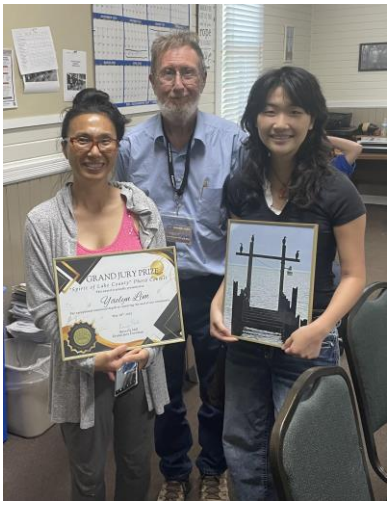
This document is an extract of a larger publication.

civilgrandjury.org is a project of UnGovr.org, a US-based 501(c)(3) nonprofit dedicated to government transparency and public accountability.





Mendocino College Ambassador Yaelin Lim Awarded Grand Jury Prize for "Spirit of Lake County" Photo Contest

Lakeport, CA — Mendocino College/Lake Center is proud to announce that Dual Enrollment Student Ambassador Yaelin Lim has been awarded the Grand Jury Prize for the "Spirit of Lake County" Photography Contest, in this year's Grand Jury Report.

Her winning photograph, selected from a highly competitive pool of submissions across Lake County, will be featured on the official cover of the 2025 Lake County Grand Jury Report. The judges praised Yaelin's work for its emotional depth, artistic composition, and ability to capture a quiet yet powerful moment that resonates beyond the frame.

Yaelin, a dual enrollment ambassador for Mendocino College, has consistently demonstrated leadership, service, and creativity throughout her time with the program. This award reflects not only her artistic talent, but the heart and thoughtfulness she brings to everything she does.

"Yaelin's eye for beauty is what stood out for us, besides the obvious technical quality" said a member of the selection committee.

"This recognition is deeply deserved, and we're so proud to have her work honored in such a meaningful way."

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Civil Grand Jury 2021/2022
County of Lake
P.O. Box 1078
Kelseyville, CA 95451

June 10, 2025

June 10, 2025

The Honorable J. David Markham
Superior Court, County of Lake
255 North Forbes Street
Lakeport, CA 95453

Dear Judge Markham:

Pursuant to California Penal Code § 933(a), we respectfully submit to you this final report of the 2024-2025 Lake County Civil Grand Jury.

Although the initial months were unsettled, the remaining and newly joining members throughout the year adapted well and stayed focused on the many tasks at hand. We hope that our 14 reports and 5 accolades – the culmination of the jurors' remarkable efforts - will be both interesting and informative. No matter what path the jurors travel from here on out, they leave behind a volume of their memorable accomplishments.

We have continued an innovation added several years ago of recognizing through Accolades the notable, and often unheralded, public service dedication of Lake County residents whom we encountered this year. As well, we requested photographic submissions from students on the theme of "the spirit of Lake County." Our cover photograph of Clear Lake was entered by Yaelin Lim, who received a Certificate of Appreciation and whose print will grace our office wall.

Sincerely,

Beverly Benedict Hill

Beverly Benedict Hill
Foreman

Superior Court of California
COUNTY OF LAKE
255 NORTH FORBES STREET
LAKEPORT, CALIFORNIA 95453

J. DAVID MARKHAM
SUPERIOR COURT JUDGE

(707) 263-2374 EXT 2282
FAX (707) 262-1327

June 20, 2025

Dear Members of the 2024-2025 Lake County Civil Grand Jury:

Thank you for the submission of your Final Report. I have reviewed the Final Report and find it complies with governing law. The clerk of the court is directed to accept and file the Final Report pursuant to Penal Code section 933(b).

The work of the Civil Grand Jury plays a vital role in maintaining transparency and public confidence in our local government. The Final Report serves as an important resource for both the public and policymakers, providing insights that can drive positive change and promote the efficient functioning of our local government.

I want to express my sincere appreciation for the time, effort, and thoughtfulness each of you devoted to this important role. You have demonstrated the true essence of public service. On behalf of the Court, thank you for your service.

The 2024-2025 Civil Grand Jury is to be commended for their work to improve local government and the lives of the citizens of Lake County.

Sincerely,

J. David Markham
Judge of the Superior Court

Civil Grand Jury 2021/2022
County of Lake
P.O. Box 1078
Kelseyville, CA 95451

June 23, 2025

GRAND JURY FOREMAN'S LETTER TO THE COMMUNITY

Dear Lake County Residents:

The 2024-2025 Civil Grand Jury has completed its year of service on your behalf and herewith submits its Final Report. We hope that the Report reflects our best collective effort in carrying out our responsibility to investigate and report upon various aspects of government within the County and to remain faithful to the Charge given us by the Honorable Michael Lunas at the beginning of our term.

I am asked not infrequently, "So, what is the Grand Jury?" While the term "Grand Jury" brings to mind a "criminal" Grand Jury that indicts those charged with crimes, California is the last state that empanels a "civil" grand jury in every county, every year, for a one-year term. The number of jurors seated varies by county population. Here in Lake County, 19 persons are selected by the Presiding Judge of the Superior Court to serve a fiscal-year term – July through June. The Judge also selects the Foreperson.

The institution of the Grand Jury is part of the "checks and balances" that characterize democracy and are based on three beliefs inherent in this form of government:

1. Public officials should be accountable for their acts or omissions.

2. Public officials must use the power and authority of the state carefully, honestly, and humanely.

3. The resources of the state should be used for the common good, rather than for the personal benefit of the privileged.

The responsibilities and authority of the Civil Grand Jury are specified in the California Constitution, the Penal Code, the Government Code, case law, and Attorney General Opinions. In general, the predominant functions include:

Civil Watchdog Responsibilities

a) Examine all aspects of Lake County and Lakeport & Clearlake governments and special districts to ensure that the best interests of County residents are being served and to determine whether the methods and procedures being utilized could be more efficient and cost-effective;

b) Inspect and audit books, records, and financial expenditures to ensure that public funds are properly accounted for and legally spent;

c) Inquire into the conditions of jails and detention centers within the County;

d) Probe allegations of willful misconduct in office by public officials or employees;

e) Investigate complaints from members of the public raising concerns about the function of local government or its officials; and

f) Account for and review for adequacy the Responses of investigated entities in the prior term's Final Report.

Desirable Qualifications

a) Active listener;

b) Ability to maintain confidentiality regarding grand jury business;

c) Desire to respect others' differing opinions and to cooperate to reach common goals;

d) Genuine interest in local community affairs;

e) Computer research and investigative skills; and

f) Facility in writing and editing final reports.

The results of most Lake County Grand Jury investigations are contained in reports that set forth Findings concerning the problems investigated and make Recommendations for solutions. These documents are published either as Interim Reports during the year or in the Grand Jury's Final Report at the expiration of its term of office. Once approved by the jurors, all reports are reviewed by County Counsel and the Presiding Judge for compliance with the law before being released to the public.

By law, the governing body of any agency that is the subject of a Grand Jury report must comment on the findings and recommendations of the report within 90 days of its publication date, except that every elected county officer or agency head must comment within 60 days. The comments must be submitted to the Presiding Judge and must specify what action, if any, has been or will be taken by the department or agency in regard to the recommendations or else explain why no action has been taken. This requirement

gives the sitting Grand Jury or its successor the opportunity to track the results of investigations.

I have come to both understand and appreciate persons with views not my own and to recognize the quality of governance within the County and two cities, as well as the professionalism of the judiciary. As much as I have given, I have received. At year's end, jurors sometimes question just what has been accomplished during their term. I am confident in saying to them, "Take it on faith that, just by being present, you have had an effect."

As stated by Thomas Jefferson in 1820:

I know of no safe depository of
the ultimate powers of the society
but the people themselves,
and if we think them not enlightened
enough to exercise their control
with a wholesome discretion,
the remedy is not to take it from them.
But to inform their discretion.

I have been privileged to have been a part of the Civil Grand Jury during my years in Lake County.

With sincere regards,

Beverly Benedict Hill

Beverly Benedict Hill
Foreman

Grand Jury History and Organization

The institution of the Grand Jury dates back to 1170 in England. When the Magna Carta was written in 1215, of its 63 clauses the longest and most detailed is in the permanent establishment and operation of Grand Juries. They were used by some of our colonies before the American Revolution and then formalized into our U.S. Constitution in Amendment 5 of the Bill of Rights. It has been continued and used since then in several differing forms. As constituted today in the State of California, the Grand Jury is a part of the judicial branch of government - "an arm of the court". It does not have the functions of either the legislative or executive branches, and is not a police agency. Additionally, it does not mandate policy changes. It is an examining and investigative body that makes recommendations to improve systems, procedures, and methods-of-operations in designated local government agencies. In Lake County, the Grand Jury generally performs only civil functions.

Organization

The Lake County Civil Grand Jury (Grand Jury) is composed of nineteen men and women of various backgrounds chosen from throughout Lake County. The presiding Superior Court Judge appoints a foreperson who presides over all jury proceedings and is responsible for directing the business of the Grand Jury.

Most Grand Jury work is done by committees. The areas of focus of these committees usually includes: Budget, Environment, Juvenile Justice, Social Services, Behavioral Health, Administration, Public Safety, Public Works, Special Districts and Public Schools.

The Grand Jury and its committees meet several times a month. They meet with county and city officials, visit county facilities, and conduct independent research on matters of interest or concern. The committees report to the full Grand Jury and conclusions are reached after discussion and study of the issues. The Grand Jury may seek advice or request the services of the Lake County Counsel, District Attorney, Presiding Judge of the Superior Court, or State Attorney General.

Grand Jury Functions

Watchdog Responsibilities

The major function of the Grand Jury is to examine county and city government and special districts to ensure that their duties are being lawfully carried out. The Grand Jury reviews and evaluates procedures, methods and systems utilized by these entities to determine whether more efficient and economical programs may be employed. The Grand Jury is also authorized to:

1. Inspect and audit books, records and financial expenditures.
2. Inspect books and records of special districts in Lake County.
3. Inquire into the conditions of jails and detention facilities.
4. Inquire into any charges of willful misconduct of public officials.

Final Report and Submission of Complaints

The Grand Jury receives letters from citizens alleging mistreatment by officials, suspicions of misconduct, or governmental inefficiencies. Anyone may ask the Grand Jury to conduct an investigation. All complaints are confidential. The jury generally limits investigations to the operations of governmental agencies, charges of wrongdoing within public agencies, or the performance of unlawful acts by public officials. Any complaints that fall into an area of criminal misconduct are referred to the District attorney. The Grand Jury cannot investigate disputes between private parties.

Final Report

At the end of its term the Grand Jury issues one Final Report, including any reports released during the year that summarizes the year's activities, documents its investigations and Findings, and makes Recommendations. Copies of the Final Report are distributed to public officials, libraries, the news media, any interested parties and any entity that is the subject of one if the reports. According to law, the elected County officers must respond within sixty (60) days following the release of the Final Report. The Board of Supervisors and other public agency governing boards must respond within ninety (90) days. The new Grand Jury reviews the responses of the affected public agencies, and the process of protecting the public interest begins anew.

Submission of Complaints

Although not required, complaints should first be addressed to those responsible for resolution unless it will be detrimental to the complainant. The Lake County Grand Jury will respond to all citizens submitting complaints. The citizen may not have further acknowledgement other than their complaint was received. A Complaint Form is available in the Appendix. Additional Complaint Forms may be obtained from:

Lake County Informational Portal
County Departments Grand Jury
Select 'Web site"

http://www.lakecountyca.gov/Government/Boards /Grand_Jury.htm

Grand Jury Selection Process

The court solicits applications for the Grand Jury by several means. An Application Form is available in the Appendix. Additional Applications may be obtained by mailing a letter with a self-addressed, stamped envelope to:

Grand Jury Coordinator
255 North Forbes Street
Fourth Floor
Lakeport, CA 95453.
(707) 263-2374 ext. 2282

Applications are also available at each Superior Court Clerk's office at the above address. Once applications have been screened and approved, they are randomly selected to be members of the Grand Jury.

Qualifications for Grand Jurors

Prospective Grand Jurors must possess the following qualifications (Penal Code 893):

1. Be a citizen of the United States, of the age of eighteen (18) years or older who shall have been a resident of the state and county for one year immediately prior to being selected.
2. Be in possession of his or her natural faculties, or ordinary intelligence, sound judgment, and fair character.
3. Possess sufficient knowledge of the English language

A person is unable to serve if any of the following apply

1. The person is serving as a trial juror in any court of this state.
2. The person has been discharged as a Grand Juror in any court
3. The person has been convicted of malfeasance in office
4. The person is serving as an elected public officer.

Desirable qualifications for a Grand Juror include the following:

1. Having the time to make the necessary commitment.
2. Being able to serve fifteen to twenty hours a week
3. Being open-minded with concern for the positions of others.
4. Having the ability to work with others with disparate opinions.
5. Having an interest in community affairs.
6. Not pursuing a personal agenda/vendetta
7. Possessing research and investigative skills
8. Possessing an ability to write reports.
9. Having a general knowledge of the function, authority, and responsibility of county and city government and special districts.

Responses to Findings and Recommendations

PENAL CODE – PEN PART 2. OF CRIMINAL PROCEDURE [681 - 1620]

TITLE 4. GRAND JURY PROCEEDINGS [888 - 939.91]

CHAPTER 3. Powers and Duties of Grand Jury [914 - 939.91]

ARTICLE 2. Investigation of County, City, and District Affairs [925 - 933.6]

933

(a) Each grand jury shall submit to the presiding judge of the superior court a final report of its findings and recommendations that pertain to county government matters during the fiscal or calendar year. Final reports on any appropriate subject may be submitted to the presiding judge of the superior court at any time during the term of service of a grand jury. A final report may be submitted for comment to responsible officers, agencies, or departments, including the county board of supervisors, when applicable, upon finding of the presiding judge that the report is in compliance with this title. For 45 days after the end of the term, the foreperson and his or her designees shall, upon reasonable notice, be available to clarify the recommendations of the report.

(b) One copy of each final report, together with the responses thereto, found to be in compliance with this title shall be placed on file with the clerk of the court and remain on file in the office of the clerk. The clerk shall immediately forward a true copy of the report and the responses to the State Archivist who shall retain that report and all responses in perpetuity.

(c) No later than 90 days after the grand jury submits a final report on the operations of any public agency subject to its reviewing authority, the governing body of the public agency shall comment to the presiding judge of the superior court on the findings and recommendations pertaining to matters under the control of the governing body, and every elected county officer or agency head for which the grand jury has responsibility pursuant to Section 914.1 shall comment within 60 days to the presiding judge of the superior court, with an information copy sent to the board of supervisors, on the findings and recommendations pertaining to matters under the control of that county officer or agency head and any agency or agencies which that officer or agency head supervises or controls. In any city and county, the mayor shall also comment on the findings and recommendations. All of these comments and

reports shall forthwith be submitted to the presiding judge of the superior court who impaneled the grand jury. A copy of all responses to grand jury reports shall be placed on file with the clerk of the public agency and the office of the county clerk, or the mayor when applicable, and shall remain on file in those offices. One copy shall be placed on file with the applicable grand jury final report by, and in the control of the currently impaneled grand jury, where it shall be maintained for a minimum of five years.

(d) As used in this section "agency" includes a department.
(Amended by Stats. 2002, Ch. 784, Sec. 538. Effective January 1, 2003.)

933.05.
(a) For purposes of subdivision (b) of Section 933, as to each grand jury finding, the responding person or entity shall indicate one of the following:
(1) The respondent agrees with the finding.
(2) The respondent disagrees wholly or partially with the finding; in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.

(b) For purposes of subdivision (b) of Section 933, as to each grand jury recommendation, the responding person or entity shall report one of the following actions:
(1) The recommendation has been implemented, with a summary regarding the implemented action.
(2) The recommendation has not yet been implemented, but will be implemented in the future, with a timeframe for implementation.
(3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe.
(4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

(c) However, if a finding or recommendation of the grand jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the board of supervisors shall respond if requested by the grand jury, but the response of the board of supervisors shall address only those budgetary or personnel matters over which it has some decision-making authority. The response of the elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.

(d) A grand jury may request a subject person or entity to come before the grand jury for the purpose of reading and discussing the findings of the grand jury report that relates to that person or entity in order to verify the accuracy of the findings prior to their release.

(e) During an investigation, the grand jury shall meet with the subject of that investigation regarding the investigation, unless the court, either on its own determination or upon request of the foreperson of the grand jury, determines that such a meeting would be detrimental.

(f) A grand jury shall provide to the affected agency a copy of the portion of the grand jury report relating to that person or entity two working days prior to its public release and after the approval of the presiding judge. No officer, agency, department, or governing body of a public agency shall disclose any contents of the report prior to the public release of the final report.

Jury Roster 2024-2025

Name	Role	City
Alicia Adams	Discharged	Lakeport
Cello Bice		Lakeport
Peter Caravello		Lakeport
Bob Carey		Hidden Valley
Theresa Dapiran	Discharged	Lakeport
Kerry Duvall	Foreman Discharged	Lower Lake
Eric Gallo		Clearlake
Jacqueline Gibbons	Discharged	Lakeport
Beverly Hill	Foreman	Cobb
Shirley Koelling	Complaint Coordinator	Kelseyville
William Lindsey		Lucerne
Scott McMartin	Discharged	Hidden Valley
Tom Marquette	Editor	Lower Lake
Stan Mendes		Hidden Valley
LesliePryor	Secretary	Clearlake
Arleen Rudden		Clearlake Oaks
Deborah Safranek	Scheduler	Hidden Valley
Edward Storm	Discharged	Lucerne
John Wilcox		Cobb

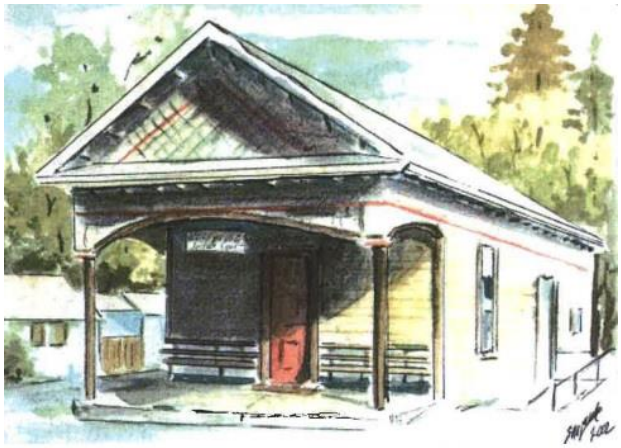


Photo of artwork done by local artist, J.P. Sarlande of Upper Lake.

COUNTY OF LAKE

LAKE COUNTY GRAND JURY
P.O. BOX 1078
KELSEYVILLE, CALIFORNIA 95451

COMPLAINT FORM

WHEN COMPLETED – MAIL THIS FORM TO THE ABOVE ADDRESS
ALL COMMUNICATIONS TO THE GRAND JURY ARE CONFIDENTIAL

This complaint should be submitted after all attempts to resolve a situation have been explored unsuccessfully.

Person or agency your complaint is about

Name and Title

Organization

Address
(707) -
Telephone

My complaint is: (be as precise as possible, providing dates, times, and names of individuals involved. Describe more specific instances instead of making broad statements. Attach any available photographs, correspondence or documentation which pertains to this complaint. Use extra sheets as necessary.)

Other persons or agencies you have contacted about this complaint.

Describe the action you wish the Grand Jury to take.

Using additional sheets, provide any further information you feel may be helpful in an investigation.
COMPLAINANT:

Name (please print)

(707) -
Telephone

Address City

CA
State Zip Code

Signature

Tuesday, April 17, 2007
Date

Your confidentiality will be vigorously protected. All complaints will be acknowledged promptly.
Please read additional instructions attached.

COUNTY OF LAKE
LAKE COUNTY GRAND JURY
FURTHER INFORMATION REGARDING CITIZENS COMPLAINTS

Anyone may ask the Grand Jury to investigate a complaint. The Grand Jury will review all complaints received from the public and, when appropriate investigate those complaints which contain allegation of wrong doing or misconduct. While the Grand Jury will accept and review each complaint this is no assurance that the matter will be officially investigated or any formal action taken. The following procedures govern the submission and processing of such complaints.

A formal complaint should be prepared after all attempts to correct a situation have been explored unsuccessfully.

All complaints should be submitted in writing, dated and signed by the complainant. Anonymous complaints are usually given less weight by the Grand Jury in deciding what to investigate.

Complaints may be submitted by letter, but this complaint form is preferred. Upon request, members of the Grand Jury will assist citizens with the preparation of the complaint form.

Content of a complaint
Whether or not the standard complaint form is used, the following information should be included if at all possible:

- Name, address and telephone number of the individual or organization the complaint is against.
- If the complaint is against an individual in an organization, include the individual's title or position in the organization.
- Describe the problem as clearly as possible.
- Be as concise as possible, including dates, times, and names of individuals involved.
- Cite specific examples as opposed to broad general accusations.
- Attach any available evidence such as correspondence, documentation, photographs, etc..
- Include the name, address and telephone number of the person preparing the complaint. Please state all efforts or action taken to resolve the complaint up to this time. All materials, photos, statements, documents or other evidence will be retained for confidentiality by the Grand Jury.

Confidentiality
The Grand Jury is forbidden by law to release any information about a complainant or about any investigation that may be in progress. The confidentiality of the person making the complaint is rigorously protected.

The Grand Jury will study each complaint submitted. Each complaint will be acknowledged by letter as soon as possible after it is received. After studying the complaint, the Grand Jury will determine if further investigation should be undertaken. In any event, the complainant will be advised of the Grand Jury's decision.

The Grand Jury may call on the complainant for further information or clarification of the complaint.

Superior Court of California, County of Lake

(707) 263-2374 x2282

GRAND JURY APPLICATION

If you are selected to serve on the Lake County Grand Jury, during your twelve months on the panel, you will be asked to evaluate and investigate citizens' complaints, interview officials in charge of various County or City or Special District activities, and visit agencies and sites relevant to your area of interest and focus. You will also be asked to write reports based on these investigations, interviews, and visits.

1. Name:_____ Birth Date_____
   Last First Middle

   Street Address: _____

   Mailing Address: _____

   Phone _____(home) _____(office) _____(cell)

   E-Mail Address: _____; Fax No.:_____

   California Driver's License or I.D. No.:_____

2. Supervisorial District: _____

3. Education: High School_____ Junior College_____ 4-Yr College Graduate _____

   Post-Graduated _____ Majors _____ Degrees _____

   Licenses, Certifications, Credentials _____

4. Occupation(s), past & present:_____

_____

5. How long in Lake County? _____ Are you retired now? _____

6. Special Skills/Knowledge: _____Computer Processing _____IT _____ Accounting

_____Budget Analysis ____ Auditing _____Management

_____Interviewing _____ Research _____ Writing

_____Government Services _____ Law Enforcement

_____Teaching _____ Law _____ Elected Office

7. Other Specialized Training:_____

LEGAL QUALIFICATIONS

☐ Yes	☐ No	I am a US Citizen and at least 18 years old.	☐ Yes	☐ No	I have been convicted of malfeasance in office or a felony.
☐ Yes	☐ No	I will have been a resident of Lake: County for at least 1 year by next July 1.	☐ Yes	☐ No	I am presently serving as an elected public officer.
☐ Yes	☐ No	I am in possession of my natural faculties, of ordinary intelligence, of sound judgment, and fair character.	☐ Yes	☐ No	I understand the spoken and written English language.

8. List any organization(s) in which you are presently and/or have been active over the past five years.

Name of Organization	Purpose	Duties	Dates
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

9. Prior County Grand Jury Service: Yes_____ County _____Years _____ Prior Federal Grand Jury Service: Yes_____ No:_____

10. An appointment to the Lake County Grand Jury generally demands attendance at Grand Jury plenary sessions, an assignment to two committees, regular attendance at committee meetings, and extensive investigative duties. If appointed to the Lake County Grand Jury, how many hours each week can you devote to these responsibilities? _____

11. Do you have a disability or illness which would have to be accommodated in order to allow your full participation in Grand Jury activities? _____ If yes, please explain.

_____

_____

12. Do you currently hold a civic elective position (school board, commission, etc.)?_____
If yes, please list the identity of the agency, position held and term of expiration date

_____

_____

13. Why would you like to serve on the Grand Jury? _____

_____

_____

14. What departments of County or City government or County/City services, if any, do you believe warrant closer scrutiny, and why?:_____

_____

_____

15. Are you or your spouse now, or have you ever been employed by a governmental body or agency, and if so in what capacity?:_____

Pursuant to Penal Code Section 903.2, I understand an investigation that will include a criminal record check will be conducted to help determine my eligibility to serve as a Grand Juror. I further understand that if my name is drawn as a Grand Juror or as an alternate, I may be required to attend grand jury training; if I am seated as a Grand Juror, I will be available to attend grand jury meetings and devote the required time to complete grand jury work for one year, from July through June. I further understand that if my name is drawn as an alternate, I will remain available for one year to serve as a member of the grand jury if called upon. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated: _____ Signature: _____

(Please insert date signed) (Please sign your name here)

For statistical records, please mark appropriate boxes.

Age Range; specifically: 18-25 ☐ 26-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65-74 ☐ 75 and over

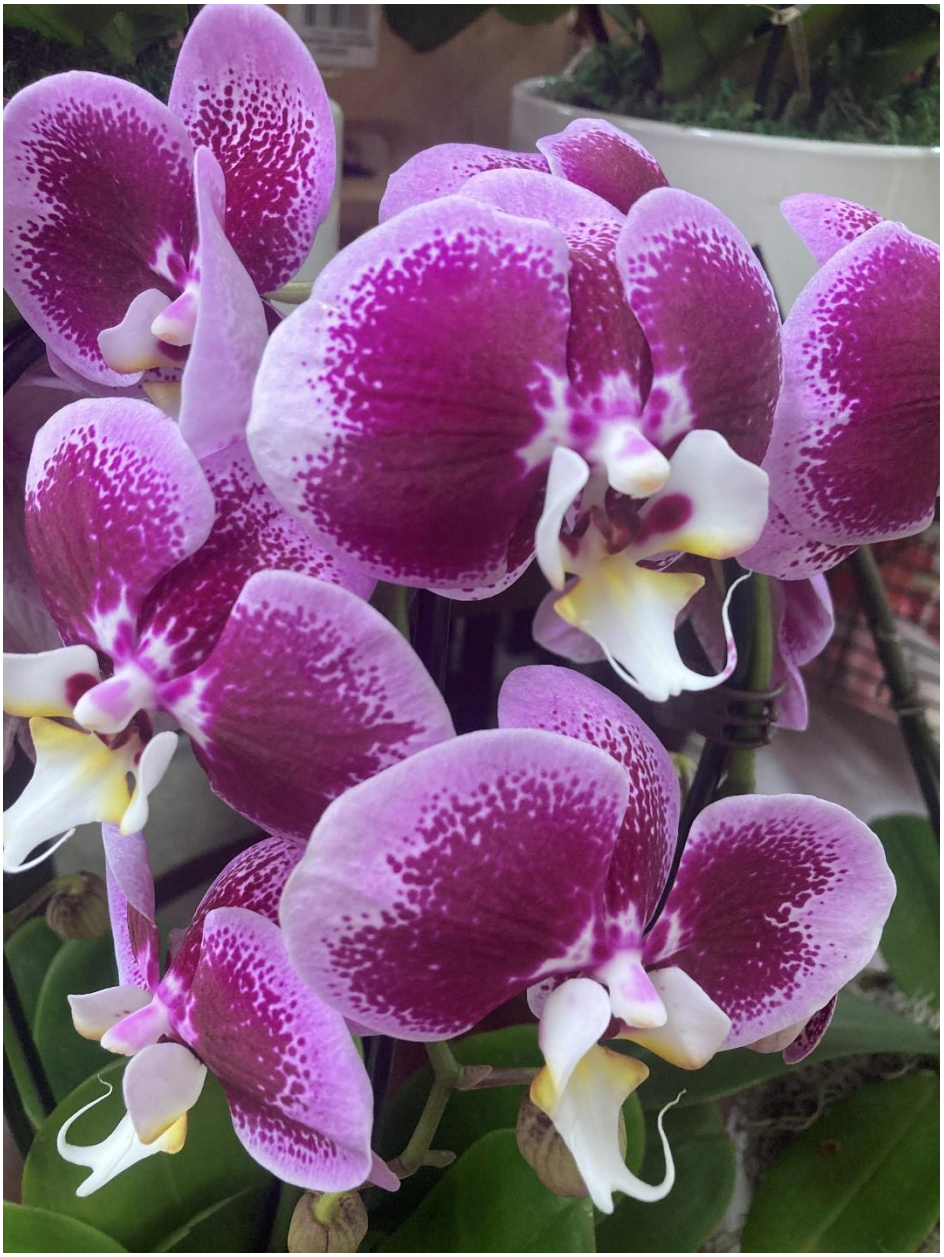
Gender: ☐ Male ☐ Female

Race or Ethnicity:

☐ White (Anglo)
☐ Other Race or Ethnicity (Please state _____)
☐ Decline to Answer

Place of Residence by Supervisorial District:

☐ District 1 ☐ District 2 ☐ District 3 ☐ District 4 ☐ District 5



Valley Fire Conflagration:

10-Year Anniversary on September 12, 2025



SUMMARY

The **Valley Fire** was a wildfire that occurred during the 2015 California wildfire season and started on September 12 in Lake County, California.[1] This report is intended to remind readers of the extent of destruction and to recognize the 10 years that have passed since then, while focusing on the volunteers' care for the pets and livestock that were displaced and adversely affected by this fire.

Progression

The Valley Fire started on High Valley Road off Bottle Rock Road at 1:35 PM on Saturday September 12th, 2015. At 2:09 p.m., mandatory evacuation of Cobb and Loch Lomond was ordered, and at 2:45 p.m., mandatory evacuation of Middletown was ordered. By 3:00 p.m.. the fire had already burned through the Pine Summit neighborhood of Cobb, destroyed Hoberg's Resort, and was racing through Boggs State Forest heading toward Middletown, Anderson Springs and Harbin Hot Springs. At 4:00 p.m., the CAL FIRE Unit Chief ordered a type-one incident

management team. By 6:07, p.m., the fire had reached Hidden Valley Lake and was estimated at 10,000 acres. By 10:30 p.m., the fire had grown to 25,000 acres. In three and a half hours, the Valley Fire had become the third most devastating fire in California history, although that "record" was subsequently broken.

By Sunday, the 13th of September, the fire had reached 50,000 acres and had destroyed much of Cobb, Middletown, Whispering Pines, and parts of the south end of Hidden Valley Lake.[4] The fire ultimately spread to 76,067 acres, killed four people, destroyed nearly 2,000 buildings[1][5][6][7] before it was fully contained on October 15, 2015,[1] and caused at least $921 million (equivalent to $1.22 billion in 2024[8]) in insured-property damage.[9] Although at that time, the fire was the third-most destructive fire in California history, based on the total structures burned,[10][11] the Camp Fire in 2018 and the North Complex fire in 2020 exceeded that total.



Middletown sign burning on September 13

The fire quickly spread into Middletown and Hidden Valley, threatening northern Sonoma .0County around The Geysers and northern Napa County, approaching Pope Valley and Angwin.[12]

In the first few hours of the fire, four CAL FIRE firefighters from the Boggs Mountain helitack crew suffered second-degree burns while engaging in the initial attack on the fire. They were airlifted to the UC Davis Medical Center for treatment, where they were listed in stable condition.[13][14]

On September 12, mandatory evacuation orders were issued for Cobb, Middletown, Loch Lomond, Harbin Hot Springs, Hidden Valley Lake, the Clearlake Riviera, Riviera West, and Soda Bay communities and unincorporated parts of Kelseyville, Pope Valley and Angwin.[3] Evacuation centers were established in the town of Kelseyville to the northwest and Calistoga to the southeast.[1]

This area had been home to at least 10,000 residents.[14] By midnight of the first day, scores of homes and businesses had been destroyed in Middletown, along with at least 50 homes in Cobb as well as the entire Hoberg's Resort, a historic retreat built in the 1880s. The resort community of Harbin Hot Springs was also destroyed. On September 13, officials from Cal Fire confirmed that more than 1000 homes had been destroyed.[15]

On October 15, 2015, the Valley Fire was fully contained, at 76,076 acres (307.87 km^2).[1] The total cost of fighting the Valley Fire was estimated by the National Interagency Fire Center at $56.2 million.[16]:9

Effects

The remains of one woman killed in the fire on Anderson Springs were found on September 13. On September 17, remains of two bodies were found in Anderson Springs and Hidden Valley Lake.[7]

On September 23, Lake County deputies found human remains that belonged to a missing Cobb resident, who was confirmed to be the fourth fatality resulting from the fire.[5]

"My Daughter's Spirit" by Ladonn Moragn Garcia



The fire ravaged 2,003 structures, including 1,322 homes, 27 apartment buildings, and 73 businesses, plus 581 outbuildings that were damaged.[1] In addition, more than 9,000 vehicles, 900 power poles, and hundreds of miles of fencing were destroyed, plus, sadly, an untold number animals—both domestic and wild – died.

The California Department of Insurance estimated the insured losses from the Valley Fire at approximately $700 million.[17] Insurance company Aon Benfield Inc. estimated that damages were at least $1.5 billion, including $925 million in insured losses and $575 million in damage to infrastructure and other federal/state government property.[18][19]

Aftermath



Public support for firefighters in Lucerne, Lake County

In addition to the shelters in Lake and Napa Counties, the Mendocino County Health and Human Services Agency, in coordination with the American Red Cross, opened a shelter on September 13th at the Redwood Empire Fairgrounds in Ukiah to offer medical and mental health assistance, and meals to evacuees. That shelter closed on September 18th.[20]

Multiple people were arrested for looting or attempting to loot from evacuated or abandoned homes as a result of the fire. On September 14, a man posing as a California Highway Patrol officer was arrested in Whispering Pines on suspicion of removing an artifact of archaeological interest.[21] On September 17, three people were arrested by Lake County Sheriff's Deputies for attempting to loot from homes in Hidden Valley Lake. They were allegedly in possession of burglary tools and an unregistered firearm.[22]

On September 18, the California National Guard was called to Lake County to assist the County's law enforcement agencies with the task of protecting evacuated communities from looters and trespassers. About 50 National Guard military police teams arrived on September 19.[23]

In November 2015, a concert with country musicians Diamond Rio and Joe Diffie and with Ukiah country singer-songwriter McKenna Faith was held at the SOMO Village Event Center in Rohnert Park to raise money for Valley Fire victims.[24]

A Cal Fire investigation pointed to faulty wiring of a hot tub installation as the cause of the fire.[2] The blaze started when a wire at a poorly-connected hot tub overheated, melted, and ignited dry brush nearby at a residence on High Valley Road in Cobb.

