



BOARD MEETING AGENDA SUBMITTAL

TO: GCSB Board of Directors

FROM: Peter Kampa, General Manager

DATE: September 10, 2024

SUBJECT: Agenda Item 3Av: General Managers Report

[Overview](#)

Highlights for the period of August 13, 2024, to September 10, 2024, include the following, with additional information provided verbally and in attachments:

Tuolumne County LAFCO

LOCAL AGENCY FORMATION COMMISSION OF TUOLUMNE COUNTY

Commissioners
Steve Arreguin
Janice Kwiatkowski
John Feriani
David Goldemberg
Ryan Campbell
Suzanne Cruz
Ann Segerstrom

Alternates
Adam Artzer
Kathleen Haff
Andy Merrill

Executive Officer
Quincy Yaley, AICP

AGENDA TUOLUMNE COUNTY LAFCO September 9, 2024

BOARD OF SUPERVISORS CHAMBERS
2 SOUTH GREEN STREET, SONORA, CA, 4TH FLOOR
4:00 p.m.

You may submit written comments by U.S. Mail to 2 South Green Street, Sonora, CA 95370, or via email to cdd@tuolumnecounty.ca.gov for retention as part of the administrative record. Comments will not be read during the meeting.

COMMISSION BUSINESS:

- A. Salute the Flag
- B. Minutes of the August 12, 2024
- C. Reports

“Reports” are a brief oral report from a committee or commission member and/or LAFCO staff, and no commission action will occur. This item is not intended to include in-depth presentations or reports, as those matters should be placed on an agenda for discussion.

PUBLIC COMMENT: 15 Minutes

The public may speak on any item not on the printed agenda. No action may be taken by the Commission.

NEW BUSINESS:

- 1. Review of letter from Tuolumne County regarding termination of staffing for the Commission and consideration of potential staff options.

OLD BUSINESS:

- 1. RFP for an Executive Officer/Legal Counsel for LAFCO staffing.
- 2. Review of the Tuolumne County LAFCO, June 2024 Grand Jury report and consideration of a response to report’s findings and recommendations, due September 23, 2024.

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3. Review of the County Service Areas in Tuolumne County: Road Maintenance in Subdivisions, June 2024 Grand Jury report and consideration of a response to report's findings and recommendations, due September 23, 2024.
 4. Consideration of approving a proposed update to the LAFCO Policies and Procedures.

PUBLIC HEARING:

None

ADJOURNMENT

Disclosure of Campaign Contributions – Government Code Section 84308 requires that campaign disclosure reports provide the public with the identity of contributors and the amounts they give, and the amount that officeholders, candidates, and committees spend. A LAFCO Commissioner must disqualify herself or himself from voting on an application involving an “entitlement for use” (such as an annexation or sphere amendment) if, within 12 months, the Commissioner has received \$250.00 or more in campaign contributions from the applicant, any financially interested person who actively supports or opposes the application (such as an attorney, engineer, or planning consultant) representing the applicant or interested party. The law also requires any applicant or participant in a LAFCO proceeding to disclose the contribution amount and name of the recipient Commissioner on the official record of the proceeding. The law also prohibits an applicant from making a contribution of \$250.00, or more to a LAFCO Commissioner while a proceeding is pending or for 3 months afterward.

Disclosure of Expenses Supporting and Opposing Proposals - If a person or group contributes or expends \$1,000.00 or more in support of, or in opposition to, a proposal before LAFCO, those contributions and expenditures must be disclosed. Pursuant to Section 56100.1 of the Government Code, disclosure shall be made to the Commission's executive officer.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Community Development Department at (209) 533-5633. Notification 48 hours prior to the meeting will enable the County to make reasonable arrangements to ensure accessibility to this meeting (28FR35.102-35.104 ADA Title 11).

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Possible areas to look into for future projects:

- Proper property drainage methods – lot sculpting – water retention
- Native plants for water conservation and to provide natural ecological balance
- Storm water capture and use
 - a. Example: THCS D public park interpretive storm drain capture project
 - b. What about: City of Sonora? Groveland? Tuolumne City?
- Identification of additional areas for storm water sequestration and retention
- Waste water reuse (laundry water, etc.)
- ‘Purple pipe’ systems for irrigation
- Rainwater capture and use
- Drip irrigation systems, installation and maintenance
- Composting and mulching for weed control and garden health
- Raw water for firefighting use (fire water drafting points – TUD project, more on this)
- Green zones for fire protection of urban areas
- PFAS – danger of and mitigation of (was/is? in fire retardant)
- Plastic pollution? (microscopic) – recycle/reuse methods
- Alternative pest control methods limiting or eliminating detrimental chemicals
- Alternative use of ‘every day’ chemicals by use of more ‘natural’ compounds/habits
- Proper water run-off retention and soil/silt retention along roadways and developments
- Concerted effort for retention of oak trees in developments
- Education of T/C County Building Department and Development/Planning Department of above items
- Education of builders and developers of above items
- Support community fire safe programs and projects

A couple of examples of projects past and in progress I’ve been, or am involved in:

Fire water drafting points along the TUD ditch system

TUD project – Flume/main canal

Sierra Nevada Conservancy – Michael Pickard & Randi Jorgensen – grant for vegetation removal and thinning along the PG&E flume several years ago.

TUOLUMNE COUNTY NATURAL RESOURCES ADVISORY COMMITTEE

REGULAR MEETING AGENDA

2024 Strategic Priorities

- Support our local water utility partners in their effort to modernize and improve water supply infrastructure and mitigate risk.
- Maintain awareness of pertinent State and Federal legislation regarding natural resources, land use, water, and water rights.
- Maintain awareness of Tuolumne County Federal land use policy, planning, and implementation and provide recommendations and advocacy as appropriate.
- Promote landscape and watershed resilience through innovative solutions and capacity building.

