



MEMORANDUM REPORT

**DATE:** January 21, 2025

**TO:** Board of Commissioners of the Los Altos Hills County Fire District

**FROM:** Arastradero Maintenance Project Team,  
Ryan Cronin, Technical Analyst/Project Manager  
A. Harmon, Field Manager  
Eugenia Woods, Programs, Planning and Grants Manager

**SUBJECT:** Arastradero Maintenance Evacuation Route Project Final Reports

**RECOMMENDATION:**

Receive Arastradero Maintenance Evacuation Route Project Final Reports

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**BACKGROUND**

The Los Altos Hills County Fire District (District or LAHCFD) 2023-2027 Strategic Plan Goals & Strategies (Attachment 1), Strategic Goal 1 Prevention, Protection, Resiliency, aims to fund, develop, and maintain programs to protect life, property and enhance safety to build a resilient community. Evacuation Route Hardening is an initiative of this goal. Integrated Hazardous Fuel Reduction (IHFR) programs identified in the LAHCFD Chart of Services (Attachment 2) include the Community-Focused Evacuation Route Hardening projects. These IHFR programs are based on fire science, the LAHCFD Community Wildfire Protection Plan (CWPP) Annex 4, and the expenditures allocated in the annual District budget. IHFR projects are designed to enhance community resiliency, educate District residents, and reduce community fire hazards. In accordance with Goal 1, staff identified high fire risk areas and initiated collaborative solutions with regional partners including the Santa Clara County FireSafe Council and the Santa Clara County Central Fire Protection District (County Fire or Fire Department). The projects targeted roadside hazardous vegetation reduction on major transportation corridors. The fundamental goal of these evacuation route and road hardening projects is to provide greater protection for life safety and to reduce property losses in the event of catastrophic wildfire by providing safer egress and ingress for evacuees and emergency responders.

Hazardous fuel reduction is not a one and done endeavor. Prior projects must be revisited to maintain evacuation route viability. Maintenance on Page Mill Road in the

summer of 2023 was the first of these maintenance efforts. The District expresses gratitude to the Town of Los Altos Hills for conducting maintenance on El Monte and Moody Roads in 2023. Maintenance is currently being conducted on a two-year cycle, or when inspections warrant something different. An environmental firm is being secured to study if a more accurate duty cycle can be identified. Arastradero Road was due for maintenance based upon the two-year cycle. As maintenance projects are conducted, connecting neighborhood evacuation routes are being integrated and treated simultaneously.

Priority evacuation routes were identified and treated, followed by the treatment of supporting alternate routes. Maintenance and neighborhood integration followed.

<b>Primary routes</b>	<b>Year(s)</b>	<b>Miles</b>
Page Mill Road – Phase I and Phase II	2020/2021	unk
Moody-El Monte Roads	2021	6.76
Altamont Road	Spring 2022	4.40
<b>Alternate routes</b>		
Arastradero Road	Fall of 2022	3.50
Robleda-Burke project	Fall 2023	5.10
Elena-Fremont project	Spring 2024	5.56
Black Mountain-Purissima project	Spring 2024	4.24
<b>Maintenance and Neighborhood routes</b>		
Page Mill Road - Maintenance	Spring 2023	5.64
Mora-Ravensbury project	Summer 2023	3.18
Magdalena-Summerhill Avenues project	Fall 2023	3.40
La Paloma Road	Summer 2024	3.30
Altamont Road - Maintenance	Fall 2024	4.40

Santa Clara County FireSafe Council (SCCFSC) was the project manager for these projects. The Arastradero Maintenance evacuation route project was initially selected as one of the four I-280 underpasses of the 3.3-mile stretch between Page Mill Road and El Monte Road. These critical underpasses grant access to residents of the southwest neighborhoods of Los Altos Hills to Foothill Expressway. If I-280 interchanges at Page Mill Road and El Monte Road become congested, these alternate evacuation routes will be critical to surviving a fast-moving wildfire.

Special attention was given to the Caltrans Park-and-Ride lot at Page Mill Road. This is a likely area for ignition. Clearing brush and limbing up trees at this location also improves visibility, safety and crime deterrence. As a maintenance project, it was expanded to include the District section of Arastradero Road by Alpine Road.

Information about this project, and other District projects can be found on the Department website at <https://www.lahcfd.org/community-projects/>.

## DISCUSSION

The Arastradero Maintenance Evacuation Route project was successful in attaining the goal of hazardous fuel reduction and providing a safer evacuation route.

## QUANTITATIVE RESULTS and EXPENSES

Date	Acres	Cubic Yds	Distance (Miles)
Monday, October 21, 2024	2.76	20	1.9
Tuesday, October 22, 2024	2.94	20	2.02
<b>Total</b>	<b>5.70</b>	<b>40</b>	<b>3.92</b>

Arastradero Maintenance data. All biomass was used as mulch on the District parcel.



Altamont Evacuation Route				
Project Cost Breakdown				
Service Description	Contractor	Completed	Amount	Notes
IHFR Project Management	SCC FireSafe Council	July - Sept	7,284.21	(Some payroll notes combined Arastradero, so I just divided by 2 and split between projects)
Personnel Mileage	SCC FireSafe Council	Aug & Sept. 2024	286.09	
Project Supplies	SCC FireSafe Council	Aug & Sept. 2024	82.76	\$40.55+\$25.66 + 25% uplift
Project Supplies Reimbursement (LAHCFD)		July 2024	177.05	
Traffic Control Plan	City Rise	June	560.00	\$500 + 12% uplift
Traffic Control Contractor	City Rise	Sept 2024	14,078.40	\$12,570 + 12% uplift
Fuel Reduction	Miabella	Sept 2024	33,600.00	\$30,000 + 12% uplift
Biological Survey	Dudek	July-Aug 2024	4,140.15	\$3,696.56 + 12% uplift
Postcard, Cover Letters, & ROE Mailers	Folger Graphics	July 2024	890.14	
Pre-Project UAS Flyover/Data	Jackson Ricketts	June 2024	3,000.00	"Anniversary Flyover"
Post-Project UAS Flyover/Data	Jackson Ricketts	Sept & Oct 2024	3,400.00	Oct = Volumetric Survey (\$1950)
<b>Total Project Cost</b>			<b>67,498.80</b>	

Costs directly associated with the Arastradero Maintenance Evacuation Route Project.

## Successes

- There were no injuries or near misses on this project. Safety is always the highest priority for these projects. Thoughtful measures are taken to promote a safety mindset. Additional traffic control technicians are standard for LAHCFD projects. Bilingual safety briefings are conducted daily so all may clearly hear the safety message in a native language.
- Effective utilization of Unmanned Aircraft Systems (UAS) for image telemetry. JACKSONS DRONES was contracted to provide aerial photos and to identify treatment areas, and quantitatively measure hazardous fuel reduction.
- UAS observations accurately measure the increased regrowth of native understory vegetation. These observations are also identifying where invasive species are spreading, prompting targeted treatment and removal.

The Jackson's Drones Vegetation Assessment Report is provided as Attachment 4.

- With assistance of County Counsel, the project team completed CEQA compliance by filing a Notice of Exemption (NOE) for the added Alpine Road section through the Office of the Santa Clara County Clerk and CEQAnet, the CA state clearinghouse. By filing the NOE, LAHCFD utilized a process that notified the public of the proposed mitigation work, provided the public the opportunity to voice concerns, and if concerns were expressed, allowed for time to address, and remedy the concerns prior to commencing the project. No concerns were received, and the project commenced as planned.
- Recognition that the insurance industry is now incentivizing the high value of hazardous vegetation management programs to reduce the threat of wildfire and property losses. LAHCFD efforts strongly support the Office of the Insurance Commissioner's Initiative for the insurance industry to recognize wildfire mitigation efforts as a benefit to the insured.
- Appreciation is expressed for the dedicated support of the LAHCFD Board of Commissioners, the Santa Clara County Fire Department, the Town of Los Altos Hills, the Santa Clara County FireSafe Council, Caltrans, County Roads & Airports, and the contractor, crews and traffic control involved in the success of the project.