Response to the Need for Animal Care

Providing relief for the animals in the burned area involved organizing and coordinating a surprisingly large number of individuals and organizations. Many of these efforts had to be synthesized on the fly because there was no pre-existing model or plan to follow. The following information was provided by Dr. Jeff Smith, then the director of the Middletown Animal Hospital (MAH), which became the designated center for Fire Animal Relief based on being activated by the Cal-OES State Operations Center per a request from the Lake County Emergency Operation Center. The California Veterinary Medical Reserve Corps (CVMRC) in conjunction with Santa Clara Office of Emergency Services, North Valley Animal Disaster Group, Yolo County Sheriff's Posse, and the UC-Davis Veterinary Emergency Relief Team were the groups activated to the Hospital location.

Because the local animal control agency was both unwilling and unavailable to participate in the Middletown relief effort, a coalition of out-of-county organizations provided the resources and logistical support for the affected animals over the next 7+ weeks (Petaluma Animal Services, CHANGE, HALTER, JARR, WCAL, SHS, Lost Hearts and Souls, CART, Sunrise Horse Rescue, and, literally, hundreds of other individuals and groups). In addition, scores of DVMs and Veterinary Technicians rotated through MAH to provide care to all of the animals—some of them for multiple days and nights. All animals treated were carefully documented and posted to social media (FB, Twitter, and a dedicated website constructed specifically as a central rehoming resource: ValleyFireAnimals.com) so that reunification would be as easy as possible. Of great assistance, a volunteer group associated with Lake County Animal Control – Lake Evacuation and Animal Protection (LEAP) – was authorized to provide food and water to the hundreds of livestock and pets that had to be left at home when the owners evacuated.

All of these teams provided veterinary care and shelter to any lost, injured, or displaced animals presented to veterinarians by owners, residents, relief workers, disaster responders, or anyone else with a need. Over the first 2 weeks more than 500 animals were treated, while an additional 300 animals were treated the 2nd two weeks. 5-10 fire victims (pets of residents who lost their home or business) continued to be treated on a daily basis at the Hospital for many weeks. All fire victims' pets and livestock were treated pro-bono, which was gratefully received by a community that was shell-shocked and reeling from the disaster. In addition to medical care, no-cost boarding was provided for all stray, lost, or surrendered pets and livestock. The Middletown Animal Donation Operation received and distributed over $80,000 worth of feed, food, crates, fencing, and animal supplies over a 7 week period that concluded on October 31, 2015.

The many folks who supplied, manned, and managed such a huge operation deserve special thanks for the immense amount of work that they provided. During the response nearly every domestic species was treated: Cats, dogs, horses, sheep, goats, chickens, cows, pigs, camels, and even some rescued koi. Some of the surgeries that were performed: Digit amputation, Tendon repair, Bladder stone removal, Dental surgery, Wound/Burn debridement/repair, Upper respiratory repair, Limb amputation, and Prolapsed Rectal repair. Some of the conditions treated: Burns, Smoke Inhalation, Parasites, Lack of Vaccinations, Vomiting/diarrhea, Rehabilitation, Hip dislocation, Heart failure, Dermatitis, Heartworm Disease, Rectal bone impaction, Intervertebral disc disease, Hemoabdomen (3 cases!— tumor, dog attack, hit-by-car), Otitis, Foreign animal disease, and Lameness.



In addition, thousands of dollars in donations to fund the medical and husbandry needs of fire victims came through on-line donations, allied industry donations, individual donations, and rescue group donations. All of these funds provided the basis for a sustained and robust animal care relief effort.

We certainly shall have more disasters and, very likely, we will have more severe disasters. The idea that disaster will strike “somewhere else” or that “someone else” will respond to the crisis is precisely the reason why most folks are not prepared for these events. Even the best prepared groups and individuals must deal with unexpected and difficult contingencies during a disaster, but, to the degree that everyone has prepared, those challenges are far more manageable. Especially when it comes to animals, there are relatively few government- focused resources or organized responses. Therefore, private practitioners, organized veterinary groups, animal rescue organizations, allied industry, and trained animal disaster rescuers must shoulder the responsibility of responding to the animals’ needs while still working within the government’s disaster response structure.

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A Burning Issue in Lake County



SUMMARY

The Grand Jury pursued this investigation on behalf of public concerns regarding the problems with obtaining Residential Burn Permits (RBPs) in the County. Many difficulties encountered by the Grand Jury during the process of actually trying to obtain a Residential Burn Permit included issues with Lake County Air Quality Management District (LCAQMD):

- LCAQMD hours of operation issues
- LCAQMD staffing issues
- LCAQMD computer and technology issues
- Public confusion over RBPs obtained only online, and RBPs obtained 'manually', hand-written, and online through the fire districts of Lake County

Since its inception, Lake County has grown in population and development, and the need has also escalated for County government and local agencies to provide the populace with effective and comprehensive fire prevention and fire mitigation for the safety and security of our families and businesses–Residential Burn Permits are a part of that. Those government and local agencies are primarily the Lake County Air Quality Management District (LCAQMD), and Lake County's six separate fire districts, which are: Lakeport Fire Protection District, Lake County Fire Protection District, Kelseyville Fire Protection District, Northshore Fire Protection District, South Lake County Fire Protection District, and Lake Pillsbury Fire Protection District.

This report will explain the results of our investigation with regards to the County agencies involved in issuance of Residential Burn Permits within Lake County, the problems that were encountered, and solutions recommended for their adjustment.

BACKGROUND

Lake County is known for bass fishing, pears and delicious produce, Great Blue Herons, and lakes, not the least of which is Clear Lake, with more than 100 miles of shoreline and 68 square miles of surface area. However, Lake County is also known for its notable fires–wildfires that have scorched Lake County hills and destroyed property for decades.

One area of fire mitigation has been the issuance of County Residential Burn Permits, the subject of this report. While residents burning brush and yard refuse on their properties has occasionally caused break-out fires in Lake County, there is no substantial proof of incidents where break-out fires from burn permit users have caused major fires. Careful attention to the issuance and use of Residential Burn Permits remains a concern as part of the whole picture of fire protection, prevention, and mitigation in the County.

Residential Burn Permits are intended to provide citizens with a method of disposing of the brush and overgrowth on their properties in a safe manner. To do this, the County has set up procedures for obtaining Residential Burn Permits, in addition to setting up parameters the public must follow to obtain them and use them safely and properly. (Appendix: A: Residential Burn Permit Form).

The mission statement of the Lake County Air Quality Management District states:

> " . . . to maintain healthful ambient air quality for the residents and visitors of the Lake County Air Basin. The Air Basin is a Federally and State recognized geographic area that is the same as the County boundary. The District is a regional agency, created by the state, that regulates stationary sources of air pollution within the Lake County Air Basin. These sources include industrial developments such as the Geysers Geothermal Power Generation as well as commercial businesses with air emissions such as mining operations and gasoline stations. The District also regulates open burning and is delegated a variety of other programs such as State Air Toxic Control Measures (ATCMs) and Federal New Source Performance Standards (NSPSs). The main purpose of the LCAQMD is to enforce local, state, and federal air quality laws, rules and regulations in order to meet the Ambient Air Quality Standards (AAQSs), and to protect the public from air toxics through local regulation, State ARB ATBM and Federal EPA NESHAP specific control regulations. Funding is provided by State subvention, permit fees, fines, and grants. The District is self-supporting, and is not funded by property taxes. The LCAQMD pays overhead, rent, and other charges to the Lake County General Fund." (from LCAQMD.net website)

The website of the Lake County Fire Safe Council, known as "Fire Safe Lake", offers comprehensive information on Residential Burn Permits (firesafelake.org). According to this website, the basics for Residential Burn Permits are:

- They are required for all outdoor burning in the Lake County Air Basin.
- They are only issued from the Lake County Air Quality Management District (LCAQMD).
- They are available online only during burn season, which starts yearly when Cal Fire declares the end to fire season.
- They are valid through April 30th yearly.
- Only clean, dry vegetation that was grown on the property may be burned.
- Residential Burn Permits require a one-acre lot of record, as well as

- a burn location located at least 100 feet from all neighbors,
- and at least 30 feet from any structure.

The Fire Safe Council website also describes what is illegal to burn and how burn materials should be arranged. The website notes that an Agricultural Burn Permit and a Smoke Management Plan (SMP) are required for larger burns, such as burning orchards, large land conversions, vineyard removal projects, standing brush, forest understory, and multi-day and multi-location burns.

Finally, there is information on the website how to obtain Residential Burn Permits, noting that these may be obtained only online through LCAQMD's website.

Included on this website is an article about a program endorsed by the County Board of Supervisors called "Hazardous Vegetation Abatement" which covers the issue of landowners and homeowners creating safe, "defensible space" on their properties to halt fires from coming too close to buildings. Landowners and homeowners creating defensible space on their property will ultimately benefit all of those residing in Lake County–a deterrent to the growth of wildfires.

The comprehensive 2023 Community Wildfire Protection Plan for countywide fire prevention and protection is also available on this site. (1)

THE HISTORY OF RESIDENTIAL BURN PERMITS

Historically, Lake County Residential Burn Permits were issued by the fire districts throughout the County. However, in 1987, the California Air Resources Board (CARB) took state jurisdiction over burn permits, bringing them under the control of both county fire districts and State Air Quality Management. (2) Lake County's six separate fire districts and LCAQMD's open burning programs have incorporated both fire safety and air quality management since that time.

In March 2000, CARB implemented 'Smoke Management Guidelines' for agriculture and all prescribed burning in cities and communities. To enforce these guidelines, CARB mandated that all burn permits include certain limitations on burn pile sizes and clearance around the piles, for added safety. (2)

Today, Residential Burn Permits in California are subject to state and county regulations for their issuance in an effort to control their misuse and potential dangers. Currently, Lake County issues burn permits through the LCAQMD. (3)

The problems the Grand Jury found while investigating the issuance of RBPs included:

- Conflicting information online with numerous websites, with regards to the obtaining of RBPs.
- Public need for reliable and uncomplicated online issuance of RBPs wasn't being provided.
- Public-friendly, dependable information available for residents both on websites online as well as in-person visits to LCAQMD and the fire districts, to make an informed decision regarding what burn permit they need, the cost, and the requirements was not always available.

Technically, Residential Burn Permits are issued through the LCAQMD online website with the following guidelines (3):

- RBPs are available during the burn season.
- Burn season starts when Cal Fire declares an end to fire season.
- RBPs are valid through April 30th.
- Some exemption burns may be authorized through May 1 and beyond.
- Acreage parcels must be 1-acre or more.
- Green waste bins can be purchased online, when the burn ban is lifted.

Fees posted online for RBPs at the LCAQMD website are:

A. Annual Fee $34.00
B. Annual Fee $102.00
C. Annual/Renewal $34.00/$34.00

This information was obtained from the LCAQMD website Burn Permit Fee Schedule, and it contains information that is non-specific and unclear as to what an annual fee covers, what a renewal covers, and what the different amounts refer to specifically. (4)

Historically, the six local fire districts have been issuing Residential Burn Permits to the public, both hand-written, 'manually', and online, due to public requests in-person at their offices. The fire districts have assisted the public with online RBPs through their computer system and link into the LCAQMD website to obtain online

RBP applications. It is the use of the LCAQMD website interface which, according to the fire districts, has been prone to malfunctions and unreliable to operate.

A brief history of the online LCAQMD/fire districts website interface for Burn Permits began when the agencies automated to computer-based website assists around 2022. The fire districts were using the computer system initially and were experiencing glitches and malfunctions with the programming. When the fire districts were discussing turning over issuance of all Burn Permits to LCAQMD in 2023-24, LCAQMD assumed responsibility for the computer-based program the fire districts had used previously, along with its glitches and malfunctions–-problems which still persist with the program at the time of this report. It is noteworthy that in its history, the computer system used by these entities had only one upgrade, per the fire districts.

METHODOLOGY

For this report, the Grand Jury conducted multiple interviews with Lake County public employees including: members of the Board of Supervisors, Lake County Air Quality Management District personnel, and several chief fire district officials.

The Grand Jury also investigated obtaining an actual Residential Burn Permit using the methods required by the County offices responsible for their issuance. The results are in this report.

DISCUSSION

On September 4, 2024, the Grand Jury learned further information in our interview with a chief fire district official that the history of LCAQMD and the fire districts had to do with communications that went back and forth between them early in 2024. The outcome was the fire districts would no longer be issuing Residential Burn Permits, but they would be issued completely through LCAQMD from that time forward.

A chief fire district official told the Grand Jury that, historically, fire districts used to issue ‘manual’ RBPs to the public, which were handwritten on RBP forms. By 2022-23, the LCAQMD automated to using computers and began issuing Residential Burn Permits via the electronic method on their website. However, the fire districts

continued to receive public requests in-person for assistance with both ‘manually’ issued RBPs as well as online issued RBPs.

Communications between LCAQMD and the fire districts along with computer issues, continued to be difficult with both issuing RBPs to the public. So, in late 2024 and early 2025, LCAQMD entered into an agreement with the six fire districts that all Residential Burn Permits were to be issued online, in-person, and on the telephone only through LCAQMD–doing away with the ‘manual’ issuance of RBPs except for special circumstances, for example, when staffing was sparse for the fire districts or LCAQMD. (Appendix: B)

The Grand Jury also learned from a chief fire district official that interfacing with the LCAQMD computer system website had been, for the fire district staff, frustrating, inefficient, prone to repeated malfunctioning, breakdowns, lapses in operation, problems with pop-ups, and overall failing to work consistently.

The Investigation of the Residential Burn Permit



SUMMARY

Our Grand Jury investigation of RBPs began in October 2024. One of our Grand Jurors began the process of obtaining a Residential Burn Permit in Lake County.

- October 11, 2024, the juror called the number given for the Residential Burn Permit application through the LCAQMD website: (707) 263-7000. What our juror heard was a recording that said, "The call cannot be completed as dialed, please check the number."
- October 15, 2024, the juror went in-person to LCAQMD at 2617 S. Main Street, Lakeport California. Our juror had difficulty finding the building at that address because the sign above the door was very small and the wording on it too small to be read from the road. After our juror found the building, there was a locked gate, and there was no sign on the lot or gate. Our juror went back to his car and dialed the LCAQMD number again: (707) 263-7000, where our juror again heard a recording that said: "Due to lack of staff we are temporarily closed. Please leave a message." Then the phone disconnected.
- October 23, 2024, the Grand Jury interviewed the Air Pollution Control Officer (APCO). In their discussion with the APCO they learned the LCAQMD budget was $1.5M, and the APCO staff was currently at 2.8 employees when 6 employees really were needed. They also learned from the APCO that in the course of assisting the public with online Residential Burn Permits, the fire districts reported running into difficulties using the LCAQMD computer system which was malfunctioning and inefficient while processing and transmitting the completed permits back to LCAQMD. The fire districts then would just mail the completed manual permits back to LCAQMD. The problem with the LCAQMD computer system wasn't fixed, even though the fire districts experienced it repeatedly and reported it to LCAQMD. The APCO said *because of this, the fire districts were no longer wanting to issue Residential Burn Permits.*
- NOTE: however, when the jurors met with a chief fire district official on December 17, 2024 (see entry this date below), and asked about issuing or

not issuing Residential Burn Permits, the chief fire district official said *in no way were the fire districts going to cease issuing RBPs*; *it was a public need, and people came to the fire districts to obtain assistance with Residential Burn Permits both 'manually' and online.*

- On November 22, 2024, at 11:00 AM, our juror made a third try and called the LCAQMD number (707) 263-7000. This time, the phone rang with no answer, and no recording came on.
- Again, on November 22, 2023, at 11:20 AM, twenty minutes later, our juror called that number a second time. This time a recording came on that said: "Office closed due to shortage of workers–please leave a message to get an appointment." This time, our juror was able to leave a message on their voicemail and requested an appointment to obtain a Residential Burn Permit.
- Later that day, our juror got a call back from an employee at LCAQMD. Here is what they told our juror:
    - "Residential Burn Permits can be obtained *only online*. No appointments are available in the office for Residential Burn Permits, only for 'demolition' through Smoke Management, where they can have a walk-in appointment and pay with a credit card. Residential Burn Permits for the general public cannot have an in-office appointment. *They can only be obtained online through computers."*
    - Our juror told them he did not have access to a computer.
    - The employee indicated they felt our juror was giving them a hard time by asking so many questions, so, our juror left them his information, and was told they would get back to him.
- The employee at LCAQMD did get back to our juror, and they told the juror that a walk-in appointment on December 11, 2024 would be available because he didn't have access to a computer. Our juror told them he wanted to bring someone along, and they said that was okay. That person was another juror to be a witness.

THE WALK-IN APPOINTMENT

- On December 11, 2024 at 11:30 AM, the walk-in appointment for our juror was at LCAQMD, 2617 S. Main Street, Lakeport, CA. Our juror and the other juror met the employee. They proceeded with the process of obtaining a Residential Burn Permit online with the assistance of the employee, at the LCAQMD computer in their office.
- First of all, the employee could not get the burn permit program on the computer to work, even after turning the computer off and on twice, then additionally it shut down for five minutes and needed to reboot.
- When they finally got it working again, the program suddenly stopped working when the employee entered our juror's middle name. The employee finally removed the middle name and tried entering just the middle initial, but it still didn't work.
- The employee went in to talk to their boss about the problem. He told the employee to leave the middle initial off completely. When the employee came back and did that, the program was working again.
- Then later, our juror had to choose the tree material that would be burned. The choices for trees on the burn permit form were: Oak, Madrone, and Walnut, and two others, however, none of those trees were correct for the trees our juror would be burning. The employee told our juror they would just check off the one for walnut trees, even though that wasn't what our juror was burning. There was also no option for checking just 'brush', as there had been on former Residential Burn Permit forms our juror had obtained in previous years. (See Appendix- sample RBP)
- Finally, there were problems all throughout the online permit process with the employee such as pop-ups that needed to be filled in, and they were unable to fill them in due to problems with the computer working properly.
- When the application process was finally finished, our juror obtained the Residential Burn Permit.
- December 17, 2024, some jurors interviewed a chief fire district official and during the discussion Residential Burn Permits were brought up, and whether the fire districts were still issuing them or not. The chief fire district

official stated they were still assisting the public with Residential Burn Permits online, with numerous problems such as malfunctions and glitches when entering information on the LCAQMD computers and sending finished applications through that system electronically. The LCAQMD computers did not work reliably or correctly.

INTERVIEW WITH A MEMBER OF THE BOARD OF SUPERVISORS

Lastly, on March 5, 2025, the Grand Jury interviewed a member of the Board of Supervisors about the County Residential Burn Permit program.

The Grand Jury was interested in learning if the County wanted to do away with burn permits altogether, due to the reported frustration from fire districts trying to obtain Residential Burn Permits when electronically interfacing with the LCAQMD computer system. The Supervisor answered a definitive *NO–the County was not wanting to do away with Burn Permits at all.*

Our juror explained to the Supervisor the types of problems they had run into during our investigation, and asked the Supervisor if they were aware of them. The Supervisor acknowledged they were aware of the fact the LCAQMD had been having severe staffing problems, as well as their computer issues. The Supervisor said they would look into the situation and get back to us, and they requested that the jurors put all our concerns into the final report so that the issues can be identified, the location of the problems determined, and finding who needs to be held accountable.

In our discussion about Residential Burn Permits with the Supervisor, the juror who attempted to obtain a Residential Burn Permit pointed out to the Supervisor a problem with information on the Residential Burn Permit application. Under the section *'Alternative Vegetation Disposal'* certain methods of non-burn disposal are listed on the current application:

- Composting and Chipping Information:
    - South Lake Fire Safe Council Chipper: 987-9841
    - Master Gardeners: 263-6838
- Refuse Services and Green Waste Pick-up Information:
    - Lake County Waste Solutions: 234-6400

- Lakeport Disposal: 263-6080

During this investigation, our juror contacted all these agencies listed on the Residential Burn Permit application, by phone using the numbers given. Here is what was learned:

- South Lake Fire Safe Council Chipper: is for South Lake Only, and services are very limited.
- Master Gardeners: Are only available for gardening needs and do not offer services for removal or destruction of yard waste.
- Lake County Waste Solutions and Lakeport Disposal are both dumpsites in the County; for household use only, and they pick-up for a fee or you may dump if you bring it in yourself, also for a fee.

None of these businesses listed on the Residential Burn Permit form provide comprehensive services to help County residents with viable alternatives to burning their yard debris and waste. This poses a problem for the public when deciding whether to burn or have their yard debris and waste removed professionally.

Lastly, the five Lake County Board of Supervisors form the governing Board of Directors of LCAQMD. The Supervisor informed the Grand Jury that the heads of the six fire districts meet monthly together, and the APCO over LCAQMD is requested to attend these monthly meetings, but the APCO has not been attending since about 2020.

COUNTY AGENCIES INVOLVED IN BURN PERMITS

Information on Burn Permits from county agency websites:

Lake County Air Quality Management District: (LCAQMD) (lcaqmd.net/home/)

On their website, there is a link to get Residential Burn Permits, and information regarding Agricultural Burn Permits and Smoke Management Plans, as well as “exceptions” for burn permits during burn bans, and how to determine “no-burn” days.

The LCAQMD Governing Board is comprised of the five Lake County Board of Directors. The Dependent Special District Board also appoints the Air Pollution Control Officer and the District Hearing Board.

For the public to contact the LCAQMD, there is a physical address, telephone and fax number, as well as the email address.

As of this writing, on the LCAQMD website, under permits and compliance, states that the District Office is currently open to walk-ins Monday through Thursday, 9 AM to 12 PM. Under the "News" tab, there is an article about LCAQMD office re-opening, dated 2/4/25. It closed September 2024, due to staffing shortages. During the closure. the public was asked to call and hear a recording to leave a message to request an appointment - this message was dated 8/30/24.

Cal Fire Burn Permits; (burnpermit.fire.ca.gov)

On this website there is comprehensive and simple-to-follow information for public use on all aspects of Burn Permits in the County. It starts with *Develop a Plan*, *Verify Your Address with Cal Fire jurisdiction*, and *Apply Online*.

It's important to note that the Grand Jury learned from a chief fire district official that the Burn Permit application online at the Cal Fire website is different from the Burn Permit application on the LCAQMD site. Per the Cal Fire website, when a purchaser goes online to the Cal Fire website and fills out the application for a Residential Burn Permit, or an "exemption" burn, part of the process requires the purchaser to view a short informational video on controlled burns. This is mandatory before they are issued the burn permit.

The Grand Jury also learned that it is a State requirement for burn permit purchasers to view a short informational video on controlled burns, with a slight stipulation. The Cal Fire Board of Forestry and Fire Protection (BFFP) has designated three special fire responsibility areas in the State of California:

- LRAs: local responsibility areas
- SRAs: State responsibility areas
- FRAs: Federal responsibility areas

These boundary areas were adopted by the BFFP in January 2011, and updated July 1, 2016. The reviews for these areas take place in 5-year cycles, with the next cycle scheduled to conclude in 2025.

The SRA areas are where Cal Fire is the primary emergency response agency for fire suppression and prevention. The requirement for purchasers of burn permits to view instructional videos on controlled burns is required by the State in SRA and FRA areas. The BFFP has a SRA Viewer on their website where addresses can be looked up to see what area they are in.

Per the Cal Fire website, in areas not State responsibility areas (SRAs), local fire districts or AQMDs might issue burn permits, thus the application process and requirements, including whether a video is required to apply for an RBP, can vary based on the specific jurisdiction.

The website also assists with information on Burn Permit options:

–Residential permits

–General and broadcast permits

–campfire permits.

There is also the County's current Residential Burn Status for residents who need to know when to burn.

Fire Protection District's Websites in Lake County:

Lakeport Fire Protection District (www.lakeportfire.com) Lakeport Area

Website information:

- Residential Burn Permits will NOT be available through any Lake County Fire District office.
- To obtain one, the public is required to contact LCAQMD for Burn Permits online.

Lake County Fire Protection District: (lakecountyfire.com) Clearlake Area.

Website information:

- There is a link to go directly to the LCAQMD website for Residential Burn Permits online.

Kelseyville Fire Protection District: (kelseyvillefire.com) Kelseyville Area.

Website information:

- The Fire District is not issuing Burn Permits.
- There is a link to go directly to the LCAQMD website for Residential Burn Permits online.

Northshore Fire Protection District: (northshoreFPD.com) Clearlake Oaks, Lucerne.

Website information:

- There is a link to go directly to the LCAQMD website for Residential Burn Permits online.

South Lake County Fire Protection District: (southlakecountyfire.org) Middletown, Cobb Station, Hidden Valley Station, Loch Lomond Station areas.

Website information:

- This website has a link to go directly to the LCAQMD website for Residential Burn Permits online.

Lake Pillsbury Fire Protection District: (lakepillsburyfire.com) Lake Pillsbury Area.

Website information:

- This website has a link to go to the LCAQMD site for Residential Burn Permits online.

THE GRAND JURY AND THE CHIEF FIRE DISTRICT OFFICIALS

As the Grand Jury met with chief fire district officials throughout this investigation, below is what was discussed:

- Fire Districts historically issued 'Manual', hand-written, Residential Burn Permits since the late 1980s.
- Fire Districts have issued 'Manual' Residential Burn Permits for all RBP users before computer automation of that system.

- Fire Districts have been assisting the public with Residential Burn Permits online through the LCAQMD computer system since 2024.
- Fire Districts, as of 2024-2025, are no longer issuing RBPs to the public, but have turned that over to LCAQMD. They will continue to assist LCAQMD with all burn permit "EXCEPTIONS" throughout the year as a point of fire mitigation, where the fire districts agree to visit "exception" burn sites in-person to evaluate them. (**Appendix: B and C**)

The Current Problem with Burn Permits

A chief fire district official shared with the Grand Jury a major problem that exists with Residential Burn Permits. In early 2025, a County resident went online to the LCAQMD website and purchased a Residential Burn Permit. When the resident executed the burn, it turned into break-out fires and got out of control. The fire district was called out to the emergency fire.

When the fire district responded to the call and put out the fires, it was ascertained the resident had actually needed to obtain an Agricultural Burn Permit and a Smoke Management Plan from LCAQMD, but the resident opted on his own to just obtain a Residential Burn Permit online. As a result, the resident had no contact with a fire district fire specialist, or the personnel at LCAQMD.

The chief fire district official explained to the Grand Jury that, historically, before 2024, when residents came into a fire district office to obtain a Residential Burn Permit, a fire specialist assisted the resident and had the opportunity to review the type of controlled burn the resident needed, the size of their parcel or parcels, and could ask the resident critical questions to assure they were applying for the proper permit and would know what that permit allowed them to do.

Currently, with LCAQMD handling all County burn permits, what historically happened at the fire districts, described above, doesn't happen now. The head and staff of LCAQMD are not trained fire specialists. In the case of the resident above, the Residential Burn Permit was obtained online without any interaction with a fire specialist, or LCAQMD employee.

The chief fire district official held that had the resident been able to consult with a fire specialist, who would have determined that the size of their burn piles were

much larger than a Residential Burn Permit would allow, they would have been able to send that person to LCAQMD for an Agricultural Burn Permit and a Smoke Management Plan. Then the resident would have been prepared to execute a safe and hazard-free burn and wouldn't have required fire district intervention to extinguish the break-out fires that occurred.

The Grand Jury also learned that there is an *inherent danger* when residents of Lake County are left to themselves to simply go online and fill out the Residential Burn Permit, pay for it, and obtain it. There is no "assistance" with the necessary questions a fire specialist needs to ask, or the LCAQMD employee should ask, to help the resident make sure they're applying for the correct burn permit for their needs. It is noteworthy that the LCAQMD head and staff are NOT fire specialists, but are air-quality-trained specialists.

As the Grand Jury learned in our investigation, there are *two differing viewpoints* about controlled burns in the County–one held by the fire districts and one by LCAQMD.

The *viewpoint* of the fire districts with regards to controlled burns overall is fire safety–to allow residents to burn excess brush and yard waste as a form of fire mitigation, and to execute the RBPs safely and correctly for the safety of all the County, when residents follow the strict guidelines provided for safe burns. Residents in SRA regions are required watch the mandatory controlled burn video provided.

The *viewpoint* of LCAQMD with regards to controlled burns overall is that controlled burns must be regulated in such a way they do not excessively upset the County air quality parameters set by the State for this area. While LCAQMD head and staff assist the public with RBPs in the non-fire season, the APCO of LCAQMD is NOT in favor of controlled burn "exceptions" as they may take place any time during the year and can have negative effects on County air quality. This does not suggest that LCAQMD head and staff are not interested in fire safety and mitigation, but, with a differing viewpoint on controlled burns, there are conflicts in goals and purposes between LCAQMD and the fire district's viewpoints. As a result of these differing viewpoints, County residents may have necessary "exception" controlled burns rejected by LCAQMD.

The Grand Jury found in our investigation that the fire districts are aware of these differing viewpoints and recognize that there are potential problems with controlled burns when fire district input in obtaining permits is limited, as it now is. The stress between the fire districts and LCAQMD is further aggravated by the fact the computer system they both use for controlled burns is in need of repair and does not function properly.

Also, LCAQMD has made demands of certain fire districts to produce copies for them of a year's record of RBPs, which they provided, but at great cost in time and personnel. The request was unnecessary as those records were available in the computer system in a different format. Nevertheless, LCAQMD requested full copies of the actual RBPs for that year in question, per a chief fire district official.

The Grand Jury's investigation of these issues leads to the fact that resolution is needed in reconciling the differing viewpoints from which both the fire districts and LCAQMD operate in order to facilitate better communications and cooperation to assure the safety and protection of all residents in the County. Having only the fire districts OR LCAQMD in charge over all controlled burning is not in the best interests of the residents of the County, because they need both fire safety and mitigation, as well as excellent air quality in our County.

Controlled Burn "Exceptions"

According to a Cal Fire official, there are residents of Lake County who own parcels of land that may be just slightly under one acre in size. Currently, they are excluded from obtaining a Residential Burn Permit, due to the fact the 1-acre parcel is a set standard in the County. In order to change this set standard for the County, the local government would need to request a change to a lower parcel size from the State of California, a process that is lengthy, but doable.

A fire district official informed the Grand Jury that the fire districts support residents' being able to perform controlled burns on parcels smaller than one acre, but additionally recommend utilizing controlled burn "exception" burning for those cases. This would allow fire specialists to be able to review the purchaser's burn permit application, go out to the site to inspect the property, and confirm that the burn is safe. Each "exception" burn that fire districts approve must also be approved through LCAQMD.

A chief fire district official described for the Grand Jury the process of reviewing an application for a controlled burn "exception" as follows: the controlled burn purchaser makes a request at LCAQMD, which then sends it to the fire districts. LCAQMD must have the fire district's review of the request and its agreement to go inspect the property for the proposed burn. This process is the same for parcels smaller than one acre, as well as multi-parcel lots on which the purchaser may want to execute an "exception" burn. (**Appendix: C**)

The problem that the fire districts have experienced with "exception" burns is that the APCO of LCAQMD is not in favor of these because of difficulties "exception" burns have with air-quality parameters. However, there are many reasons residents of Lake County need to utilize controlled burn "exception" burns, and below are some examples:

- After major fires, there is a need for debris to be cleared
- Residents burn debris on a lot that is pending development
- Agricultural needs for a field to be burned for new planting
- Smaller lots, less than 1 acre, need to remove accumulated debris

On the Cal Fire website, 'Fire Hazard Reductions', or "exemption" burning are addressed: *"Exemptions may be granted for essential control burns related to fire hazard reduction projects, if no other way to address the hazard exists."* Note, this does not say "exemptions" should not be granted due to air-quality parameters.

A fire district official informed the Grand Jury that since the RBP application on the Cal Fire site is different from the one on the LCAQMD site, if residents desire an "exception" controlled burn, they should fill out only the RBP application on the Cal Fire website, not LCAQMD's website. The purchaser will be required to watch the controlled burn video before issuance of the RBP. Then this application will go straight to the fire districts for review first, then be sent to LCAQMD for their approval. To facilitate approval through LCAQMD, Cal Fire recommends purchasers have an 'acceptable' reason for the necessary "exception" burn.

A chief fire district official told the Grand Jury that most "exception" burns are for parcels of 2-3 acres or more, and many qualify as Agricultural Burns rather than RBPs. Rarely are they for parcels smaller than 1 acre, however, these smaller parcels can have the same need for brush removal as do larger parcels.

The Grand Jury learned that fire districts have granted "exceptions" for many residents over the years successfully and safely, both for more than one-acre parcels and less than one-acre parcels. **Oftentimes, "exception" burning may require the purchaser to have equipment present such a dozer, water tender, or even a fire engine on-site during the "exception" burn.**

Again, a fire district official said getting approval for all types of "exception" burns through LCAQMD can be difficult. The fact that the fire districts and LCAQMD have differing viewpoints regarding controlled burns hinders some "exception" burns' being approved by the APCO of LCAQMD. This fact is there is a need of reconciliation between the fire districts and LCAQMD for important fire mitigation, residents' needs, and for the fire safety of our County, not just for high air-quality standards. The weight of good air-quality standards must be measured in conjunction with the importance of fire mitigation and fire safety issues in the County. One cannot take precedence over the other, as both are of critical importance.

<u>Residential Burn Permit Application Form Changes:</u>

In the Grand Jury's discussions with the fire districts, the subject of making necessary changes to the current Residential Burn Permit Application Form were discussed. There are two types of RBP applications, the one the purchaser fills out online through a computer and the one that can be filled out on a paper-copy of the form, manually. Both are the same form and contain the same information.

