NURTURING THE CONNECTION BETWEEN NURSERIES AND URBAN TREE PLANTERS

COMMON GROUND RESEARCH THAT MIGHT BENEFIT BOTH GROUPS?







Jessie Godfrey

Environmental Horticulture and Water Resources Management Advisor Alameda, Contra Costa, Santa Clara, San Mateo, San Francisco Counties

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Also in:

San Mateo-San Francisco Counties Contra Costa County Cooperative Extension Santa Clara County



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- Returned US Peace Corps Volunteer (Agroforestry Extension, Northern Cameroon)
- Former owner of a small residential gardening business in the East Bay (Godfrey Gardens) and frequenter of Merritt Community College Landscape Hort. Classes
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- Postdocs supported by
 - USDA FS: *nursery interventions* to increase conifer seedling drought tolerance
 - CAL FIRE: triaging locations for cone scouting by the LA Moran Reforestation Center's nursery team using an assessment of climate and fire risk as well as operational priorities like the existing seedbank inventory



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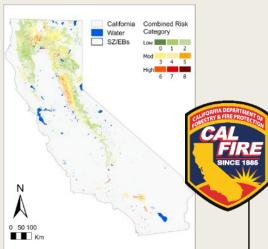


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- Expanding the urban tree canopy has a lot of momentum right now
 - This requires maintaining the existing canopy
 - This also requires putting new trees in the ground and helping them survive their vulnerable establishment phase
 - Inflation Reduction Act funding channeled through the USDA Forest Service and/or CAL FIRE has been allocated to tree planting and 3 years of maintenance this fiscal year (2024-2025)
 - 42241 trees across the state (11265 trees in my counties)
 - Large funding opportunities channeled through CAL FIRE have been allocated to urban tree planting every fiscal year except 2020-2021 since 2018-2019.
 - 60,000 trees and at least 7800 shrubs/ understory plants
 - The first funding cycle of 5 years is just wrapping up and final inspections are complete
- The work is challenging



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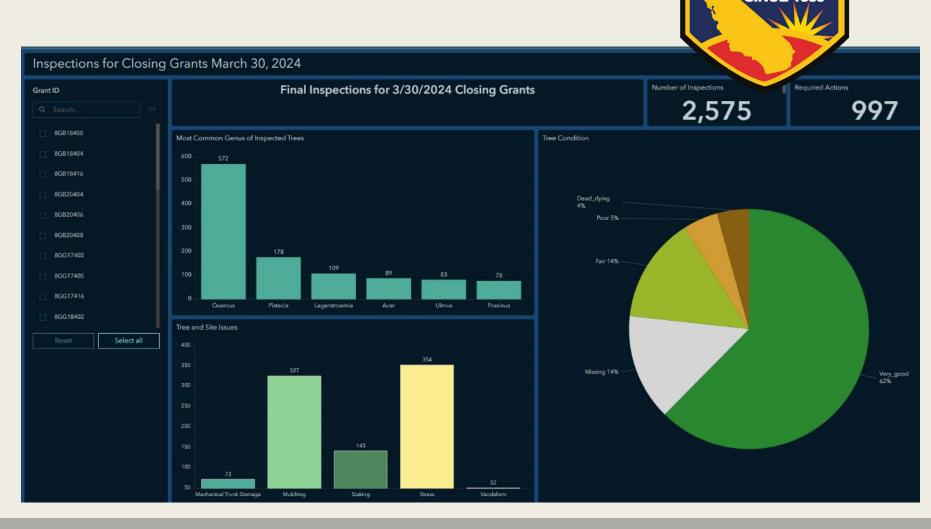


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■ Communication



Evaluation



How can nursery research be done, from this UCCE position, to increase tree survival rates in urban environments?