Date/Time: Wednesday, September 4, 2024 at 10:00 AM

Location: A.N. Francisco Bldg. 48 Yaney Ave. 3rd Floor Committees & Commissions Rm., Sonora, 95370

Contact: Sean Hembree at shembree@co.tuolumne.ca.us (209)533-5554

Chair/Vice Chair

Supervisor Anaiah Kirk

Supervisor Kathleen Haff

Agency Representatives

Tuolumne Me Wuk

Diana Beasley

Chicken Ranch Me Wuk

Stephanie Suess

Tuolumne Utilities District

Don Perkins

Groveland CSD

Pete Kampa

Hetch Hetchy

Adam Mazurkiewicz

Fish and Game Preserve Fund

Jim Maddox

Agricultural Advisor

Dick Gaiser

Tuolumne Co. RCD

Jim Phelan

At Large Member

Chris Trott

Staff

County Administrator

Tracie Riggs

Water & Natural Resource

Analyst (CAO)

Sean Hembree

I. CALL TO ORDER

II. ROLL CALL (5 minutes)

Introductions during roll call

Confirm quorum requirements are met (Quorum = 6 members)

III. PUBLIC FORUM (15 minutes)

The public may speak on any item, not on the agenda. No action may be taken by the Committee

Public Comment (limited to 3 minutes per person)

IV. APPROVAL OF MINUTES FOR MEETING August 7, 2024 (5 minutes)

V. CONSIDERATION OF SUPPORT FOR AMERICAN FOREST FOUNDATION'S USDA FLS GRANT APPLICATION

VI. PARTNER AGENCY UPDATES (15 minutes)

a. Stanislaus National Forest:

b. CAL FIRE

VII. COMMITTEE BUSINESS

a. Staff Reports and Recommendations

i. AB 2257 Update

ii. Upcoming events

iii. Fish and Game Committee Update

b. Committee Member Reports

Public Comment (limited to three minutes per person)

VIII. ADJOURNMENT

The Next meeting will be held on October 2, 2024



Tuolumne County Natural Resources Advisory Committee Minutes For the Meeting on August 7, 2024

2024 Natural Resource Members <i>(or assigned delegates)</i>	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Anaiah Kirk	✓	✓	✓	✓	✓		✓	✓				
Kathleen Haff	✓	✓	✓	✓	✓		✓	✓				
Don Perkins	✓	✓	✓	✓	✓		✓	✓				
Pete Kampa		✓	✓	✓	✓		✓	✓				
Adam Mazurkiewicz		✓	✓	E	✓		E	E				
Dianna Beasley		✓	A	A	A		A	✓				
Dick Gaiser	✓	✓	✓	✓	✓		✓	A				
Chris Trott		✓	✓	E	✓		✓	✓				
Jim Maddox	✓	✓	✓	✓	✓		E	✓				
Jim Phelan	✓	✓	✓	✓	✓		✓	✓				
Present = ✓ Absent = A Excused = E												

1. **CALL TO ORDER:** Chair Kirk called the meeting to order at 10:05 A.M. and confirmed a quorum was present.
2. **MEMBERS PRESENT:** Chair Anaiah Kirk, Vice-Chair Kathleen Haff, Dianna Beasley, Jim Phelan, Eric Hall, Pete Kampa, Chris Trott, Jim Maddox, Sean Hembree (staff)
3. **PUBLIC FORUM:** *(The public may speak on any item not on the printed agenda. No action may be taken by the Committee. The amount of time allocated for the public forum is limited to 15 minutes.)* – None
4. **APPROVAL OF MINUTES:** Consideration of approving the minutes of the meeting held on May 1, 2024 Jim Phelan made a motion to approve the minutes. Jim Maddox seconded the motion. The minutes were approved unanimously.
5. **CONSIDERATION OF LEGISLATIVE COMMENT REGARDING AB1255**
 - a. This bill would require water distributors to provide a 20% discount to all ratepayers with household incomes under 200% of federal poverty guidelines. Implications of the bill were discussed. Ultimately, the committee held a consensus that the time for comment was too short to have a full Board of Supervisors consideration and decided to take no action.

6. PARTNER AGENCIES UPDATES:

- a. USFS – SNF Public Affairs Officer, Ben Cossel is on fire assignment and unable to attend.
- b. CAL FIRE – Unit Forester, Gary Whitson was in attendance with nothing to report.

7. COMMITTEE BUSINESS:

- a. Staff reports and recommendations: CAO staff Sean Hembree gave an update on status of Drought Resilience Plan timeline with an expected report from DWR contracted Consultant (Stantec) to report at the November NRC meeting. Hembree gave an update on ongoing California Board of Forestry utility easement rule-making changes. The Board of Forestry has postponed any changes until January 2025 or later. Public comment period is also postponed. Hembree also noted a report by the California Water Boards that identified at-risk systems across the state including some in Tuolumne County.
- b. Chris Trott notified the committee of USDA funding for a Hazardous Fuels Transportation Grant. The grant includes transport of biomass and merchantable materials and the transportation of post-manufacturing residual materials for secondary utilization. Trott also noted that the California Water Boards are reaching out to small water projects and mutual water companies to encourage consolidation through the agency of their assigned consultant, GHD.
- c. Eric Hall (TUD staff) reported that the Phoenix Lake Emergency Action Plan tabletop exercise will be carried out with appropriate emergency response agencies
- d. Chair Kirk indicated an intention to introduce Committee agenda items in October to consider a Pinecrest day use study to consider ecological impact, egress safety, and other considerations related to high seasonal use of this area. Chair Kirk also indicated an interest in considering opportunities to expand trails and fuel breaks within the Stanislaus Forest.