Due to the very differing operational viewpoints previously discussed between the fire districts and LCAQMD–fire safety vs good air quality–without fire specialist intervention in the RBP application process, additional questions could be added to the RBP for greater clarification of residential burn applications under scrutiny of LCAQMD staff. These changes would require input from the purchaser:

- The number of actual piles to be burned entered on the form
- The intended size of the piles to be burned be entered on the form
- Confirmation that the purchaser has measured distances from buildings and structures for safe pile placement

- What the contents of the purchaser's piles to be burned contain–using details, i.e., exact types of wood (oak wood burns slower than pine wood), and exact details on brush contents, etc.
- Include a schematic plot where purchasers can mark buildings and placement of piles to show their intended location of burns

All of this information is required by the fire districts. Currently, the RBP application lists the burn requirements for the purchaser to read, and it is a long list which may or may not be read in its entirety by the purchaser. Therefore, it seems necessary, without fire specialist input on the applications, having the purchaser provide critical information, shows that they are aware of the rules and regulations when required to enter their own burn information, as well as confirm acknowledgement of the rest of the information.

Additionally, LCAQMD may be approving controlled burns in areas that are non-SRA or FRA regions, and burn permit purchasers may not be required to watch an instructional controlled burn video as they otherwise would. Thus, obtaining as much information about the proposed burn as possible may be helpful to LCAQMD staff. However, LCAQMD may use its jurisdiction over the LRA region they are in to mandate viewing an instructional controlled burn video as a requirement for all burn permit purchasers. This is allowable through Cal Fire per the State regulations on LRA, SRA, and FRA regions. Cal Fire produces its own videos for use on the website.

The fee for the permit is in a tiny box in the top right corner of the first page of the RBP application form. Also on the first page at the top, the spaces given for applicants to enter vegetation types and number of piles is very small. Space needs to be allotted for applicants to fill out this information as completely as possible when they are applying with a paper RBP application. Online applications may need to have line sizes adjusted likewise for purchasers to enter the required information.

The Grand Jury was also made aware of the fact the RBP application form, while containing a ‘WARNING’ to the purchaser about making false statements or failing to comply with the terms and conditions listed on the application they are signing, is not sufficient to stand out BOLDLY to the purchaser. There would need to be a

more strongly written and set-apart 'WARNING' on the first page of the application form for purchaser's attention that would include the following:

- Compliance with fire laws, ordinances, and regulations
- Giving false information on the application
- Persons who lose control of permitted burn(s) may be held liable for suppression costs
- What those suppression costs could include
- Affirmation they legally own the land described on the application
- The contact phone number for burning and fire safety information (this number is currently missing from the application where it's supposed to be)
- Violations of any burn permit terms are a violation of State law, in strong language.

Many of these items are on the permit in various places. But to be a WARNING that purchasers can clearly see, they need to appear in one large box, and bolded and highlighted for purchasers to readily see and read–preferably on the front page of the application, with the clear intent of warning purchasers of failing to comply with RBP rules and procedures.
Additionally, the terms and conditions on the form are lengthy and in fine print, making them unable to be read easily. Most applicants might be tempted to skip over this section because of the fine print and length. These terms and conditions outline the most important information purchasers need to know about conducting their burns safely, so they should be easily readable and clearly written.

Reminder: the staff of LCAQMD are not fire specialists. When they review an RBP application they are not looking for the same things the fire districts are looking for. In fact, the primary piece of information LCAQMD staff asks for, and are looking for on the RBP application, is the parcel size. To a fire specialist, however, more information is needed.

Finally, there are few remaining issues the Grand Jury would like to address with regards to Residential Burn Permits in the County.

The fact that the APCO of LCAQMD has not been attending the monthly meetings with the fire districts has already been noted. In the Grand Jury investigation of

LCAQMD, this was discussed with the APCO, and the fact is the APCO has attended these meetings in the past around 2020, but attendance at them fell off when the meetings did not include discussion of important to LCAQMD, which implies a waste of time for the APCO. There may be a need for agendas worked out between the fire districts and the APCO to set aside time in some meetings for LCAQMD business.

There needs to be reconciliation between the fire districts and LCAQMD/APCO to facilitate open lines of communication, with notification of attendance of the APCO at given times when LCAQMD business needs to be discussed.

Lastly, with the RBPs now being under the jurisdiction of the LCAQMD in the County, and the office of LCAQMD being located in Lakeport, there may need to be some additional "satellite sites" around the lake area for residents who need to come in-person for RBPs to connect with their office in Lakeport. This could be through kiosks, the local libraries, or other agencies who can assist the public connecting with LCAQMD without residents having to travel to Lakeport to conduct business with LCAQMD that can't be handled over the phone or online.

Merit and Recognition

The Grand Jury has commended and appreciated all the leadership and staff of all six independent fire districts serving Lake County faithfully, tirelessly, and passionately in their endeavors to keep our homes, families, businesses, and livelihoods safe and protected, all year, every year. The work they do not only involves taking life-threatening risks, but illustrates the commitment our firefighters and fire districts make to our County with every emergency they answer and every person they help.

This report also would not be complete without acknowledging and recognizing the merits of both LCAQMD's and the six independent fire districts' joint hard work to make our County stand out. The APCO and staff of LCAQMD have done a commendable job of working to maintain the air quality of Lake County, receiving high ratings over many years. Just recently, in 2025, Lake County was featured in an article in Lake County News, April 27: "Lake County Returns To The Top 25 Cleanest Counties In The Nation For Air Quality." (5)

Additionally, The Press Democrat reported: “Lake County’s Air Rated Cleanest In the Nation”--April 29, 2015–Glenda Anderson. (6)

The American Lung Association listed Lake County #23 in the nation–Top 25 Cleanest Counties for Year-Round Particle Pollution, 2024. This was published in their yearly State of the Air, 2025. (7)

The Civil Grand Jury recognizes and expresses our appreciation to the APCO and staff of LCAQMD for conserving Lake County’s high air quality.

FINDINGS

F-1: Communications between LCAQMD and the fire districts back in 2024 resulted in a decision by both parties that the fire districts would no longer be issuing Residential Burn Permits independently of LCAQMD.

F-2: In 2024-2025, LCAQMD entered into an agreement with the six fire districts that all RBPs were to be issued online, in-person, and on the telephone only through LCAQMD.

F-3: There is a difference between the RBPs issued through the LCAQMD website and those issued through the Cal Fire website, which go directly to the fire districts and require purchasers to watch an instructional video on controlled burns before RBP approval. Many of these RBPs are for "exception" burns, and, when the location is within an SRA or FRA region, watching the instructional controlled burn video is required.

F-4: The fire districts as of 2024-2025 are no longer issuing RBPs to the public but have turned that task over to the LCAQMD. The fire districts will continue to assist LCAQMD with all RBP "exceptions" site inspections through the year as a point of fire mitigation.

F-5: When Lake County residents obtain a Residential Burn Permit online but actually need an Agricultural Burn Permit instead, they may execute a controlled burn that becomes a break-out burn and will require fire-district emergency intervention and put the County at risk.

F-6: The signage on the LCAQMD building/facility in Lakeport is difficult to see from the access road due to positioning, sign size, and size of lettering, causing difficulty in locating it for the residents traveling there.

F-7: It was not possible to talk to someone in-person or by telephone when contacting LCAQMD to obtain a Residential Burn Permit, between October 11–November 22, 2024, due to no staff when our juror visited or called LCAQMD.

F-8: There have been staffing problems at LCAQMD since mid-2024.

F-9: The APCO of LCAQMD had 2.8 employees and needed 6 employees. Recently, LCAQMD hired two new engineers just out of college.

F-10: The fire districts reported dealing with the LCAQMD computer system as frustrating, inefficient, and prone to repeated malfunctioning, break-downs, lapses in operation, problems with pop-ups, and overall failing to work consistently. These problems, while reported to LCAQMD, remain unsolved.

F-11: Fire districts support residents with smaller than 1-acre parcels utilizing controlled burn "exceptions" for their necessary burns.

F-12: The APCO of LCAQMD is not in favor overall of "exception" burns because of problems they cause with air-quality parameters, despite the fact that Lake County residents need to be able to utilize "exception" burns.

F-13: Fire districts prefer that residents who need to utilize "exception" burns obtain RBPs on the Cal Fire website so the request can be reviewed initially by a fire specialist, instead of purchasing the RBP for an "exception" burn on the LCAQMD website.

F-14: Public referrals to alternative debris-disposal methods that appear on the Residential Burn Permit application under 'Alternative Vegetation Disposal Methods' contain information that is incorrect.

F-15: The combined efforts of, and open lines of communication between, the fire district staff and offices and LCAQMD staff and offices are required to assure the safety of all controlled burns by County residents.

F-16: The APCO of LCAQMD needs to attend the monthly meetings of the six fire protection districts to facilitate open lines of communication.

F-17: With RBPs now under the jurisdiction of LCAQMD, whose office is located in Lakeport, the public may need additional "satellite sites" around the Lake where they may connect with LCAQMD via internet, telephone, or in-person representatives for help with RBPs, permits of any kind and other important help and information. These could take the form of kiosks, libraries, or local businesses/agencies who can assist the public with LCAQMD products and services.

F-18: The Residential Burn Permit Application Form is in need of many changes, which are discussed in detail in this report, including suggested changes to the permit "WARNINGS."

RECOMMENDATIONS

R-1: That the Board of Supervisors change LCAQMD website RBP online application to include a link to "Hazard Reduction Burning" or "Exception" burns for residents who require necessary burns year-round through Cal Fire website "exception" burns. [F-1, F-2, F-3, F-4, F-15]

R-2: That the Board of Supervisors propose a Memorandum of Understanding between LCAQMD and the six separate fire districts to cooperate in the joint issuance of Residential Burn Permits. [F-1, F-2, F-4, F-5, F-15]

R-3: That the Board of Supervisors diagnose and correct whatever issues there are with the LCAQMD computer system that are causing complaints about the system's not working properly when interfaced by the fire districts and used by the public. [F-10]

R-4: That the Board of Supervisors increase the staff of the LCAQMD office. [F-7, F-8, F-9]

R-5: That the Board of Supervisors supply more visible address signs outside the office of LCAQMD to make it easier for the public to locate. [F-6]

R-6: That the Board of Supervisors correct the information on the Residential Burn Permit under 'Alternative Vegetation Disposal Methods' that are currently incorrect. [F-14]

R-7:That the Board of Supervisors propose a Memorandum of Understanding between LCAQMD and the six separate fire districts regarding the role of the APCO in the fire districts' monthly meetings, in order to facilitate open lines of communication between LCAQMD and the fire districts. [F-16]

R-8: That the Board of Supervisors set up "satellite sites" for LCAQMD to assist County residents as needed. [F-17]

R-9: That the Board of Supervisors recommend ALL Residential Burn Permit applicants be required to view the Cal Fire controlled burn video as part of

obtaining a County burn permit, or "exception" burn permit, regardless of the BFFP special fire responsibility area they are in (LRA, SRA, or FRA). [F-3]

R-10: That the Board of Supervisors propose a Memorandum of Understanding between LCAQMD and the six separate fire districts to cooperate in joint issuance of controlled "EXCEPTION" burns as necessary. [F-11, F-12, F-13, F-15]

R-11: That the Board of Supervisors make changes that are needed to the Residential Burn Permit Application Form as per the suggestions proposed in this report, including spaces on the form for purchasers to enter the number of actual piles to be burned, size of the piles, detailed list of contents of piles being burned, and schematic plot to mark placement of piles and burn plan for the parcel, as well as making the permit "WARNINGS" much stronger and more visible on the form. (See details on report pages 17-19) [F-18]

REQUIRED RESPONSES

Pursuant to Penal Code sec. 933(c), the following responses are required:

Lake County Board of Supervisors: (R-1, R-2, R-6, R-10) 90 days

Lake County Board of Directors for LCAQMD:

(R-3, R-4, R-5, R-7, R-8, R-9, R-11) 90 days

INVITED RESPONSES

Lake County Air Quality Management District (LCAQMD)

LCAQMD is invited to respond to Recommendations: [R-1 through R-11] within 60 days of the date of this report.

All Fire District Boards are invited to respond to Recommendations:

[R-1, R-2, R-7, R-9, R-10, R-11] within 60 days of the date of this report

Lakeport Fire Protection District Board

Lake County Fire Protection District Board

Northshore Fire Protection District Board

Kelseyville Fire Protection District Board

South Lake Fire Protection District Board

Lake Pillsbury Fire Protection District Board

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1. Lake County Fire Safe Council: firesafelake.org.
2. California Air Resources Board: ww2.arb.ca.gov.
3. lcaqmd.net/home/burn-permit/
4. lcaqmd.net/mt-content/uploads/2024/06/burn-permit-fee-schedule.pdf
5. lakeconews.com/news/81380-lake-county-returns-to-the-top-25-cleanest-counties-in-the-nation-for-air-quality
6. pressdemocrat.com/article/news/lake-countys-air-rated-cleanest-in-the-nation
7. lung.org/getmedia/

Additional sources of information:
CARB: Current Air District Rules:
ww2.arb.ca.gov/capp/cst/tch/current-air-district-rules
CARB: Air District Rules:
ww2.arb.ca.gov/air-district-rules
List of California Wildfires:
en.wikipedia.org/wiki/List_of_California_Wildfires

APPENDIX

A. Sample: 'County Residential Burn Permit': 2025.
B. Letter regarding the transition of all Lake County Burn Permit operations from the six separate Lake County fire districts to LCAQMD office.
C. Sample: 'Lake County Air Quality Management District Economic "Exemption" Request Form'.

Lake County Air Quality Management District
2617 South Main Street
Lakeport, CA 95453
707-263-7000 / fax 263-0421

Douglas G. Gearhart
Air Pollution Control Officer
dougg@lcaqmd.net

Application For An Authority To Construct (& Attached List and Criteria)

Type of Application: ☐ New Facility ☐ Modification ☐ Existing Facility, Not Previously Permitted

Contact Name: _____
Legal Owner: _____
Mailing Address: _____

Facility Name: _____
Facility or Project Name: _____
Permit #: _____ Category: _____

Description of the Process/Purpose of the Facility: _____

Equipment Location/Legal Description: _____

Estimated Construction dates:
Start - _____ Completion - _____

Description of equipment by make, model, size and type: _____

Diagram/Plot Plan of Facility Enclosed? ☐ Yes ☐ No

Additional List and Criteria Data Attached: Yes☐ No☐ (List and Criteria are attached)

If no give reason: _____

Operating Schedule: _____ Hours/Day _____ Days/Week _____ Weeks/Year Lat•N: _____

Production Rates: _____ /Hour, _____/Day, _____/Year (Specify Units) Long•W: _____

Amount, nature, and duration of emissions: _____

Attach a Facility and Equipment Diagram, Specification Sheet(s), and Process Flow Diagram. Show the location and distance to adjacent residences, businesses, schools and hospitals.

Type and efficiency of air pollution control equipment: _____

Type and Estimated Quantity of fuel use: _____ _____ gal/yr (%S): _____

Ten year projected expansion plans: _____

I have read and understand the Lake County Air Quality Management District's (District) List and Criteria for Authority to Construct Permits. I understand that I am responsible for any information listed herein or requested pursuant to this application. Based on information and belief formed after reasonable inquiry, the statements and information presented in this application and supplemental documentation are true, accurate, and complete. Applicant shall defend, indemnify and hold harmless the District and its agents, including consultants, officers and employees from any claim, action or proceeding against the District or its agents, including consultants, officers or employees to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney's fees, or expert witness costs that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, including any claim for private attorney general fees claimed by or awarded to any party against the District, and shall also include the District's costs incurred in preparing the administrative record which are not paid by the petitioner. The District shall promptly notify the applicant of any claim, action or proceeding. Notwithstanding the foregoing, the District shall control the defense of any such claim, action or proceeding unless the settlement is approved by the applicant and that the applicant may act in its own stead as the real party in interest in any such claim, action or proceeding.

_____ Date: _____
Signature of authorized representative of firm

Name: _____ Title: _____ Telephone: _____

Email: _____

Ek 5/2021

LAKE COUNTY AIR QUALITY MANAGEMENT DISTRICT
LIST AND CRITERIA FOR AUTHORITY TO CONSTRUCT PERMITS

The Lake County Air Quality Management District has adopted this "List and Criteria" for determining whether applications for future development projects are complete. This "List and Criteria" identifies information required of applicants seeking authority to construct air pollution sources and requires submission of such information before an application can be determined to be complete.

Within thirty days after receiving an application, the Air Pollution Control Officer (APCO) will advise the applicant in writing whether the entire application is complete. If an application is deemed incomplete, the APCO will notify the applicant of what additional information needs to be provided. Upon re submission of an application, a new thirty-day review period shall begin.

All applicants are subject to the requirements of this "List and Criteria" regardless of whether all information listed is necessary for an application to be deemed complete. While an application is being processed, the APCO may request the applicant to clarify, amplify, or supplement the information required by this "List and Criteria".

The information required of the applicant is divided into two parts. "Part A" identifies the information required of all applicants seeking permits for new facilities and for the modified portions of existing facilities. "Part B" identifies additional information that is required from those applicants seeking permits for sources which are subject to the District's New Source Review (NSR) rules. Where a source is subject to NSR rules, some of the information required in "Part A" may also be required for the existing portion of the facility.

If an applicant determines that a project is not subject to the District's NSR rules, the applicant may choose not to complete "Part B" of the List. If, during the processing of an application, the APCO determines that a project is subject to the NSR rules, the APCO must do one of the following:

a) If the APCO makes the determination (that the application is subject to the NSR rules) during the thirty-day review period, the APCO will ask the applicant to submit the information identified in Part B of the List (pertaining to NSR). If the applicant fails to submit such requested information within the thirty-day period, the APCO will deem the application incomplete.

b) If the APCO makes the determination (that the application is subject to the NSR rules) after the application is deemed complete, the APCO must notify the applicant of such determination and, if sufficient time remains, may establish a time limit for the applicant to submit the required information. If the APCO determines that inadequate time remains, or if the applicant fails to submit the information within the established time limit, the APCO will deny the permit.

The District urges all applicants to discuss their projects with our staff prior to the filing of applications. For some projects, it may not be necessary to submit all the information required by the "List and Criteria" in order to have an application deemed complete. Consultation with the District staff will expedite the process by identifying the specific information that will be required of an applicant.

An applicant seeking an exemption provided for in any rule and regulation of the District must supply the APCO with all information necessary for the APCO to determine whether or not such an exemption should be granted.
Information regarding the District's general permit requirements, such as filing deadlines, fee schedules, and appeal process, can be found in the rules and regulations of the District.

Prior to filing an application with the District, all applicants are urged to participate fully in the early stages of the EIR process being undertaken by the lead agency for the applicant's project in order 1) to be apprised of the applicable air quality and other environmental constraints, and 2) to make such project modifications as may be necessary to satisfy those constraints.

An application is complete when it provides sufficient information on emissions and associated impacts from a new source or modification of an existing source, to enable the District to determine whether or not those emissions will violate or make a measurable contribution to an existing violation of any local, State or Federal ambient air standards.

Part A

All applications for permits (authorities) to construct new or modified air sources are subject to the requirements of this portion of the List.

I. Name

A. Business license name.
B. Nature of business.
C. Name, address, and phone number of person to contact regarding this application.
D. Type of use entitlement (own, rent, lease).
E. Estimated construction dates and estimates completion dates.

II. Type of application

A. 1. Original application
   2. Revised application
B. 1. New facility
   2. Modification
   3. Existing facility not previously permitted

III. Description of Facility

A. Location
1. Street address of facility (or location as describe by section, township and range);
2. Scaled and dimensioned plot plan of facility which shows and identifies the locations of:
a) Public and private streets
b) Property lines
c) Existing and proposed buildings (indicate their heights)
d) Adjacent property owners and uses
e) Storage areas for fuel, materials and products
f) Basic, control, and air monitoring equipment
g) Piping and ducts for carrying fuels, products, and possible sources of air pollutants
h) Identify points of emissions
B. Describe the general purpose of this facility

IV. Description of Process (to extent practical as determined by District).

A. General description of each process line.
B. For Facilities with more than one process line:
1. Submit a block flow diagram which shows the interaction between each process line (include a material balance and a description of the material processed as it changes in terms of maximum design rates).
2. Submit a drawing which shows the transfer of materials, products, and possible sources of air pollutants between process lines, buildings, and storage areas.
C. Basic and control equipment descriptions (e.g. make, function, model, size, type, maximum capacity, Hp).
D. Operating schedule (No. of hours/day, days/week, weeks/year).
E. Maximum monthly, hourly, and daily production rates and raw material usage rates.
F. Total average annual production rates and raw material usage rates (such as tons/year).
G. Provide the following information associated with each piece of basic (existing, modified, and proposed) equipment:
1. Equipment identification number
2. Inlet and outlet temperatures
3. Identify the emission points and state to where the equipment is to be vented.
4. The material entering and leaving the equipment

5. The energy consumption (e.g., BTU/hr, KW/hr)
6. State whether the operation is continuous or intermittent
H. Describe control equipment and attach calculations and detail drawings. Provide the following information associated with each piece of control equipment (existing and proposed):
1. Schematic and description of overall control equipment
2. Control equipment identification number
3. Inlet and outlet concentrations
4. Control efficiency; verify source of data (e.g. calculations, manufacturers specifications, source test)
5. Identify the points of emission associated with each piece of equipment
6. For particulate matter, include data on the size distribution and chemical nature of emissions
7. Energy consumption (e.g. BTU/hr, KWH/hr)
I. Describe locations and amounts of emissions (in terms of maximum design rates):
1. Identify points of emission
2. Height of the outlet above ground level
3. Size and shape of the outlet, (e.g. 9" round)
4. Flow rate of exhaust gases
5. Outlet temperature
6. Estimate the quantity of each pollutant emitted: PM-10, carbon monoxide, organic gases, nitrogen oxides, and sulfur oxides, as examples.
J. Describe emissions of a fugitive nature, i.e., not included in "I" above.
K. Attach copies of all calculations used in answering the questions (also site references and tolerance of data).

V. Describe Fuel Burning Equipment and Fuel (to extent practical as determined by District).
A. Describe burners:
1. Equipment identification number, manufacturer's name and model, size,
number of burners, minimum and maximum ratings per burner, and burner type.
2. The burner mode of control, (e.g. manual, automatic on off, high low) if applicable
3. Air compressor data (if air atomization is used): manufacturer's name and model, drive motor horsepower, compressor rating (pressure and capacity), and operating pressure.
4. Firing type, (e.g. tangential, opposed, front)
5. Type of fuels and the percentage of combustion air
B. Describe all fuels used; indicate the types, grades, consumption rates; pre treatment of the fuel, if any (method and temperature); heating value (e.g. BTU/cu. ft., BTU/gal., BTU/lb.); and ash, sulfur, moisture, H2S and nitrogen contents, where applicable.
1. For oil pre-heaters, indicate the type and the temperature to which the oil is expected to be preheated.
2. State whether unit is to be used to incinerate waste gas or liquid steam. Submit a drawing of the method of waste stream introduction with respect to gas/fuel oil burners.
3. a) Indicate the amount of each fuel used per year (gal/yr for liquid, million cu.ft./hr for gaseous, and tons/yr. for solid); also indicate fuels used as standby fuel.
b) Indicate the maximum consumption rate of fuel in any one hour and any 24 hours period.
C. For combustion facilities, specify the heat input rate or the thermal efficiency.

VI. Describe storage facilities (to extent practical as determined by District).
A. Size, model, type, and make of storage facilities.
B. Properties or characteristics of materials and products being stored.
C. Control procedures and equipment utilized on storage facilities.
D. Conditions under which storage exists, e.g., temperatures, pressure, wind speed.

Part B

When a source is subject to new source review, an applicant shall supply the following in addition to the information required by Part A.

I. Information required for air quality impact analysis.
A. Any monitoring stations that may be installed by applicant.
B. Sufficient data to perform an impact analysis from all emission points and fugitive emissions:
1. Meteorological data

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2. Topographical data
3. Air quality data
4. Computer modeling data, including assumptions that should be made.

II. Identify all facilities within the air basin that are owned or operated by the applicant and the compliance status of each.

III. Power consumption of facility.
A. Total amount of electrical power to be consumed by the new facility or the increase in the amount of electrical power to be consumed due to the modification.

B. Percentage of electrical power provided by off site generating facilities; identify the source of power.

IV. Cargo Carriers: List the frequency of visits, describe types and sizes of all cargo carriers (other than motor vehicles), identify nature of cargo, and conditions under which the cargo is transferred.

V. If applicant is applying for trade offs from other existing source(s):
A. Provide sufficient information to determine whether adequate emission reductions will be achieved to offset the air quality impacts of the applicant's source (e.g., name and location of trade off sources and of how the emission trade offs will be effected).

VI. List proposed mitigating measures:
A. Air pollution control equipment used
B. Process changes or operations utilized to reduce emissions
C. Other

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY Gavin Newsom, Governor

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
P.O. Box 944246
SACRAMENTO, CA 94244-2460
(916) 653-7772
Website: www.fire.ca.gov

Oct. 16, 2023

Douglas Gearhart, APCO
Lake County Air Quality Management District
2617 S. Main St.
Lakeport, CA 95453

Dear Mr. Douglas Gearhart,

CALFIRE will no longer declare an end to fire season due to this area being in a year-round fire season. That said, the fire hazard conditions have reduced to a point where this statement can be considered the equivalent to ending fire season for the purpose of allowing open-burn season to begin.

Sincerely,

DocuSigned by:
52C6374BCBE1453...
10/16/2023

Mike Marcucci
Unit Chief
Sonoma-Lake- Napa Unit
CALFIRE

"The Department of Forestry and Fire Protection serves and safeguards the people and protects the property and resources of California."

Lake County Fire Chiefs' Association

Date: November 13, 2023

To: Doug Gearhart c/o Lake County Air Quality Management District

From: Lake County Fire Chiefs Association

Re: LCFCA Burn Permit Process 2024

Dear Doug, as discussed at the last Lake County Fire Chiefs Association meeting, it was briefly discussed to transition all Lake County Burn Permit operations to your office. We facilitated another meeting today and agreed the Lake County Fire Chiefs Association would complete this burn permit season process as scheduled but request the 2024 burn permit season operations transition to your department and remove the Lake County Fire Chiefs Association from the process. If you have any questions, please feel free to contact me.

Respectfully submitted.

Willie Sapeta, President
Lake County Fire Chiefs Association

LAKE COUNTY AIR QUALITY MANAGEMENT DISTRICT

2617 South Main Street
Lakeport, CA 95453
Phone: 707-263-7000
Fax: 707-263-0421

Douglas G. Gearhart
Air Pollution Control Officer
dougg@lcaqmd.net

ECONOMIC EXEMPTION REQUEST FORM

Please complete the below and submit to: lcaqmd@lcaqmd.net
Include a map of burn location and photos of burn piles/material to be burned.

Applicant name: _____

Phone number (valid during burning activities): _____

Location of burn: _____
(Street Address, City)

Amount of vegetation to burn: _____
(Quantity of Piles, Size of Piles)

Description of burn: _____
(Standing Brush, Prunings, Whole Tree Removal)

Type of vegetation to burn: _____
(Example: Pear/Walnut/Grape Pruning or Removal, Field Crop, Forest Slash, Rangeland)

Description of economic need: What loss will be incurred if unable to remove debris by burning? Cost of alternative debris removal does not qualify as an economic loss.

_____

_____

Feasibility of alternatives to burning: What alternatives have been evaluated and why are they not feasible? Cost is not a factor for determining feasibility. Have debris bins / dumpsters, chipper service, etc. been evaluated?

_____

_____

Was a burn permit obtained for the burn season? _____

Reason burning was not completed during the burn season. _____

_____



A Building in Time



This is a human interest story about the Justice Court building in Kelseyville, California, where the Lake County Civil Grand Jury has its office. As a specific history of the building was not identified, much of the story describes the early growth of Lake County before and after the building was constructed.

Lake County was created on May 20 1861 from a portion of Napa County that surrounded Clear Lake. There was a lot of contention about where the county seat

would be located, and an election with three original contenders for the county seat was held on April 20, 1867. They were Grantsville, now known as Lower Lake; Kelsey Creek, which became Uncle Sam and is now Kelseyville; and Forbestown, now known as Lakeport.

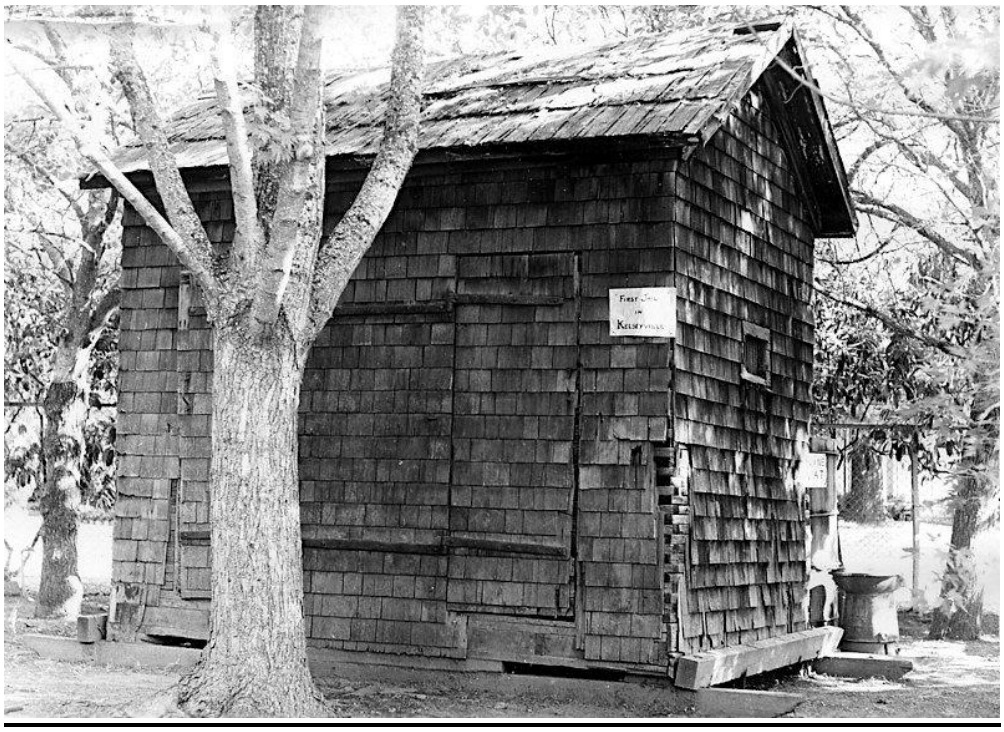
[In 2024 there was a movement to once again change the name of Kelseyville, this time to Konocti. It was put to a vote on the 2024 ballot, and the majority vote was to keep the name. However, the Board of Supervisors went against the popular vote and decided to support changing the town's name to Konocti, but, as of this writing, it is still Kelseyville.]

Another election held September 1867 produced two final contenders Lower Lake and Lakeport. During this time, tempers flared due to different points of view as to where the county seat would be located. On February 15, 1867 all official records had been destroyed when the Courthouse burned to the ground due to suspicious circumstances and with incendiary devices' being found at the scene. The original Courthouse was built of wood, making it a vulnerable target.

The published statement of result gave Lakeport a majority of 13 votes but when the "Board of Canvassers" met, they decided that Lower Lake won by 7 votes. Lakeport citizens were loud in their recriminations and charges of fraud against Lower Lake partisans.

There was a hearing in Napa City where the matter was tried before a jury in the courtroom of Judge F.B. Southhard. The jury found in favor of Lakeport. The judge then referred the case to the State legislature. Again an election was set (the fourth concerning the locations) for May 1870. At that time the vote favored Lakeport to be the county seat. Following the destruction of the county records in 1867, the supervisors reestablished boundaries of the townships and supervisorial districts.

The Grand Jury system has been in existence in California since 1879, when the State Constitution was adopted and met once a week at the courthouse in Lakeport. The reports were brief and consisted chiefly of recommendations for the eight members of the Board of Supervisors.



In 1896 the little jail was built by Will Kelsey and Del Reeder in what's now known as Pioneer Park. Kelseyville had a split personality, being a town where one side allowed alcohol and the other side was dry. The jail was built on the dry side. Saloonkeepers mostly used the jail to contain rowdy men who drank too much. The "inmates" let themselves out in the morning. In 2023, the jail was moved to and now resides at Ely Stage Stop, a combination of a country museum and monthly fiddler jams.

People came from all over the country to visit the resorts scattered around the lake and throughout the county, some eventually settling in the area. It was and still is, a major agricultural community, growing grapes, pears, walnuts, cattle, honey, and string beans, as well as providing popular water activities.

The first steamboat was bought from the USS Kearsager, a battleship docked in San Francisco, by Captain R.S. Floyd. It was brought by wagon from Napa to Lower Lake over Mount St. Helena in 1873 by Captain J.K. Fraser. It fell into a canyon but was pulled out without much damage to the boat, and they continued on to Lower Lake. The name of the first steamboat was "Hallie". She was launched July 1873 and used as a freighter between Lakeport and Lower Lake till 1877 then sold to the Sulphur Bank Mine company in Clearlake Oaks. She was allowed to sink but was raised in

1908 by R.D. Co., refitted into a tugboat, and sold as a dredge tender to the Yolo Water and Power Company. According to the Mauldin files, the boat remains there today.

Over the years steam boats started being built in Lake County and were used to ferry goods and people across the lake.

The early part of 20th century the county was still young and had mostly dirt roads where automobiles and horses sometimes clashed, with tragic results for the automobiles, horses, and people.

The Justice Court was built on its current site at 2nd Street and Saderlund in 1906 when Peter Weber won the bid for construction at a cost of $919.87. There was an old bear trail that ran past the Justice Court, and nearby stood an oak tree with a circumference of 29 ft. This was previously the site where Steven Nobles' home once stood. The Nobles home was moved a short distance to the corner of Third Street and Saderlund.

The first judge to preside at the little Justice Court was Judge Hunt. and his first case involved two men who had been fighting in the street. He fined them $10.00 each ($345.00 in today's prices).

In 1918 the Board of Supervisors approved the use of the Justice Court as a temporary school. The women of the PTA went in "cleaned the Justice Court within an inch of its life" prior to the students' arrival. It was used for a year for primary grades and had two teachers, although another teacher was needed. Teachers seldom stayed longer than a year due to the low wages, much like today in Lake County.

