

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>



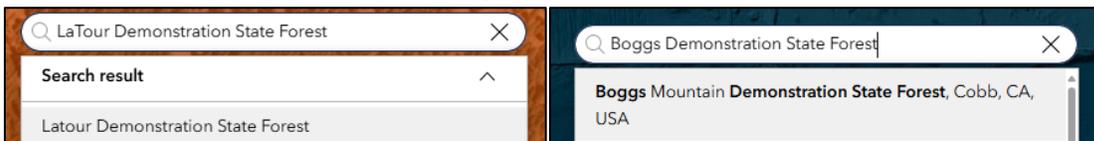
About This Viewer

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):



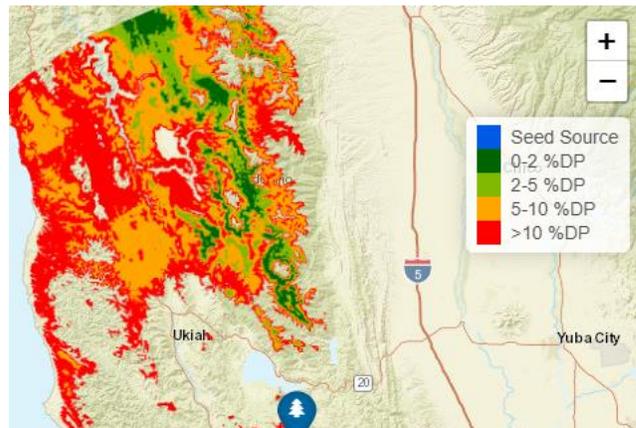
The species that display were generated by vegetation data. The AON **does NOT reflect what is present at a location**, only what the Seed Bank might be interested in if the species is present.

SZ 522, Elevation 5,501-6,000 ft		SZ 380, Elevation 3,001-3,500 ft									
<p>Zoom to</p> <p>Current Seed Need Statistics</p> <p>LaTour</p> <table border="1"> <tr> <td>Total bushels needed:</td> <td>316</td> </tr> <tr> <td>Bushels by species:</td> <td> 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 </td> </tr> </table>		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	<p>Zoom to</p> <p>Current Seed Need Statistics</p> <p>Boggs</p> <table border="1"> <tr> <td>Total bushels needed:</td> <td>15</td> </tr> <tr> <td>Bushels by species:</td> <td> 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 </td> </tr> </table>		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
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- 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 →

LMU

522

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.

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

Sum of Bushel Need	Elevation band
Seed Zones	(top of band)
⊖ 500 Series - West Slope Sierra	3500
⊕ 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