8. DISCUSSION OF USDA PUBLIC COMMENT ON DRAFT GUIDANCE FOR OLD GROWTH FOREST:

- a. Stanislaus National Forest Staff were unavailable for comment.
 - i. Sean Hembree (staff) summarized the SERAL Record of Decision rationale which addressed old growth management actions.
 - ii. Chris Trott reported that on a recent SNF report to Yosemite Stanislaus Solutions. Trott indicated that communication between SNF and USFS national directors had been ongoing to ensure that SERAL treatment prescriptions for old growth management would be sanctioned by the senior USFS leadership.

9. ADJOURNED: Chair Kirk adjourned the meeting at 10:58 A.M.
The next meeting is scheduled for September 4, 2024.

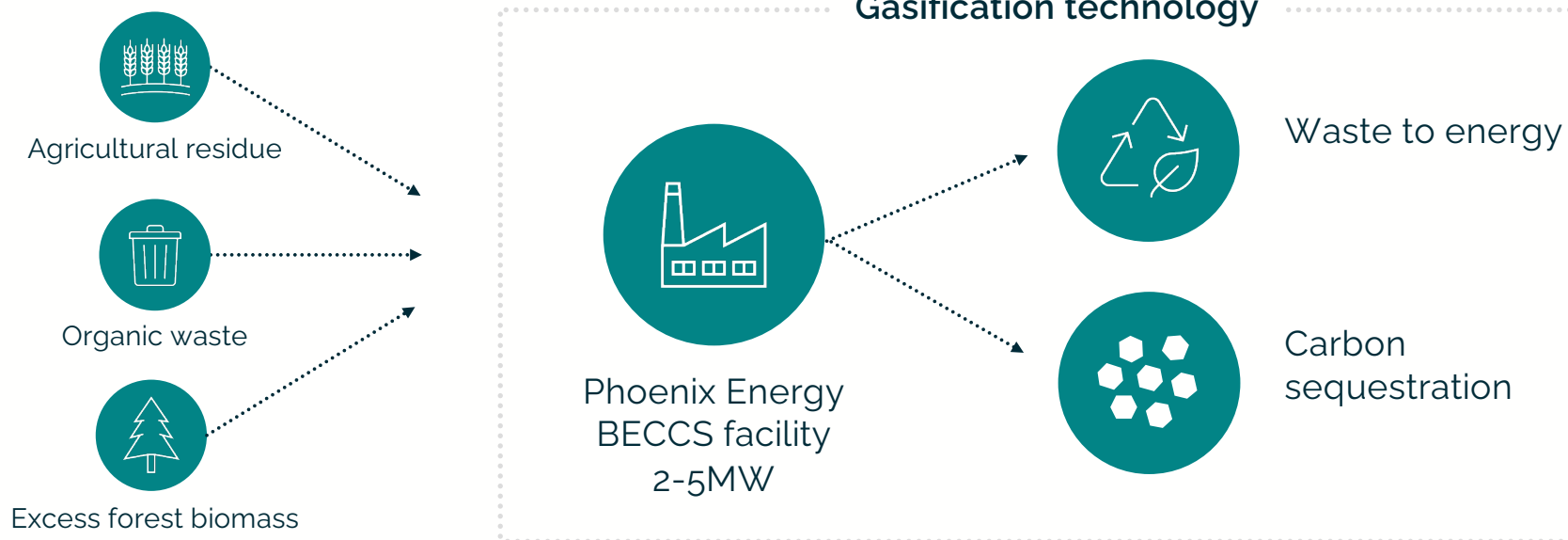


Bioenergy & Carbon Removal

T-Stan / IRWMA August 2024



Proven Bioenergy Carbon Capture & Sequestration

Our community-scale plants create renewable energy and lock up carbon



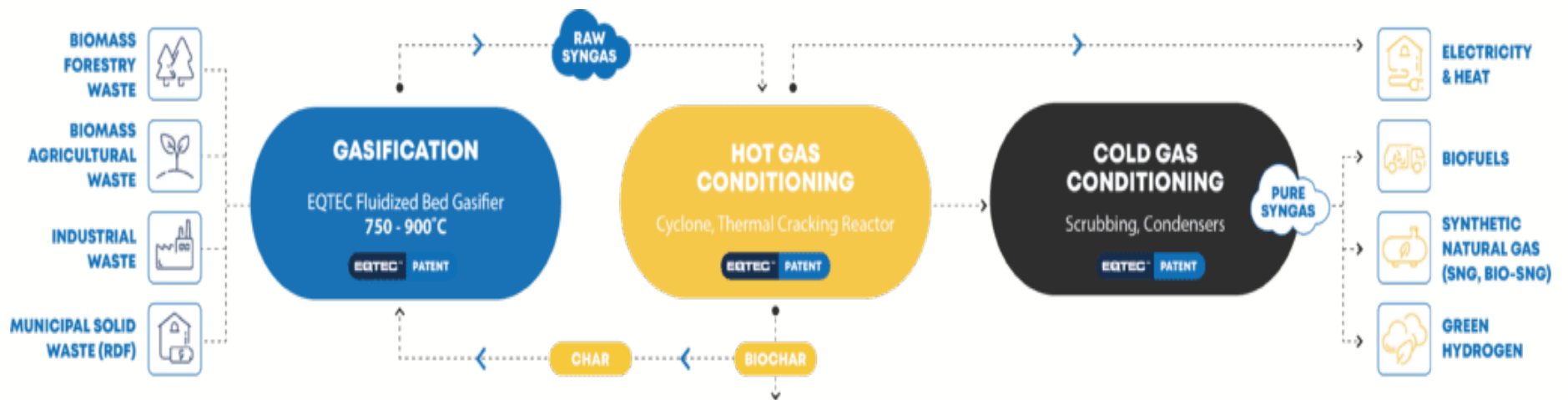
Concept to kilowatt

Phoenix Experience

						
Name	Kler, SA	Ortigalita Power Co.	Central Valley Ag Power	Upper Valley Disposal Service	North Fork Community Power	Blue Mountain Elec. Co.