There was reportedly quite a campaign to build the first Kelseyville school building, which still sets on the original site today. Once the new school was finished. it still lacked heat and desks for the students. The Board of Supervisors tried to sell the Justice Court building to get heat for the new school, but the highest bid came in at $250.00. The board rejected the bid, deciding to keep it instead of "selling it for a song."

To help raise money for heating the new school, the town's literary society put on programs weekly on Saturday nights that featured local talent. This organization

also became interested in the County's school deficiencies. Combined with the school and every organization in town, the community put on "The Kelseyville Circus." There was a big parade, including elephants, lions, wild men, and many floats. Practically the whole county participated, and even the Superior Court adjourned for the day to enjoy the fun.

All this community involvement eventually led to the organization of the high school districts.

The town's steady growth included 60 identified springs, with most having springs built around them. Each had a history in and of itself. The springs included hot, cold, and carbonated water. Some springs were used for medicinal soaking, while other spring waters were bottled and sold for drinking.

The San Francisco earthquake in April, 1906 caused many springs to be rerouted or to be dried up. Initially, Clear Lake drained toward Blue Lake, but, after the earthquake, it then drained into Cache Creek. The quake also caused Blue Lake to fill, which made it deeper.

For the next 40 years, the County focused on building roads, connecting Hopland to Lakeport via Highway 175, Ukiah to Tahoe via Route 20, and Middletown to Napa County via Route 29 over Mt. St. Helena.

This writer found that the Justice Court was used as a courtroom through the 1980s, with Judge Arthur Mann being the last known Judge serving at the Kelseyville Justice Court.

The Lake County Civil Grand Jury has been using the Kelseyville Justice Court since approximately 1999.

In fiscal year 2023-2024 as part of regular county buildings maintenance, the Justice Court was upgraded. The building received new windows, new siding, wiring, phone lines, and a new coat of paint on the outside. The rehabilitation resulted from a great energy investment by County employees. The project was headed by Aden Pierson and his team: Mike Frazier, Frankie Alviso, Ken Scott, Travis Cardozo, Tim Colcleaser, Aaron Banthrall, and Nate Long. They did an outstanding job despite encountering many obstacles along the way, such as wood rot, mouse-chewed wiring, and old phone lines that didn't show up on any phone accounts.

This project of telling the history of this building and surrounding area has been a great privilege and wonderful learning experience. I now have a deeper understanding of the County and its history. There was so much more I did not include. I had to keep reminding myself to "keep it focused." Perhaps someday "The rest of the story."

Bibliography includes Dr. John Parker, the current president of the Lake County Historical Society; The Mauldin Files, by Henry Mauldin, the first president of the Historical Society, local residents' responses from Facebook, the Lakeport Library and the above quote from Andy Rooney.



Deborah Safranek

Accolade: *"EVERY 15 MINUTES"*

In May, 2025, both the Kelseyville High School and the Clear Lake High School implemented Every 15 Minutes programs for their students. Every 15 Minutes is a nationwide, in-school, teen drinking and driving prevention program. The program was started by the California Highway Patrol (CHP) in 1990 in an effort to combat the ever growing number of teens being killed or injured as a result of alcohol or drug-related traffic crashes. The statewide program was operated by the California Department of Alcoholic Beverage Control (ABC) until October 2000 when the Office of Traffic Safety (OTS) began awarding grants to groups wanting to sponsor the program. The central theme has consistently been that these types of crashes are the leading cause of death for teenagers in this country. In 1990, there was a traffic related death every 15 minutes, which was how the program became known.

Unlike other programs, Every 15 Minutes approaches the topic of impaired and distracted driving not only by looking at the effects of drinking and driving as it relates to traffic crashes, but also the emotional impact of these incidents. The program demonstrates how these crashes not only affect the teen, but also their family, friends, and the community at-large. The program has recently started to incorporate distracted driving as a topic as well, given the prolific use of cell phones and other distractions that can reduce drivers' focus on the road and their surroundings.

This program required the collaboration of many agencies in the Lake County community. The May presentations included the CHP, Lake County Sheriff's Department, Probation Department, Lakeport Police Department, Kelseyville Fire Protection District, Lakeport Fire Protection District; Lake County Office of Education, Kelseyville High School principal and staff, Clear Lake High School principal and staff, REACH Air Medical Services, and Chapel of the Lakes Mortuary, plus many volunteers throughout the community.

In order to ensure the program's success, it is important that the families of these students be involved in this program as well. This involvement begins weeks prior to the event when the parents or guardians of the involved students are encouraged to speak to their students about the impacts of choices they make and how to handle tough situations they may encounter. This initiates, or continues, a dialogue about drunk and impaired driving that will continue throughout the

program and allows the students to feel supported as they participate in the program.

Below is a general outline of the format of the Every 15 Minutes program that the Grand Jury observed in the Lake County programs.

** Students were pre-selected by the school to participate in this program prior to the event.**



Day One:
At the start of the school day on Day One, a member of law enforcement dressed as the Grim Reaper goes to each participating student's classroom, along with a non-denominational clergy member, and removes each selected student from their class. Students removed from class serve as a visual representation of potential loss of life due to a drunk or impaired driving incident. After the student is removed from the class, the chaplain reads to the class the obituary written by the student or the parents/guardian of the student.

Each student is taken to a room in the school and is made up with face paint and a full black-hooded gown to signify to other students that they will be involved in a life-changing event. They are then asked to create their own headstone and to write on it what they would want to be remembered by. The student then places the headstone in a mock cemetery located at a focal point at the school. The student then returns to class for the remainder of the morning with face paint and the black gown. These students do not talk to other students, but are a visual representation of what it would be like for students to be missing from class as the result of a drunk- or impaired-driving crash.
During the course of the first day, event staff took pictures and video so that a video of the program could be shown at the assembly the next day. This video provided

a way for students, staff, and community members who were not directly participating in the program to be part of the learning experience.

At the lunch hour, all of the participating students returned to the event room and were treated to lunch along with all the event staff. Six of these students were then further made up by a moulage artist so they could become the victims and involved persons in the staged traffic crash, which was set up nearby.

Mock Car Crash

On the afternoon of Day One, a mock car crash was set up at a predetermined location on neighboring streets. Participating students were staged in the cars as though a crash had just occurred. The entire student body gathered and were briefed on what they were about to see and were then escorted to the crash site.

The crash simulated a two-car, drunk or impaired driving crash that resulted in the death of one teen occupant and injuries to several others. The crashed cars were set up in the crashed position ahead of time for safety, and students were staged in the vehicles as though the crash had just occurred.

Police, Fire, and EMS responded to this crash, along with a helicopter medical transport in the same manner as they would any other crash of this nature. Fire personnel sometimes utilized tools to extricate the students from the vehicles to add to the impact of the event. Once Fire/EMS have concluded their patient treatment and the victims had left the scene (either on foot, by ambulance, or helicopter), the at-fault teen driver was processed for DUI, and law enforcement simulated an arrest, including transport to the Jail. The crash scene was terminated and the students were then escorted back to the school.





Overnight Student Retreat

The small group of pre-selected participating students had a chance to clean up and were then bussed to the retreat location where they stayed the night. Students were supervised at the retreat location by program coordinators from local law enforcement agencies and school staff. At the retreat, there are other event-related activities such as a presentation by local law enforcement and fire

personnel. There were also other team building exercises for the students to participate in, as well as an opportunity to decompress with video games and basketball. The night concluded with a letter-writing exercise wherein students wrote to someone in their lives as though they had lost their life in a drunk/ distracted driving related crash. This was an emotional part of the program that allowed students to consider the gravity of their decisions and how important their family and friends were to them, as well as how those people would be impacted by the students' decisions.

The retreat was a place where the students' learning continued beyond the mock car crash and allowed them to reflect upon their experience in a safe place with others who were also part of the mock car crash.

A secondary purpose of the retreat was to allow the families and friends of the involved students to experience their child/friends not coming home that night, as would be the case if they were, in fact, injured or killed in an actual traffic crash. This portion allowed family and friends to be a part of this experience and illustrated to the student that the impacts of their decisions were far-reaching.

As part of this program, one family was asked to participate in the mock death notification in the evening of Day One. The time was prescheduled with the family. Police and clergy went to the family's house for the mock-death notification, which was carried out as any real notification would have been. These family members were asked to speak about that experience the next day at the assembly and to share how this process impacted them.

Day Two:

Day Two began with a group breakfast at the retreat location with the involved students and chaperones. After breakfast, the students returned to the high school for the second part of the program: the community assembly. The assembly was open to the public.

The Lake County Sheriff generally emceed the program, which included the video from the activities the day before. The family members who participated in the mock death notification were asked to speak at the assembly, sharing the impact it had on them. The program also included 1-2 guest speakers who had had their lives greatly impacted by a drunk- or impaired-driving incident.

Several of the students who wrote letters to their parents and loved ones the night before volunteered to read their letters and share any feelings they had regarding the events. At some events, students have asked the student body to take a pledge to not drink and drive or get into a car with an intoxicated person

In addition, a pledge wall that had been started the night before at the retreat was placed in the gym, and all students were allowed to write on and/or sign it. By signing this wall, students pledged to not drink and drive, to never ride with someone who has been drinking, and to not drive while distracted. This wall was then intended be used by the school over the course of the year.

Once the assembly was over, the event staff stayed as long as needed so that the students could talk about how they felt and the emotions that were provoked.

Event staff was evidently also impacted by this program, simply by the emotionality of the presentations, as well as by any personal and professional experiences they had had in the past.

Georgina Marie Guardado



Accolade in Recognition of Lake County's Poet Laureate

"How I love and let go all at once." from Eye on the Sparrow

We celebrate the remarkable achievements of Georgina Marie Guardado, Poet Laureate Emerita of Lake County, California. As the first Mexican-American and youngest person to hold this role from 2020 to 2024, Guardado has broken barriers and inspired countless individuals through her poetry and dedication to the arts.

A native of Lakeport, California, Guardado has published her work in respected journals such as *The Bloom*, *Yellow Medicine Review*, and *Gulf Coast Journal*. Her chapbooks *Finding the Roots of Water* and *Tree Speak* reflect her deep connection to nature, culture, and personal growth.

Beyond her writing, Guardado has made a profound impact on her community. As Literacy Program Coordinator for the Lake County Library and through leadership roles in the Mendocino Coast Writers' Conference and as a Poet Laureate Fellow with the Academy of American Poets, she has fostered creativity and provided platforms for emerging voices. Her contributions to collections like *RESILIENCE* and *RESTORE* highlight her commitment to collaborative artistic expression.

We honor Georgina Marie Guardado for her poetry, leadership, and tireless work in uplifting both her community and the literary world. Her contributions will continue to inspire generations to come.


WRIGHT PEAK 1.48
HOWARD PEAK 1.44
BUCKINGHAM PEAK 0.81
RESTROOM 0.78
DOWNEN CABIN/OAK GROVE 0.76
BEWARE OF WILDLIFE

The Lake County Bookmobile





For recognition of outstanding public service and community engagement:

The Grand Jury of Lake County is proud to commend the Lake County Bookmobile for its exceptional service to the residents of Lake County. Through the use of its innovative 24- foot mobile library, the Bookmobile brings the joy of reading, knowledge, and community access to countless individuals, ensuring that all residents have access to educational materials.

Beginning in 2023, the Bookmobile has become a vital part of the Lake County Library System, providing a wide selection of close to 1,000 books, DVDs, etc. It also connects to the larger library network of Lake, Mendocino, and Sonoma Counties.

For communities in remote or underserved areas, the Bookmobile brings the library directly to their doorstep. This helps foster literacy and learning where it's needed most. Other services include free public Wi-Fi with access to Wi-Fi hotspots and Chromebooks for checkout. These services empower residents of all ages to connect to the digital world.

This was all made possible by the support of California State funds administered by the California State Library to inspire lifelong learning. The Lake County Bookmobile symbolizes the very best of public service. It reaches individuals who face barriers, and we are proud to recognize their dedication to improving the quality of life in our community.

The Grand Jury offers our sincere congratulations and gratitude to everyone involved in the operation and success of the Lake County Bookmobile. We hope your efforts inspire others for generations to come.

Schedule

The Bookmobile will NOT be available May 20, May 21, or May 22 due to scheduled maintenance..

Tuesday

COBB

HARDESTER'S MARKET

16295 Highway 175

Open 10:00 - 11:30 AM

Look for us on the West Side of the lot, by Brick Oven Pizza & Pasta.

CLEARLAKE RIVIERA

POGO'S PIZZA

9732 CA-281 (Soda Bay Road)

Open 1:00 - 2:30 PM Look for us at the North End of the Riviera Foods complex.

KELSEYVILLE

WESTAMERICA

4025 Main Street

Open 3:00 - 4:30 PM Look for us at the South End of the lot.

Parking is also available on Church Street.

Wednesday

CLEARLAKE OAKS

OAKS RED&WHITE STORE

12580 State Highway 20 **Open 10:00 - 11:30 AM** Look for us on the East Side of the Store on Hwy 20.

LUCERNE

LUCERNE LAKEVIEW SUPERMARKET

6084 State Highway 20

Open 1:00 - 2:30 PM

Look for us in the street parking on the lake side of the building.

NICE
MAR-VAL'S SENTRY MARKET
2265 State Highway 20
Open 3:00 - 4:30 PM
Look for us on the East Side of the lot.



Accolade for Operation Tango Mike:

A 21-Year Commitment to Military Support

What began as a simple gesture of support for a few friends deployed to Afghanistan in 2003 has blossomed into a remarkable 21-year community effort known as **Operation Tango Mike**. Initially created to send care packages to troops overseas, this initiative has grown to support thousands of military personnel, sending packages each month to deployed service members in at least 12 countries, including Iraq, Yemen, Jordan, Romania, and aboard ships. Since its inception, the organization has sent out 26,000 care packages and continues to provide tangible support to our brave men and women in uniform, ensuring they know their sacrifices are appreciated and remembered.

In addition to supporting troops abroad, **Operation Tango Mike** also extends its reach to military families in the local community. Many volunteers who contribute their time to packing and sending care packages also offer practical assistance to military families, including help with small home repairs and transportation. This service bridges the gap for families who, without a military base or installation nearby, might otherwise face isolation. The volunteers, as well as the families they support, are bound together by a shared commitment to ensure that the sacrifices of those in uniform are honored with compassion and tangible aid. The effort is grounded in a simple, yet powerful, motto: “Forget politics, support our troops.” This motto ensures that everyone, regardless of background or opinion, is welcome to participate in this collective mission to serve military personnel and their families.

Each month, volunteers gather for a **packing party**, where families, including children, come together to prepare care packages. These gatherings are family-friendly, with children encouraged to participate by decorating the packages with stickers and artwork, often referred to as “the world’s greatest decorating crew.” In addition to the regular packing efforts, Operation Tango Mike hosts an annual open house every March, offering an opportunity for the community to come together, celebrate the initiative, and learn more about its impact. The event is a heartfelt celebration of the 21-year legacy of service and support, with donations covering shipping costs and goods. This spirit of giving continues to thrive, fueled

entirely by donations and fundraising efforts. Operation Tango Mike remains a beacon of community unity and gratitude, ensuring our troops and their families are never forgotten.



Accolade: Olga Martin Steele Hometown Hero

"Early on, I learned that giving back to the community and helping the less fortunate was a duty."

The Grand Jury acknowledges **Olga Martin Steele** as a true pillar of volunteerism in Lake County. With a distinguished background in law enforcement, business management, and public service—including two governor-level appointments—Olga has devoted her post-retirement years to building a stronger, more inclusive community.

Over the past two decades, Olga has led with purpose and poise, dedicating herself to a wide range of civic causes. She currently serves as the **President of the Board of Directors for KPFZ 88.1FM**, where she also hosts community radio programs that amplify local voices. In addition, she serves as **President of Soroptimist International of Clearlake**, empowering women through education and leadership.

One of Olga's most significant contributions is her role as **co-founder of the Lake County Silver Foundation**, a nonprofit dedicated to enhancing the lives of seniors in the region. This foundation was created to address the growing gap between government support and the real needs of our aging population—many of whom face housing insecurity, health challenges, and economic isolation. Through programs like **"Help a Senior – Save a Pet"** and the much-anticipated **Annual Senior Summit**, the foundation provides direct services, community engagement, and vital resources for elders. The Senior Summit—now in its fourth year—hosts over 350 participants annually and includes a Health and Wellness Fair, keynote speakers, a celebratory lunch, and the **Inspirational Senior Awards**, all designed to honor, connect, and uplift.

Beyond her advocacy for elders, Olga also co-founded **1Team 1Dream**, an initiative created to champion local entrepreneurship and economic resilience in the wake of the **Mendocino Complex Fire**. One of its cornerstone programs, the **Hands Up Lake County Business Competition**, provides mentorship, training, and substantial cash prizes to local small businesses—fueling recovery and encouraging innovation. The competition continues to thrive, affirming Olga's belief that *small businesses are the heart and soul of rural economics*.

Together, these efforts form a constellation of care: for seniors, for women, for small business owners, and for the Lake County community as a whole. Olga Martin Steele's relentless dedication and selfless service make her a **true Hometown Hero**. Through her compassion, creativity, and leadership, she has inspired countless individuals to give back,

to rise up, and to build forward. Her legacy will live on—not just in programs and policies, but in the people whose lives she's touched



Highway Havoc: First Responders' Adaptation During Cattle Truck Overturns

SUMMARY

Twice within a six-month period in 2023-2024, a cattle truck rolled over on Route 20, resulting in novel management challenges to - and significant emotional stress among - the County's fire, law enforcement, animal care, and veterinarian emergency responders, as well as, sadly, substantial mortality among the cattle. However, experienced community livestock ranchers and farmers and knowledgeable volunteer passers-by pitched in to help during the hours-long series of events for each overturn.

Then in February 2025, three horses died when their horse trailer overturned and slid into a ravine along the same stretch of Route 20.

Recognizing the need for a network of trained responders across the County and in order to increase knowledge and preparedness, a group of County fire personnel and a private veterinarian have undergone equine emergency training by UC-Davis and have developed a Livestock Emergency Response Plan for cattle and horses, as well as sheep, goats, and pigs to share more widely the experience they have gained. This plan includes standardized procedures and materials in the areas of call dispatch; scene assessment, containment, and security; understanding animal behavior, extraction and relocation of the cattle, humane field euthanasia, disposal of deceased cattle, securing the wrecked truck, and debriefing.

METHODOLOGY

The Grand Jury interviewed multi-agency emergency personnel who responded to the overturns, as well as Lake County Animal Care and Control (Animal Care and Control) staff and veterinary providers. [The State Brand Inspector declined an interview.] The literature on livestock vehicle overturns was reviewed, as were published emergency training courses and relevant policies and procedures.

BACKGROUND

Annually in the U.S. millions of livestock are marketed and transported for feeding, exhibition, breeding, and slaughter, and the majority are trans-ported via semitrailer. On any given day, several hundred thousand are on the road nationally. In Lake County, Rt. 20 is the east-west thoroughfare between major north-south freeways, and hundreds of livestock trailers are estimated to ply this road monthly.

The last remembered cattle-truck turnover in Lake County prior to 2023 was in 2003.

DISCUSSION

Incident #1:

Twenty years later, on October 6, 2023, a double-decker big-rig traveling eastbound and hauling 79 head of cattle flipped over on a curve near Cache Creek, east of Clearlake Oaks. The driver remained on-scene and was cooperative. The Incident Report for this event is attached as **Exhibit B**. In addition to Lake and Colusa County fire officials and Lake County law enforcement personnel, CalTrans, Public Works, Environmental Health, Social Services, Animal Control, a private veterinarian, tow truck operators, and numerous local ranchers, including from Yolo and Mendocino Counties, were all on-scene to assess the cattle's condition, provide portable corrals, establish a secure perimeter; laboriously breach the aluminum trailer compartments, and extricate and relocate by stock trailers the intact, wounded, and deceased cattle. A fuel leak from the truck also had to be contained.

Reliable phone and radio communication was possible because one law enforcement officer had a universal Starlink connection.

All resources were overwhelmed. The temperature was hot. Animal and human stressors abounded. The bellowing of the panicked and injured animals was "horrific." The cattle truck was inaccessible by the extrication tools initially available, and additional electric tools were provided by the Williams Fire Dept. Multiple tools were employed over a period of 6 ½ hours before cows could be removed. Who was authorized to euthanize the severely injured animals, and by

what means, required much inter-agency discussion and authorization from superiors. State statutes apply in owner-absent scenarios where catastrophic injuries require euthanasia. Those cattle that were dispatched with a “captive bolt” or bullet to the forehead could be taken to a rendering plant, but those euthanized with chemicals could not and would require burial or incineration.

Of the 79 cattle, 43 at the conclusion were successfully extricated and alive and 34 were deceased. Two cattle escaped but were subsequently accounted for.

The following photographs are courtesy of Elizabeth Larson. Lake County News.







Incident #2:

On February 11, 2024, another two-story livestock trailer overturned on eastbound Rt. 20 at Mule Skinner, with 42 head of cattle. The Incident Report is attached as **Exhibit C**. The driver left the scene, and the truck was unregistered, although the trailer was registered and insured. Ten cows were loose and eventually unaccounted for. Two auto accidents, with three persons injured, resulted from collisions with cows, and one person on-foot was stomped on. Heavy rescue and other specialized tools from Colusa County were immediately requested, and portable corrals and stock trailers were brought to the scene by multiple ranchers. Access to the trapped cows was again hampered by the trailer construction and available tools. A fuel leak was also contained. This time, no Starlink communication was available to the personnel on-scene. No veterinarian was available for this incident, as Animal Care and Control remains without a veterinarian, and the private clinics that responded wanted to be assured of payment. Six cows died or were dispatched, 10 were unaccounted for, and 26 survived.

Incident #3:

On February 16, 2025, a large RV towing a horse trailer experienced a mechanical problem and flipped on its side at Hwy 20 and Watertrough in Clearlake Oaks (CLO), blocking one lane. The trailer, containing three prized rodeo horses, snapped off and tumbled down the hillside into a ravine. Two horses were killed on impact, and one had to be dispatched by its owner shortly thereafter. While not on the scale of the cattle truck overturns, the roadway was blocked, animal extrication and disposal were required, and the family's pain at losing their personal horses was devastating**.**

CONCLUSION

An accident involving livestock demands an effective and efficient response when human safety and animal well-being are at stake. At the time of the 2023 rollover, first responders in Lake County had not trained for such a scenario and few had any experience with livestock. Traditional response vehicles are not equipped with specialized equipment to work with animals. A SOS to local cowboys and ranchers resulted in needed expertise and provision of equipment for extrication,

containment, and transport of both surviving and non-surviving cattle. However, sourcing animal containment and handling equipment in a trailer ahead of time along a route experiencing multiple animal transports could remove a huge barrier to an initial rapid and effective response.

Driver error accounts for the vast majority of livestock truck overturns, with speed, driver fatigue, over-steering or over-correcting, and failure to adjust vehicle speed to curves in the road's being the most common contributing factors. Other factors are poor brakes, low tire pressure, and damaged suspension. Commercial carriers, especially two-tiered, have a high center-of-gravity and unstable loads. If the load of cattle shifts, the vehicle become unbalanced. Most trucks roll to the right, especially on turns.

In the usual course of events, Animal Care and Control would have been the advocate for the cattle and responsible for their care, but they, too, had not prepped for such an event. As well, they have been without a veterinarian for more than two years, so first responders had to request assistance from private veterinarians – not all of whom in Lake County were large-animal veterinarians - and only one was willing to respond to the 2023 incident without a promise of payment.

Animal Care and Control, following the 2023 incident, was tasked by the Office of Emergency Services to draft a Large Animal Response Annex to the County Emergency Operations Plan and was instructed to develop operational procedures that address responses to large animal injury incidents. These tasks have not been effected. The Department is lacking a permanent Director to oversee creation of these emergency responses.

Additionally, Animal Care and Control in the past also would have been able to call out their LEAP (Lake Emergency & Animal Protection) volunteers with their large transport trailer, but that service has evidently ceased.

FINDINGS

F-1: Cattle trailer turnovers are extremely resource-intensive and require the cooperation and effective coordination of all responding agencies and volunteers.

F-2: First responders require expertise and training in trapped, injured, or loose animal handling and rescue.

F-3: The command team needs to have immediate and reliable communication via Star-Link satellite to be able to acquire volunteer assistance and containment materials to keep persons and animals safe.

F-4: Prepositioning of response trailers stocked with appropriate tools and fencing along major livestock transportation thoroughfares would help expedite an effective response.

F-5: No animals should be released from the truck until the scene is secure in order to prevent secondary injury to responders, livestock, or the public.

F-6: If euthanasia is necessary, complicated circumstances come into play that should be understood prior to the rollover, with clear lines of authority delineated.

F-7: The unique challenges and potential dangers posed by injured and distressed livestock are included in the draft Emergency Response Guide being finalized by a team of fire-district first-responders within Lake County.

F-8: This Lake County Emergency Response Team further arranged to receive training in equine rescue at UC-Davis.

F-9: To date, neither an OES Large Animal Response Annex nor internal policies and procedures addressing livestock animal emergencies has been completed by Animal Care and Control.

F-10: Animal Care and Control currently lacks a veterinarian who could provide necessary assistance to the first responders and the livestock during trailer rollovers.

F-11: Animal Care and Control has not reactivated its LEAP animal disaster service that could have responded to the first two rollovers.

RECOMMENDATIONS

R-1: That all fire and law-enforcement first responders within Lake County undergo classroom training, tabletop exercises, demonstrations, and hands-on practice to enable them to make critical assessments and decisions to keep themselves and the public safe during emergency stock-trailer incidents. (F-1, F-2, F-4, F-5, F-6)

R-2: That fire and law-enforcement first responders be enabled to access reliable Starlink satellite communication capability throughout the County. (F-3)

R-3: That all fire, Sheriff's Department, and Office of Emergency Services (OES) responding personnel within Lake County undergo training to recognize the unique behavior issues that develop in severely stressed and injured livestock to help ensure the responders' safety and the animals' survival and welfare. (F-6)

R-4: That the Emergency Response Guide in-preparation by the fire services be finalized and distributed widely within County government, law enforcement, and relevant animal welfare groups. (F-6)

R-5: That Lake County Animal Care and Control draft a Large Animal Response Annex for the County Emergency Operations Plan to be presented to the Board of Supervisors. (F-9)

R-6: That Lake County Animal Care and Control develop operational procedures that address its responses to large-animal injury incidents to be presented to the Board of Supervisors. (F-9)

R-7: That the Board of Supervisors raise the starting salary of a veterinarian for Animal Care and Control and/or institute a signing/relocation bonus to attract suitable candidates. (F-10)

R-8: That Lake County Care and Control reactivate its LEAP program so that it can be activated by first responders during emergencies. (F-11)

RESPONSES

Pursuant to Penal Code § 933.05 (a)(b)c), the following responses are required:

Lake County Board of Supervisors
R-2, R-5, R-6, R-7,R-8, R-9, R-10, R-11 90 days

Clearlake Police Department
R-1, R-2, R-3, R-4, R-6 60 days

Lake Count Animal Care and Control
R-5, R-6 60 days

Lake County Sheriff's Office/OES
R-1, R-2, R-3, R-4, R-6, R-8 60 days

Lake Pillsbury Fire Protection District Board
R-1, R-2, R-3, R-4 90 days

Lakeport Police Department
R-1, R-2, R-3, R-4 60 days

Kelseyville Fire Protection District Board
R-1, R-2, R-3, R-4 90 days

Lake County Fire Protection District Board
R-1, R-2, R-3, R-4 90 days

Lakeport Fire Protection District Board
R-1, R-2, R-3, R-4 90 days

Northshore Fire Protection District Board
R-1, R-2, R-3, R-4 90 days

South Lake County Fire Protection District Board
R-1, R-2, R-3, R-4 90 days

EXHIBITS

A. Emergency Livestock Response Plan
B. Incident Report, Lake County Fire Protection District, October 6, 2023.
C. Incident Report, Lake County Fire Protection District, February 11, 2024.

REFERENCES

Beef Farmers of Ontario: Livestock truck emergencies policies and procedures manual. October 2017.

California Dept. of Food & Ag: Cattle and horse euthanasia guidelines. 2024.

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LIVESTOCK ACCIDENT

EMERGENCY

RESPONSE GUIDE



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Disclaimer

This guide is not intended to be a "how to" response to cattle and horse emergencies. This is not intended to be Standard Operating Procedures. The intent of this guide is to be an additional reference for responders trained in Cattle and Horse Technical Rescue. It is not a substitute for training, or learning to work with or handling cattle and horses. Technical rescue is inherently dangerous, dealing with both humans and animals. This guide discusses response with large animal technical rescue equipment. It must be understood that there may be incidents when all referenced equipment is not available, and a trained responder may have to utilize available equipment. Responders should always follow departmental training and response procedures.

Liability

If volunteer is acting within the scope of the duties assigned to them and they were following the directions provided by County supervisory staff, then the volunteer

will be covered under both the County's liability insurance (under the legal principle of "Agency") and workers compensation programs.

(1) Meals may be furnished without charge to a regular-service volunteer serving a unit of county government or constitutional county officer if the volunteer's scheduled service extends over an established meal period, and to an occasional-service volunteer at the discretion of the head of the unit of county government or constitutional county officer.
(2) Lodging, if available, may be furnished temporarily, in case of an emergency, at no charge to a regular-service volunteer.
(3) Transportation reimbursement may be furnished to a volunteer whose presence is determined to be necessary by the unit of county government or constitutional county officer. Volunteers may use county vehicles in the performance of their county duties (after a driver's license check).
(4) Volunteers are covered by workers' compensation in accordance with California Statues
(5) Volunteers may be furnished such other benefits, subsistence, or reimbursement of expenses as the unit of county government or constitutional county officer considers appropriate and necessary. (California statutes)

LARGE ANIMAL EMERGENCY RESCUE

Introduction

Large animal rescue is an infrequent, dangerous, emergency incident that may severely stress the fire service unless specific training has been received. The purpose of this research was to determine if the establishment of a Large Animal Emergency Rescue Team (LAER) would benefit firefighters and the public. Research sought to identify local emergencies involving large animals; how other jurisdictions handled similar calls; and what training, equipment, or policies firefighters needed to safely and successfully mitigate large animal emergencies. Data review and interviews found that local fire departments have not been

routinely prepared to effectively handle the wide array of large animal incidents they are responding to. The establishment of a LAER program to increase firefighter and public safety, decrease iatrogenic injuries and mortality in animals, and provide an increased level of public service was recommended and has been enacted in Lake County.

The problem being researched in Large Animal Emergency Rescue is that currently the six Lake County Fire Districts, until 2024, had no protocols, formal training, or specialized equipment to rescue horses or cattle that are at risk of serious injury or loss of life due to an accident, physical, or fire entrapment.

Objectives:

- To provide basic information on the steps needed to effectively deal with a large animal emergency
- To provide a 24/7 support network for first responders (law enforcement, fire, rescue, etc.)
- To provide knowledge of livestock handling in emergency situations for improved animal well-being and for enhanced safety of those involved.

This guide will cover:

- Incident needs as per assessment
- Livestock handler, veterinarian, and other response team contacts, specific to Lake County
- Behavior of livestock likely to be exhibited in stressful situations
- Personal safety precautions when handling livestock
- Means to calm, rescue, capture, and temporarily confine animals
- Laws, ethics, and euthanasia protocol

Lake County's livestock industry is substantial.

Every year thousands of animals are transported on Lake County roadways and through urban areas. While almost all these animals reach their destination safely, there are occasions when accidents occur. This guide will support and assist those responding to these emergencies.

Health and safety of the human population is priority; however, the humane handling and well-being of livestock in Lake County is also very important and should be considered.

Representatives from emergency management, law enforcement, fire, animal services, and the agricultural community created this document to promote the safe, humane handling of large animals involved in incidents requiring emergency response.

FIRST RESPONDERS:

- Take charge of the accident scene and coordinate rescue efforts. Injured persons are the first priority.
- Perform crowd control, direct traffic, maintain a clear path for emergency vehicles, and assist with them.
- Keep unnecessary people away from the accident site, including media cameras/personnel.
- Release official statements to media as required, using developed news releases where possible.
- Ensure everyone understands the priority response sequence—human safety is the first priority, followed to the welfare of the animals and then, removal of the truck and trailer.
- Euthanasia by police/CHP (if animals are in immediate distress and posing a threat to humans.)
- Take photos of scene so that other responders know the scene to prepare proper supplies.
- Be in contact with livestock farmers (for horses and cattle), for assistance within county area.
- Be in contact with local veterinarians, and resources to remove dead animals.

Trucking:

- Provide shipping manifest identifying types and numbers of animals carried, destinations, etc.
- Provide insurance information as well as written permission for animals to be euthanized if necessary on site.

- Call destination site.
- Provide rescue truck if necessary and contact owners.

GENERAL ANIMAL BEHAVIOR

Large animals can seriously injure people, other animals, and/or themselves if they become excited or agitated. Understanding how an animal instinctively reacts will aid you in properly handling the animal during an emergency situation. The following are common behavior characteristics that apply to livestock in general (cattle and horses).

- All animals are unpredictable
- Never assume an animal is going to 'be nice'—no matter how calm it may seem
- Animals experience feeling such as fear, aggression, pain, nervousness, etc.
- Horned animals are aware they have horns or antlers and may use them in an aggressive manner
- Moving lights (headlights, emergency lights, and flashlights) agitate animals, particularly at night. Avoid shining lights into the animal's faces and ask emergency crews to switch off flashing lights wherever possible
- Livestock tend to move from a dimly light are to a brighter area, provided the light is not glaring into their eyes
- Many animals have a wide angle of vision and are easily frightened by shadows. They will often balk and refuse to walk over a hose, puddle, shadow or change of surface, etc. Although animals have a tendency to go from dark areas to lighter areas, they will also shy away from bright sunlight if they are not used to being outdoors
- Many animals have a strong herding instinct. Isolation is one of the strongest stressors of animals and should be avoided. They will calm more quickly if left in a herd and may also 'follow the leader' when together. If possible use a wall or fence line as a guide
- Injured or frightened animals may bite, particularly pigs and horses. All animals may kick or strike when frightened
- Loud noise and moving or flapping objects will spook, startle, or slow an animal

- Frightened animals are unpredictable and will react instinctively by running or fighting. Allow animals to calm down before attempting to handle them
- **If you spook the animal, it may take approximately 30 minutes to calm them down**
- Animals have sharp senses of smell, sight, and hearing. They have a wide angle of vision and are easily frightened by shadows. They will often balk, refusing to walk through a puddle, over a shadow or on a change of surface. They will also shy away from bright sunlight if they are not used to being outside. They have a tendency to move from a dimly lit area to a brighter area, granted the light is not glaring. Though they are reluctant to move into dark spaces, they will calm once inside. Lights (headlights, flashlights, floodlights) should never be shown directly into an animal's face and moving or flapping objects will spook or slow an anima

PRINCIPAL POINTS FOR CATTLE AND HORSE EMERGENCIES

- Crowd control is important to avoid injuries—to people and animals. Keep people away from the scene to prevent frightening the animals.