### Community Outreach

LAHCFD staff promoted this project, and the other programs of the District, through several outreach activities.

The Arastradero Maintenance project successfully engaged the residents included in the project. This webinar was scheduled, and held on Tuesday, October 1, 2024. After scheduling, the Vice-Presidential debate was scheduled at the same time. No community members attended the webinar. As always, this webinar was recorded and made available on the District website. The District is developing, and will have available on the District website, an informative video and slideshow detailing how evacuation route hardening is done and the benefits of these projects.

- A-frame message boards were strategically placed at entry points along the project route. These signs include a link to the District website project page.
- Letters were mailed to all property owners along the project. They were offered the opportunity to make inquiries, and have their property participate in the vegetation management efforts.
- LAHCFD staff walked the project route, door knocking, made ROE requests, and promoted other District programs.

Through door knocking efforts, residents from the Alpine Road portion contacted the District seeking guidance on further fuels mitigation in their neighborhood. This contact is likely to develop into a NFPA® Firewise USA® community. The IHFR team is leveraging this great opportunity to promote the many programs of the Fire District. Most residents in this area already utilize the Defensible Space Brush Chipping program. Engaging in Firewise program will have them utilizing the Home Ignition Zone assessment program.

### Insights/Lessons Learned

- Maintenance does not require as much large brush or tree limbing. More sunlight contributes to weed and grass growth, much like natural fire would. This results in more weed trimming, which is a rapid process.
- With this information, future maintenance projects will be expanded to include either new, untreated neighborhood areas, combined with other maintenance projects, or both.
- From previous experience, the District has established a best practice of contacting all selected vendors prior to the start of the project. Most important for safety, the District project manager reviews the project and anticipated traffic control concerns with the traffic control field crew supervisor. The District's relationship with our traffic control vendors has benefited from this practice.
- As a result of the collaboration and coordination between LAHCFD and its partners, the Arastradero Maintenance Evacuation Route project was successful and provided a strategic and high priority public safety benefit to the community in the event of a wildfire or emergency incident. LAHCFD thanks the team, contractors,

Commissioners, community members and partner agencies for their contributions to and support of this project.

**Attachment(s):**

1. [LAHCFD 2023-2027 Strategic Plan, Goal 1](https://www.lahcfd.org/wp-content/uploads/2023/03/LAHCFD-2023-27-Strategic-Plan.pdf)  
(<https://www.lahcfd.org/wp-content/uploads/2023/03/LAHCFD-2023-27-Strategic-Plan.pdf>)
2. [LAHCFD Chart of Services, V15, 3/09/2023](https://www.lahcfd.org/wp-content/uploads/2023/04/ChartOfServices-SP2023-27_V15.pdf)  
([https://www.lahcfd.org/wp-content/uploads/2023/04/ChartOfServices-SP2023-27\\_V15.pdf](https://www.lahcfd.org/wp-content/uploads/2023/04/ChartOfServices-SP2023-27_V15.pdf))
3. Santa Clara County FireSafe Council Final Report: Arastradero Maintenance Evacuation Route project
4. Jackson Drone's Vegetation Assessment Report



## **Santa Clara County FireSafe Council**

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Phone (408) 975-9591 • [www.SCCFireSafe.org](http://www.SCCFireSafe.org)



# **FINAL REPORT** **Arastradero (Maintenance) Evacuation Route**

**November 18th, 2024**

### **Introduction:**

The Arastradero Road Evacuation Route Project in Los Altos Hills, California, provides an important route of egress route for a significant portion of the South-Eastern area of the Los Altos Hills Community in the event of a wildfire evacuation. To secure the integrity of this route, Los Altos Hills County Fire District and Santa Clara County FireSafe Council propose a roadside treatment of hazardous fuels.

### **Cooperators:**

There were multiple agencies, contractors, property owners, and organizations that contributed to the project; Santa Clara County Fire Safe Council, Los Altos Hills County Fire District, Dudek, Denali Tree Service, BATS/City Rise Safety, the County of Santa Clara, Caltrans, and the Town of Los Altos Hills to name a few.

### **Goals For This Project:**

1. Trim woody vegetation and weed whip grasses and weeds adjacent to the road.
2. Remove dead or dying woody debris of less than 6 inches DBH (Phase 1), and less than 8 inches DBH (phase 2)
3. Reduce ladder fuels around larger trees.
4. Remove dead, diseased, or damaged trees smaller than 6 inches DBH (Phase 1), less than 8 inches DBH (Phase 2) posing a hazard.
5. At street corners where vegetation is thick and blocks visibility, trim and remove to meet standards of shrubs less than 3 feet high and trees limbed up to at least 6 feet above ground. Per Los Altos Hills Municipal Code Title 10-Zoning, "shrubs and plants shall be pruned to a height not to exceed three (3') feet above the road level at its nearest point in an area bounded by the center line of intersecting roads or easements for vehicular access, public or private and a straight line joining points on such center lines eighty (80') feet distant from their intersection. All side limbs of trees in such an area shall be pruned to a height of not less than six (6') feet above the road surface."



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## Project Site:

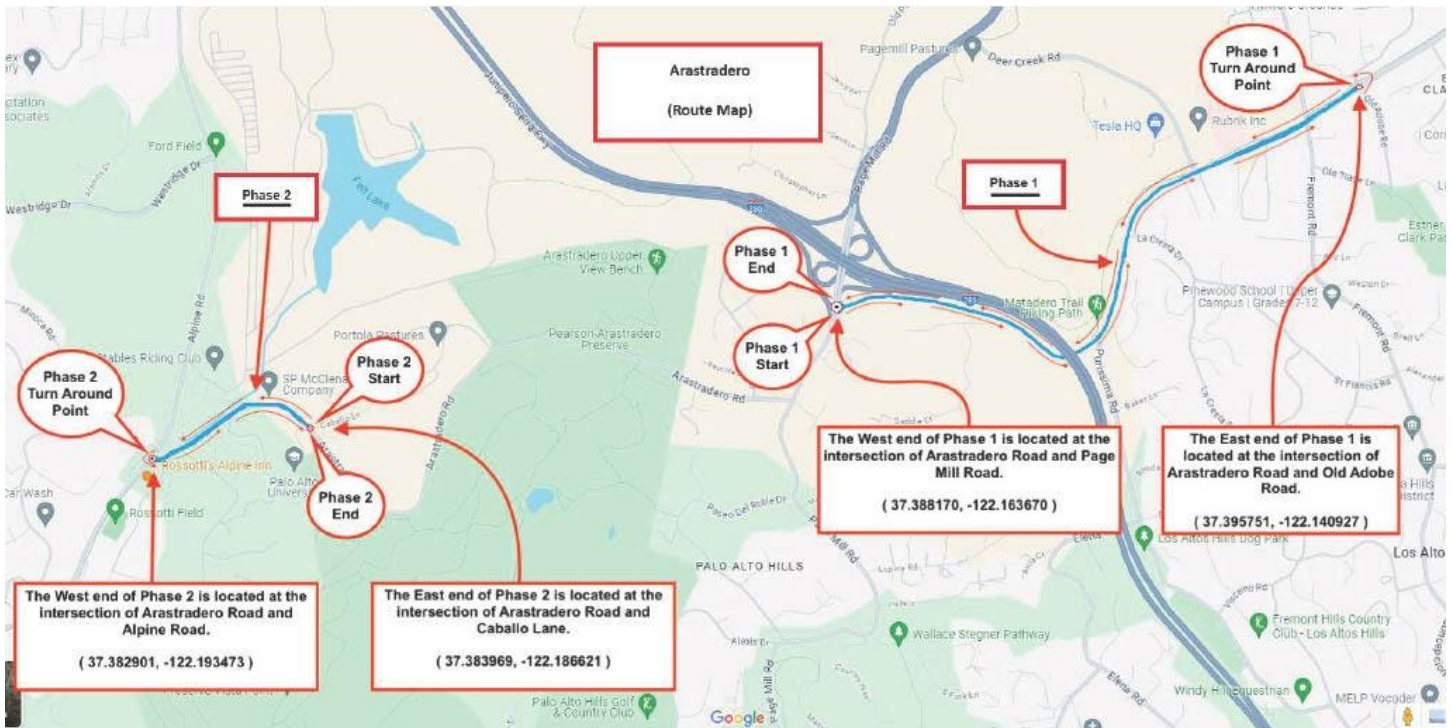
This evacuation route project intends to treat all or portions Arastradero Road within the Los Altos Hills County Fire District, including Los Altos Hills, and Portola Valley.