Location	Poland	Merced, CA	Oakdale, CA	Calistoga, CA	North Fork, CA	Wilseyville, CA
Status	Inactive	Inactive	Inactive	Operating	COD Spring '24	Construction
Size (MW)	0.3	0.5	1.0	0.8	2.0	3.0
COD	2005	2011	2013	2014	2024	2026

Gasification process

“Thermal conversion” of carbon-based feedstock to energy



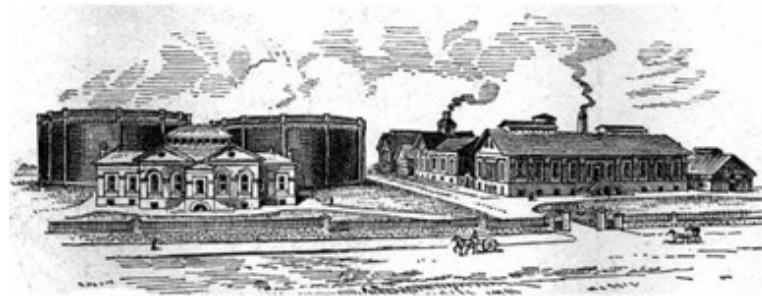
- "Baking, not burning."
- Superheat without oxygen to combust
- Creates hydrogen-based syngas
- Biochar: carbon returned to the earth
- Carbon-negative energy process

Gasification has been around since the 1800s

Technology has come a long way, but the concept is well-understood



London - 1807



Baltimore - 1916

Seattle - 1873



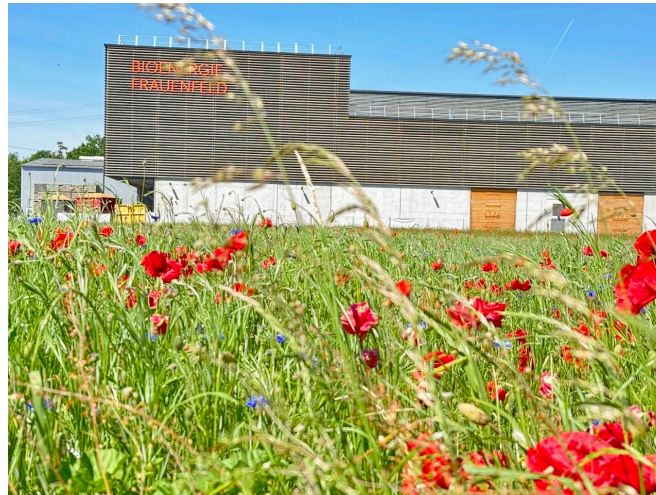
Geological Engineer Allen Hatheway: "Perhaps the single most important industrial enterprise of the nineteenth century:" synthetic gas manufacturing plants.

Modern Gasification Projects – Megawatt Scale

Proven in Europe



Finland – 140MW
CHP – Combined power and heat
Forest residue



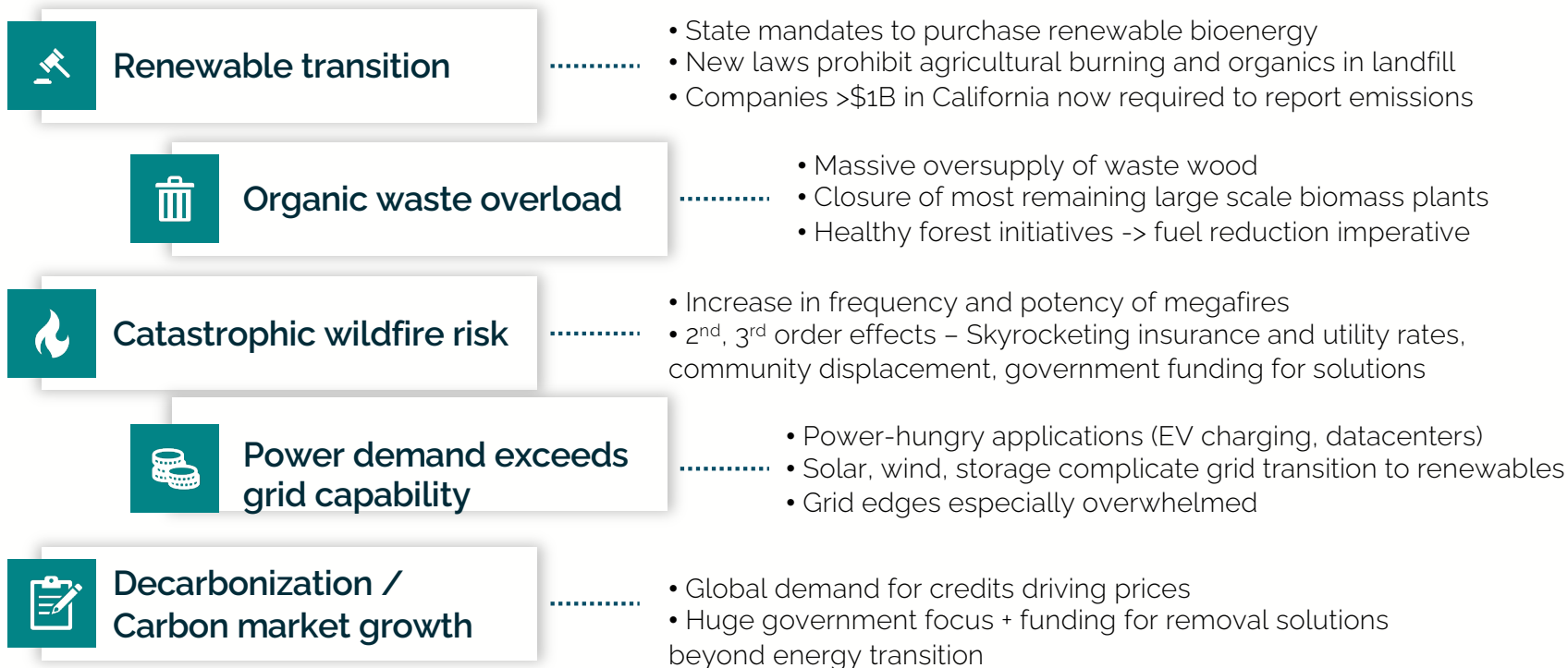
Switzerland – 4MW
CHP – Combined
power and heat