- Are the animals contained or loose? You will require a plan for both situations. Containing the animals is a top priority.

- Remain calm, quiet, and safe—always keep an escape route open.

- In motor vehicle accidents, evaluate the livestock trailer (if trailer is involved); try to identify damage extent, type and number of animals.

- Know your local contacts within your local animal associations or the like. People with livestock expertise, for horses and/or cattle. Keep list up to date.

- All animals are unpredictable and dangerous, no matter how calm they may seem.

- Accidents, stress, and injuries may alter behavior significantly. You may need an expert.

- Rescue efforts require expertise, planning, and coordination.

- Moving slowly with patience is always best when moving or handling farm animals.

- Winches should **NEVER** be attached to a horse or cow as a tool for extrication!

- Lower legs, ears, tail, head, and neck should NEVER be used as attachment points for extrication. If using legs is the ONLY option, it is important to provide substantial padding beneath the webbing and/or rope. The blood vessels in the legs are fragile, and are prone to compression injury. Compression injuries significantly decrease the chance of survival.

A VETERINARIAN SHOULD BE CONTACTED AS SOON AS POSSIBLE TO RESPOND TO THE SCENE

HAVE A DESIGNATED ANIMAL MONITOR DURING RESCUE

NOT A SUBSTITUTE FOR TRAINING IN TECHNICAL CATTLE/HORSE EMERGENCY RESPONSE

Significance of the Incident Command System

All emergency responders are trained on the Incident Command System. ICS creates a command and control structure for emergency responders to ensure that an incident can be handled quickly, safely, and effectively. In the case of a large animal rescue, the scene has a high potential of having a large number of responders, both trained and untrained. Utilizing ICS helps to ensure control and order for the safety of responders, observers, and animals.

EMERGENCY RESPONSE UPON ARRIVAL

Motor vehicle incidents can range from a pickup truck transporting one animal in a stock rack to a commercial livestock trailer transporting dozens of animals. These

events are also unique in that first responders are directly involved in all incidents and are incident command.

RESPONSE

Scene arrival and secure perimeter:

- Be alert for loose livestock on the way to the incident. Animals that escaped the vehicle may have traveled away from the scene.
- Before exiting the vehicle, evaluate the scene for loose and dangerous animals or any other hazards.
- If there are loose animals on the roadway, move them off the roadway and gather them in one place.
- Once the necessary resources are identified, request the assistance of dispatch to notify the pre-established livestock resources and request their assistance.
- Set up containment before releasing any animals from the trailer.
- If the animals cannot be removed through a door, the trailer must be examined to determine the best way to dismantle it and removed the animal(s).
- When removing animals from a trailer never allow people to become trapped with no way out. Animals, gates, walls, etc., must never block a handler's escape route.
- Establish a scene perimeter. Make the perimeter far larger than needed to allow for space to work and to buffer livestock from stressful sights (flashing lights) and sounds (sirens, horns, radios, and so forth). Safety and security require that only essential and trained personnel be granted access to the scene.
    - Approach scene involving animals as calmly and quietly as possible do not immediately attempt to get the animals up or moving; do not stick lights, limbs, or objects inside the trailer before being ready for extraction. Do not extract animals from the trailer until a containment structure is in place. Livestock extraction before having a containment structure erected almost always results in preventable injuries to humans and livestock, secondary vehicular accidents, and/or death.

- Limit the use of sirens, horns, and other loud noises, including loud talking, shouting, bullhorns, and radios. Cell phones and text messaging may be the most effective way to communicate between responders while minimizing noise stress to animals.
- Limit the use of flashing lights, especially at night.
- Limit the use of reflective gear at night. It causes confusion in already agitated livestock.
- Be prepared for potential conflict about the amount of time the road should safely be closed versus the pressures to get the road open. Prolonged closures (greater than 8 hours) are often common depending on the severity of the accident.

Scene safety

- Secure the vehicles involved.
- Take actions to deal with any life-threatening situations. Don't become another victim!
  - Fire
  - Traffic
  - Livestock that are loose on the scene and any aggressive livestock
  - Water
  - Environmental conditions on location (ice, snow, rain, and so forth)
- Following a motor vehicle incident that involves dead livestock animals, they may need to be removed from the scene and the area cleaned.

Assess Scene

- If driver is coherent
  - Is he or she able to assist with the accident assessment?
  - Ask him or her for the 'bill of lading'. Use the bill of lading to develop the
    Animal Transport Incident Assessment.

Items to identify from the bill of lading including:

- Type and number of livestock
- Where the load originated

- Livestock identification (brand, tattoo, etc.)
- Location livestock picked up from
- Was owner present for transport?
- Receiver name and location
- Premises ID number (PID)
- Telephone number
- Was owner present for delivery

LIVESTOCK EVACUATION DOCUMENTATION FORM:

Date: _____

Owner Information:

Owner name: _____

Address: _____

Premises ID Number (PID): _____

Telephone Number: _____

Owner signature: _____

Transporter Information:

Transporter's name: _____

Telephone number: _____

Type of Livestock:_____# transported: _____

Identification (brand, tattoo, etc.)_____

Location livestock picked up from: _____

Transporter signature: _____

Was owner present for transport: _____

Receiver Information:

Receiving name: _____

Receiver location: _____

Premises ID number (PID): _____

Telephone Number: _____

Receiver signature: _____

Was owner present for delivery:

_____

RISK IDENTIFICATION AND MITIGATION:

Human Risk:

Risk Identification:

- Loose livestock
- Scared livestock are a hazard to first responders and the public
- Injury or death of handler by animal (struck, kicked, bit, or trampled)
- Disease exposure
- Psychological stress to first responder's due to high loss of animals

Risk Mitigation:

- Train first responders in livestock handling during emergencies
- Utilize experienced livestock handlers
- Use low stress safe livestock handling methods
- Wear appropriate footwear for livestock handling
- Contain all loose animals as quickly as possible

Animal Risk:

Risk Identification:

- Injury or death to animals
- Pain and suffering of animal

- Injury from facilities
- Feed or water source contamination
- Animals may be trapped in the building
- Mass animal casualties
- Animals trapped in buildings, paddocks, or on flood created islands

Risk Mitigation:

- Utilize experienced livestock handlers
- Use low stress, safe livestock handling methods
- Site inspection to ensure all facilities are free of projectiles
- Provide emergency triage care
- Euthanize animals as required as quickly as possible
- Identify temporary housing for animals
- Evacuate or relocate animals to evacuation site
- Animals trapped in buildings, paddocks or, on flood created islands
- Water testing during time of drought
- Toxic plant monitoring program

Biosecurity:

Risk Identification:

Disease exposure

- Spread of disease
- Poor health and potentially loss of life
- Increased veterinary costs, clean-up costs
- Loss of production ability of individual animals

Risk Mitigation:

- Implement biosecurity procedures
- All animals identified upon arrival
- Refer to industry biosecurity guidelines
- Identify entry and exit points
- Ensure all visitors long in and out of evacuation site
- Limit co-mingling of animals from different properties when possible
- Dispose of carcasses as soon as possible

Property Risk:

Risk Identification:

- Property damage
- Abandoned animals
- Inability to confirm ownership of animal(s)
- Soil or water contamination

Risk Mitigation:

- All animals identified upon arrival
- Security at evacuation sites
- Proof of ownership for release
- Ensure all visitors long in and out of evacuation site

DISPATCHER DECISION TREE:

- TYPE OF INCIDENT?
- ARE THERE VEHICLES INVOLVED?
- IF YES, WHAT, HOW MANY, AND WHAT TYPE?
- ARE THE VEHICLES UPRIGHT OR ON WHEELS?
- ROLLED? IF ROLLED, TO THE LEFT OR RIGHT? JACKKNIFED?
- ARE THERE ANIMALS LOOSE?
- IS THERE FIRE INVOLVED?
- ARE THERE HAZAROUS CHEMICALS INVOLVED?
- NUMBER OF VICTIMS?

EMERGENCY CONTACT SHEET

Availability and access to facilities and equipment may vary. This sheet is designed to help create a contingency plan to identify resources that may provide assistance. Any costs for materials or services remain the financial responsibility of those having the care and custody of the animals. It is imperative that the financial responsibility is acknowledged prior to engaging services or for equipment. **This list should be reviewed and updated on a regular basis, by Emergency Management.**

Name	Contact Information	

Notes:

COUNTY LIVESTOCK CONTACTS:

Name	Address	Phone/cell	Type Trailers	Type livestock

ANIMAL TRANSPORT INCIDENT ASSESSMENT

Informant _____Phone _____

Location of incident _____

Date/Time of incident _____

TRANSPORT CO.

__ contacted

__ phone # _____

AGE GROUP

__ young

__ intermediate

__ mature

EXPENSE AUTHORITY

__ contacted

__ phone # _____

QUANTITY

__ known __ number ____

__ unknown __ estimate

DRIVER

__ functional __ non-functional __ bio-security

CLASSIFICATION

__ slaughter __ replacement

VEHICLE TYPE

__ farm trailer __½ ton pickup

__ gooseneck trailer

__ straight truck __ semi-trailer

__ multi-deck pot trailer

DESTINATION

__ farm __ slaughter plant

__ auction market __ other

SECURITY STATUS

__ contained __ tied _____

__ escaped __ loose _____

VEHICLE CONDITION

__ operable __ non-operable

ACCIDENT RESULT
__dead __unknown

__ upright __ rolled __ on side __L __R
__ No

ACCIDENT SITE

__ urban __ rural __ditch __ on road

__ other _____

ANIMAL TYPE/NUMBER

__ cattle __ horses __other

SPECIAL _____

_____

HEALTH STATUS

__ uninjured __ injuries

EXTRICATION __Yes

POSSIBLE NEEDS

__ transport

__personnel __vet
__specialists

__ equipment __fencing __
lighting __ gates

__ tow truck

__ dead stock

COMMENTS:

_____

DATE: _____ EMERGENCY CONTACT: _____

PROPER LIVESTOCK HANDLING

Guidelines for enhancing the safety of the human and animal:

- If you don't have to handle the animals . . . **DON'T**
- Take your time. The old saying is: "If you make an animal feel you have all day, it will take ten minutes. If you make it feel that all you have is ten minutes, it will take all day!"
- If animals have escaped from the enclosed area, such as a fence, with minimal effort, their herding instinct will tell them to go back where they came from and allow you to herd them back into the enclosure.
- Do not chase animals; let them move at their own pace. Given them space.
- Always have an escape route.

- Stay alert as you may have to move quickly.
- **Never turn your back on an injured or frightened animal!**
- Announce your presence but keep noise to a minimum, as animals have sensitive hearing. Whenever possible, advise emergency crews to switch off engines and place generators at a comfortable distance from animals.
- Always move slowly and quietly around livestock. Do not shout, yell, or wave your arms wildly at the animals.
- All personnel not required to deal with animals should stand clear for their own safety before animals are moved.
- Unless absolutely necessary, do not approach an animal from directly in front. Animals such as horses may strike with their front legs. All animals may view this as an aggressive move. If you must, use a board, such as a spinal board, to create a barrier between and animal and yourself.
- Barriers, such as livestock panels or a board, can also be used to corral animals.
- Never walk up behind an animal, whether it is standing up or lying down. It may startle causing a panic reaction resulting in possible injury to personnel. Animals have very accurate aim when kicking.
- Make sure an animal knows you are there, and speak softly while approaching.
- Be confident—animals sense fear and hesitation and may take advantage of it.
- Livestock are prey animals; their natural instinct is to flee when frightened. If they become cornered and feel threatened, they will attack until they are able to flee.
- Public safety must always take priority over anything else. If an animal is a threat to the public, it must be euthanized as soon as you can safely do it.
- Always have an escape route—do not get trapped by an animal. Stay alert, as you may have to move quickly. Never turn your back on an animal.
- All animals must be worked calmly. Do not shout, yell, or wave arms wildly at animals. When you chase an animal, you become a predator. DO NOT chase livestock in vehicles—you will not catch them.
- When you move livestock, move them in a group slowly and calmly.

- Do not enlist the help of bystanders and keep all people (including the media) away from the animals—ideally out of the area completely. If assistance is required, bring in handlers you are familiar with.

Flight Zone

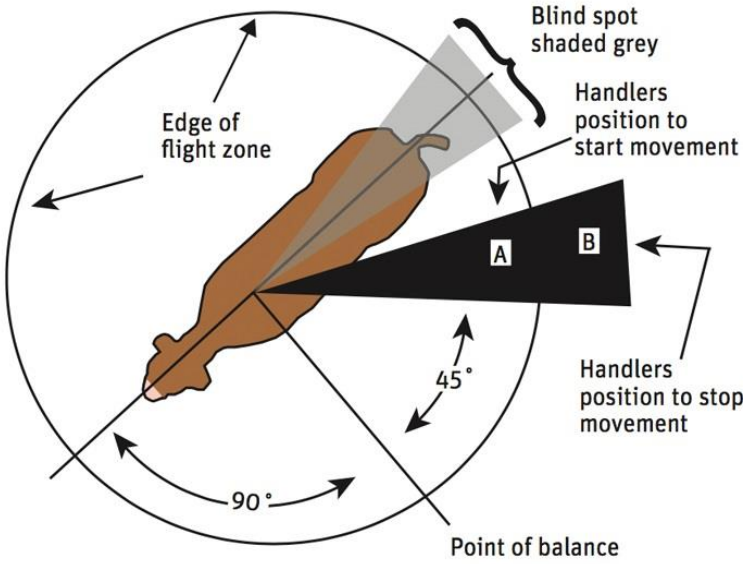
Livestock can be quite happy together in close confines. However, like most people, they need their space. Individually, most animals display a protective area or "flight zone" that varies in size with each animal. Certain people and/or animals, such as a non-threatening herd mate, may freely enter this flight zone. Some people and/or animals, however, will cause a reaction when they get close to the perimeter of the flight zone.

All animals involved in an emergency situation, such as an accident, will have a large flight zone. Sight is the main sensory factor used by the animal in this zone. Approach an animal calmly and slowly and continue to announce your presence. Entering the flight zone too suddenly (surprising the animal) or too quickly, will make the animal bolt or move in an unpredictable way. If too much pressure is applied they will turn back on you, and may charge or bite—back off when the animal is not responding the way you wish.

Here's what may happen when you enter an animal's flight zone:

- The animal will be happy to see you
- It may move away
- It will run away
- It will remove you from its zone

FLIGHT ZONE AND POINT OF BALANCE (Illustration):



SPECIFIC BEHAVIOR AND HANDLING OF CATTLE/HORSES:

Always use extreme caution when dealing with male animals, and with female animals with young. In general, all intact (non-castrated) males are typically more aggressive than females, (unless the female has young with her), or altered (castrated) animals.

It is recommended that experienced animal handlers should handle aggressive animals.

Animals, like humans, have their own personalities and the below should just be used as a guideline.

CATTLE:

- Cattle may stampede if frightened. Their instinctive reaction to danger/fear is to flee.
- All bulls should be considered very dangerous and unpredictable. EXTREME CAUTION MUST BE USED WHEN DEALING WITH THEM!
- Cattle may charge or kick when frightened. Give them space.

- Cattle use their heads as protection, and will swing them using their weight to shove other animals, or humans, out of the way.

HORSES:

- Horses can strike and kick with both their front and rear feet. An injured or trapped horse that is lying down and appears quiet can snap into violent action at any moment, attempting to free itself. Stay away from legs at all times and always approach a downed animal from the spine side. Never approach via the belly, back, or front legs.
- Horses that have been handled frequently will respond well to human contact. They can usually be led to safety by a halter and calmed with gentle talking and petting.
- Always approach a standing horse on the left side. Talk to them in a calm, quiet manner while you approach.

CLASSES OF CATTLE:

It is important to remember, many trailers can have mixed classes of cattle on the same load, i.e., beef cows, beef calves, beef bulls, and horses.

Also, these animals have been subjected to additional stressors and could react different than the follow generalizations:

1. Veal Calves:

- Small intensively raised animals often totally lack any avoidance flight or fight response
- Generally baby bull calves, weighing between 80 to 120 pounds
- Usually need to be carried or moved with solid panels by pushing the 'wall' toward them. Hot shot use PROHIBITED!

2. Bulls:

- May be aggressive and should be considered potentially dangerous
- Tend to have larger humps on their necks, testicles between their rear legs, will usually have thicker hair on their foreheads
- Can weigh between 1000-3000 pounds

- May have special insurance needs in cases of needed euthanasia. If possible, ask driver about insurance requirements for euthanasia
- Beef and dairy
    - Beef bulls should be considered DANGEROUS; extra precautions need to be taken. Do not put yourself in situations whereby the animal can get to you to hurt you with its head, feet, or other body parts
    - Dairy bulls should be considered EXTREMELY DANGEROUS! These animals will meet the general definition of a bull, but will be patterned in the following: Black and white patterns; red and white patterns; brownish and white patterns, or deer tan to blackish colored; most dairy breeds have a concave facial feature between their eyes
    - DO NOT ENGAGE THESE ANIMALS!

3. Cows:

- May be aggressive and should be considered potentially dangerous
- Come in a wide assortment of colors and physical characteristics
- Will have an udder between their rear legs, but lack other distinguishable features
- BEEF COWS:
    - Come in an endless assortment of colors and sizes. They will be large in size (800-2000+ pounds per cow)
- DAIRY COWS:
    - Black and white patterns; red and white patterns; brownish and white patterns; or deer tan to blackish colored; most dairy breeds have a concave facial feature between their eyes
- FEEDER CALVES:
    - Young cattle between 6 months and 1 year of age
    - Generally weigh between 400-900 pounds
    - May be males (either intact with testicles between rear legs, or castrated with no testicles between rear legs) or females (small udder between hind legs)
    - Not often aggressive
    - Will likely be scared, skittish, and wild
- Finished feedlot cattle (often called ‘fat cattle’)

TRAILER ACCIDENTS

It is recommended that rescuers avoid entering a trailer whenever possible.

- A temporary containment facility should be located or created before animals are released from a trailer (i.e. paneled corral, directly onto another truck, or even created with police tape for certain species such as horses). A nearby fenced field may be used for containment.
- If you are presented with a situation where the trailer and/or bedding are on fire, do not release the animals from the trailer until a plan for containment is established. Loose animals will pose a serious risk to passing vehicles, as well as bystanders.
- Live animals should be removed from a trailer **before** it is righted.
- The ideal way to remove an animal from a trailer is through the existing doors, but this is not always possible.
- To decide the optimum method of extrication, first evaluate the trailer and the condition of the animals.
    - Position of trailer—on side, roof, or upright, on right or left side
    - Position of animals—lying down, pinned, or trapped, tied or loose
- If the animals are uninjured and standing calmly in the trailer, leave them alone until it is necessary to move them.
- No person should enter a trailer to check or treat animals until a rescue plan is established and the trailer is stabilized.
- If you are unable to use existing doors, access to animals can be achieved through the roof.
- The structural integrity of a trailer must not be jeopardized, or the trailer may collapse on the animals and rescue personnel:

    (a) Ascertain the design of the trailer (i.e. angle haul, multi-deck, dividers, etc.)

    (b) Determine what material the trailer is made of—most new trailers are a combination of fiberglass and/or aluminum with steel supports. Older trailers are usually all steel.

    (c) Endure that the trailer has been stabilized before proceeding with any rescue attempt.

(d) Try to determine which direction gates will swing when opened. Animals may be held in place by a closed gate. To avoid injury, use caution when opening.
(e) Check to be sure the animals do not have any limbs trapped. Horses may need sedation before dismantling the trailer they are in. **(This must be done by a licensed veterinarian.)**
(f) Ensure the animals inside will not be injured while cutting into the trailer.
(g) Cut the hole only wide enough for one animal at a time to get out.
(h) Don't cut the hole out completely, you may with to use the attached metal as a wall or door.
(i) Bend the cut edges out to prevent the animals getting cut while exiting the trailer.

MAKING THE CUT IN A MULTI-DECK TRAILER:

Important note: When using cutting equipment, always assign a person(s) to assess the animals in the trailer, and how they are responding to the noise and vibrations. The cutting tool should be turned on at a distance from the trailer.

The first cut should be made to the roof of the trailer. This will allow unloading of the top deck first in multi-deck trailers. DO NOT cut the access to create a fold-down ramp. The material is slippery and the animals will slip and fall, or may even refuse to walk on it. It will also become a safety hazard to responders. The opening should be approximately 3 feet wide by 5 to 6 feet high. Start at the bottom of the door, having the saw travel along the framing at about 2 inches above the floor level (the side of the trailer that the animals are not standing on).

The opening should begin at the inside aspect of the rib, traveling across the bottom and cutting through one rib, then the next rib, and turning the saw to cut upward inside the rib. Cutting on the inside of the rib preserves structural stability and also creates smoother edges.

The cut is continued up the rib to approximately the same height as a door in a home. The saw is then turned and a cut is made across the top toward the starting

rib. The cut is stopped and the exit access has not been created. Once containment is established, most uninjured animals will exit on their own.

Note: To cover the sharp, cut edges and avoid injury to human or animal, us a cut plastic pool noodle, or an old firehose to cover the edge.

ADDITIONAL MULTI-DECK TRAILER UNLOADING OPTIONS (IF APPLICABLE):

Unloading the "Doghouse"

This compartment is located on the rear, right side of the top deck of most trailers. When a trailer overturns, this compartment can open and animals can be trapped. Depending upon which side the trailer overturns, another exit may need to be cut, and a temporary ramp set up to allow animals to exit.

Unloading the Neck/Nose

Most trailer designs will not allow the animals to be unloaded through the initial hole cut in the roof. Many trailers have a panel between the neck and the top deck. Rather than remove the divider panel, cut an access hole in the trailer's neck area.

Unloading the Back End and Lower Deck

This area can be accessed at the rear of the trailer. In a straight-haul trailer, the back end is cut open for unloading. In a pot-bellied trailer (multi-deck), the back end compartment should be emptied first. If the trailer is overturned on its left side, most likely a cut will not need to be made. When on its left side, the roller door of the trailer will be at ground level, and can be removed for unloading. If the trailer is overturned on its right side, a cut will need to be made. The hinges on the alley sort gate may need to be cut separately, because they are welded to the inside of the panel, requiring multiple cuts, through the back panel and alley gate.

Unloading the Belly

Once the back end of the trailer has been unloaded, the belly (or pot) can be unloaded. The belly is separated from the other compartments by panels, and may need to be cut and secured to allow for unloading.

WHAT TO AVOID:

- Avoid cutting through the bottom of the trailer or through the solid top deck floor. This is time consuming and often causes irreparable damage to the trailer
- Avoid cutting the opening larger than needed
- Avoid cutting too many openings
- Avoid using winches or tow trucks to tear the trailer apart
- Avoid up-righting the trailer with animals still inside!

TRAILER EXTRICATION TOOLS:

Best tools for cutting a trailer:

- Reciprocating saw: this type of saw can efficiently cut apart the roof and the back end of a commercial trailer liner. The blade must be constantly lubricated. This type of saw produces minimal noise.
- Circular saw with an adjustable metal blade: this type of saw provides the most rapid cutting action and can be used on the back end and roof of a trailer. It is very important to ensure that when using this saw, you do not cut the animals contained!

Tools that successfully cut the trailer (but are not recommended)

- Air chisel: the air chisel will cut the roof, but will most likely not be effective on the ribs of the roof or back panels. The air chisel is also very loud, which elevates stress levels and could induce a panic response from the contained animals.
- Chop Saw: this saw is very large and difficult to hand for overhead cuts. Two people are required to stabilize and lift the saw, which increases the chance of injury. This saw cuts deep, and could injure or kill animals contained.
- Cutters: these tools cut aluminum, but create a jagged edge, increasing the potential for injury.

Tools that will NOT successfully cut a trailer:

- Hydraulic spreaders (Jaws of Life): they are designed to spread and not cut. They will not create sufficient openings for livestock.
- Cutting torches: they melt aluminum and will burn the animals.

- Rescue Circular Saw (K-12): this saw will jam on aluminum, plywood, and rubber. It will also spark creating the possibility of fire.

TEMPORARY CONTAINMENT

In the event of a motor vehicle accident, containment structures must be in place before extraction. Security and containment at the scene of an incident are critical to the safety of bystanders, responders, and animals involved.

CONSIDERATIONS:

- If on roadway, consider closing the roadway.
- Injured livestock should be contained and treated as soon as possible.
- Assess surrounding area; is natural or manmade containment available?
- Environmental dangers: containment area should be safe for animals and responders to prevent further injury.
- Allow sufficient space for animals within the containment area.

In regards to a trailer accident: If animals have escaped before responders arrive on scene, a containment area should be established and the loose animals should be contained before a secondary accident occurs.

If the animals are still contained in the trailer, temporary containment should be established before any cutting or unloading occurs. In most instances, livestock panels serve as suitable temporary containment.

Take advantage of animals' herding instinct, and unload them in small groups, if at all possible. Isolation will create panic and increased danger to animals and responders. Animals will become and tend to remain calm if they can stay together as a herd.

DECISION ABOUT RE-LOADING INJURED OR COMPROMISED ANIMALS

Any animal that is unable to stand up on all of its legs by itself is not fit for transport and should be considered for humane euthanasia.

In the case of slaughter animals, such an animal will NOT pass for human consumption. Its carcass will likely be condemned in the meat plant. There is nothing to be gained by re-loading and transporting such an animal.

In the case of other animals, such as horses used for pleasure and competition of valuable pure-bred animals, the owners may strongly disagree with a decision to euthanize the animals. The owner or designee may want to have the animal treated by a licensed veterinarian. In the absence of the owner and/or their designee, loading and transport of a non-ambulatory animal to a suitable place where additional care can be provided requires a veterinarian recommendation.

NOTE: At all times, the comfort and safety of the animal must be considered. At the same time, do not disregard your own safety or the safety of other personnel at the scene!

MUD AND UNSTABLE SURFACES

MUD AND UNSTABLE SURFACES ARE CONSIDERED TO BE DANGEROUS!

Unstable ground rescues pose hazards to both animals and rescuers. It is vital in these rescue scenarios that responders have the proper training and equipment. Timing is important. An animal trapped in water or an unstable surface such as mud, are at a rick of drowning, hypothermia, and asphyxiation, as well as the threat from rising tide or water currents.

Mud creates a strong suction, or vacuum effect on the trapped animal, creating a force on the animal making it almost impossible to move. **Deploying excessive force using winches and vehicles is not an acceptable form of extrication, and is likely to cause asphyxiation, decapitation, nerve damage, and facial and skull injuries. Head, neck, tail, and legs are not acceptable attachment points for extrication.**

Equipment Recommendations for Mud Rescue:

- Sheets of plywood or flat board (EMS backboards can also be utilized)
- Fire hose (when inflated with air, can be used as a flotation device, or to rest the head, to keep the animal's head above the surface)
- A source of compressed air or water to utilize to inject air or water into the mud lance to counteract the suction effect
- Water hose/source for use with Nikopolous needle
- Nikopolous needle (to facilitate the placement of webbing and/or rescue rope)

- Mud lance (to inject water or air into the mud to break the suction)
- Vertical lift equipment
- Strop guide
- Rescue rope

Procedure for Mud Rescue

This procedure can be utilized for both large and small animals.

1. Personnel should approach the animal by standing on plywood sheets and should have individual taglines to a safety buddy on safe and stable ground.

2. The designed animal handler should approach the animal and place a halter on the animal's head. **The halter and/or leash is to be used for guidance and physical restraint only, and should not be used as an attachment point for pulling.** Sedation should be considered with caution, and should only be utilized under the direction of a veterinarian, and if the animal is struggling to a point where it worsens its entrapment, or threatens its safety. To keep the animal's airway above water or mud, an inflated innertube can be tied under the head, attached to the halter or collar, to stay in place and support the head to allow for breathing.

3. For deep mud entrapments, the Nikopolous needle can be used to thread a small diameter rescue cord under the animal at the level of immediately behind the foreleg. A section of webbing can be attached to the end of the small cord and pulled underneath the animal by reversing the path of the Nikopolous needle.

4. If the animal is trapped near the surface of the mud, a strop guide can be utilized, by threading it underneath the animal. Rescue cord or webbing is attached to the free end of the guide, and the guide is pulled in reverse to thread the rescue cord or webbing under the animal's body, behind the forelimbs or in front of the hind limbs.

5. The webbing can be attached as appropriate for the slip, drag, or lift methods.

6. A mud lance of PVC pipe assembly can be preloaded with air or water and inserted into the mud next to each leg of the animal **(without injuring the animal).** Air or water is forced into the mud to break the suction while rescuers exert forces necessary to lift, pull, or drag the animal out of the mud. It is important to note that if possible, rolling the animal into lateral recumbency (on its side) increases

the body surface area in contact with the mud and facilitates dragging the animal across the surface. Placing the animal on a rescue glide, a tarp, or sheet of plywood may assist in this.

LIVESTOCK INJURY AND PAIN ANALYSIS

It is very important that a veterinarian be contacted immediately to respond to the scene, to assist with injuries and medical response.

Large Animal Patient Assessment:

Begin with a visual assessment of the animal, so this information can be reported to the veterinarian over the phone, or when they arrive on scene.

Patient assessment needs

Demeanor of the animal? Demeanor can indicate severity of injury or shock:

- Rapid or labored breathing? This can indicate fear, shock, chest trauma, stress, or other conditions
- Respiratory rate? Determined by observing chest expansion or nostril flare
  - Normal vital signs of a **horse are 8 to16** respirations per minute
  - Normal vital signs of a **cow are 8 to 16** respirations per minute
- Shivering or sweating? This indicates environmental stress
- Weight bearing? Non-weight bearing or favoring a limb indicates soft tissue or bone injury
- The presence of blood, open wounds, visible bone or impaled objects should be noted. If blood is observed, it should be determined if the animal is actively bleeding. If the animal is bleeding actively, note the rate of bleeding, i.e., trickle, arterial spray, moderate flow, etc.

All of these observations are critical when determining how quickly the animal needs medical attention and treatment.

Evaluate and decide:

(a) no immediate treatment necessary

(b) treat animal where it is

(c) move animal to another location

(d) humanely destroy the animal

A veterinarian should be called when:

(a) requested by the owner

(b) sedation of the animal is required

(c) an animal that is unable to walk without assistance must be transported from the accident scene

(d) the animal should be euthanized (see Section 10)

If an animal is injured but can move, work slowly and quietly around it. If it has a halter on, be very careful while leading it. Walk slowly and talk calmly. If it is loose, walk calmly to its side and do not yell or chase it.

In trailer entrapments: it is strongly recommended that severely injured animals be euthanized in the trailer. **This is for safety of responders and bystanders!**

To calm animals which may be struggling, stand at the animal's spine, place a blanket over its eyes, leaving the nostrils exposed and press down lightly on the neck with your knee. If the animal is in an enclosed space, no one should go in to hold the animal down until the space is opened and rescuers can do it safely. **It is important to note that if an animal is going to be extricated by any form of drag, the downside portion of the body must be protected, to include the downside eye.**

An animal that needs to be moved for treatment or euthanasia should be moved the shortest distance possible. **If dragging is the ONLY means of rescue, a sled should be used.** A spinal board or tarp may be an effective sled. Ensure it is strong enough to handle the weight of the animal you intend to move. The calming method previously covered can be used when moving an animal on a sled.

Overexertion

An entrapped animal can suffer from extremes of physiological stress. In most cases, there are increased demands on the animal's cardiovascular, respiratory, musculoskeletal, nervous and thermoregulatory systems. These demands can induce illness, injury, and death. Complications can develop in hours, or take days

to present. One common complication is renal (kidney) failure. While the animal is entrapped, it struggles, which causes sweat induced loss of body water and muscle stress. If the animal is not able to drink, it cannot replenish fluids. Myoglobin and other products of muscle breakdown are released from damaged muscle cells in the bloodstream, where they circulate into the kidneys. Myoglobin accumulates in the kidneys, leading to failure. If possible, a veterinarian may be able to administer IV or subcutaneous fluids.

Hyperthermia (heat exhaustion/heat stroke)

Stressed, struggling, and exhausted animals that need technical rescue or extraction, specifically in an overturned livestock trailer, are at a high risk of developing hyperthermia, especially during the warmer months. No air flow and the crowded and often crushing conditions do not allow the animal to properly thermoregulate. Shade should be provided as soon as possible. This can be accomplished with the use of tarps, blankets, or other shade type materials. If possible, without further harm or stress to the animal, misting, spraying, or sponging the animal with water will assist with cooling. In the case of trapped animals, fans can be place to increase ventilation and air flow, to assist with cooling while responders work to extricate.

Bleeding

These wounds can be dealt with by applying direct pressure. Open wounds should be kept as clean as possible. Internal bleeding can result in severe shock or death. Signs of internal bleeding are listlessness, unconsciousness, very cold legs, or a blue tinge to the pink skin inside the lips or tongue. The animal should be kept warm and still until a veterinarian can attend.

Fractures and Dislocations

If bone fractures or dislocations are suspected, a veterinarian should be called immediately.

With fractures, an animal may not be able to use the limb, it may move awkwardly, limp severely, or the limb may be pointing in the wrong direction. With dislocations (a limb that is out of its normal joint), the injury may result in the loss of use of the limb, a swelling of the joint, or the affected area will not move easily and appear to

be ‘locked’. The limb can also look longer or shorter than the corresponding limb on the other side.