Evaluation

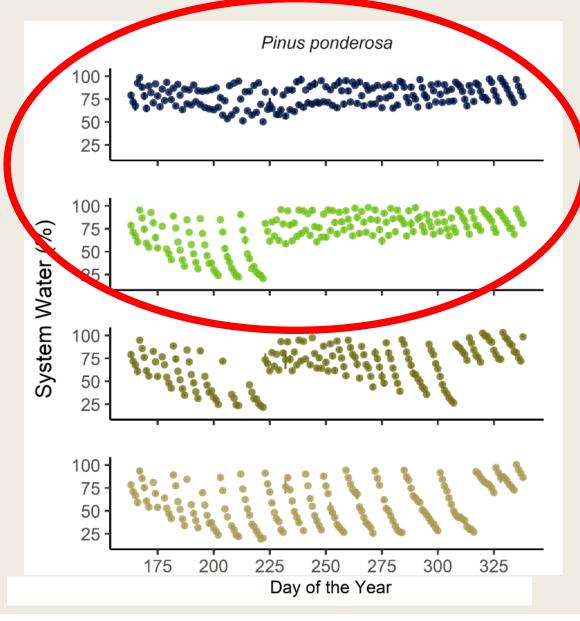


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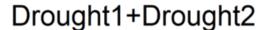


Control



















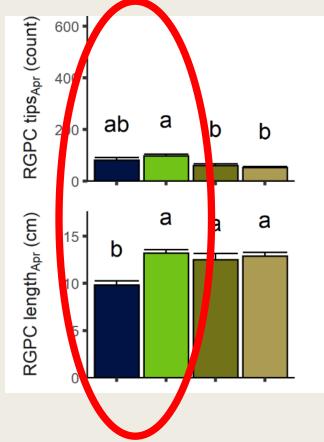




Results from the Root Growth Potential Chamber, Just Before Outplanting

Just as many new root tips as the control, more root tips than the other two drought treatments >

All drought treatments: longer new roots than the control→















Evaluation

Planting Condition Variables					
SPECIES x	POT SIZE (e.g. 1 gal, 5 gal, 15 gal)				
	ROOT COLLAR DIAMETER				
	HEIGHT				
	PLANTING DATE				
	WATER STATUS AT PLANTING AND REGULAR TBD INTERVALS AFTER PLANTING				
	IRRIGATION SYSTEM				
	NURSERY TREATMENTS?				



Plant Performance Variables

GROWTH RATE YEAR 1, 2, 3, 4, 5, 10

SURVIVAL YEAR 1, 2, 3, 4, 5, 10

CANOPY HEALTH YEAR 1, 2, 3, 4, 5, 10

- "ESTABLISHMENT" DATE—indications that a tree has
- -fully connected into the hydrologic cycle of the growing site and/or
- -requires no further or much less irrigation and/or
- -has achieved its intended purpose (e.g. a particular height/ canopy diameter/ canopy density)

For discussion: are there treatments that you would like evaluated for popularly planted urban street trees?

Thank you!!



jmgodfrey@ucanr.edu

Communication





Region	Regional Division	Organization	Location Type (street, park, private, school, etc)	Year 1	Year 2	Year 3	Year 4	Year 5	Total
NorCol		Napa County Resource	arivata	N1 / A	N1 / A	NI /A	NI/A	NI /A	0
NorCal	Bay Area - Napa	Conservation District	private,	N/A	N/A	N/A	N/A	N/A	U
NorCal	Bay Area - Oakland	City of Oakland	street, school, private	C	325	325	325	325	1300
NorCal	Bay Area - Petaluma	City of Petaluma	parks, schools, streets	774	1100	526	55	5 0	2455
NorCal	Bay Area - Pittsburg	City of Pittsburg	public	100	100	150	100		450
NorCal		City/County of San Francisco, Recreation and Parks Department	park	135	140	140			415
NorCal	Bay Area - San Fran	San Francisco Public Works - Bureau of Urban Forestry	street	250	1250	1250	750		3500
NorCal	Bay Area - San Jose	City of San Jose	street		2800	2800			5600

Budget and Derformance



■ Total Applications: 125

■ Total Funding Requested: \$146,415,777.14

- Application Areas
 - Urban Forest Expansion and Improvement: 39 applications, \$38.8 Million
 - Urban Forest Management Activities: 31 applications, \$22.5 Million
 - Education and Workforce Development: 17 applications, \$22.9 Million
 - Green School Yards: 21 applications. 25.92 Million, \$25.9 Million
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CAL FIRE Urban and Community Forestry