Phase 1: Arastradero Road in Los Altos Hills, starting at the intersection of Page Mill Road at Interstate 280 extends southeast to the Los Altos Hills County Fire District boundary near the intersection of Arastradero Road and Old Adobe Road, approximately 37°23'43.5"N 122°08'29.3"W. For a linear distance of 1.62 miles.

Phase 2: Arastradero Road in Portola Valley extends south from Alpine Road to the LAHCFD boundary at approximately 37°23'05.7"N 122°11'16.8"W. For an approximate linear distance of 0.34 miles.

Phase 1&2: The total length of roadway in the LAHCFD project area is approximately 1.96 linear miles.

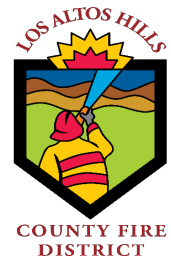
## Arastradero Evacuation Route Project Map





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### **Permissions:**

One of the biggest challenges in these types of projects is getting permission to treat the properties. During planning of the project we conducted an extensive public outreach effort to get the permissions needed. It included mailers, newspaper articles, door-to-door visits, and a social media campaign. We were able to include 7 of the 43 parcels involved. Prior to the project, LAHCFD staff conducted a survey of the area to identify key parcels within the project scope. SCCFSC's timeframe for ROE forms to be returned was 14 days with a due date of October 7th, 2024. LAHCFD and SCCFSC Staff went out to conduct door knocking 2 weeks prior to project start date.

### **Biological Precautions:**

As with all of our projects, protecting the biodiversity of the area is a high priority. A Biological Survey was conducted on October 14th, 2024, by Dudek, 7 days before the project started. The biologist identified and flagged wood rats nests, active birds nests, and any habitat within the treatable area. The biological review was completed within the nesting season. Heritage trees were identified during the field verification stage and were not included in the work plan. Finally, a buffer of 25 feet was implemented along stream beds and seasonal waterways.

### **Project Duration:**

The project started on Monday October 21st, 2024 and was completed on Tuesday October 22nd, 2024. A total of 2 Days. We did not encounter any red flag days or any rain days.

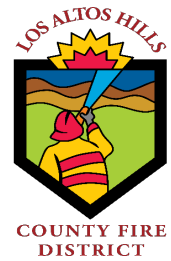
### **Jurisdictions And Funders Involved:**

Santa Clara County Fire Safe Council, Los Altos Hills County Fire District, Santa Clara County, CalTrans, and Town of Los Altos Hills.



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### Contractors Selected:

Dudek, was selected for this project due to availability and competitiveness of the bid

Denali Tree Service was selected due to their availability, familiarity with evacuation route projects within LAHCFD, commitment to self and public safety, and ability to complete the project within the requested time frame.

BATS/City Rise Safety provided a traffic control plan and provided four flaggers and traffic control for project duration.



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### Project Photos





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### **By The Numbers:**

- Area treated – 4.20 miles total area treated for both sides were treated during this project. Most of which was treated 15 to 30 feet from the edge of the road unless marked for riparian area. On ROE properties treatment extended 30-50 feet from the edge of the road if needed. The daily average was 2.10 miles per day.
- Acres treated = 10.20 acres with an average of 5.10 acres treated per day.
- No poison oak was treated during this project.
- 2 days of treatment on the project itself was carried out by Denali Tree Service

We overcame many challenges to complete this critical part of growing the evacuation route and vegetation treatment system in Santa Clara County. This project also supports goals in the LAHCFD CWPP annex as well as the overall Community Wildfire Protection Plan.

We would like to acknowledge the contribution made by Denali Tree Service, Dudek, and BATS/City Rise Safety. All entities were committed to assisting Santa Clara County FireSafe Council with the project from start to finish.

Bats/City Rise Safety provided four traffic control personnel every day to make sure that the work could be done in a safe manner. Arastradero Road is a commuter road with multiple driveways, high bike and foot traffic routes; the fourth traffic control personnel was necessary for the safety of the tree crews, SCCFSC staff, LAHCFD staff, general traffic, and bicyclists in the Los Altos Hills area. I'm happy to report, with BATS/City Rise Safety, traffic control coverage and the safe working practices of Denali Tree Service, we were able to finish the project with no reported injuries or incident reports. In addition to that, Los Altos Hills County Fire District granted permission for the project crew to use their parcel for a staging area.

Safety briefings were held by the safety officers, Zaid Ortiz each morning before start of work to discuss traffic control, personal protective equipment (PPE), local emergency services, environmental hazards, and weather conditions.



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We would like to thank all the cooperators and property owners for all their support. If you have any questions or concerns please feel free to direct them to:

***Zaid Ortiz*** –

Project Manager

e-mail: [zortiz@sccfiresafe.org](mailto:zortiz@sccfiresafe.org)

Phone: (408) 679-5307

***Amanda Brenner-Cannon*** –

Program Director

e-mail: [abrennercannon@sccfiresafe.org](mailto:abrennercannon@sccfiresafe.org)