If a veterinarian has been called, large animals are best left where they are until the veterinarian arrives. If the animal is able to walk, try to get it to a safe area until it can be attended to.

A fractured spine can be extremely painful. The animal will usually not be able to rise completely, and there may be no movement in the hind legs. With a less severe spinal fracture, an animal may be up and moving normally, or have a ‘swaying’ in its hindquarters.

Loss of Consciousness

Loss of consciousness may occur from a skull fracture, a brain hemorrhage, suffocation, drowning, shock or electrical shock. Until the animal can be attended to, make sure it is lying on its side and can breathe properly.

Suffocation

In vehicular accidents, suffocation may result from the piling of animals against the front, rear, or sides of a trailer. Roll-overs may result in the suffocation of animals on the bottom of the pile-up. Smoke inhalation in a fire will also suffocate an animal—even hours after a ‘successful’ rescue, due to lung damage. Remove live, mobile animals from the pile as soon as possible. Some of the animals underneath may recover. Do not attempt to revive those that do not recover on their own.

Burns

When animals have been exposed to fire or electric shock, then can have burns of varying degrees. Burns cause extreme pain. The greatest immediate danger with burns is shock, and later infection. After getting the animal to a safe zone and calming it, **cool** (not cold) water should be gently poured over the burned area for approximately 10-15 minutes. The burn should then be covered with a clean cloth and a veterinarian should treat the burn as soon as possible. When burns are extensive (covering most of the entire body), or severe (deep down to bones and muscles), a veterinarian should be called immediately.

Amputation

In the case of an amputation, a veterinarian should be called immediately.

Electric Shock

Electric shock may result in shock, burns, fractures, or death.

EUTHANASIA of LIVESTOCK: Cattle and Horses:

Euthanasia—humane death that occurs without pain or distress.

It is important to remember that animals are property, and are therefore owned . If an animal needs to be euthanized; this can only happen in one of these ways:

- **WITH THE CONSENT OF THE ANIMAL OWNER OR DESIGNATE**
- **BY WAY OF A VETERINARIAN**
- **BY THE OWNER OR DESIGNEE**

Proper procedure for euthanasia:

- Allow animal to calm down if necessary.
- **The point between the eyes is not the proper point of entry.**
- **The point of penetration is in the diagrams following.**
- A 22-caliber firearm is sufficient for most cattle and horses. The muzzle should be held approximately 2 inches from the point of entry, not flush with the skull.
- Make sure the animal is dead before walking away from it. Check for vital signs—pulse, breathing, etc. An animal will 'wiggle' for 2-3 minutes following death.

The following diagrams and information describe how to properly euthanize cattle and horses. To ensure euthanasia is performed properly it is very important to learn the appropriate point of penetration.

Only a veterinarian or other extensively trained individual should perform euthanasia.

EUTHANASIA GUIDELINES FOR CATTLE

Introduction

Severe illness and accidents involving livestock may happen at any time which may require the animal to be humanely destroyed including injuries in transit; severe injuries or illness on the farm, natural, man-made disasters (flood/fires) and road accidents.

It is always best to seek assistance from a veterinarian when considering euthanasia. However, in some circumstances a veterinarian may not be readily available to assist in the evaluation and euthanasia of an animal. The aim of emergency euthanasia is to provide a quick and humane death to prevent or minimize suffering. Emergency euthanasia should be performed when there is an unacceptable delay in treating the animal that would perpetuate or significantly aggravate the condition. If you are in doubt about whether euthanasia is necessary, you should contact a licensed veterinarian.

The 2013 Report of the American Veterinary Medical Association Panel on Euthanasia classifies barbiturate (injectable) euthanasia of ruminants as acceptable, and gunshot and penetrating captive bolts as conditionally acceptable. Only veterinarians have access to barbiturates. Penetrating captive bolt and gunshot are the two best options for emergency euthanasia available to non-veterinarians. Regardless of the method chosen, human and animal safety, logistics and verification of death are critical considerations.

Indications for Emergency Euthanasia for Cattle:

- Violent or self-destructive thrashing (is the animal a hazard to itself or others?)
- Evidence of severe shock (animal is non-responsive to stimuli)
- Abdominal contents or organs exposed
- Open fracture of a long bone (leg bone below the shoulder or hip)
- Animals with chronic and incurable conditions

Calves and bulls require special consideration in selecting the proper method of euthanasia.

Euthanasia by Gunshot:

This should only be performed by individuals well-trained in firearm use and safety, with an understanding of ricochet potential. Care must be taken to minimize danger to the operator, bystanders, and/or other animals.

Advantages of a firearm are that it leads to instantaneous death, is inexpensive, and does not require physical contact with the animal.

Death is caused by the direct destruction of the brain, inducing immediate unconsciousness, and permanent destruction of the cardiac and respiratory centers of the brain. **Death should be confirmed within five minutes.**

***<u>Many cities have laws prohibiting the discharge of a firearm within city limits Be aware of local laws and ordinances.</u>**

Firearms:

- **Handguns**—calibers ranging from .32 to .45 fired within 1 to 2 feet are recommended for euthanasia of cattle.
- **Rifles**—information indicates that .22 Magnum or larger caliber firearms provide higher muzzle energies and more consistent results when delivered to the proper anatomic site.
- **Shotguns**—loaded with birdshot or slugs, they are appropriate from a distance of 1 to 2 yards. Preferred gauges are 20, 16, 12 with number six or larger birdshot or slugs are the best choices for euthanizing cattle.

Ammunition:

Solid-point lead bullets are preferable to hollow-point bullets because they are more likely to traverse the skull.

Euthanasia by Captive Bolt:

As with a gunshot, the penetrating captive bolt kills by physical destruction of the brain. A penetrating captive bolt gun can be used for euthanasia but must not be used as the sole method and must be followed with a secondary method such as exsanguination.

Placement and aim are the same as for a gunshot, except that the captive bolt gun must be firmly placed perpendicular against the animal's head at the point of impact. Use of the method eliminate the potential for ricochet. Death should be confirmed within five minutes.

The selection of the cartridge strength must be appropriate for the size of the animal; these vary among manufacturers; therefore, it is important to follow the specific manufacturer's recommendations. To ensure maximum concussive power, routine cleaning and maintenance should be performed. Inadequate gun care can lead to poor performance requiring more than one shot to kill the animal.

Care and caution should be used when handling a captive bolt gun to ensure human and animal safety.

Logistics:

When practical, choose a location where the carcass can be easily reached by removal equipment. Remember, livestock should be handled so that no unnecessary pain or suffering is imposed prior to euthanasia.

Confirmation of death:

Immediately following the shot the animal will collapse and may experience a period of intense muscle contraction (usually no longer than 20 seconds) followed by a period of relaxation and some poorly coordinated kicking or paddling movements. Absence of rhythmic breathing, heartbeat, or corneal reflex (to blink) confirm death. Touch the cornea to ensure no corneal reflex. The presence of any eye movement or blinking, at this point, should be viewed as evidence of sustained or recovering brain activity and should be dealt with by a repeat shot.

Developed by the State of California, Department of Food and Agriculture, Animal Health and Food Safety Services, Animal Health Branch, 1220 N Street, Sacramento, CA 95814. Office: (916) 900-5002 or visit the website at:

www.cdfa.ca.gov/ahfss/animal_health/

EMERGENCY EUTHANASIA GUIDELINES FOR EQUINES

Introduction

Severe illness and accidents involving horses may happen at any time. Some situations such as trailer accidents, road accidents, natural or man-made disasters (flood/fires), catastrophic injury during competition, or on-farm disease outbreak or injury resulting in severe injury or illness of the animal may require humane euthanasia. However, in some circumstances a veterinarian may not be readily available to assist in the evaluation and euthanasia of an animal. The aim of emergency euthanasia is to provide a quick and humane death to prevent or minimize suffering.

Emergency euthanasia should be performed when a delay in treating the animal would perpetuate or significantly aggravate the condition. If in doubt about the necessity of euthanasia immediately contact a licensed veterinarian. The 2013 Report of the American Veterinary Medical Association Panel on Euthanasia classifies barbiturate (injectable) euthanasia of equids as acceptable, and gunshot and penetrating captive bolts as conditionally acceptable. Only veterinarians have access and are licensed to use barbiturates. Penetrating captive bolt and gunshot are the only acceptable options for emergency euthanasia by non-veterinarians. Regardless of the method chosen, human and animal safety, logistics and verification of death are critical considerations.

Indications for Emergency Euthanasia for Horses:

- Violent or self-destructive thrashing causing the animal to be a hazard to itself or
- others
- Evidence of severe shock such as an animal that is non-responsive to stimuli
- Exposure of abdominal contents or organs
- Open fracture of along bone which includes the leg bones below the shoulder or hip
- Animals with chronic and/or incurable conditions as evidenced by an animal demonstrating signs of severe pain or distress

Euthanasia by Gunshot:

Gunshot euthanasia should only be attempted by individuals well-trained in firearm use and safety, and those who have an understanding of ricochet potential. Extreme care must be taken to minimize danger to the operator, bystanders, and/or other animals.

Firearm euthanasia leads to instantaneous death due to the direct destruction of the brain, resulting in immediate unconsciousness and permanent destruction of the cardiac and respiratory centers of the brain. Death should be confirmed within five minutes.

***<u>Many cities have laws prohibiting the discharge of a firearm within city limits. Be aware of local laws and ordinances.</u>**

Euthanasia by Captive Bolt:

The penetrating captive bolt euthanizes by physical destruction of the brain. Only a penetrating captive bolt gun can be used for euthanasia. A concussive captive bolt gun should never be used as it is not an effective means of euthanasia for horses.

Placement and aim of the captive bolt is the same as described for a gunshot, except that the captive bolt gun must be firmly placed perpendicular against the animal's head at the point of impact. Use of this method eliminates the potential for ricochet. **Death should be confirmed within five minutes.**

The selection of the cartridge strength must be appropriate for the size of the animal. As strength varies among manufacturers, it is important to follow the specific manufacturers' recommendations. To ensure maximum concussive power, routine cleaning and maintenance should be performed. Inadequate gun care can lead to poor performance requiring more than one shot to kill the animal.

Care and caution should be used when handling a captive bolt fun to ensure human and animal safety.

Logistics:

Whenever practical, choose a euthanasia location that is easily accessible for carcass removal equipment. Remember, horses should be handled so that no unnecessary pain or suffering is imposed prior to euthanasia.

Confirmation of Death:

Immediately following the gunshot or captive bolt euthanasia the animal will collapse and may experience a period of intense muscle contraction (usually no longer than 20 seconds) followed by a period of relaxation and some poorly coordinated kicking or paddling movements.

Absence of rhythmic breathing, heartbeat, and corneal reflex (a blink) confirms death. Touch the cornea to ensure no corneal reflex. The presence of any eye movement or blinking, at this point, should be viewed as evidence of sustained or recovering brain activity and should be dealt with by a repeat shot.

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GUIDELINES FOR HUMANE KILLING OF CATTLE BY FIREARMS:

Mature Cattle:

The head should be secure in a chute of by halter and shank to a solid structure. Food can be placed in front of the animal. The firearm is held at right angles to the skull and aimed at a point 2/3 of the way up the forehead at a point intersecting imaginary lines drawn between the back of the ears and the corners of the eyes. (Figure 1 and 2) It may be easier to shoot slightly to the side of the ridge that runs down the center of the face.

Calves:

Calves can be handled in the same manner as mature cattle but the aim of the firearm should be squarely on the mid-lines of the forehead slightly lower than the mature cattle (Figure 3).

Source: Longair, J. (Al), Finley, G., Laniel, M-A, Mackay, C., Mould, K., Olfert, E.D., Rowsell, H., and Preston, A. 1991. Guidelines for euthanasia of animals by firearms. Can. Vet. J. 32: 724-726 December.

GUIDELINES FOR HUMAN KILLING OF HORSES BY FIREARMS:

The animal must be adequately restrained to ensure proper placement of the shot. The muzzle of the firearm must be placed close to the animal's head, above the eyes, pointing in the required direction (Figure 1). The optimal distance from the muzzle to the head is 3 to 5 cms (1-2"). The bullet or shot should enter the skull at the point where imaginary lines crossing from each to the opposite ear intersect (Figure 2). The direction of the shot should be down towards the withers (Figure 1)

Source: Longair, J. (Al), Finley, G., Laniel, M-A, Mackay, C., Mould, K., Olfert, E.D., Rowsell, H., and Preston, A. 1991. Guidelines for euthanasia of animals by firearms. Can. Vet. J. 32: 724-726 December.

SMALL LIVESTOCK ANNEX: Sheep, Goats, and Pigs

Reminder: The following lists general steps to guide action during a large or small animal vehicle overturn accident:

- Immediately call 911 to report the accident. In the event that the driver is incapacitated, the first individuals at the scene should establish contact with the authorities.
- Communicate any human injuries and indicate the type and estimated number of livestock involved in the accident to the authorities.

  Emergency warning devices e.g., pylons, warning lights, should be set out at the scene and appropriate company or farm personnel should then be notified.

  Attempt to herd/ corral any loose animals to prevent further accidents and/or traffic obstructions.

If possible, work with first responders to free/ save any livestock trapped as part of the accident.

Identify any compromised/ injured animals which may not be able to be transported humanely in accordance with Health of Animals Act XII

Contact local veterinarians to determine whether there is a requirement to euthanize animals.

Follow the direction veterinarians and emergency response authorities to close/ finalize the vehicle rollover incident.

DO	**DON'T**
Set up containment before removing or releasing animals from trailer	Do not remove animals from wrecked trailer until corralling, containment area for animals is established
Relocate livestock from holding areas into new trailers calmly	Do not yell, make abrupt or loud noises when handling animals as they may be easily spooked, causing them to be more difficult to handle. Do not use sirens or horns to herd livestock
Obtain a head count on all livestock involved in the accident including but not limited to healthy, injured, and deceased livestock	Do not attempt to remove livestock using machinery, equipment, ropes /winches. Manual extraction techniques are safe and effective for removing livestock
	Do not become a secondary victim at an accident. All safety protocols must be followed

Behavior Characteristics of Ruminant Livestock

1. The best way to handle livestock is to work in harmony with their natural behavior.
2. Livestock have excellent peripheral (wide angle) vision.

3. They have excellent distant vision, though they may have difficulty judging distances.
4. There is recent evidence to suggest that livestock do perceive colors.
5. Livestock prefer to move towards lights and do not like to enter dark buildings.
6. Livestock have a keen sense of hearing.
7. Ruminants have a natural herding instinct. They become distressed and agitated if they are separated from the rest of the herd.
8. They like to follow the leader.
9. They move in a circle around the pen or handler.
10. They are easily distracted by noises or sudden movements.
11. Shadows will cause livestock to balk.
12. They are creatures of habit and will remember bad experiences for up to a year.

SHEEP

A thorough understanding of sheep behavior is the first step towards developing an effective method of handling sheep. Their strong flocking and following behavior tends to make sheep easy to handle, relative to other livestock species. Conversely, sheep will prove difficult to handle if you force them to act in ways that are not natural for them.

Flight zone

One of the most basic concepts in handling sheep is the flight zone. All animals have a flight zone - an animal's personal space. It is where the animal feels comfortable and unthreatened. When a person is outside the animal's flight zone, the animal will turn and face the handler. It is best to work on the outside of an animal's flight zone. If the flight zone is penetrated too deeply, animal behavior can be unpredictable and dangerous. Sheep are not large, but they are quick on their feet and strong for their size. Pile-ups can result in small enclosures, causing injury to the animals, especially the small or weak ones.

Sheep that have not had much human contact will have a large flight zone, whereas pet sheep may not have a flight zone. Sheep confined to a small space will have a smaller flight zone than sheep confined to a large area. Frequent, gentle handling tends to diminish the size of the flight zone. At the same time, sheep have excellent memories and can remember rough handling.

Point of balance

Point of balance is another important sheep handling concept. The point of balance is at the animal's shoulder. All species of livestock will move forward if the handler steps behind the point of balance. They will back up if the handler stands in front of the point of balance. Many people make the mistake of standing in front of the point of balance while trying to get livestock to move forward through a chute. Sheep will usually refuse to move if they see people up ahead.

Moving sheep

Most sheep will come when they think they are going to get grain to eat. To move individual sheep, hold the sheep under its jaw and push its dock ("go-button"). If the sheep are halter-broken, moving and handling is relatively easy. Attempting to lead a sheep that is not halter-broken is usually a futile exercise.

Although pet sheep are difficult to drive, they make good lead sheep. If the sheep aren't familiar with where responders want them to move, several people acting as herders may be needed. Always move sheep slowly, calmly, and quietly. Do not allow splinter groups to develop.

Catching sheep

In an overturn situation, responders may need to catch an individual sheep. Using gates and panels to make a small catch pen can be useful. Make the pen small enough so that you do not have to chase the sheep. The smaller the catch pen, the easier to catch the sheep. The more sheep are chased, the harder to catch them, not to mention the unnecessary stress affecting all parties.

Once the sheep are in the catch pen, maneuver them into a corner and use your arms or a portable gate to form a visual barrier. Always approach sheep calmly and slowly. Cup your hand under the jaw of the sheep you want. Grab the bony part of the jaw, not the throat. Point the sheep's nose upward to stop its forward motion. If you keep the sheep's head up, you will be able to maintain control of it. Sheep have a lot more power when their head is down. You can also use a shepherd's crook to catch a sheep by the neck.

If you cannot get close enough to the sheep to grab it under its jaw, you can reach for its hind leg or rear flank. Reach for the hind leg above the hock, then move your other hand up to control the head as soon as possible. Adult sheep are able to kick strongly, so this method works best for small sheep or young lambs. To catch an adult sheep, it is better to grab the rear flank. A leg crook can also be used to catch a sheep by the leg. The leg crook is especially useful in open areas.

Never try to catch a sheep by its wool. Not only is that painful to the sheep, bruising of the carcass may result.

Restraining sheep

There are many different ways to restrain a sheep. Once you've caught the sheep, you can press it against a wall or straddle it to limit its movement. A halter is one of the easiest ways to restrain a sheep for treatment or transport.

Tipping sheep

If you want to gain access to its underside, you'll probably want to set the sheep on its rump. Setting a sheep on its rump is called “tipping.” Sheep in this position struggle very little and are easy to work with. To rest comfortably on its rump, the sheep should be off-center, so that it is sitting on its hip. If the sheep struggles, place a hand on its brisket to move it into a better position. There are several ways to tip a sheep, depending often upon the size of the sheep. Below is a common method for tipping sheep.

How to tip a sheep
1. Stand to the side of the sheep. 2. Hold the sheep's head in your left hand by placing your hand under its jaw. 3. Your left knee should be near or just behind the sheep's left shoulder. 4. Your right leg should be touching the sheep's side near its left hip. 5. Place your right hand on the sheep's back over the hips. 6. Turn the sheep's nose away from you towards its shoulder. 7. You should feel the weight of the sheep lean against your legs.

8. Put pressure on the hips with your right hand so the sheep cannot pick its back feet off the floor.
9. Take a step back with your right leg.
10. The hind leg of the sheep should start to go down.
11. Continue to bring the head around until the sheep is sitting down with its back leaning against your legs.

Tipping larger sheep can be more difficult. A large sheep can be tipped by reaching underneath its body and grabbing its farthest legs, until it drops to its rump. Sometimes this is a two-person job. Small sheep or lambs can usually be tipped by holding them under their front legs, lifting them, and using a knee to push their rumps out.

Restraining devices

Mechanical restraining devices, if available, make it easier, faster, and safer for one person to handle a sheep. A gambrel restrainer is a device made out of PVC plastic. It is placed over the sheep's neck and has slots on either side to hold both front legs of the sheep. Without the use of its front feet or the ability to raise its head, the sheep is immobilized. Hunters use gambrels to hang animal carcasses.

A sheep "chair" holds a sheep on its rump. The chair consists of a metal frame with a plastic netting or mesh that is attached to allow treatment of injuries. The frame is hooked over a gate or leaned against a building. The sheep is backed into the chair, until it "sits." The chair is laid out flat and the sheep's legs are tied to the frame.

A trimming or blocking stand can be used to restrain a sheep for evaluation prior to relocation. Stands allow working on a sheep without bending over. A neck piece holds the sheep secure. A turning cradle or tilt table squeezes the sheep and turns it on its side or upside down.

While all restraining devices will cause some degree of stress, they should not cause pain to the sheep. Sheep will remember bad experiences and the person causing their pain.

Sheep handling equipment

A small flock of sheep can be handled while they are crowded into a small pen. For a larger flock, a handling system is recommended. A handling system is a set of inter-connecting working pens in a line and leading to a transportation vehicle.

Sheep handling systems can be constructed out of wood, steel (galvanized or painted), or aluminum. They can be portable facilities. Handling systems that work for sheep are usually suitable for goats. The complexity of a sheep handling system usually depends upon the flock size and the need for handling. The basic components of a handling system are a gathering pen, crowding pen, chute, and sorting gate.

Gathering pen

The gathering pen is a large enclosed area that is used to receive the sheep before they are put into another vehicle. It may need to be big enough to hold all the ewes and their lambs at one time. Five to six square feet per ewe and 3 to 4 square feet per lamb is recommended. The panels and gates used to make the gathering pen should be open.

Crowding pen

The crowding pen is used to direct sheep into a chute. It can also serve as a catch pen for small flocks. Crowding pens can be circular or rectangular in shape. The sides should be solid, so that the sheep will not be distracted and will follow their flock-mates into the chute.

Chute

The chute is intended to move the sheep, usually single file. The front end of the chute should be kept open so that the sheep don't see a dead end. Sheep must always think there is a way out. Once the chute is full, the responder usually stands outside of it and reaches over the side to examine injuries.

Young lambs will flow through the handling system more easily if they are with well-trained older sheep. If identified, a lead animal can also be used to get the flock started through the chute, which should be at least 8 feet long and not more than 36 inches high, otherwise the responder won't be able to reach over it.. Proper chute width is critical and must be narrow enough so that the sheep cannot turn around. Most chutes have sloping and/or adjusting sides to accommodate

different-sized animals and fleece lengths. Anti-backup devices can be installed to prevent the sheep from backing or piling up. At the end of the chute, there should be a sorting gate that leads to a loading ramp.

GOATS

How do goats differ from other livestock?

1. Goats are more difficult to handle than cattle or sheep when using handling equipment.
2. They do not flow through the system as easily and they stress more easily.
3. When they are frightened, they may lie down and sulk and pack in a corner, risking injury to other goats.
4. They can become aggressive toward each other.
5. They move in family groups, with the older females moving first.
6. They may need higher gates than sheep and will find any escape spots in the handling system.

Basic concepts of goat handling

Flight zone

The flight zone is the goat's personal space and is where it feels comfortable. The size of its flight zone depends upon its degree of tameness or wildness and how calm it is. It may also vary according to the size of the enclosure. When a person enters a goat's flight zone, the goat will move. When the responder is on the outside of its flight zone, the goat will turn and face the person and will maintain a "safe" distance.

Approaching the goat's head will cause the flight zone to increase. Responders should not penetrate too deeply into a goat's flight zone because it may bolt and may become unpredictable, risking injury to itself and the responder. It is best for the person to work on the outside of the flight zone, which will diminish in size with frequent, gentle handling.

Blind zone

Though goats have excellent peripheral or wide-angle vision (up to 300°), they have a blind zone behind their shoulders. They do not like you to stand in their blind zone and they like to know what or who is pressuring them. The goat will likely move forward when you stand in its blind zone.

Point of balance

The point of the shoulder is the animal's point of balance. All species of livestock will move forward if the handler stands behind the point of balance. They will back up if the handler stands in front of the point of balance. Walking quickly past the point of balance at the animal's shoulder in the opposite direction of the desired movement is an easy way to induce it to move forward.

Handling goats

Tame goats, in addition to having a smaller flight zone, experience less stress when being handled. However, they can be difficult to drive, although they can be led with a halter or bucket of food.



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Horns

Horns can be both an asset and a liability in goat handling. Goats can be restrained using horns. Responders should restrain the goat by holding the base of the horn, not the tips. Goats should never be caught or dragged by the horns or hair. Keeping the horns tipped or blunt may help to prevent injury to the responder, as well as to other goats.

Safety when working with goats

Care must be taken when working with any type of livestock, as animal-related incidents are the leading cause (30%) of first responder injury. Although goats are small in comparison to cattle, swine, and horses, injuries

to responders do still occur. In general, long sleeved shirts and long pants may help to prevent injury. As well, steel toed shoes or boots are recommended.

Be a "Goat Whisperer"

The key to handling goats, or any livestock, is to work in harmony with their natural behavior and to practice "low-stress" handling. Responders should be calm and patient when working with animals and should speak softly and in a low tone. Responders should move slowly and deliberately and not rush the goats. They should move back and forth in a straight line and not haphazardly when working with livestock.

SWINE

During livestock emergency situations involving pigs, tasks requiring the handling and restraint of the animals are mandatory. Having a basic understanding of pig behavior will allow for more effective efforts, thereby minimizing stress on the animals and reducing the risk of injury to responders.

Commercial Livestock Transportation Accident Statistics

- 59% of accidents occurred between midnight and 9am.
- 27% of the accidents documented were swine.
- Of these: • 80% involved finished/market pigs.
- 84% of the trailers rolled on the right hand side.
- 80% were single-vehicle accidents.
- 85% were caused by transporter error

Basic Pig Behavior

Understanding basic pig behavior and body language will help contribute to a safe and positive experience for both the pigs and the emergency responders. A significant portion of a pig’s behavior can be attributed to natural instinct and is further impacted by the age, gender, genetics, health status, environment, and previous experiences of the pig. Calm pigs are easier to handle than excited, agitated pigs. Handling will be easier, and pigs will be less likely to become agitated and bunch together if responders use basic behavioral principles. An important part of effectively using pig behavior during emergency rescue procedures is learning

how the pig perceives and responds to the handler in different situations and environments.

 Swine are gregarious and social animals.

• They have a natural tendency to follow each other and maintain visual or body contact.

• Isolation from a social group is very stressful for pigs.

 They will establish a social order, with one animal becoming the dominant individual for the group.

• If a pig is removed or added, the group will fight to re-establish social order.

 Swine have an inquisitive nature and spend much of their time in forage-related activities, such as rooting, grazing and exploring with their snout.

• They like to chew on objects, including each other's ears or tails at times.

 Pigs are unable to sweat and are therefore very susceptible to hot temperatures or conditions. Avoid handling animals under these conditions.

 Pigs have a strong natural urge to escape. • Small gaps between pens, alleys, ramps, side gates, chutes, may encourage a pig to escape

• During these escape attempts, pigs frequently injure themselves.

 Swine prefer lighted areas, opposed to darkness; this can be used to encourage movement (e.g., facilitate loading). Pigs will grunt or bark when agitated and may squeal loudly when restrained or frightened.

• Hearing protection should be used. Avoid: Abuse, loud noises, yelling, isolating animals and distractions.

 Use slow, deliberate movements

 Allow animals to walk at their own pace.

 Non-slip footing is critical.

 Primary movement aids may be helpful:

- Flags, plastic paddles, panels
- Frequent electric prod use is detrimental
- Do not kick the pigs or use sticks/prods to directly hit the pigs.

 Minimize or avoid distractions, such as shadows, reflections, moving objects, air drafts, people, other noises.

 Piglets

- Pick up by hind leg and carry
- Avoid swinging
- Support their chest, if moving a distance
- Alternative: Place piglet over forearm with piglet's chest in palm, legs hanging on either side of arm
- Never pick up by the ear
- When setting animal down, lower it gently, front legs first
- Piglets can also be herded using noise shakers or pig sorting board and flight zone principles.

 Grower/Finisher (50-250 pounds)

- Handlers should work in pairs
- Move animals in small groups (5 or 6 pigs)
- Utilize flight zone principles
- Use sorting boards to turn or stop pigs
- Watch for fatigue, open-mouthed breathing, inability to move, or splotchy skin

 Male pigs/boars

- Require extra precautions: animals can be quite aggressive
- Move or load individually

• Pen separately to prevent fighting injuries.

Sows

• Often older and large in size; will require extra time for movement

• Only move 2 or 3 sows at a time.

• Increased aggression during estrus or at/near farrowing; be aware of where sows are in their reproductive cycle; handle cautiously.

As with all livestock, three basic characteristics of the individual pig need to be considered:

• Flight zone

• Point of balance

• Senses – sight, hearing and smell.

Flight Zone

The flight zone is the area around an animal that it considers its individual space. Pigs try to maintain a safe distance between themselves and their handlers. That safe distance varies among pigs, from moment to moment for each pig and with even minor changes in handler behavior and body language. A pig's flight zone may decrease in size with frequent, positive human interaction. The more threatening the responder, the greater the distance pigs want to maintain. When a responder gets too close or too threatening, pigs get scared or defensive, and their body language and behavior change. Responders need to recognize cues that the pigs are getting scared and release their pressure to let the pigs calm down and stay responsive.

Point of Balance

Pigs use this to determine which way to move away from the handler as long as the pig has space to move away, and the responder allows it to move away. Typically, the point of balance is located at a pig's shoulder, but this may change, depending on the environment. There are many conditions where the point of balance will not accurately predict how a pig will respond. There are situations where best results are achieved by working ahead of pigs and letting them circle past, for example, as

they move out a gate . A common error responders may make is attempting to move the pig forward while standing in front of the pig and tapping it on the rear or pressuring it to move forward. Responders should not move, block, or interfere from a forward position when another responder is attempting to move pigs past them. Pigs may balk and refuse to move if they are driven towards visible people.

Senses

A pig relies on its sense of hearing and smell to acclimate itself to its surroundings and uses sight to complement information gathered by hearing and smell. The blind spot exists because a pig's eyes are on the sides of its head. A pig's field of vision is approximately 310 degrees, leaving the blind spot directly behind it. Pigs want to see anything that is a potential threat or source of pressure. They try to keep responders out of their blind spots. Pigs hold still and use their hearing to track people they can't see. Handlers have to notice what pigs are paying attention to in order to move them effectively.

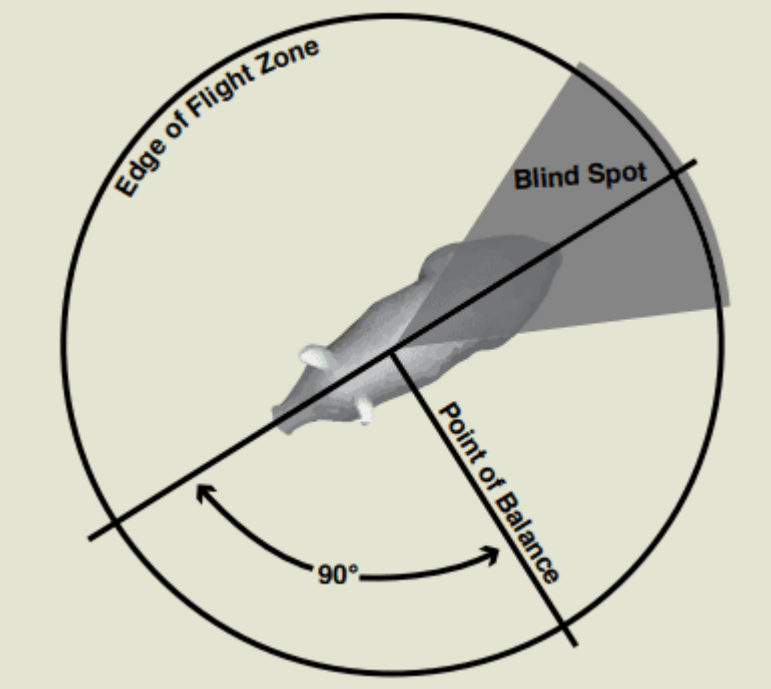


Figure 1 .1 shows the flight zone, point of balance and blind spot of an individual pig .

When pigs are moving up a loading ramp, the point of balance will be at the shoulder, but the flight zone should still be observed so the pig is not crowded and can get release from the responder's pressure. Responders inside trailers typically work in especially stressful conditions for both the humans and animals.

For example:

• Handling groups instead of individual pigs.

• Absence of a chute to prevent pigs from turning around.

• Confined spaces that require responders to work inside pigs' flight zones and that limit pigs' ability to move away from them.

• Multiple people involved during the unloading and reloading of pigs.

Changing any of these conditions changes how pigs respond to the responder. When working with groups of pigs, in confined spaces or with additional people present, the pig's ability to move away from the responder is restricted. Under these conditions, responders can no longer depend on the point of balance and automatically assume that pigs will move away from this pressure to their flight zone. Instead, responders must understand how pigs' behavior is influenced by:

• Fear levels

• Herd behavior

• Presence of additional people

• Responders' use of pig-handling tools

• Environmental influences

Each factor influences pig behavior independently and in combination with the others.

Body Language

Pigs show what they are paying attention to with their body language, heads, eyes and ears. Specifically, responders should note where pigs are looking, how they are bending or twisting their bodies, how their heads and ears turned or cocked, and whether they are listening intently. Pigs track the responders more closely as the

responders become more threatening, the pigs become more stressed, or as the space they are working in becomes more confined. In confined spaces or when pigs are stressed, a responder's pressure tends to hold pigs' attention rather than drive pigs away. Pig body language changes as they go from calm to highly excited. Good animal handlers can read this body language and adjust their actions accordingly.

Releasing pressure refers to any action that reduces the level of threat responders pose to pig behavior and often involves giving pigs more time and space.

Disposition of Pigs and Their Response

Calm: Calm pigs are able to be a safe distance from the responder and feel release from pressure.

- Holds head and ears low, body relaxed.
- Moves at a walk or trot with exuberant outbursts if excited but not scared.
- Attention is not strongly focused on the responder.
- May make low-pitched vocalizations.

Mild Fear or Defensiveness: Pigs show mild fear or defensiveness because the responder is getting too close or not giving enough release from pressure.

- Has raised heads and ears.
- Moves away but with increasing attention towards the responder.
- Has an expanded flight zone.
- Possible brief increase in speed.
- Will calm down if pressure is released.
- Will become more fearful or defensive if pressure is maintained or increased.

Heightened Fear or Defensiveness: Pigs show heightened fear or defensiveness because the responder is too close or using too much pressure in a place where the animal is unable to get release.

- Full attention is on the responder.