2024 Inflation Reduction Act Applications Summary

125

\$146,415,777.14 TOTAL FUNDING REQUESTED TOTAL IRA FUNDING AVAILABLE

\$30,800,000

\$38,757,155.39 URBAN FOREST EXPANSION & IMPROVEMENT

\$22,511,508.15

EDUCATION AND URBAN FOREST WORKFORCE MANAGEMENT ACTIVITIES DEVELOPMENT

\$22,855,833.13

\$25,924,843.36

GREEN SCHOOLYARDS





Inflation Reduction Act via USDA Forest Service

CAL FIRE Urban and Community Forestry 2024 Inflation Reduction Act Awards Summary

(*amounts may have been adjusted by mutual consent of the grantees and CAL FIRE*)

22	\$30,944,717.60		4 Awarda \$4,889,043.22	6.Awarda \$4,540,676.00	3 Awarda \$4,111,802.00	5 Awarda \$6,966,364.85	1 Award \$1,500,000.00	3 Awarda \$8,936,831.53
AWARDS	TOTAL FUNDING		URBAN FOREST EXPANSION & IMPROVEMENT	URBAN FOREST MANAGEMENT ACTIVITES	EDUCATION AND WORKFORCE DEVELOPMENT	GREEN SCHOOLYARDS	URBAN FOREST EQUITY CAPACITY BUILDING	URBAN FORESTRY REGIONAL OR STATEWIDE IMPACT
Urban Forest Expan	sion and Improvement	1						
Applicant	County Project Title Project Description					Award Amount		
City of Ukiah	Mendocino	City of Ukiah Climate Resilient F	orests Project	This project will develop a climate conditions through an i established trees that will provi most vulnerable communities. Plan goal to create a more clim	\$1,399,895.00			
Hollywood Beautification	Los Angeles	This project will plant 750 shade trees in a species selected will be chosen to maxim and are known to thrive in the local enviro integrate this project with existing educate the project will plant 750 shade trees in the project			n to maximize environmental t ocal environment. Hollywood ing education programs and e	\$827,584.55		
North East Trees, Inc.	Los Angeles	East LA GROW (Greening, Resilie Development)	ence, Opportunity, Workforce	This project will recruit, train, and employ a crew of up to 10 local youth and young adults from East Los Angeles and spearhead grassroots community engagement efforts, establishing relationships with hundreds of residents across East LA to distribute 500 large canopy residential trees. This project will also host 15 educational workshops focused on tree care and ongoing engagement with a team of local professionals and will lead the planting of 500 trees in the public right-of-way in East LA.				\$1,482,584.25
Tombook	Fan Barrandina	Fan Remarding Shade 5 - th. S		This project aims to build the c comprehensive urban tree cand will be planted throughout disau period in order to ensure sustai	opy expansion, community or dvantaged communities. Long	ganizing, and workforce devel g-term tree care will follow for	opment. At least 1,500 trees	£1 170 070 42
TreePeople	San Bernardino	San Bernardino Shade Equity Pro	oject				TOTAL	\$1,178,979.42 \$4,889,043.22



Application Areas

- Urban Forest Expansion and Improvement: 39 applications, \$38.8 Million (11 apps in counties I cover, \$12.9 Million)
 - Canopy (SMC) Expanding Green Assets: A Community-Based Project to Grow the Canopy and Create New Opportunities for the San Francisco Midpeninsula \$1,499,914.45
 - City and County of San Francisco (SFC) Recreation and Park Department San Francisco Natoma and 11th Street Park \$1,300,000.00
 - City of Alameda (AC) Alameda Urban Forest Expansion and Workforce Development Project \$174,444.74
 - City of Concord (CCC) Concord 'Thousands of Trees Planted' Project \$1,494,794.40
 - City of Hayward (AC) COH Urban Forest Canopy Expansion \$1,500,000.00
 - City of Newark (AC) City of Newark Urban Forest Expansion \$239,495.00
 - City of Pittsburg (CCC) Pittsburg City Park Urban Forest Improvement \$1,000,306.50
 - Friends of the Urban Forest San Francisco Greening San Francisco, Phase V \$1,498,899.00
 - Growing Together Bay Area (CCC) Planting Our Future \$1,240,514.00
 - Latinos United for a New America (SCC) Building the Roots of Our Movement: Advancing Urban Canopy in Eastside San Jose through a Community Leadership Model \$1,496,467.85
 - Trust for Public Land (SFC) The Center West Oakland Nature Trail \$1,500,000.00