North Fork, CA – 2MW
Electricity

Market context

Bioenergy / Carbon Capture – Why Now?



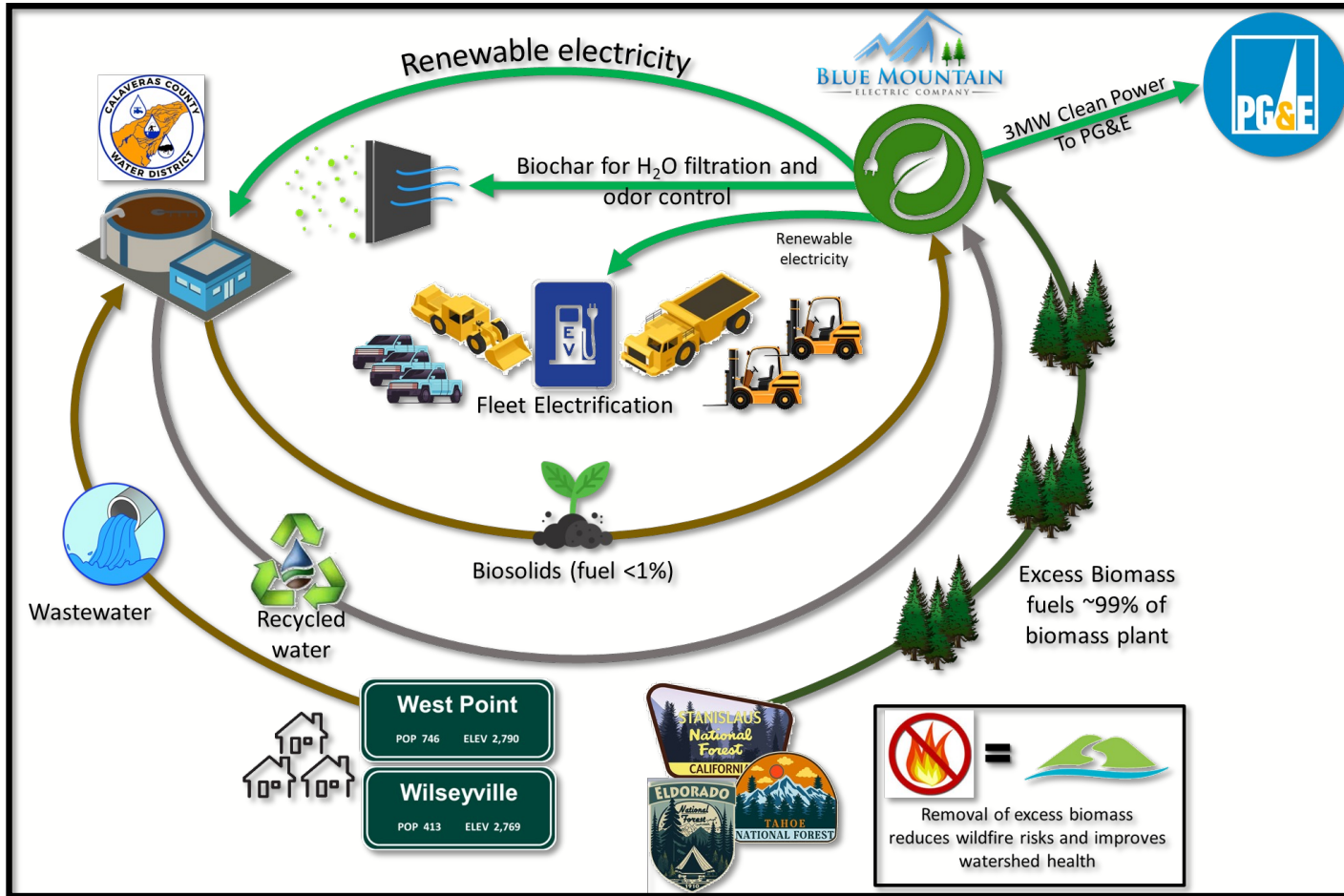
Project Development Model

Community scale for community benefit

- Community identified problem
 - Jobs, jobs, jobs
 - Catastrophic wildfire risk
 - Energy security
- Maximize circularity
- Social license to build
- Biomass economics
- Find optimal site / partner
- Solid economic foundation (annuity cash flow)



Blue Mountain Electric Company – Wilseyville, CA



- 3.4MW Net generation
- Consumes 23k BDT of waste wood / year
- 10-12 FTE to operate
- 24/7 ops
- Recycled water from CCWD for operations, fire suppression
- Biochar for CCWD filtering
- Winter 2024 construction begins

