government investigation, or legal proceeding made or brought by a third party described in this section.

6. Amendment. No amendment or variation of this Agreement will be valid unless made in writing and

signed by the Parties.

7. Severability. If any term of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then this Agreement, including all the remaining terms, will remain in full force and effect as if such invalid or unenforceable term had never been included.
8. Governing Law and Venue. This Agreement is governed by and construed in accordance with the laws of the State of California. All disputes, claims and controversies, whether based on past, present or future events, arising out of or relating to statutory or common law claims, the breach, termination, enforcement, interpretation or validity of any provision of this Agreement will be resolved in litigation before the Superior Court of California, County of Sacramento.
9. Notice. Any notice required to be provided in this Agreement must be given in writing and sent (a) by first-class certified United States mail, postage prepaid, return receipt requested or (b) by email to the addresses listed at the start of this Agreement. Notice is deemed received on the earliest of (i) three business days after being sent by physical mail; or (ii) when sent by email unless the message is rejected as undeliverable.

Additional Resources and Training Opportunities (external):

The Reforestation Pipeline Partnership (RPP) was created in 2022 as a product of the Wildfire and Forest Resilience Task Force. RPP is a Co-operative partnership between CAL FIRE, the United States Forest Service (USFS)- Region 5, the non-profit American Forests, and other public and private agencies such as Resource Conservation Districts (RCDs) and timber companies engaged in reforestation. The RPP is responsible for creating the 2025 Cone Survey and the 2024 Cone Hunter's Pocket Guide, linked previously in the Cone Survey Memo and again here, below. [Reforestation Pipeline Partnership - American Forests](#)

- 2025 Cone Observation Survey (Survey123): <http://arcg.is/1qSKra0>
- The California Cone Hunter's Pocket Guide
https://d3f9k0n15ckvhe.cloudfront.net/wp-content/uploads/2024/04/4.29.24_final_CACH_Pocket-Guide_wCover.pdf

If you are new to cone surveys, you would like a refresher in cone surveys and cone collection standards or are interested in knowing what resources are being shared by our cooperators, please review the resources and training opportunities linked below.

- [Cone Hunting 101](#)– this is a free online course meant as pre-field-training for Cone Camp.

- Cone Camp 2025 – this is an in-person two-day field workshop hosted by American Forests that covers how to evaluate cones, what constitutes a cone survey and how to use the Survey123 Cone Crop Observation Form.

- Registration costs \$25 and includes camping accommodation and a physical copy of the pocket guide.



- Though cone camp has largely concluded for the 2025 training season, the pre-course materials are still available and relevant.

- [Reforestation Webinars | UC Agriculture and Natural Resources](#) – This series of webinars includes information on procuring plant materials and survey and collection certifications.

These resources are provided to supplement attachments 1-5 in the 2025 Cone Survey Memo.

If you have any questions about the information contained in this packet, please contact the LAMRC Seed Bank Manager, Erika Teach, at erika.teach@fire.ca.gov, or RSP at reforestation@fire.ca.gov.