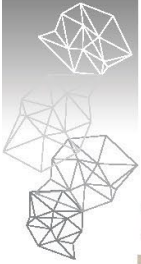


# POST TREATMENT REPORT

ARASTRADERO ROAD



NOVEMBER 2024



# OVERVIEW

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92.8 acres

1.8 mi

November  
2024

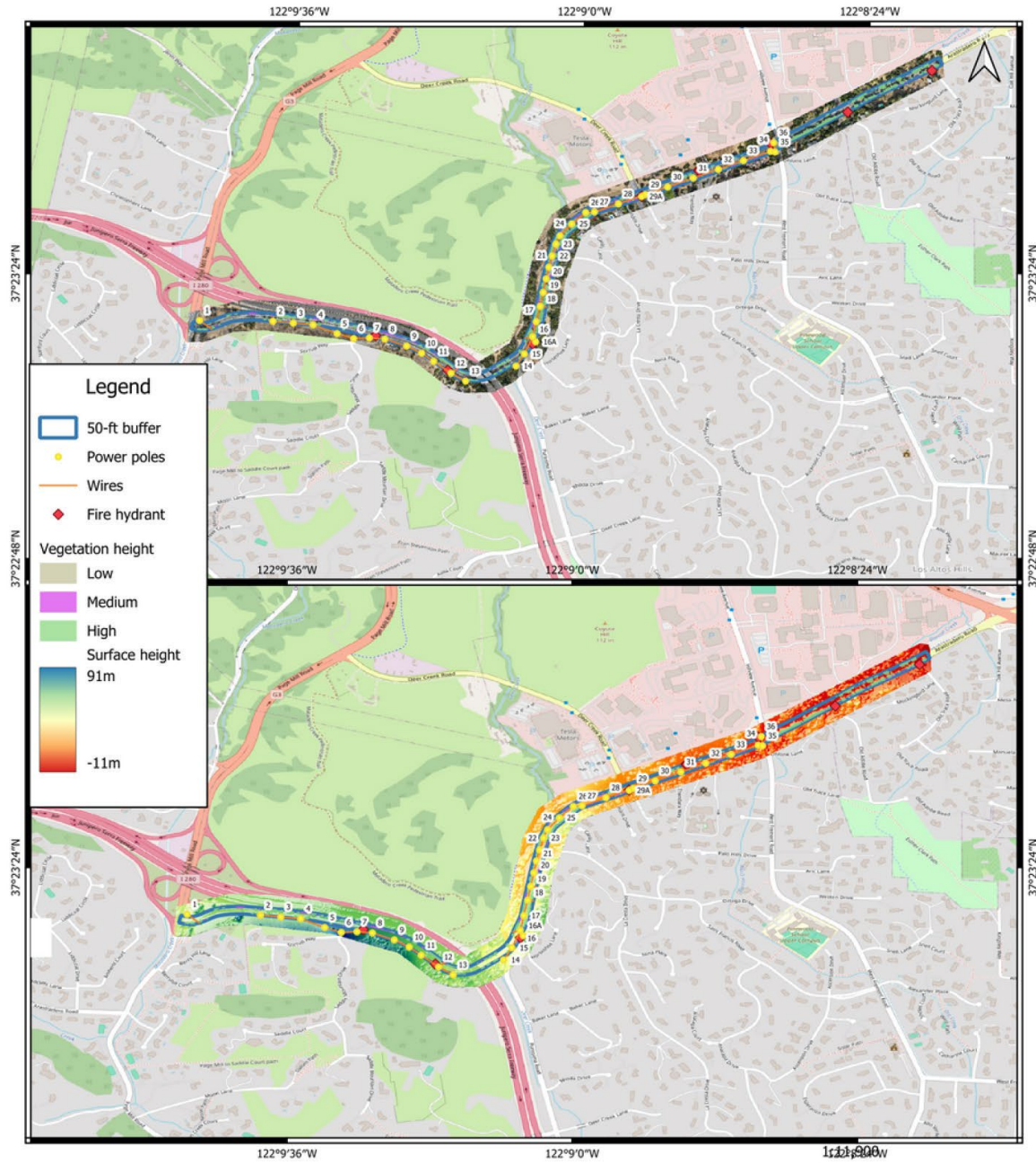
1,800 images

38x

Vegetation height  
groups



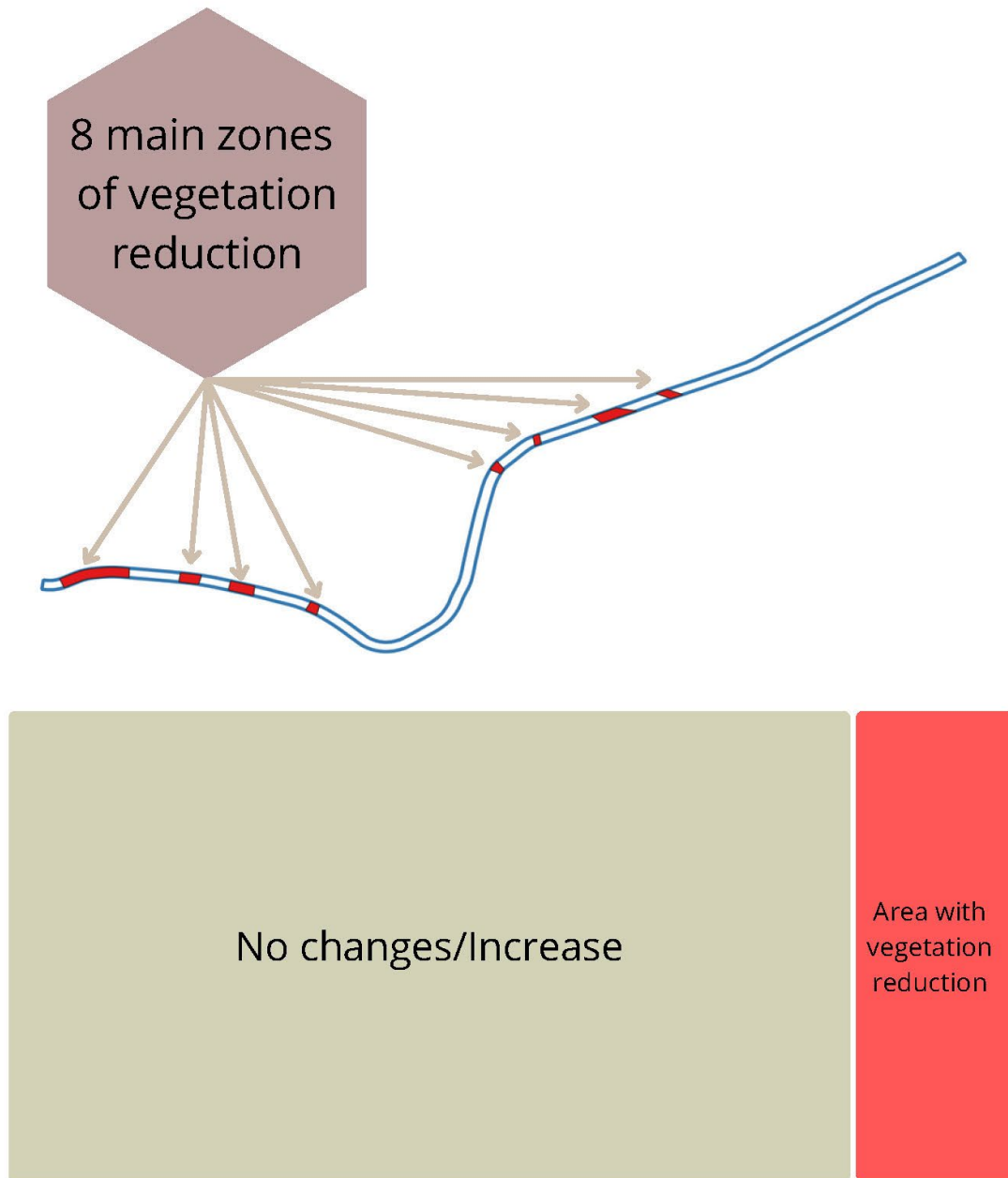
# OVERVIEW





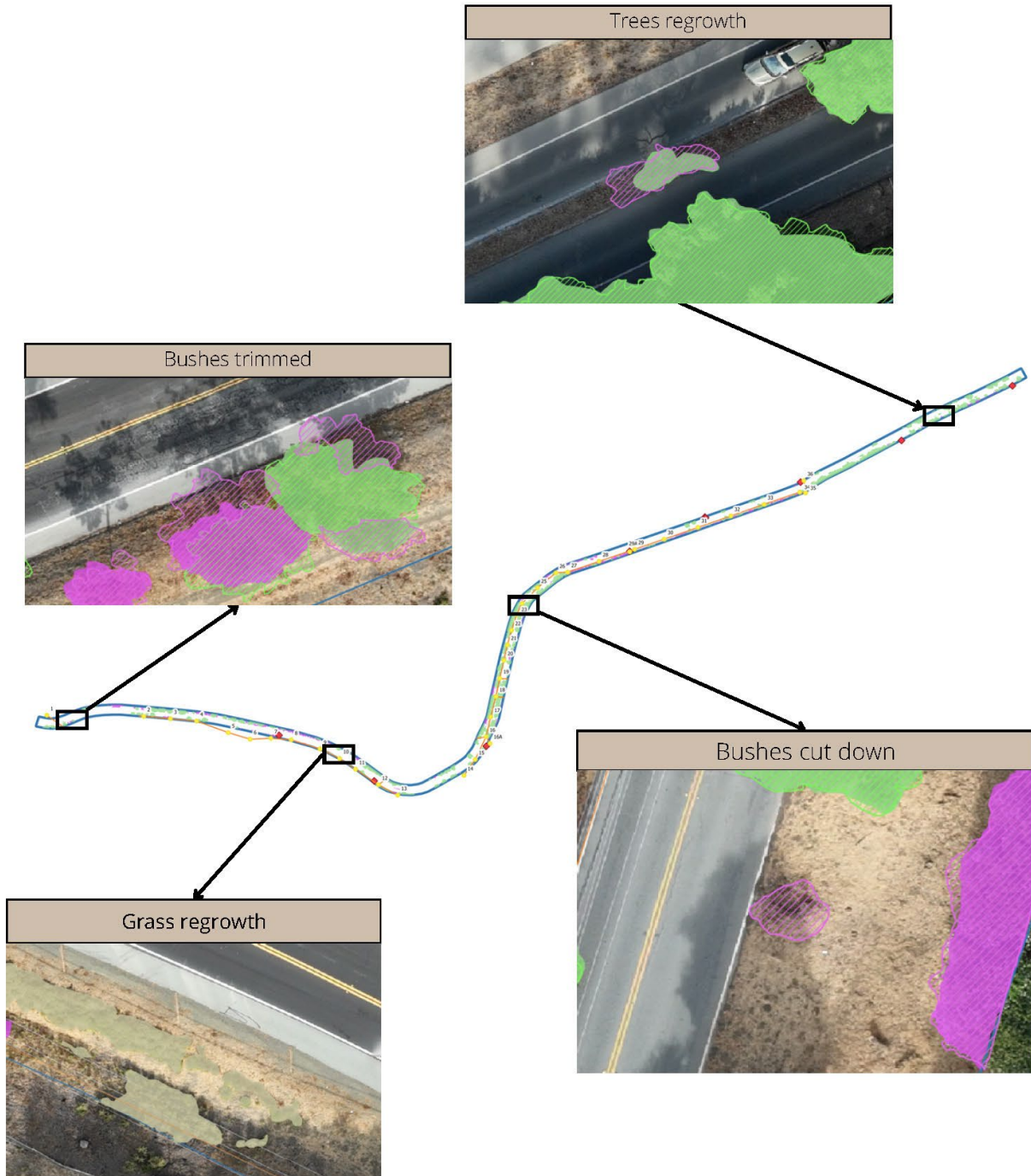
## CHANGE DETECTION (JULY - NOVEMBER 2024)