ENVIRONMENTAL IMPACT

- 1 Carbon-negative, distributed energy
- 2 Sequestered carbon via biochar
- 3 Avoided emissions from burn piles, decomposition
- 4 Ecosystem (forest stewardship, watershed health, catastrophic wildfire risk reduction, water conservation)



NET-NEGATIVE EMISSIONS CALCULATION

PROJECT: NORTH FORK, CALIFORNIA (2MW)

MTCO₂e = Metric tons CO₂ emitted

Phoenix	No-Project Scenario	Difference (MTCO ₂ e)
Wood Management Included in Electricity Generation Emissions Below	Wood Management $15,295 \text{ BDT} \times 1.87 \text{ MTCO}_2\text{e/BDT} =$ 28,564 MTCO₂e/year	-28,564 MTCO ₂ e/year
Emissions from Electricity Generation $0.006 \text{ MTCO}_2\text{e/BDT} \times 15,295 \text{ BDT} =$ 92 MTCO₂e/year	Emissions from Electricity Generation $0.419 \text{ MTCO}_2\text{e/MWh} \times 15,000 \text{ MWh/year} =$ 6,284 MTCO₂e/year	-6,192 MTCO ₂ e/year
Carbon Sequestration -4519 MTCO₂e	Carbon Sequestration None	-4,519 MTCO ₂ e/year
-4,427 MTCO₂e/year	34,848 MTCO₂e/year	-39,275 MTCO₂e/year

Revenue streams

We sell energy, services, carbon, and carbon credits



Energy Sales

Long-term PPAs to utilities

"Behind the meter"



Carbon Credits

Contracts for current and future projects with leading carbon brokers.

Carbon credits generated through biochar sales & sequestration.



Biochar Sales

We sell and market biochar byproduct under contract to PE developers and 3rd party projects.



3-MEGAWATT PLANT UNIT ECONOMICS: BASE CASE

- Solves multiple customer, federal, state mandates (energy, renewables, carbon, wildfire risk, etc.)
- 30-40% Investment tax credit through the Inflation Reduction Act
- Multiple near-term revenue enhancement opportunities (EV Charging, Datacenter, Hydrogen)

CAPEX / ANNUAL COST	
Capex	\$40 MM
ITC	-30% / -\$12MM
Equity / Grants ⁽¹⁾	<u>\$3-5 MM</u>
Net Capex	\$24 MM
Debt Svc	\$3.0 MM



Blue Mountain Elec. Co
Forest residue to elec.

ANNUAL REVENUE	
PPA @20¢/kWh	\$4.7 MM
TOTAL REVENUE	\$7.0 MM
OPEX	\$3.2 MM
EBITDA	\$3.9 MM
DSCR ⁽³⁾	<u>1.3x</u>

(1) Phoenix has won over \$12 million in grants, with approx. \$10 million grant pipeline for latest project

(3) Debt Service Coverage Ratio = EBITDA/Debt. Svc.

Finance

Capital Stack Conundrum

- These projects are expensive to build
- USDA / Tax-exempt bonds
- Key grants from Federal & State Agencies for equity
- Mezzanine Debt secured by ITC
- Lending rates: 11%+



Partners & Customers

Federal, State, Community, Utility Support

\$12 Million in grants; \$80 million in closed or committed bank funding to date



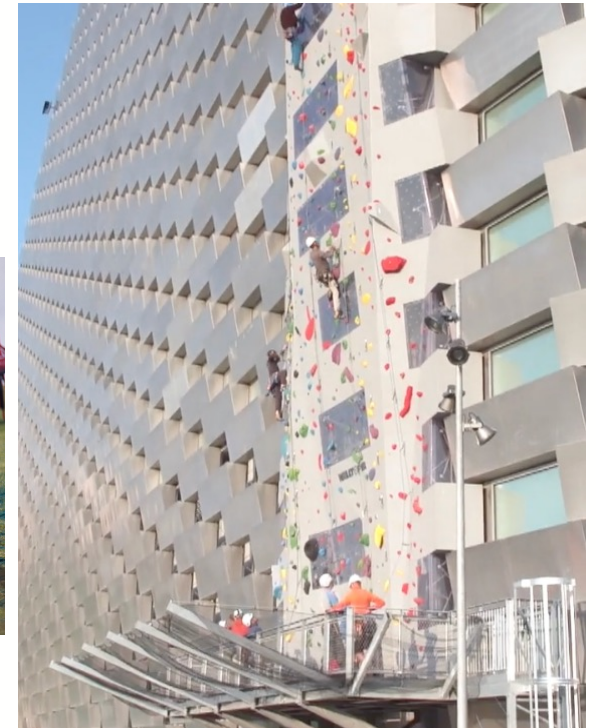
Maximizing Potential for Bioenergy

Beyond wholesale energy + biochar

- Combined heat and power for critical infrastructure
- Edge datacenters
- Large-scale EV charging
- Renewable fuels (H₂, SAF, RNG)
- Carbon-negative energy process