• Stops, backs up, turns back or tries to get past the responder because its efforts to move away aren't working.

• Shuts down and refuses to move: This is a defensive response different from being too tame or fatigued.

• Strong tendency to circle or bunch up and difficult to sort, separate, or control.

• Will calm down after some time if pressure is released.

• Will escalate to extreme fear if pressure is maintained or increased.

• High-pitched vocalization.

Extreme Fear or Defensiveness: Pigs show extreme fear or defensiveness when they are unable to get release from the responder.

• Panics.

• Willing to run under, over or through responders and obstacles.

• Scrambles and shows out-of-control movement.

• Refuses to move.

• High-pitched vocalizations.

• Very strong circling or bunching up and is difficult to sort, separate, or control.

• Show severe stress symptoms, which may lead to death.

In this extreme situation, responders should:

• Pause and let pigs move away.

• Step back and refrain from making physical contact with pigs.

• Soften handler body language to reduce the threat and the distance the pigs require.

• Let pigs circle past (the strongest pressure is in the direction the handler is facing).

• Discontinue making noise.

• Look away from the pig.

º Reduce group size. This is dependent on several factors such as pig size; aisle, door or chute width; and environmental influences. Pigs communicate their level of fear with their heads, eyes, ears, vocalizations, and body.

EUTHANASIA

The decision to humanely end the life of an animal may be necessary in cases of severe injury during a turnover or as a result of disasters such as fire or flood. On-site euthanasia may be the most practical and humane way for a first responder to relieve an animal's pain and suffering if it is unfit to be transported or to prevent drug residues from entering the food supply.

Whenever possible, responders should consult with a veterinarian before deciding to euthanize an animal. A broken leg with exposed bone, or exposed internal organs are severe conditions that likely call for euthanasia. The following questions will help in deciding whether to euthanize an injured animal.

- Is the animal likely to recover?
- Can the animal be humanely transported?
- Is the animal in pain or distress?
- Is the animal likely to recover?
- Can the animal access feed and water?
- Can the animal be humanely transported?

Methods of Euthanasia

Euthanasia must be performed in a way that minimizes fear and anxiety in the animal. Good practice dictates that responders have an ethical and moral responsibility to provide a humane death for animals in their care, without causing additional pain or suffering.

There are three basic methods appropriate for on-site euthanasia: overdose by barbiturate; stunning with a penetrating captive bolt; and gunshot. Each method has advantages and disadvantages. Euthanasia by barbiturate overdose must be performed by a veterinarian. Responders who choose the captive bolt pistol or gunshot method must take precautions to prevent serious injury to themselves and others.

To choose the most appropriate method for your operation, consider human safety, animal welfare, required skills, costs and other factors.

Death must always be confirmed, irrespective of which method is used.

Table 1. Three basic methods of on-farm euthanasia and considerations for each.

Method

Overdose by barbiturate — intravenous administration of a barbiturate

Human safety Restrain the animal**.**

Animal welfare Excellent rating.

Skills required Proper technique for intravenous injection.

Cost Veterinary fee.

Other Can only be administered by licensed veterinarian/restrictions regarding carcass disposal.

Method Penetrating captive bolt — penetration of the skull and brain by captive bolt, followed with bleed-out by cutting all the main arteries and veins in the neck.

Human safety Restrain the animal. Be cautious of falling or thrashing animals.

Animal welfare Good rating. Correct cartridge strength, target site and penetration angle on animal is essential

Skills required Correct and safe use of captive bolt pistol. Correct and safe use of sharp knife.

Cost Low — after purchase of captive bolt pistol.

Other Results in some body movement. Results in large volume of blood that requires proper disposal.

Method Gunshot — penetration of the skull and brain by bullet

Human safety Restrain the animal. Be cautious of falling or thrashing animals. Be extremely cautious about bullet ricochet.

Animal welfare Good rating. Correct size of firearm and ammunition, and correct target site and penetration angle on animal is essential.

Skills required Correct and safe use of firearm.

Cost Low — after purchase of firearm.

Other Results in some body movement and blood. Requires firearm acquisition certificate. Local by-laws may prohibit the use of firearms

Penetrating captive bolt and gunshot

An experienced person can produce rapid unconsciousness in an animal by using a penetrating-type captive bolt or shot from a firearm which is aimed at the correct target site and penetration angle for the species and age of animal. The same anatomical targets and penetration angles are used for both a penetrating captive bolt pistol and a firearm (see Figures 1, 2, 3).

Penetrating captive bolt

- Ensure the animal is securely restrained.
- Use the appropriate cartridge strength for the animal (refer to the manufacturer's manual).
- Place the captive bolt pistol firmly against the animal's head on the target site, and shoot.
- Be careful to avoid injury from thrashing limbs when the animal collapses.
- Cut both the carotid arteries and jugular veins in the neck with a sharp knife to bleed-out the animal after stunning. These arteries and veins are on both sides of the throat.

Gunshot *Ensure the animal is securely restrained.*

- Shoot out in the open when possible.
- Have a backstop (for example, an earth berm, manure pile, or something that will stop the bullet if you miss or it over-penetrates) behind the area.
- Use a firearm and ammunition that are appropriate for the size, age and type of animal. The ammunition used to euthanize an animal must be powerful enough to make the animal immediately unconscious and to penetrate the

head deeply enough to destroy the areas of the brain that control breathing and circulation.

- A .22 caliber firearm, using "long-rifle" hollow-nosed ammunition or a .38 caliber firearm can be used to successfully euthanize sheep and goats.
- Hold the firearm 5-25 cm (2-10 in.) from the target site. To avoid personal injury, do not place the firearm muzzle against the animal's skull. Aim the shot down the line of the spine so that the bullet will enter the brain stem (the beginning of the spinal cord), and shoot.
- Be careful to avoid injury from thrashing limbs when the animal collapses.

Target site and penetration angle

The target site for euthanizing sheep and goats without horns is at a point on the forehead at the mid-line, just above the eyes, as shown in Figure 1. The shot must be directed at an angle down the line of the spine and into the bulk of the body (or where the body would be if the animal were to be standing normally).



Figure 1. Target site and penetration angle for sheep and goats without horns. Do not shoot between the eyes! Correct positioning when using a firearm or captive bolt is very important. The firearm or captive bolt is applied just behind the poll, aiming towards the angle of the lower jaw.

Heavily horned sheep and goats should be shot behind the poll, directing the shot in a path downward just behind the eyes and towards the nose, as shown in.

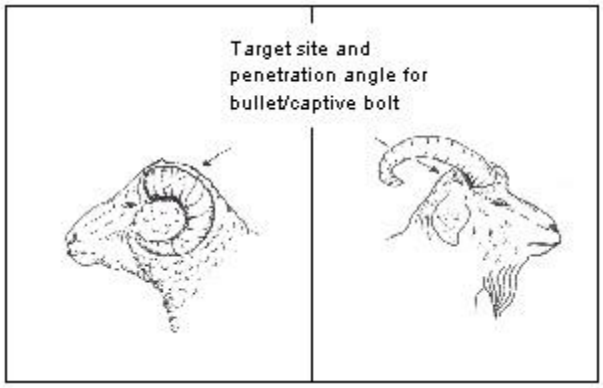


Figure 2. Target site and penetration angle for sheep and goats with large horns.

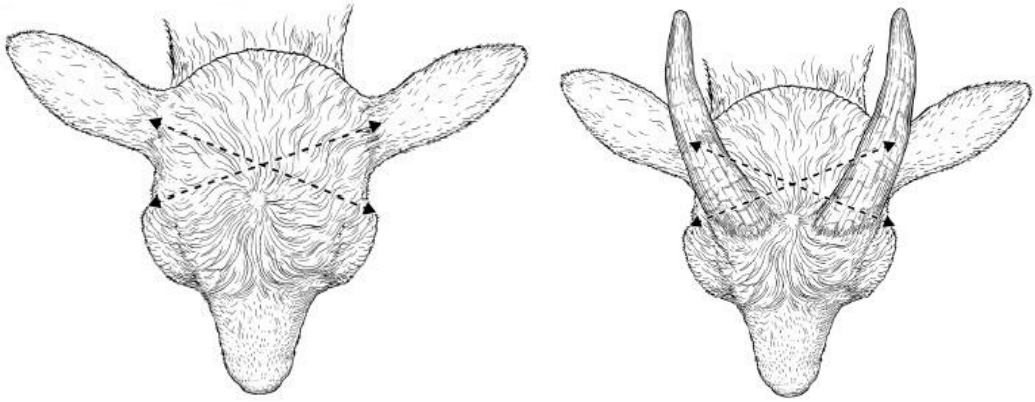


Figure 3. Goat. If using gunshot, the target is just slightly above a line drawn across the eyebrows, and aiming towards the tail. If using a captive bolt, the animal should be snared if possible to steady the head; the captive bolt is applied perpendicular to the skull for maximum concussion. Do not aim towards the tail.

Confirmation of death

The animal's death should directly following euthanasia. A standing animal should immediately collapse. Its muscles may involuntarily contract, usually for no longer than 20 seconds. After this, it may show some poorly coordinated kicking or paddling movements before the muscles completely relax.

Check the animal for breathing, heartbeat and blinking response (corneal reflex). There should be none. The eyes should be fixed and dilated. To check the blinking response, touch the surface of the animal's eye (the cornea). Any eye movement or blinking shows sustained or recovering brain activity. If there is any sign of

breathing, heartbeat or blinking, repeat the euthanasia method or use an alternate procedure.

Conclusion

Euthanasia, however unpleasant, is an inevitable component of animal injury. Developing an action plan that is updated regularly helps minimize the stress associated with carrying out euthanasia and most certainly prevents the unnecessary suffering of animals.

EXHIBIT B

LAKE COUNTY FIRE PROTECTION DISTRICT

14815 OLYMPIC DRIVE, CLEARLAKE,
CALIFORNIA 95422
707-994-2170 PHONE 707-994-4861 FAX

INCIDENT REPORT

Date of Incident: 10/06/2023

Time: 1235 through 2235

LCFPD Inc. No: 23-CALNU-019133 / Location: East Hwy 20 @ MPM 38.2

Incident Name: Cache Command / Incident Description: Overturned Cattle Truck

Agencies: Refer to agency list

Incident Narrative: Incident Commander LCFPD Chief Sapeta:

Station 65/70 dispatched mutual aid to NSFPD Station 75 to a reported overturned cattle truck around MPM 38.2 east Hwy 20. Additional reports from the ECC advised the truck is loaded with cattle, possible non-injury. On my arrival at the scene, I reported a large semi-cattle truck overturned and assumed command. I was met by several bystanders that advised the driver was uninjured and self-extricated, but there were 79 heads of cattle with several injured and possibly deceased. I updated the ECC with a request for Animal care, DFW, and veterinarians to assist with euthanizing injured cattle. The trailer was a heavy-duty aluminum two-level trailer with cows on the top and bottom with multiple compartments.

Bystanders Jeremy (Donahue Construction) on scene advised they had called for several stock trailers that were responding Potter Valley and Orland areas. Additionally, they notified the State Branding Inspector, and he was responding from the Potter Valley area as well. I began to size up and strategized a plan, bystanders were looking at various areas of the trailer to gain access. On arrival of E-1488, the crew took over assessing access into the trailer. An additional CAL FIRE engine was requested, and I was gathering additional information from the Driver that stated he picked up the cattle from Ferndale Humbolt Cattle Auction Yard enroute out of state. The driver stated the trailer began to list as he entered the curve and was unable to keep the trailer upright. I advised the driver to contact the owner to obtain additional stock trailers.

I made additional requests for Cal Trans with front loader and personnel to assist with traffic. I also requested an update on the initial resource request. On arrival of CHP, I briefed them on the situation and what resources were requested and responding. On arrival of BC-803 I briefed him on the situation and plans, he advised C-800 responding and was working on stock trailers, panels, and animal care and control. Crews began to contain and control the fuel leak from the saddle tanks, which had approximately 50-75 gallons of diesel. Chris USDA trapper was on-scene and was working on the condition of the cattle and what to do with them as they are extricated. On arrival of C-800 he was briefed and assumed operations. He coordinated with on-scene resources and crews began extrication operations. On arrival of Lt. Wells, he established the Star Link system, which provided cellular and data capabilities which enhanced our communication capabilities and decreased radio traffic, this was instrumental throughout the operation.

On arrival of Animal Care and Control the panels were assembled in a corral style to keep the cattle away from the Hwy. Crews began to cut the rear doors of the trailer but was slow and a challenge to breech. Crews were working on various areas of the trailer. As stock trailers and ranchers arrived, they coordinated efforts with C-800, additional stock trailers were requested from Lake and Colusa County along with additional veterinarians, per ECC none of the veterinarians would respond without guaranteed payment, which I was unable to provide. On arrival of the Branding inspector, he was briefed and coordinated with the driver regarding the cattle and interacted with C-800. I was advised the cattle would be transported to the Colusa area for staging and treatment. The first couple of loads had approximately 29 cows and were transported to Broken Back Ranch in Williams. On arrival of the Middletown Veterinary staff, they were briefed and coordinated with C-800, during the next hour period several discussions of euthanizing of cows with significant injuries and the discussion went between the veterinarians, USDA trapper, LCSO, CHP, and Branding Inspector.

I continued to follow up and coordinate the deceased cows regarding getting them transported from the site. I met with the driver, but he was unable to assist as he was unfamiliar with the area. I met with the Cal Trans representative and what they could do to assist. They advised they could assist with their loader to load the cows into a transport privately owned vehicle, but were unable to transport or dispose of them, so for the time being they were removed and staged away from the scene and away from the traffic of Hwy 20.

I was advised there was over 55 gallons of fuel released but was controlled and contained to an area approximately10' and would require a response for clean-up. I met with the CHP-DOT officer who advised he would contact the SWC for a control number. On arrival of LCEH they were briefed and provided a walk through the area of the incident and of the Haz mat release. They advised me they contacted the SWC and working on a control number and were and cleanup operations with a the SWC. I confirmed the release did not enter the adjacent waterways. e it did not enter the adjacent creek areas. I advised it was controlled on the saddle tank and entire release contained to an area of approximately 10 feet.

I continued to make calls for additional stock trailers throughout Lake, Mendocino, and Colusa County and was able to secure three trailers from Lake County and three from Colusa County. In speaking to Chief Gilbert with Williams Fire has a heavy rescue staffed and ready to respond if needed, in speaking with C 800 I made a request for their heavy rescue and the NSFPD rehab unit. Crews continued to perform extrication operations on various areas of the trailer and utilized the Cal Trans front loader to remove the deceased cows.

Steve Hilger with Ghilotti Construction traveling by the incident pulled in advised his service truck has various tools and crane if we needed assistance, I accepted the assistance and directed to C-800 to coordinate with the operations. Additional trailers arrived but were staged due to the delay in extricating the remaining cattle from the trailer. Over the next couple of hours, I believe there were approximately an additional 16 cows extricated and transported to the ranch in Williams.

Crews continued to gain access through the roof, sides, and floors of the trailer to gain access, but was a slow process. Several circular saws, skill saws and hydraulic tools were utilized throughout the operation. The thick aluminum two floor construction of the trailer created extended durations to make access to the compartment and floor areas. Crews were requested to stay hydrated and periodic rest-work cycles due to the environmental temperatures and semi-confined work areas.

I made a request for a hydration module from the ECC and in a follow-up phone conversation it would be an extended response, but they would coordinate with B.C.-1418 and let me know. In follow up B.C.-803 was responding with the hydration module ETA of 45 minutes.

In speaking with LCEH they had coordinated a dump truck and would be coordinating the transport and disposal of the deceased cows. We were advised that the cows that were deceased and those that were dispatched with a firearm had to be separated from the cows that were chemically euthanized as the disposal requires different methods and accountability.

During the operations I believe three cows did escape the incident site with one captured along Hwy and two remaining missing. Additional cows were dispatched within the trailer and areas were secured prior to the

operation. Extrication procedures continued to approximately 2130 hours with the removal of the last three surviving cows. The balance of the deceased cows was removed and transported off site. LCEH, LCPW, LCPS were coordinating the transport, short- and long-term disposal.

At the conclusion of the incident 43 cows were successfully extricated and alive with I believe two missing and the balance deceased.

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INCIDENT LOCATION: MPM 38.2 East Hwy 20

WEATHER: Temp: 93 R.H.: 33% Wind: 1-3 mph W/SW

SPECIAL HAZARDS: Several injured and deceased cows, Heat, and Trailer Construction

VALUES AT RISK: 79 Head of Cattle

ORGANIZATIONAL STRUCTURE: Unified with LCFCA-CHP-LCSO-LCSO-OES-CAL FIRE-Cal Trans-Animal Control-State Branding Inspector

OPERATIONAL STRATEGY: Extricate and save as many as possible.

SAFETY: Working in & around injured & stressed livestock, environmental heat, trailer construction.

Mission Objective

Size up, Establish Command, resources request and hazard assessment.
Initiate livestock assessment.
Establish secure perimeter.
Initiate extrication operations.
Initiate temporary animal refuge area.
Initiate temporary staging area of resources.

Participating Agencies
NSFPD, CAL FIRE, LCFPD
CHP, LCSO, LCSO-OES
Lake County Animal Care & Control
DFW, USDA
Williams Fire
Cal Trans
State Branding Inspector
Middletown Animal Medical Center
LCEH, LCPW, LCPS

Respectfully submitted.

Willie Sapeta, Fire Chief
Lake County Fire Protection Distric

CACHE COMMAND

AFTER-ACTION-REPORT

The overwhelming support and coordination with the various responder agencies, volunteers and support agencies was greatly appreciated and respected by the command staff throughout the 10-hour operational period. This was an unusual incident and overwhelmed all resources throughout the operational period. We as command staff have learned a great deal and are working collectively to revise our operations. I would guestimate we have several hundred large animal related trailers travel our Hwy 20 corridor monthly. This includes horse trailers, large cattle trucks, and routine ranchers moving their livestock and we need to take our lessons learned and prepare for the potential future.

1. **Command & Control:**
   a. Designate & Maintain UCP: "truck-bed" with agency representatives.
   b. Clearly defines command/general staff positions w/roles-responsibilities.
   c. Delegation of tasks.
   d. Timekeeper with scribe.
   e. Check-in accountability.
   f. Rehab of resources.
   g. Request specialized resources U.C. Davis, other large animal response teams.
   h. Consider veterinarians from Mendo, Colusa, Yolo counties.
   i. Large animal incident check list.
   j. Clearly defined staging areas for equipment and personnel.

2. **Operations:**
   a. Earlier request for Williams heavy rescue & specialized equipment.
   b. Earlier request for rehab unit/resources
   c. Monitor extrications Ops & were the tools effective and were other options available.
   d. Earlier request for stock trailers.
   e. Clearly define roles-responsibilities and unity of command.

3. **Communications:**
   a. Star Link game changer needs to be auto dispatched in future.
   b. Reorganized agency representatives.

4. **Safety:**
   a. Rehab of personnel w/rest-work cycles.
   b. Cooling of animals and responders.

5. **Improvement Items:**
   a. Establish a volunteer list to assist with such incidents, provide training for responders and volunteers for handling large animals in all scenarios, such as traffic collisions, fires, and other emergency or disaster incidents. Include the UC Davis extension program and OES sections, also consider adjacent counties resource availability, such as Napa, Sonoma, and Butte.
   b. Establish a resource list of stock trailers, ranchers, ranches, and facilities to assist in the coordination of immediate handling, removal, transport, and storage of large animals.
   c. Establish and adopt a large animal incident checklist with trigger points for resource requests, such as veterinarians, trailers, heavy rescue, etc.
   d. Evaluate existing extrication equipment, procedures, and work to acquire other equipment to mitigate future incidents.
   e. Acquire a training prop of the typical horse trailer, livestock trailer and the large commercial livestock trailer for responders to practice and hone their skillsets.
   f. Establish a list of large animal veterinarians in the Lake-Colusa-Mendo-Yolo counties who may be available to respond and assist.

g. Early request for rehab for personnel.
h. Establish a timekeeper, scribe, and photographer to support command/general staff.
i. Consider the various scenarios we may encounter summer/winter and waterways, such as creeks or lakes.
j. Reach and coordinate with area livestock auction yards, rodeo rough stock owners to build a network of connections for resource needs.

6. **Next Steps.**
   a. Implementation of Improvement Areas.

LAKE COUNTY FIRE PROTECTION DISTRICT

14815 OLYMPIC DRIVE, CLEARLAKE,
CALIFORNIA 95422
707-994-2170 PHONE 707-994-4861 FAX

INCIDENT REPORT

Date of Incident: 2/11/2024

Time: 1925 through 0330

LCFPD Inc. No: 24-CA-LNU-002971/Location: East Hwy 20 @ Mule Skinner

CHP Inc. No.: NCIC: 9151 Officer: 23648

Incident Name: Skinner Command / Incident Description: Overturned Cattle Truck

Agencies: Refer to agency list

Incident Narrative: Incident Commander LCFPD Chief Sapeta:

Station 65/70 dispatched mutual aid to NSFPD Station 75 to a reported overturned cattle truck near Mule Skinner and East Hwy 20. Additional reports from the ECC advised the truck is loaded with cattle, possible non-injury, with additional reports of driver entrapment and cows on the road. Coordinating with C-800 we requested Animal Control, State Branding Inspector, Veterinarians, Stock trailers, and additional resources from Cal Fire and Colusa County. Ambulance 7511 on arrival advised semi-truck with cattle on its side and cows on the roadway. On my arrival I advised as reported a large semi-cattle truck overturned with cows east and west of the incident. Radio communications were broken with the ECC, and it was difficult to receive or transmit information. I was met by Ambulance 7511 and several bystanders that advised the driver was UTL and there were approximately 30 heads of cattle with several injured and possibly deceased, additionally one bystander was injured by the loose cows and was in the back of ambulance 7511 being evaluated. I updated the ECC with a request for veterinarians to assist with euthanizing injured cattle. The trailer was a heavy-duty aluminum two-level trailer with cows on the top and bottom with multiple compartments. There was also a fuel leak of approximately 30 gallons on the roadway with potential for 100 gallons, we built an earthen dam/berm with absorbent materials and dirt along the eastbound shoulder, which appeared to contain the material and on arrival of E-6561 the leak was stopped on the lower saddle tank, but the upper saddle tank continued to leak, but the dam/berm appeared to be holding and the EMT-P on E-6561 transitioned to patient care on ambulance 7511.

I was advised of a second T/C blue Honda civic vs a cow with occupants injured. I redirected M-7011 to continue Eastbound to Walker Ridge and personnel in my utility to respond Westbound to 5 plus miles to look for the vehicle. There were several reports of loose cows east and west of the incident. I met with CHP and requested a hard road closure at Hwy 20 @ 16 and westbound at Hwy 20 @ 53. Per CHP they were short staffed, but resources were responding. Per Colusa resources they were conducting road closures and C-300 had a couple cows secured around Lynch Canyon, but cows located near the Judge Davis recreation area they are trying to get secured.

On arrival of C-800 he was briefed, and we assumed a unified command with the other agencies on scene and conducted a short incident briefing. He coordinated with on-scene resources and crews began extrication operations. The injured bystander was placed on M-7011 who had located and was transporting (2) from the Blue Honda civic vs cow east of the incident, all patients were transported to AHC. Per ECC the driver had not arrived at AHC and would notify us if he arrived. As resources arrived various stages of operations were underway with scene safety, extrication of the trailer, and additional resource orders. Chief 800 requested the NSFPD support team to augment field safety and operations.

On arrival of Animal Control, they were briefed and coordinated with CHP for the dispatch of a few injured cows. Crews unloaded the panels and assembled in a corral style to keep the cattle away from the Hwy. Crews began to cut the bottom of the trailer but was slow and a challenge to breech. Crews were working on bottom of the trailer as the entire roof was destroyed in the rollover. As stock trailers and ranchers arrived, they advised they coordinated with Broken Box in Williams for the staging of the cows and coordinated efforts with C-800 for the removal and transportation of the cows. Per the ECC none of the veterinarians were available. On arrival of the Branding inspector, he was briefed and advised the driver was UTL. He was able to locate the transportation paperwork on his tablet and it identified a load with 42 heads of cattle.

Additional resources from Lake, Mendocino, and Colusa County arrived with stock trailers, cattle ranchers with horses and miscellaneous equipment to support the operation. The first couple of loads had approximately 12 heads of cows and were transported to Broken Back Ranch in Williams. Over the next few hours an additional 5 heads of cows were removed and transported in additional stock trailers to Broken Back Ranch in Williams.

Chief Ciancio and I continued to follow up and coordinate with the unified command agencies throughout the operations to include establishing one-way traffic control through the incident and various modifications within the operations to ensure the safety to all participants.

Crews continued to gain access through the floor of the trailer to gain access, utilizing circular saws, skill saws and hydraulic tools. Crews were requested to stay hydrated and periodic rest-work cycles due to the potential fatigue.

In coordination with CAL TRANS, they arranged to pick up and store off site an area for the deceased cows for the next couple of days then would coordinate with the trucking company and owner for the final disposition.

During the operations we know several cows did escape the incident site along the Hwy 20 corridor and at the time I was released only had a portion of the load accounted for which is covered in the lower section of this report.

LOAD QUANTITIES: Per Gerry Beeson State Branding Inspector his computer document showed a load of 42 heads of cattle. Below is what was accounted for at the time of my release at 0215 hours was 32 with possible 10 cows unaccounted for.

Per C-300 2 cows secured on BLM property at Lynch Canyon.

a. Per CAL FIRE Drone 4 alive cows just east of the incident on the hill.
b. Per LCACC 2 alive cows east of the incident on the hillside.
c. Per witness 1 cow deceased, just adjacent to the incident in the drainage area.
d. Per witnesses 1 alive cow west of the incident approximately 200 yards up a dirt road.
e. CHP dispatched 2 cows east of the incident.
f. CHP dispatched 2 cows within the incident.
g. Per M-7011 1 cow deceased at the blue Honda vs cow.
h. Trailer No.1: 8 cows @ 2235 hours.
i. Trailer No. 2: 4 cows @ 2335 hours.
j. Trailer No. 3: 2 cows @ 0021 hours.
k. Trailer No. 4: 3 cows @ 0130 hours.

INCIDENT LOCATION: East Hwy 20 at Mule Skinner.

WEATHER: Temp: 42 R.H.: 68% Wind: 1-3 mph W/SW
SPECIAL HAZARDS: Several injured and deceased cows and Trailer Construction

VALUES AT RISK: 42 Head of Cattle

ORGANIZATIONAL STRUCTURE: Unified with LCFCA-CHP-LCSO-CAL FIRE-Cal Trans-Animal Control, and State Branding Inspector

OPERATIONAL STRATEGY: Extricate and save as many as possible.

SAFETY: Working in & around injured & stressed livestock, environmental heat, trailer construction.

MISSION OBJECTIVES

Size up, Establish Command, resources request and hazard assessment.
Initiate livestock assessment.
Establish secure perimeter.
Initiate extrication operations.
Initiate temporary animal refuge area.
Initiate temporary staging area of resources.

PARTICIPATING AGENCIES

NSFPD, CAL FIRE, LCFPD
CHP,
Lake County Animal Care & Control
Williams Fire, Colusa County Resources
Cal Trans
State Branding Inspector

Respectfully submitted.

Willie Sapeta, Fire Chief
Lake County Fire Protection District

SKINNER COMMAND

BRIEF OVERVIEW AFTER-ACTION-REPORT

The overwhelming support and coordination with the various responder agencies, volunteers and support agencies was greatly appreciated and respected by the command staff throughout the 10-hour operational period. This was an unusual incident and overwhelmed all resources throughout the operational period. We as command staff have learned a great deal and are working collectively to revise our operations. I would guestimate we have several hundred large animal related trailers travel our Hwy 20 corridor monthly. This includes horse trailers, large cattle trucks, and routine ranchers moving their livestock and we need to take our lessons learned and prepare for the potential future.

1. **Command & Control:**
   a. We established and maintained UCP: "truck-bed" with agency representatives.
   b. We clearly define command/general staff positions w/roles-responsibilities.
   c. We did a delegation of tasks.
   d. We could have used a timekeeper with scribe.
   e. We did establish a check-in accountability.
   f. We had the NSFPD support team to rehab of resources if needed.
   g. No specialized resources were needed, only stock panels, hoist straps, and veterinarians.
   h. Per ECC no Veterinarians were available, LCACC should consider veterinarians from Mendo, Colusa, Yolo counties.
   i. Large animal incident check list.
   j. We did clearly define staging areas for equipment and personnel.

2. **Operations:**
   a. An early request was made for Williams heavy rescue & specialized equipment.
   b. NSFPD Support team was activated early in the incident for rehab as needed.
   c. We continuously monitored extrications Ops & were the tools effective and were other options available.
   d. An earlier request for stock trailers was made.
   e. We clearly defined roles-responsibilities and unity of command.

3. **Communications:**
   a. Star Link was unavailable.

4. **Safety:**
   a. Rehab of personnel w/rest-work cycles.

5. **Improvement Items:**
   a. Continue to establish a volunteer list to assist with such incidents, provide training for responders and volunteers for handling large animals in all scenarios. Include the UC Davis extension program and OES sections, also consider adjacent counties resource availability, such as Napa, Sonoma, and Butte. *Based on reflex time they may not be an option.*
   b. Continue to establish a resource list of stock trailers, ranchers, ranches, and facilities to assist in the coordination of immediate handling, removal, transport, and storage of large animals.
   c. Continue to review and adopt the LCFCA large animal incident checklist with trigger points for resource requests, such as veterinarians, trailers, heavy rescue, etc.
   d. Continue to evaluate existing extrication equipment, procedures, and work to acquire other equipment to mitigate future incidents.
   e. Acquire a training prop of the typical horse trailer, livestock trailer and the large commercial livestock trailer for responders to practice and hone their skillsets.

f. Encourage the LCACC to establish a list of large animal veterinarians in the Lake-Colusa-Mendo-Yolo counties to guarantee to response and assist.
g. Establish a timekeeper, scribe, and photographer to support command/general staff.
h. Continue to reach out and coordinate with area livestock auction yards, rodeo rough stock owners to build a network of connections for resource needs.

6. **Next Steps.**
   a. Facilitate a meeting with the Lake Animal Care & Control to coordinate response matrix with request for a response contract with local large animal veterinarian facilities for field response.
   b. Continue to seek funding for response trailers and equipment, such as panels to be staged on the east end of the county to decrease response times.
   c. Continue seeking volunteers and maintain training calendar with current team members.



District Attorney's Office Lets Potential Cases Go Unfiled Due to Expiration of Statute of Limitations

SUMMARY

An unknown number of potential criminal cases submitted by County law enforcement officials to the District Attorney's (DA) Office have not been filed in Court because their statute of limitations were allowed to expire, thus preventing prosecution. While these potential cases appear to involve misdemeanors and not felonies, some alleged Driving Under the Influence (DUI) and domestic violence, which often are serial offenses. The Grand Jury emphasizes the importance of staying on top of incoming cases, given the time and attention needed to review each case.

METHODOLOGY

The Grand Jury interviewed law enforcement officials within Lake County and employees of the District Attorney's Office, as well as reviewed lists of potential criminal cases from three law enforcement agencies over a one- or two-year period that had not been filed by the DA's Office due to expiration of the statute of limitations.

DISCUSSION

Early in its term, the Grand Jury was made aware that certain potential criminal cases submitted to the DA's Office by the Sheriff's Department or Lakeport and Clearlake Police Departments were being formally rejected after the applicable statute of limitations (SOL) had expired while the potential case was in the possession of the DA's Office.

In California, if a case is not filed within the applicable statute of limitations – the time limit for filing charges in court after a crime is committed – the DA cannot prosecute it. If the statutory period has passed when a case is filed, a motion to dismiss that case can be filed by defense counsel. The time limits vary depending on the severity of the offense, with misdemeanors typically having a one-year limit

from the time of the event and felonies a three-year limit. Certain crimes, such as murder, treason, and certain sexual offenses, have no time limit.

Four sample Rejection Forms are attached as **Exhibit A** that illustrate the passage of one year between the date that the case was submitted and the date it was rejected.

Another Rejection Form is attached as **Exhibit B**. This particular case would have been charged as a felony, but the deputy DA believed that the charges could not be proved beyond a reasonable doubt. The box checked was "Insufficient Evidence." This form is included to point out that the potential case was submitted to the DA's Office on 3/4/2021 and was rejected on 12/27/2024, 3 years, 9 months later, within the timeframe for a felony, but not if it had been a misdemeanor.

As one detailed example of the types of cases rejected, attached as **Exhibit C** is the list of 45 cases submitted to the DA's Office by the Sherriff's Office that were rejected between January, 2023 and November, 2024 because the SOL had run. The charges and potential penalties for each case are detailed in the following pages. Again, these cases are thought to be misdemeanors.

The Grand Jury recognizes that staffing in the DA's Office has varied and that COVID restrictions required prioritizing cases to prosecute. Cases involving persons in custody and felonies are understandably pursued first. Nonetheless, as one former staffer stated, "You can't just let misdemeanor cases pile up, because you'll never catch up."

What side-effect may not be considered by the DA, however, is the effect on morale of the law enforcement officers who likely spend several hours on investigation and documentation and preparation of files only to learn, often months later, that the potential case sat in the DA's office until the deadline for filing had passed.

Some misdemeanors are "wobblers" and could be filed either as a misdemeanor or a felony. DUI drivers and domestic abusers, for example, are often rearrested for the same offense. If the first arrest was not prosecuted, the Court will be unaware of the prior arrest and may order probation rather than jail time.

Similar Issue in Alameda County

In October, 2024, the Alameda County DA, Pamela Price (subsequently recalled), acknowledged a "mounting backlog" of cases that resulted in 1,006 misdemeanor cases having "languished past the statute of limitations…." [1] Of those, 360 cases had been reviewed by a prosecutor in the DA's Office, but 846 had not been formally reviewed at all. She indicated that her office's case management system had no mechanism or process by which to record the date of the incident and thus no quick way to track when the SOL might run.

FINDINGS

F-1: The Lakeport Police Department, the Clearlake Police Department, and the Sheriff's Department have all had potential misdemeanor cases rejected by the District Attorney's Office in 2023/2024/2025 due to expiration of the statutes of limitation following extended periods without a prosecutor's review.