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## CHANGE DETECTION (JULY - NOVEMBER 2024)



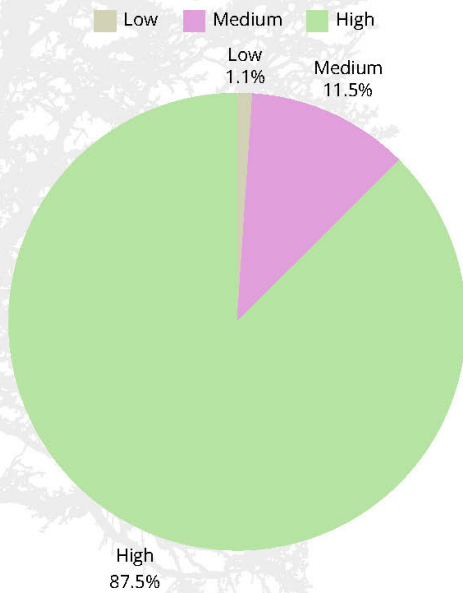


# VEGETATION METRICS

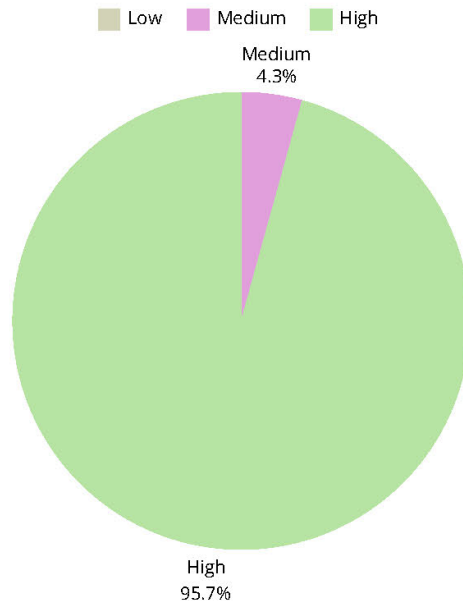
November '24

Vegetation	Area, acres	Volume, cubic yards
Low (up to 1 m)	0.06	47
Medium (1-5 m)	0.64	15,115
High (more than 5 m)	4.88	336,328

Vegetation area, %



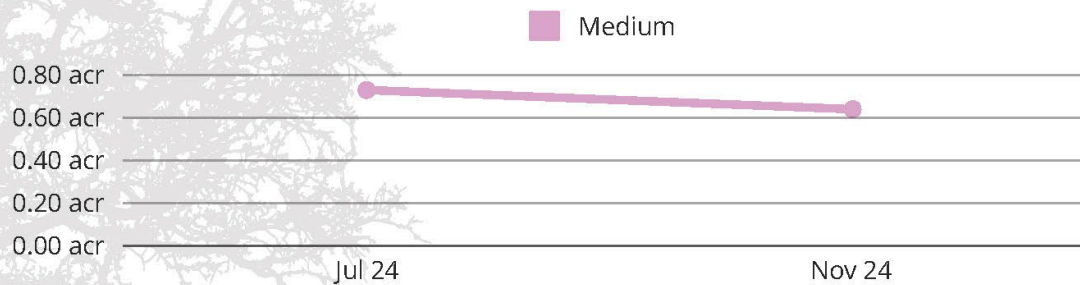
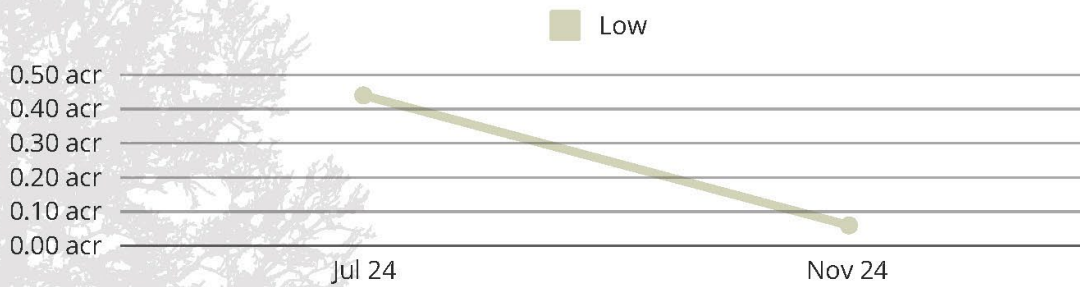
Vegetation volume, %





# VEGETATION METRICS

Vegetation height/ Areas (acres)	July '24	Nov '24	Regrowth rate
Low (up to 1 m)	0.44	0.06	-86%
Medium (1-5 m)	0.73	0.64	-12%
High (more than 5 m)	4.96	-2%	

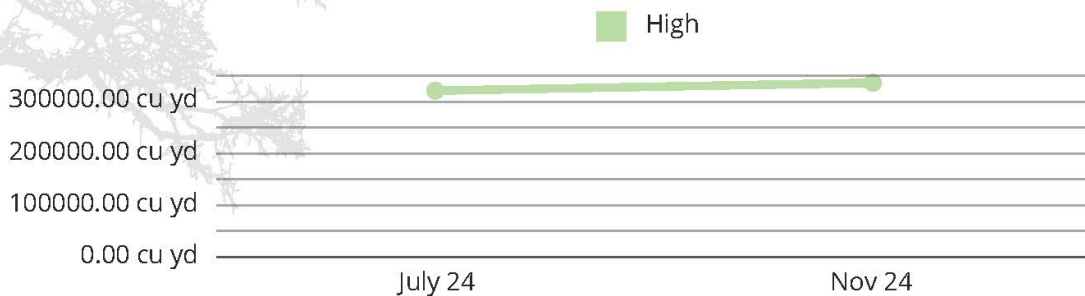
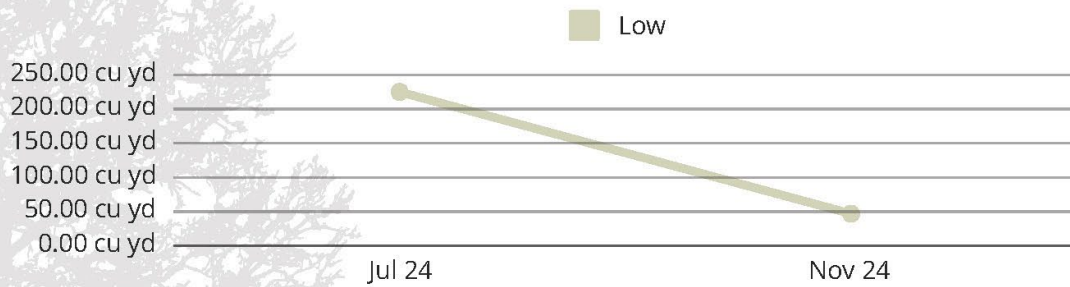