Waste to Energy – the Future is now

Copenhill Waste to Energy Plant, Denmark



60 MW Electricity
140 MW Heat

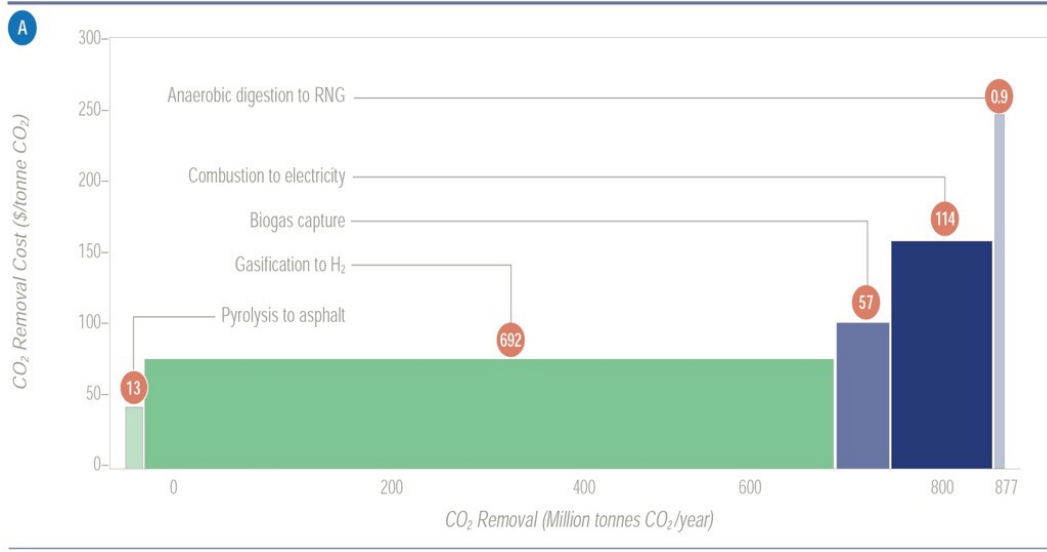


Ski slope
300 ft Climbing Wall

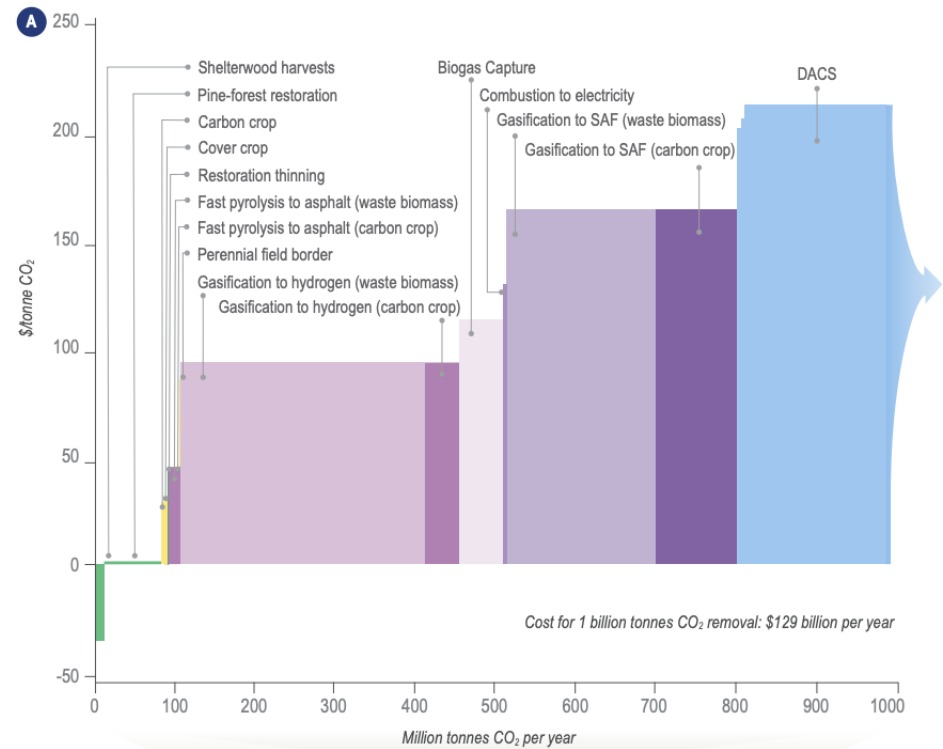
BACKUP SLIDES

Hydrogen Upside

Biomass Gasification > H2 potential for CO2 removal



Lawrence Livermore National Laboratory recognizes Phoenix as an early leader in bioenergy, carbon capture and sequestration. We are jointly researching hydrogen production via advanced gasification and CO2 capture.



Cost for 1 billion tonnes CO₂ removal: \$129 billion per year

Source: Lawrence Livermore National Labs
Roads2Renewal Report December 2023
Gasification to H₂ recognized as most cost-effective near-term means to remove CO₂ from the atmosphere



Project Timing

Initial Planning and Permitting: 12-18 months

#	Task	Time needed (months)	Months																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Contract with County	1	█																	
2	Feasibility Study	4		█	█	█	█													
3	Site Selection	4		█	█	█	█													
4	Biomass Feedstock Assessment	6			█	█	█	█	█											
5	Technology Selection	2					█	█												
6	Permitting and Regulatory Compliance	10					█	█	█	█	█	█	█	█	█	█				
7	Financial Planning	6			█	█	█	█	█	█										
8	Engineering and Design	6							█	█	█	█	█	█						
9	RFP to Select Construction Contractor	2																█	█	




Thank you.

Tom Perry, COO

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Office of Emergency Services

Prepare California Jumpstart




Cal OES
GOVERNOR'S OFFICE OF EMERGENCY SERVICES




1

Even with all our technology and the inventions that make modern life so much easier than it once was, it takes just one big natural disaster to wipe all that away and remind us that, here on Earth, we're still at the mercy of nature.