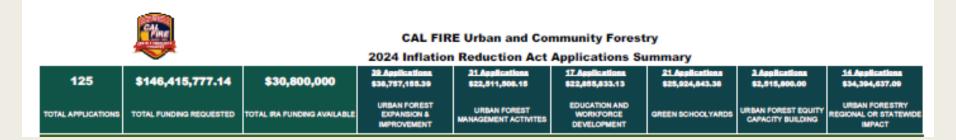




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 - Urban Forest Management Activities: 31 applications, \$22.5 Million
 - City of Richmond (CCC) Urban Greening Master Plan Update \$1,495,100.00
 - County of Alameda Community Development Agency Planning Department (AC)
 Unincorporated Alameda County Urban Forest Plan \$685,000.00
 - County of Contra Costa Contra Costa (CCC) Urban Forest Management Plan (UFMP) \$1,106,044.12

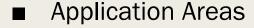


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 - California Climate Action Now! (SFC) CAN! C3: Canopy [SF] City College \$1,497,013.20
 - Groundwork Richmond (CCC) Groundwork Richmond Urban Forestry Workforce Development -Green Jobs for Richmond! \$1,112,561.91
 - JobTrain (SMC) Pathways to Urban Forestry in the MidPeninsula \$1,500,000.00
 - ReScape (SFC) ReScape Statewide Regenerative Urban Forestry Certification (UFC) \$1,494,257.00
 - San Jose Conservation Corps (SCC) San Jose Arbor Corps & Nursery (SJ ACorN)\$1,499,053.93



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 - Green School Yards: 21 applications. 25.92 Million, \$25.9 Million*
 - Pittsburg Unified School District (CCC) Stoneman Elementary Green Schoolyards Implementation Project \$1,499,424.00
 - Santa Clara County Office of Education (SCC) SCCOE Green Schoolyard Implementation Grant at Sunol Community School & South County Annex \$1,500,000.00*



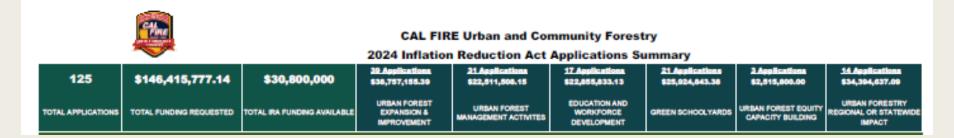
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 - Santa Clara County Office of Education (SCC) SCCOE Green Schoolyard Implementation Grant at Sunol Community School & South County Annex \$1,500,000.00

*All Cal Fire funding for urban tree planting was dedicated to green schoolyards in the 2022-2023 grant cycle, lots in Santa Clara County

GRANT AWARDS

- 2023-2024 CAL FIRE Urban and Community Forestry Childcare Facilities Awards
- 2022-2023 CAL FIRE Green Schoolyards Grant Awards
- 2021-2022 CAL FIRE Urban and Community Forestry Grant Program Project Awards
- 2019-2020 CAL FIRE Urban and Community Forestry Grant Program Awards
- 2018-19 CAL FIRE Urban and Community Forestry Grant Program Project Awards





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 - Urban Forest Equity Capacity Building: 3 applications, \$2.5 Million
 - Greening Projects (SFC) Greenspace Renewal and Expansion in the Eastern Neighborhoods (GREEN) \$750,000.00
 - Urban Tree & Drought Forum (CCC) Water Management for Equitable Urban Tree Planting \$265,800.00

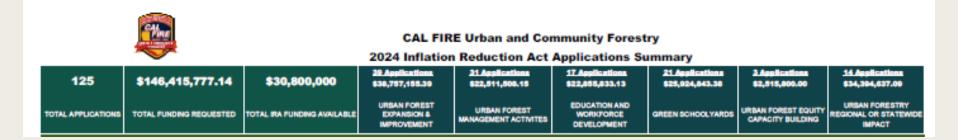




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 - California Alliance of Boys & Girls Clubs (SFC) Boys & Girls Clubs Urban Forestry Project \$194,949.71
 - Earth Island Institute (AC) Strengthening the California Schoolyard Forest System \$2,998,756.93