Post treatment report - Arastradero Rd - Nov 24



# VEGETATION METRICS

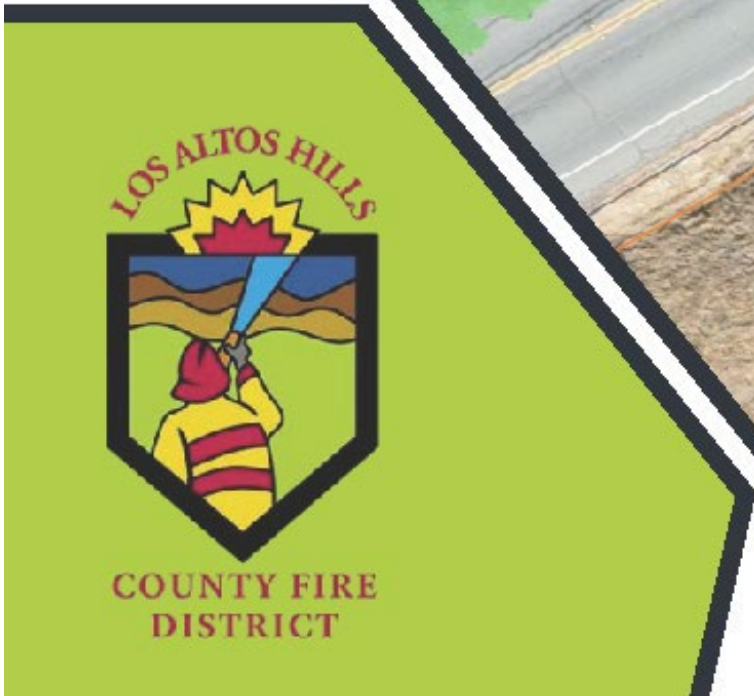
Vegetation height/ Volume (cub yards)	July '24	Nov '24	Regrowth rate
Low (up to 1 m)	225	47	-79%
Medium (1-5 m)	13,709	15,115	+10%
High (more than 5 m)	321,130	336,328	+5%



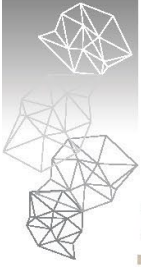
Post treatment report - Arastradero Rd - Nov 24