Neil deGrasse Tyson



Jacksonville Fire, 2017




Winter Storm, 2023

3

Agenda

- Introduction
- Tracts
- Timeline
- Disaster Cycle
- Vulnerability
- Resiliency & Mitigation




PUBLIC INFORMATION MEETING

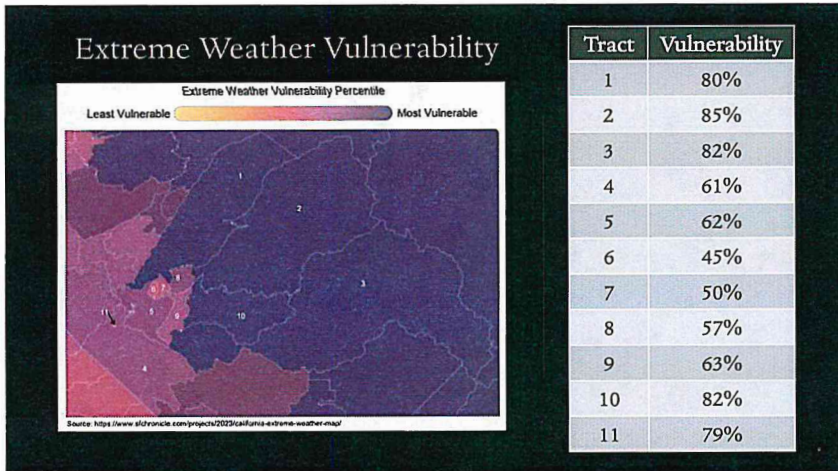
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Introduction

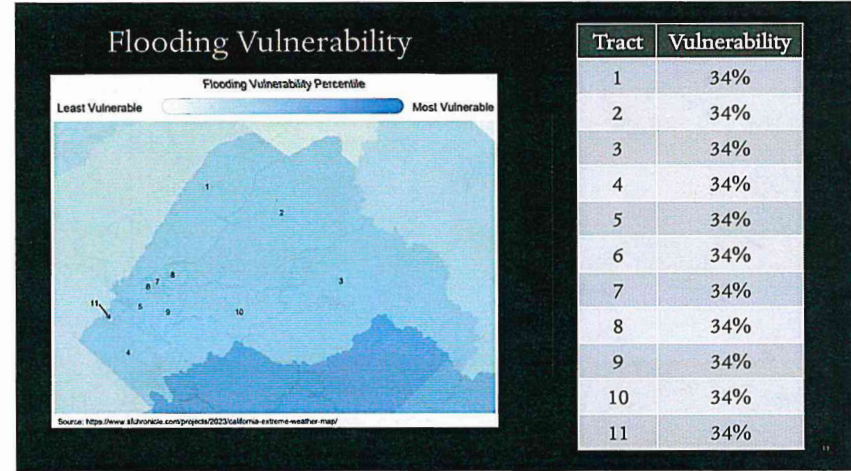
A first in the nation competitive grant program to give socially vulnerable and high hazard risk communities a "JUMPSTART" on building community resilience.



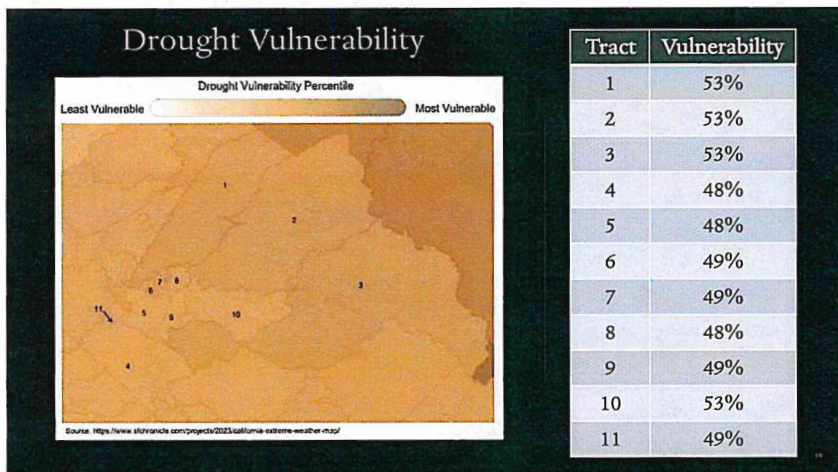
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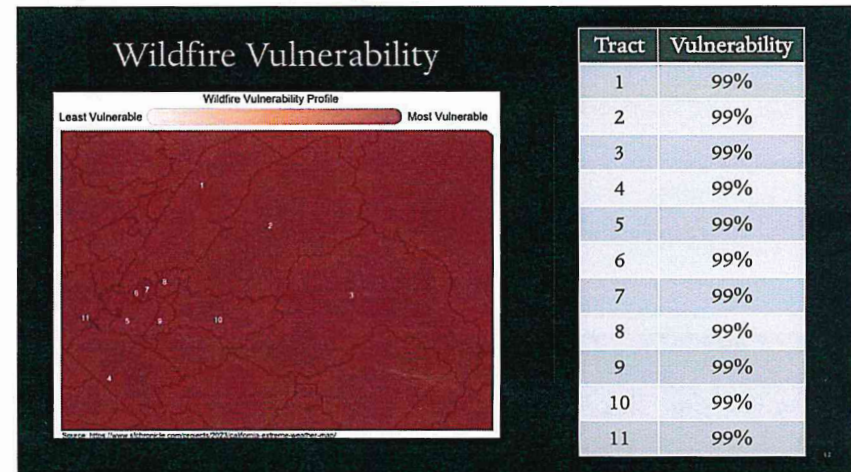
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11



10



12



Resources

[MyHazards @ Cal OES](#)

[Ready For Wildfire Self-Assessment](#)

[Sign Up for Everbridge](#)

[FEMA Mitigation Ideas](#)

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Thank you!



Public Survey: <https://arcg.is/0y4L4T>

Sara Daniel
Resiliency Analyst
oes@co.tuolumne.ca.us
209-533-6395



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Discussion

INCREASE COUNTY
RESILIENCY

18