# POST TREATMENT REPORT

**ARASTRADERO ROAD  
PART 2**



NOVEMBER 2024



# OVERVIEW

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42.2 acres

0.5 mi

November  
2024

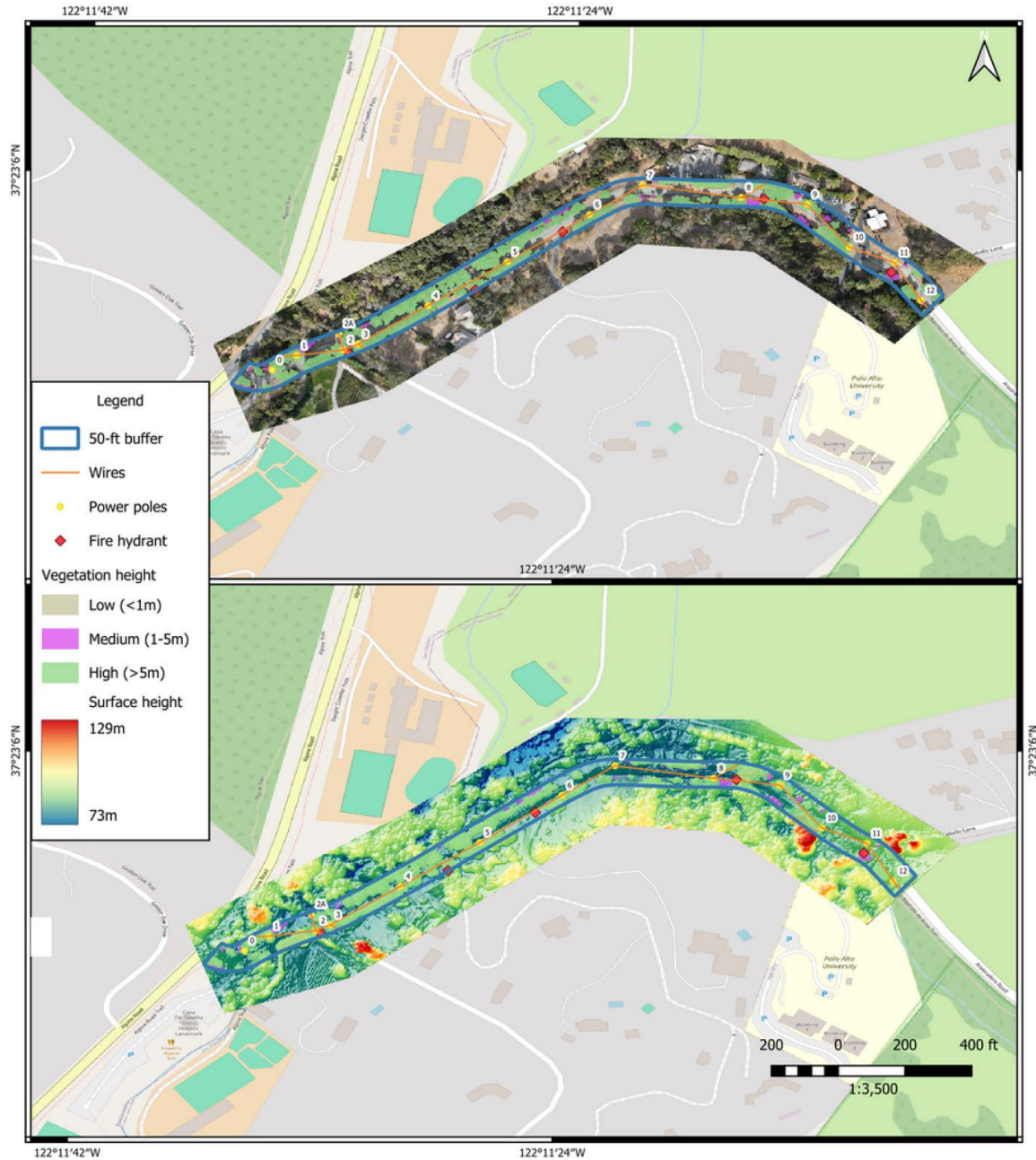
425 images

14x

Vegetation height  
groups



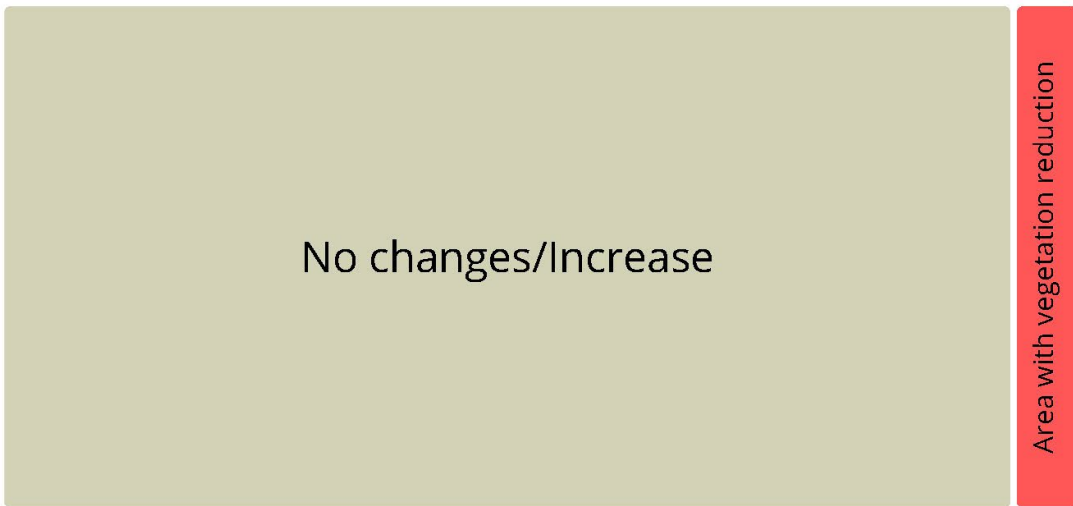
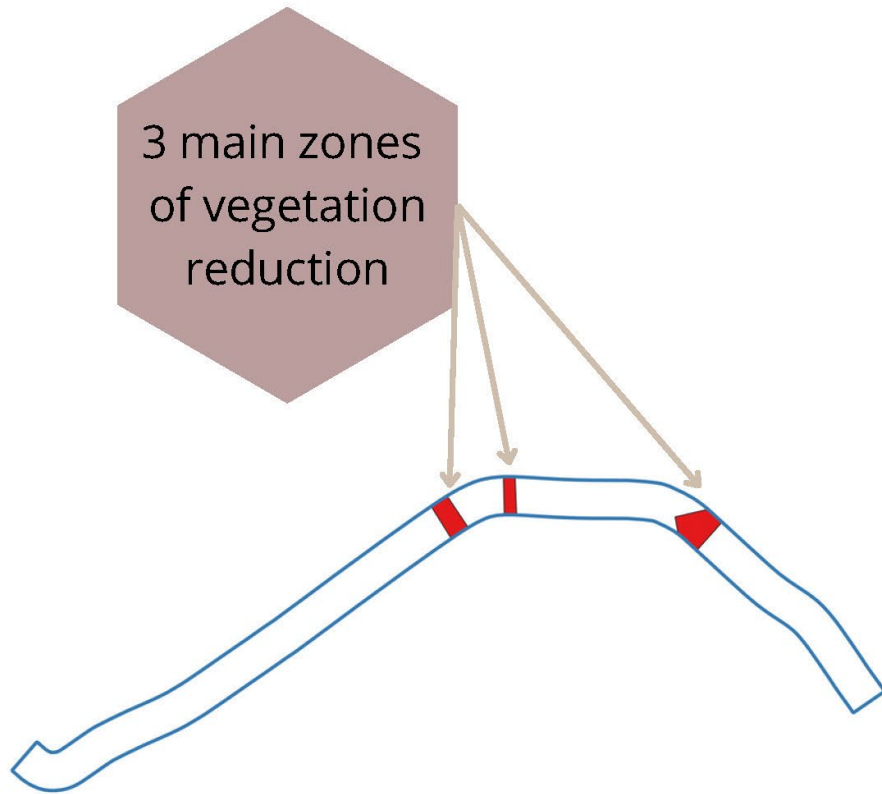
# OVERVIEW

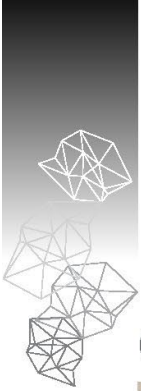




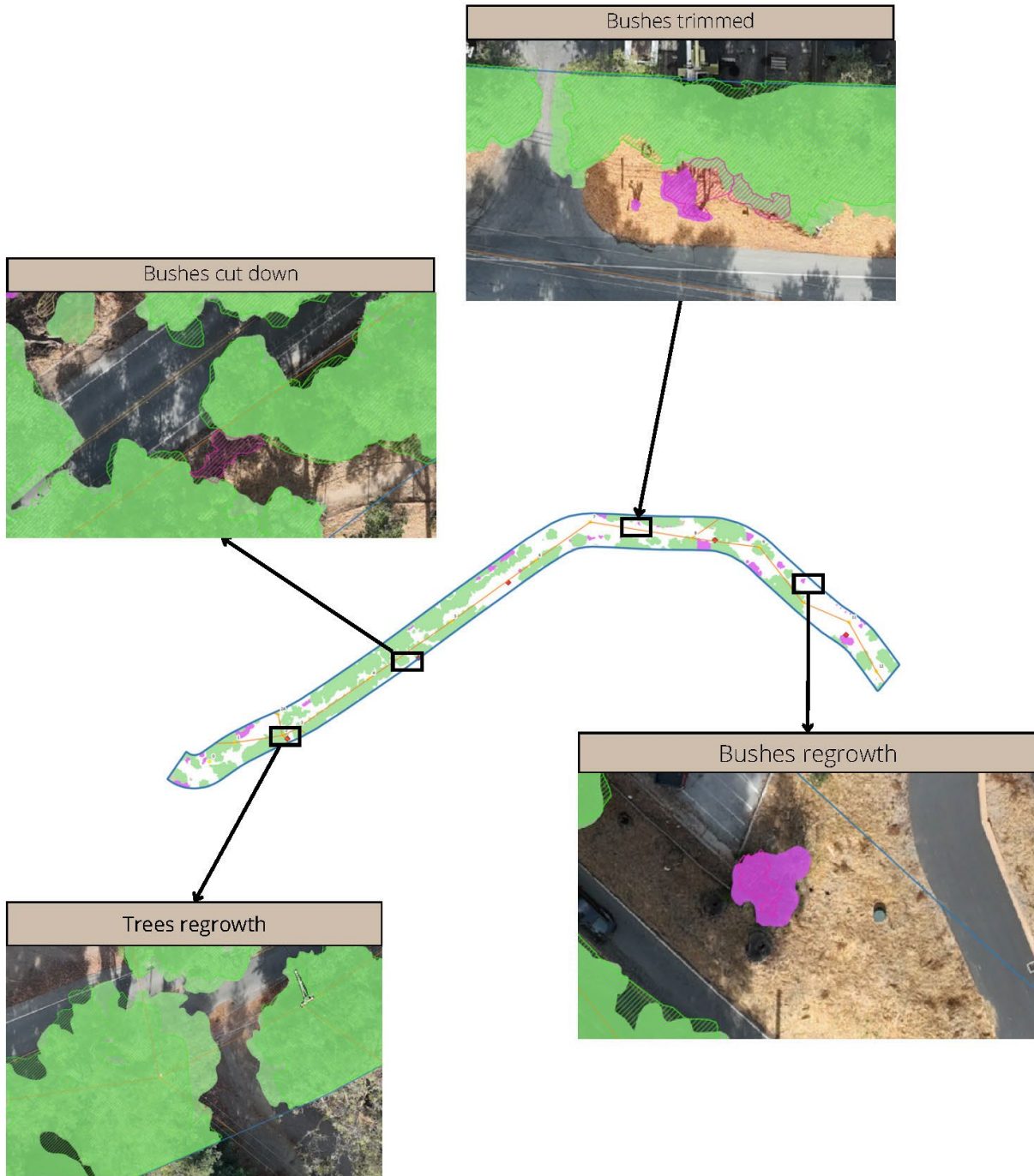
## CHANGE DETECTION (JULY - NOVEMBER 2024)

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## CHANGE DETECTION (JULY - NOVEMBER 2024)



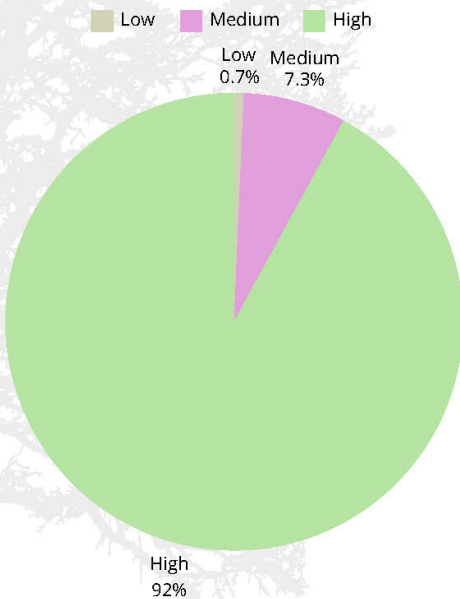


# VEGETATION METRICS

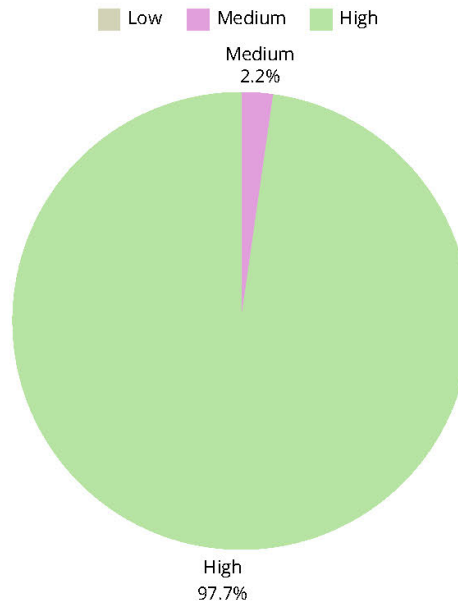
November '24

Vegetation	Area, acres	Volume, cubic yards
Low (up to 1 m)	0.02	44
Medium (1-5 m)	0.08	1,613
High (more than 5 m)	1.63	118,384

Vegetation area, %



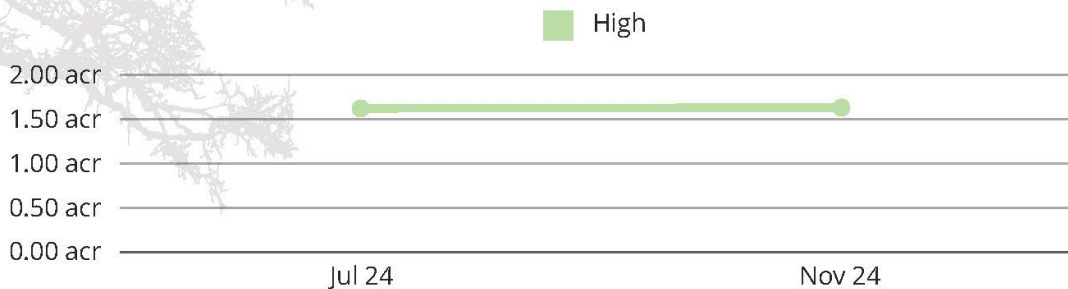
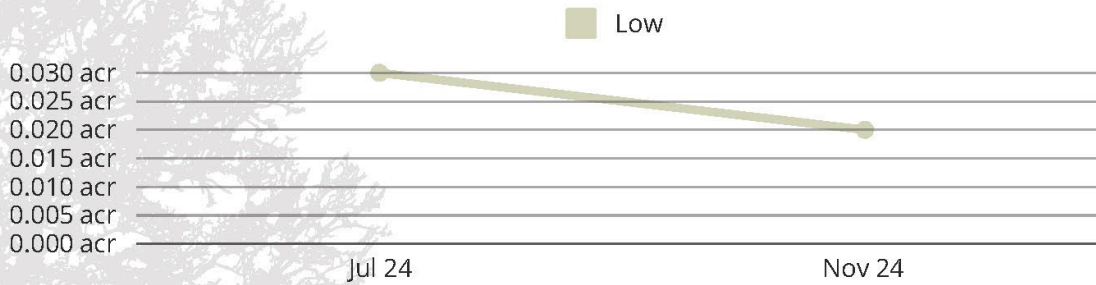
Vegetation volume, %





# VEGETATION METRICS

Vegetation height/ Areas (acres)	July '24	Nov '24	Regrowth rate
Low (up to 1 m)	0.03	0.02	-33%
Medium (1-5 m)	0.08	0.08	0
High (more than 5 m)	1.62	1.63	+1%

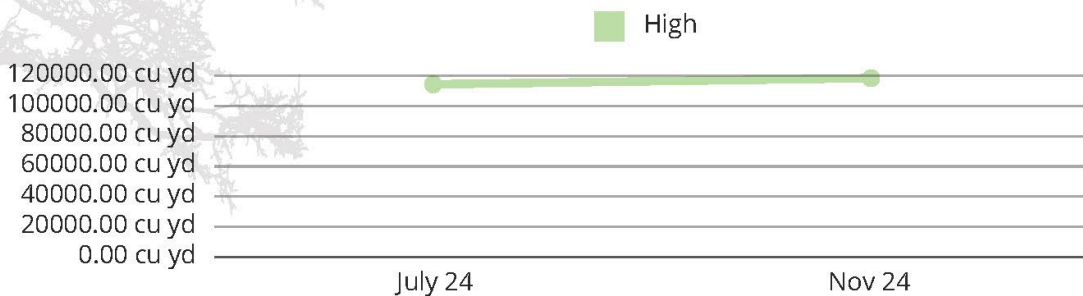
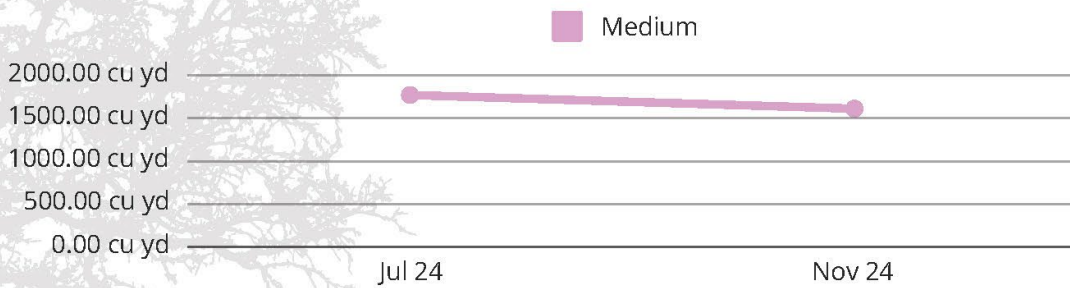
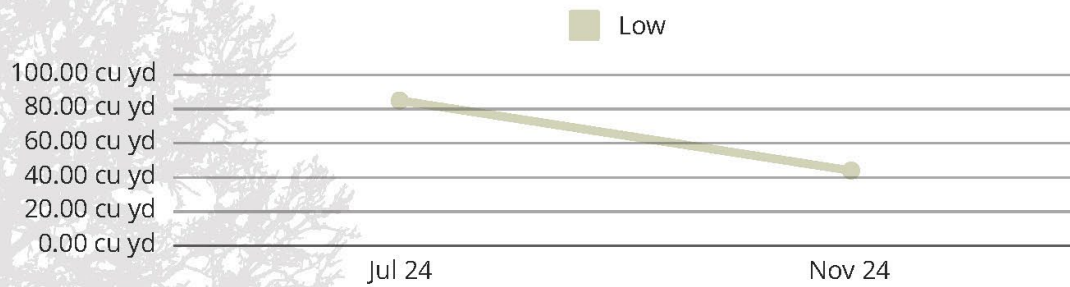


Post treatment report - Arastradero Rd - Nov 24



# VEGETATION METRICS

Vegetation height/ Volume (cub yards)	July '24	Nov '24	Regrowth rate
Low (up to 1 m)	85	44	-48%
Medium (1-5 m)	1,773	1,613	-9%
High (more than 5 m)	114,311	118,384	+4%



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