F-2: Cases unfiled due to expiration of the statute of limitations and lack of review by the DA's Office may negatively impact the morale of the law enforcement officers who spend hours preparing the documents for submission intended for prosecution.

RECOMMENDATIONS

R-1: That the District Attorney utilize a case data management system that tracks the date of the incident and the date of running of the statute of limitations for each potential case filed. (F-1, F-2)

R-2: That the District Attorney commit sufficient staff to review filed misdemeanor cases to prevent a backlog so that the statute of limitations does not run without review. (F-1, F-2)

RESPONSES

Under Penal Code sections 933 (a-c), the following responses are required:

Lake County District Attorney	R-1, R-2	90 Days

REFERENCE Rodgers, J: Alameda County DA Pamela Price vows changes as hundreds of misdemeanor cases languish past statute of limitations. Bay Area News Group, October 16, 2024.

OFFICE OF THE DISTRICT ATTORNEY

County of Lake, State of California

Susan Krones
District Attorney

Bruce Smith
Chief Investigator

REJECTION FORM

INVESTIGATING AGENCY:
If Other:

INVESTIGATING OFFICER(S):

SUSPECT(S):

AGENCY FILE NO(S) : 24-0047

VICTIM(S): State

DATE SUBMITTED: 1/26/2024

DEPUTY D.A.: Hinchcliff

CHARGES: VC 12500(a), 16028(a)
no Lic + no Insurance

DA CASE#(s): 20240314

At the request of your department, we have received the investigative reports relating to the above case. We are of the opinion that the case should **NOT** be filed.

Date of Rejection: 1/20/2025

- ☐ De Minimis
- ☐ Victim does not want to proceed
- ☐ Civil in nature – no criminal intent
- ☐ Cost of prosecution disproportionately high for violation
- ☒ Insufficient resources to prosecute
- ☐ Lack of Corpus
- ☐ Insufficient Evidence
- ☐ Follow-up(s) requested on: , , , were not completed
- ☐ VOP in Lieu of Complaint

EXPLANATION:
This case was assigned to another DDA for review and filing,a nd that was not done. It ws reassigned to me on 1/20/25 for review. The offense date was 1/16/24 and the statute of limitations has now expired, so it cannot be filed.

why?

OFFICE OF THE DISTRICT ATTORNEY

County of Lake, State of California

Susan Krones
District Attorney

Bruce Smith
Chief Investigator

REJECTION FORM

INVESTIGATING AGENCY:
If Other:

INVESTIGATING OFFICER(S):

SUSPECT(S):

AGENCY FILE NO(S) : 24-0052

VICTIM(S): State

DATE SUBMITTED: 1/26/2024

DEPUTY D.A.: Hinchcliff

CHARGES: VC 12500(a) no lic

DA CASE#(s): 20240310

At the request of your department, we have received the investigative reports relating to the above case. We are of the opinion that the case should **NOT** be filed.

Date of Rejection: 1/20/2025

- ☐ De Minimis
- ☐ Victim does not want to proceed
- ☐ Civil in nature – no criminal intent
- ☐ Cost of prosecution disproportionately high for violation
- ☒ Insufficient resources to prosecute
- ☐ Lack of Corpus
- ☐ Insufficient Evidence
- ☐ Follow-up(s) requested on: , , , were not completed
- ☐ VOP in Lieu of Complaint

EXPLANATION:
This case was assigned to another DDA for review and filing,a nd that was not done. It ws reassigned to me on 1/20/25 for review. The offense date was 1/24/24 and the case is now too stale to prosecute, so it will not be filed.

COURTHOUSE 255 North Forbes Street, Lakeport, California 95453 (707) 263-2251 FAX (707) 263-2328

OFFICE OF THE DISTRICT ATTORNEY

County of Lake, State of California

Susan Krones
District Attorney

Bruce Smith
Chief Investigator

REJECTION FORM

INVESTIGATING AGENCY:
If Other:

INVESTIGATING OFFICER(S):

SUSPECT(S):

AGENCY FILE NO(S) : 23-0842

VICTIM(S): State

DATE SUBMITTED: 1/4/2024

DEPUTY D.A.: Hinchcliff

CHARGES: VC 14601.1 Driving on suspened Lic

DA CASE#(s): 20240092

At the request of your department, we have received the investigative reports relating to the above case. We are of the opinion that the case should **NOT** be filed.

Date of Rejection: 1/19/2025

- ☐ De Minimis
- ☐ Victim does not want to proceed
- ☐ Civil in nature – no criminal intent
- ☐ Cost of prosecution disproportionately high for violation
- ☐ Insufficient resources to prosecute
- ☐ Lack of Corpus
- ☐ Insufficient Evidence
- ☐ Follow-up(s) requested on: , , , were not completed
- ☐ VOP in Lieu of Complaint

EXPLANATION:
This was assigned to another DDA for review and charging. That was not done, and the case was reassigned to me for review and charging on 1/19/25. The offense date was more thn 1 year ago, so the statute of limitations has expired and charges cannot now be filed.

why?

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OFFICE OF THE DISTRICT ATTORNEY

County of Lake, State of California

Susan Krones
District Attorney

Bruce Smith
Chief Investigator

REJECTION FORM

INVESTIGATING AGENCY:
If Other:

INVESTIGATING OFFICER(S):

SUSPECT(S):

AGENCY FILE NO(S) : 23-0862

VICTIM(S): State

DATE SUBMITTED: 1/4/2024

DEPUTY D.A.: Hinchcliff

CHARGES: VC 23152, 12500
DUI + no Lic

DA CASE#(s): 20240086

At the request of your department, we have received the investigative reports relating to the above case. We are of the opinion that the case should **NOT** be filed.

Date of Rejection: 1/20/2025

- ☐ De Minimis
- ☐ Victim does not want to proceed
- ☐ Civil in nature – no criminal intent
- ☐ Cost of prosecution disproportionately high for violation
- ☒ Insufficient resources to prosecute
- ☐ Lack of Corpus
- ☐ Insufficient Evidence
- ☐ Follow-up(s) requested on: , , , were not completed
- ☐ VOP in Lieu of Complaint

EXPLANATION:
This case was assigned to another DDA for review and filing,a nd that was not done. Why? It ws reassigned to me on 1/20/25 for review. The offense date was 12/23/23 and the statute of limitations has now expired, so it cannot be filed.

COURTHOUSE 255 North Forbes Street, Lakeport, California 95453 (707) 263-2251 FAX (707) 263-2328

OFFICE OF THE DISTRICT ATTORNEY

County of Lake, State of California

Susan Krones
District Attorney

Bruce Smith
Chief Investigator

REJECTION FORM

INVESTIGATING AGENCY: CHP **If Other:**

INVESTIGATING OFFICER(S): Greg Buchholz

SUSPECT(S): Torres, Juan Carlos

AGENCY FILE NO(S) : 21-00063

VICTIM(S): Karan, Athena Romina

DATE SUBMITTED: 3/4/2021

DEPUTY D.A.: Krones

CHARGES: PC 192(c); VC 23153(a); 20001(a)

DA CASE#(s): 20210851

At the request of your department, we have received the investigative reports relating to the above case. We are of the opinion that the case should **NOT** be filed.

Date of Rejection: 12/27/2024

- ☐ De Minimis
- ☐ Victim does not want to proceed
- ☐ Civil in nature – no criminal intent
- ☐ Cost of prosecution disproportionately high for violation
- ☐ Insufficient resources to prosecute
- ☐ Lack of Corpus
- ☒ Insufficient Evidence
- ☐ Follow-up(s) requested on: , , , were not completed
- ☐ VOP in Lieu of Complaint

EXPLANATION:

This was a very tragic accident but there is insufficient evidence to prove criminal charges beyond a reasonable doubt. The victim and her sister were up with friends at the remote location of Indian Valley Reservoir. At some point the victim and her sister needed to use the restroom which was a long walk from where they were. The girls requested that the suspect drive them to the restroom on his ATV. The victim was sitting on the lap of her sister. They were not wearing seatbelts but the victim was wearing a helmet. The suspect lost control of the

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vehicle and the victim was ejected. She died at the scene. The suspect admitted to drinking alcohol about an hour before but by the time he submitted to a blood test his blood alcohol level came back at .017. Determining what the suspect's blood alcohol level at the time of the collision is very difficult because there are many unknown factors that could reduce the suspect's BAL below the legal limit. When CHP arrived the suspect did identify himself to CHP as the driver. Given these unknow factors I do not believe that we could prove this case beyond a reasonable doubt at trial.

CASES REJECTED/STATUTE OF LIMITATIONS

January 1, 2023 - November 20, 2024

Case Number	Charge Number	Date of Rejection
22120269	273.5	1/20/2023
21060125	PC 33215, h&s 11358(c), 11359(b)	2/9/2023
21080161	H&S 11377, VC12500	2/13/2023
20010170	H&S 11550, 11364	2/13/2023
20090104	PC 242	2/13/2023
19120295	PC 273.6 (a)	3/20/2023
21100117	H&S 11377, 11364	4/3/2023
18040262	23152(E)VC, 11550(A)hs, 11350(A)HS	4/13/2023
20010146	H&S 11377 (a)	10/4/2023
22100132	PC 647 (f), HS 11377 (a), HS 11364	10/26/2023
23040226	22810(a)PC	12/7/2023
21070148	PC 242, 422	12/15/2023
22080217	488, 368	1/4/2024
23020120	273a	2/15/2024
23020093	273a	2/15/2024
23030013	HS 11377 (A), HS 11358 (C), HS11359 (B)	3/7/2024
23070145	PC647(f)	4/28/2024
23060094	PC242	4/28/2024
23030106	H&S11377, 11364, 11362.3(a)	4/28/2024
23050085	HS11377(A), HS11364	5/6/2024
23070248	PC273.5	5/8/2024
21120184	PC30305(a), 21810, H&S11377(a)	5/13/2024
23050114	HS11364	5/17/2024
23030015	H&S 11377(a)	5/28/2024
21090167	H&S11550	5/29/2024
21090167	HS&S11550	5/29/2024
19120022	PC30605(a)	6/17/2024
23070205	H&S11550	6/30/2024
23060058	H&S 11755, PC372	6/30/2024
23060297	H&S11377	6/30/2024
23060019	HS11377 (A)	7/5/2024
23050091	PC243(e)(1)	7/14/2024
24060196	532(a)pc	8/15/2024
19070127	11377	9/18/2024
23050042	417(a)2(b)	9/23/2024
23090199	11358(c)HS, 11359(b)HS	9/25/2024
23040150	11377(a)HS, 11364(a)HS	9/25/2024
19010129	273a(b)	9/29/2024
20120133	11377	10/3/2024
19090007	647(f), 11364	10/7/2024
19100221	11377, 11350	10/15/2024
19080211	11358, 11359	10/30/2024
21120183	11377	10/30/2024
19080056	11358	10/30/2024
23080079	11358	11/13/2024

2023 DA Rejections

CN # Penal Code Date
These were sent to DA Date, returned from the DA rejected
Reasons:

21-14 23152 (A)VC 1/19/2021 2/13/2023 Statue of limitations expired

23152(a) VC: This section of the **California Vehicle Code** defines **Driving Under the Influence (DUI)** of alcohol or drugs. It makes it illegal to drive a vehicle while under the influence of alcohol or drugs to the extent that it impairs your ability to drive safely.

21-1967 23152(F)VC 7/12/2021 2/13/2023 Statue of limitations expired

California Vehicle Code 23152(f) VC makes it illegal to drive a vehicle while under the influence of **drugs** (not alcohol). Specifically, this section refers to driving under the influence of any drug or combination of drugs that impairs a person's ability to drive safely.

21-63 23152(A)VC 1/26/2021 2/13/2023 Statue of limitations expired
See above
21-2605 23152(A)VC 9/7/2021 3/19/2023 Statue of limitations expired
See above
21-2641 23152(A)VC 9/7/2021 3/19/2023 Statue of limitations expired
See above
21-2393 23152(A)VC 3/31/2021 3/20/2023 Statue of limitations expired
See above

18-1848 14601.2(A)VC 6/27/2018 6/29/2023 Statue of limitations expired
California Vehicle Code 14601.2(a) VC refers to the offense of **driving with a suspended or revoked driver's license** due to a DUI conviction.

22-1131 647(F)PC 6/27/2023 8/2/2023 Statue of limitations expired
California Penal Code 647(f) PC makes it a **crime to be drunk in public** to the point that you are unable to care for your own safety or the safety of others, or you obstruct the free use of a street, sidewalk, or other public area.

21-3736 273.6(A)PC 1/1/2022 10/26/2023 Statue of limitations expired
California Penal Code 273.6(a) PC addresses the violation of a **restraining order** or **protective order**.
22-110 273.6(A)VC 1/1/2022 10/26/2023 Statue of limitations expired
See above
22-279 273.6(A)PC 1/1/2022 10/26/2023 Statue of limitations expired
See above
22-292 273.6(A)PC 1/1/2022 10/26/2023 Statue of limitations expired
See above

22-3057 148(A)(1)PC 10/26/2023 10/26/2023 Statue of limitations expired
California Penal Code 148(a)(1) PC makes it a **crime to willfully resist, delay, or obstruct a peace officer** or other public official in the performance of their duties.

22-52 273.6(A)PC 1/1/2022 10/26/2023 Statue of limitations expired
See above
22-771 11755HS 3/24/2023 10/26/2023 Statue of limitations expired

California Health and Safety Code Section 11755 HS relates to the **illegal use, sale, or possession of certain controlled substances** in relation to the **California Uniform Controlled Substances Act**.

22-94 273.6(A)PC 1/1/2022 10/26/2023 Statue of limitations expired
See above

22-1512 594(A)(2)PC 6/2/2022 12/18/2023 Statue of limitations expired
California Penal Code 594(a)(2) PC addresses the crime of **vandalism**.

22-1607 11550(A)HS 6/15/2022 12/18/2023 Statue of limitations expired

California Health and Safety Code Section 11550(a) HS makes it illegal to **be under the influence of a controlled substance**. Specifically, it refers to being under the influence of certain drugs (like narcotics, stimulants, or hallucinogens) to the extent that it impairs your ability to **safely operate a vehicle** or engage in ordinary activities.

2024 DA Rejections

CN # Penal Code Date sent to DA Date Returned from DA Rejection Reason

23-2529 647.6(A)(1)PC 9/5/2023 2/26/2024 Statue of limitations expired
California Penal Code 647.6(a)(1) PC makes it a **crime to annoy or molest a child** under the age of **18** with the intent to **sexually arouse** or **gratify** the offender's sexual desires.

21-2534 23152(A)VC 9/3/2021 3/19/2024 Statue of limitations expired
California Vehicle Code 23152(a) VC makes it **illegal to drive a vehicle under the influence of alcohol** (DUI).

23-2063 243E(1)PC 7/24/2023 4/15/2024 Statue of limitations expired
California Penal Code 243(e)(1) PC addresses **battery against a spouse, cohabitant, fiancé, or someone in a dating relationship**. It is a misdemeanor offense.

23-1625 242PC 6/12/2023 4/28/2024 Statue of limitations expired
California Penal Code 242 PC defines **battery** as the **willful and unlawful use of force or violence** upon another person.

23-1989 11377(A)HS 7/13/2023 5/13/2024 Statue of limitations expired
California Health and Safety Code 11377(a) HS makes it **illegal to possess certain controlled substances** without a prescription or legal authorization.

23-2339 273.6(A)PC 8/16/2023 5/28/2024 Statue of limitations expired
California Penal Code 273.6(a) PC addresses the crime of **violating a domestic violence restraining order**.

23-1179 11364(A)HS 5/1/2023 6/28/2024 Statue of limitations expired
California Health and Safety Code 11364(a) HS makes it **illegal to possess or use drug paraphernalia**. This statute specifically addresses the possession of items that are **designed or used** for **injecting, smoking, or ingesting** controlled substances, such as methamphetamine, heroin, cocaine, or marijuana.
23-1797 602.5(A) 6/27/2024 6/28/2024 Statue of limitations expired
California Penal Code 602.5(a) PC deals with the crime of **entering a property without permission** and is commonly referred to as **trespassing**.

23-1522 11364(A)HS 6/2/2023 6/30/2024 Statue of limitations expired
See above

23-1646 246.3(B)PC 6/12/2023 6/30/2024 Statue of limitations expired
See above
23-1665 11377(A)HS 6/14/2023 6/30/2024 Statue of limitations expired
See above
23-1672 11377(A)HS 6/15/2024 6/30/2024 Statue of limitations expired
See above
23-1713 273.6(A)PC 6/23/2023 6/30/2024 Statue of limitations expired
See above
23-1789 11364(A)HS 6/27/2023 6/30/2024 Statue of limitations expired
See above
23-1822 11377(A)HS 6/29/2023 6/30/2024 Statue of limitations expired
See above
23-1508 273.5(A)PC 6/2/2023 7/11/2024 Statue of limitations expired
California Penal Code 273.5(a) PC addresses the crime of **domestic violence**, specifically **inflicting corporal injury on a spouse, cohabitant, or other intimate partner**.
23-1978 11377(A)HS 7/14/2023 7/4/2024 Statue of limitations expired
See above

Lake County's Director-Level Hiring Practices

Summary

After the County of Lake Board of Supervisors ("Board") accepted the resignation of the previous Lake County Animal Care and Control Director on June 18, 2024. A new Director was hired from another state in October 22, 2024 who resigned within four-five months, with the Board, on May 20, 2025, approving the effective resignation date of June 30, 2025.

The Grand Jury reviewed the County's hiring practices and found systemic problems that could be addressed by a closer working relationship between the Board of Supervisors and Human Resources and that could improve employee morale and reduce the cost of increased turnover to County taxpayers. The Grand Jury's recommendations included changes in the interview process for department directors, an increase in the financial relocation allotment, and an augmented Employee Moving Resource Guide for new employees.

Methodology

The Grand Jury interviewed current and former Animal Control employees and Human Resources (HR) principals. They also received detailed input from Lake County realtors.

Discussion

The hiring process for Animal Control director consisted of interviews with HR staff and the Board of Supervisors. The candidate did not visit Lake County to be interviewed in person or to be shown the Animal Control facilities and meet its employees prior to relocating.

When the new Director moved to Lake County, he stayed in a motel while attempting to locate housing that would accept his dog. After a short period of being unable to find a rental accepting pets, he and his dog moved to Santa Rosa, thus incurring a lengthy commute. This change became an issue for his Department because he often worked and managed remotely from home and was not always available for emergencies, which created morale problems.

A related issue is that Lake County is reported to have the highest homeowner occupancy in the State, which, combined with the housing loss due to wildfires, inadequate supply of low-income housing, and generational home ownership, all impact the number of available rental units. The County does not have temporary housing available for department-level hires who are moving to Lake County.

Also related, while the County offers new department-level hires the sum of $3,500 for relocation expenses, which number has not been adjusted for inflation and is not realistic for the current housing market, according to the realtors consulted. The median monthly rental cost is said to be $1,750. Most move-in agreements call for first and last month's rent plus a refundable deposit.

The Grand Jury was also informed by these realtors of an increasing number of fraudulent online real estate listings, which raises the question of whether the County should attempt to prevent scams by providing relocating hires with a list of verified "approved" realtors from an official source rather than the new hires' attempting to find a realtor online from a distance.

The Grand Jury notes that the current County of Lake Employee Moving Resource Guide includes a list of eight real estate and rental agencies, but whether these are screened members of the Lake County Association of Realtors or the Chamber of Commerce businesses is unclear. The Guide is attached as **Exhibit A**. In addition, inclusion of the County's demographic and sociocultural Census data could be helpful to potential new hires in assessing what to expect upon relocation. **Exhibit B.**

On May 20, 2025, the County of Lake Board of Supervisors in closed session accepted the resignation of the Animal Care and Control Director effective June 30, 2025. Pursuant to Government Code Section 54957(b), a legislative body of a local agency may hold closed session discussion to consider the appointment, employment, evaluation of performance, discipline, or dismissal of a public employee.

The HR Department does not interview departing employees as a matter of policy. The Grand Jury believes that attempts to assess/uncover possible intra-departmental problems – during either resignations or terminations - would be beneficial, especially when patterns are discerned.

Findings

F-1: Interviews of Board-appointed County of Lake Department heads may be conducted in-person or remotely via Zoom. The Animal Control Director was hired on October 22, 2024, with no in-person interview

F-2: Lake County does not have temporary housing to offer relocating new-hires.

F-3: A relocation fund of $3,500 is not enough for relocating new-hires to afford temporary rental housing.

F-4: Whether the realtors and rental agencies included in the Employee Moving Resource Guide are screened members of the Lake County Association of Realtors or the Chamber of Commerce was not determined.

F-5: The Animal Control Director did not live in Lake County, often worked remotely, and was not readily available to respond to emergencies.

F-6: On May 20, 2025, the Board of Supervisors approved extending the effective resignation date of the Animal Care and Control Director to June 30, 2025.

F-7: Human Resources does not routinely conduct interviews with departing employees.

F-8: The Employee Moving Resource Guide does not provide demographic data to help new hires from out-of-state better understand the composition of Lake County residents.

Recommendations

R-1: That the County's hiring process for director-level positions include a final interview in-person that also includes department staff introductions. (F-1)

R-2: That the Board of Supervisors consider providing newly-hired department heads with a property it owns for temporary use or contract with area rentals for interim housing. (F-2)

R-3: That the Board of Supervisors increase the relocation assistance to at least $7,000. (F-3)

R-4: That the Board of Supervisors require the Human Resources to assemble a list of "approved" local realtors for new hires from out of the area who are seeking housing. (F-4)

R-5: That the Board of Supervisors conduct an exit interview with any departing department director. (F-1)

R-6: That the Board of Supervisors direct Human Resources to conduct an exit interview with **all** terminating employees. (F-7)

R-7: That the Board of Supervisors direct Human Resources to include demographic data for new hires from out-of-state In its Employee Moving Resource Guide. (F-7)

Responses

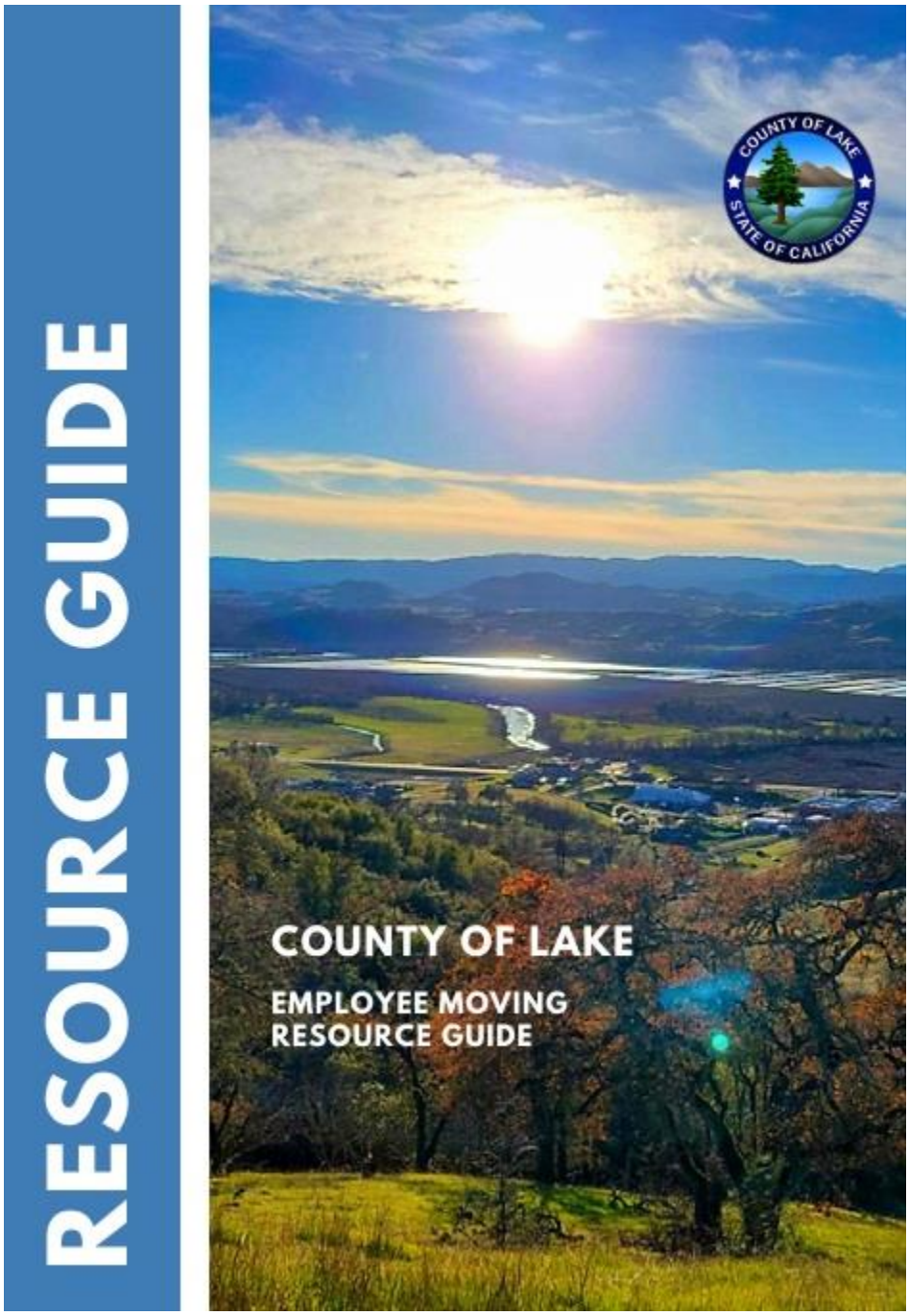
As per the California Penal Code section 933.05 (a-c), the following Responses are *required*:

Lake County Board of Supervisors	R-1, R-2, R-3, R-4, R-5, R-6, R-7	90 days

The following Responses are *requested*:

Department of Human Resources	F-4, F-6, F-7	60 days

Exhibit A


RESOURCE GUIDE
COUNTY OF LAKE
STATE OF CALIFORNIA
COUNTY OF LAKE
EMPLOYEE MOVING
RESOURCE GUIDE

WELCOME MESSAGE

Welcome to Lake County. We are excited to have you join our team and look forward to seeing you thrive in your new role. As you prepare for your upcoming relocation, we want to ensure you have all the resources and support you need to make the transition as smooth as possible. This guide includes essential information for setting up your new home, familiarize yourself with the neighborhood, and integrate into your new community.

We understand that moving to a new town can be both exciting and challenging. To help you settle in, we have included a list of local resources. Please note that this guide is not an exhaustive list of all resources available in the County.

We are committed to ensuring your move is as seamless as possible and that you feel welcomed and supported in your new environment. Once again, welcome to Lake County, and we look forward to your contributions to our team.



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REAL ESTATE & RENTAL AGENCIES



Hidden Valley Lake Property Management
www.hiddenvalleylake.com
17568 Spruce Road Ext. Suite A,
Hidden Valley Lake, CA 95467
(707) 355-1005

North Lake Property Management
www.northlakepm.com
904 S. Main St.
Lakeport, CA 95453
(707) 263-3726

Southlakerentals.com – Evans Realty
www.southlakerentals.com
9960 Hwy 53 #A
Lower Lake, CA 95457
(707) 944-0404

Timothy Toye & Associates
www.lakecounty-realestate.com
16360 Hwy. 175
Cobb, CA 95426
(707) 928-6404

Lake County Association of Realtors
www.lcaor.com/about/contact.asp
367 Lakeport Blvd
Lakeport, CA 95453
(707) 263-9300

County Air Property Management
www.countyairrentals.com
901 S. Main Street
Lakeport, CA 95453
(707) 264-4906

North Bay Property Management
www.northbay4rent.com
21159 Calistoga Rd. #4
Middletown, CA 95461
(707) 249-1650

West Lake Marina Resort Homes
Nancy Ruzicka
nancyruizka@gmail.com
Office: (707) 263-299
Cell: (707) 489-2626

LONG-TERM STAY

Konocti Vista Casino Resort, Marina & RV Park
www.konocti-vista-casino.com
2755 Mission Rancheria Rd.
Lakeport, CA 95453
(707) 262-1900



Skylark Shores Resort Lakeport
www.skylarkshoresresort.com
120 N Main St
Lakeport, CA 95453
(707) 632-2717

Robinson Rancheria Resort & Casino
www.rrrc.com
545 CA-20
Nice, CA 95464
(707) 262-4000

LakeCounty.com is your go-to destination for all things fun in Lake County. Explore a variety of activities including wine tasting, dining, boat rentals, scenic trails, sightseeing, and local events. Discover dog-friendly spots, historical parks, outdoor recreation, and family-friendly adventures—all in one place!

Lake County, CA •
Clearly Different!
www.lakecounty.com

Best Western El Grande Inn
www.bestwestern.com
15135 Lakeshore Dr.
Clearlake, CA 95422
(707) 994-2000

Tallman Hotel
www.tallmanhotel.com
9550 Main St.
Upper Lake, CA 95485
(707) 275-2244

Airbnb
www.airbnb.com



UTILTIES

Gas & Electric

Pacific Gas & Electric Company (PG&E)
www.pge.com
1-877-660-6789

Water & Sewer

Buckingham Park Water District
www.buckinghamparkwater.us
2880 Eastlake Dr.
Kelseyville CA 95451
(707) 279-8568

California Water Service Company
www.calwater.com
6125 E Highway 20
Lucerne, CA 95458
(707) 274-6624

City of Lakeport Water & Sewer
www.cityoflakeport.com
225 Park St.
Lakeport, CA 95453
Water: (707) 263-5615
Sewer: (707) 263-3578

Special Districts
www.lakecountyca.gov/Special-Districts
230 N Main Street
Lakeport, CA 95453.
(707) 263-0119

Nice Mutual Water Company
www.nicemutualwatercompany
3246 Lakeshore Blvd
Nice, CA 95464
(707) 274-1149

Upper Lake County Water District
www.ulcwd.com
9471 Main St
Upper Lake, CA 95485
(707) 275-3232



Clearlake Oaks County Water District
www.clocwd.org
22952 E Highway 20
Clearlake Oaks, CA 95423
(707) 998-3322

Golden State Water Company
www.gswater.com
14595 Olympic Dr. Ste A
Clearlake, CA 95422
(707) 994-6035

Highlands Mutual Water Company
www.highlandswater.com
14580 Lakeshore Dr.
Clearlake, CA 95422
(707) 994-2393

Konocti County Water District
www.konocticountywaterdistrict.com
15844 35th Ave.
Clearlake CA 95422
(707) 994-2561

Lower Lake County Waterworks District
www.llcwd.com
16254 Main Street
Lower Lake, CA 95457
(707) 994-6009

TRASH/GARBAGE DISPOSAL

Lakeport Disposal Co. Inc.
www.lakeportdisposal.com
1054 N Main St
Lakeport, CA 95453
(707) 263-1980

C&S Waste Solutions
www.candswaste.coms
230 Soda Bay Road
Lakeport, CA 95453
(707) 234-6400

Eastlake Landfill
www.lakecountyca.gov/Eastlake-Landfill
16015 Davis Ave
Clearlake, CA 95422
(707) 994-5888



Many homes in Lake County use propane for their energy needs.

Value Propane Inc
2325 S Main St,
Lakeport, CA 95453
(707) 279-8192

AmeriGas Propane
https://amerigas.com
72 Soda Bay Rd
Lakeport, CA 95453
(707) 263-5438

Ferrellgas
https://ferrellgas.com
2305 S Main St,
Lakeport, CA 95453
(707) 263-0333

Suburban Propane
https://suburbanpropane.com
2255 S Main St
Lakeport, CA 95453
(707) 263-5428

Thompson Gas
https://thompsongas.com
9950 Ca-53 C
Lower Lake, CA 95457
(707) 994-6535

INTERNET & CABLE

AT&T
www.att.com/cfd/internet
(977) 217-9158

Mediacom
www.mediacomcable.com
(877) 899-7466

Lake County Broadband Solutions
https://lcbs.co
(707) 262-7077

SeaKay - (Blue Lakes Area)
www.seakaybroadband.net
(707) 376-1234

DirectTV
www.directv.com
(877) 561-0009

Dish
www.infinitydish.com
(833)751-2643



PAGE EIGHT | INTERNET & CABLE

INTERNET & CABLE

AT&T
www.att.com/cfd/internet
(977) 217-9158

Mediacom
www.mediacomcable.com
(877) 899-7466

Lake County Broadband Solutions
https://lcbs.co
(707) 262-7077

SeaKay - (Blue Lakes Area)
www.seakaybroadband.net
(707) 376-1234

DirectTV
www.directv.com
(877) 561-0009

Dish
www.infinitydish.com
(833)751-2643



PAGE EIGHT | INTERNET & CABLE

PHONE STORES

Cricket Wireless Authorized Retailer
www.cricketwireless.com/stores
Lakeport: 805 S Main St, (707) 413-3608
Clearlake: 14200 Lakeshore Dr, (707) 701-6111

Verizon
www.verizon.com
Lakeport:1033 Eleventh St, (707) 262-7038
Clearlake: 4456 Manzanita Ave, (707) 692-3044

USCellular
www.stores.uscellular.com
Lakeport: 365 Lakeport Blvd, (707) 263-3706
Clearlake:14896 Olympic Drive, (707) 701-6111

AT&T Store
www.att.com
1265 S Main Street, Suite 11
Lakeport, CA 95453
(707) 900-5075



PAGE NINE | PHONE STORES

MOVING & STORAGE

Superior Moving & Storage
788 Bevins St Ste A
Lakeport, CA 95453
(707) 263-9898

Lake County Van & Storage
www.lakecountyvanandstorage.com
2544 E State Highway 20
Nice, CA 95464
(707) 274-2111

Wicked Automotive
(U-Haul Neighborhood Dealer)
www.uhaul.com
2615 S Main St
Lakeport, CA 95453
(707) 263-5518

Lake County Mini Storage
(U-Haul Neighborhood Dealer)
2371 Stokes Av
Nice, CA 95464
(707) 275-8007

Mt Konocti Truck and Auto Repair
(U-Haul Neighborhood Dealer)
3510 Merritt Rd
Kelseyville, CA 95451
(707) 279-1147

BKG Detail
(U-Haul Neighborhood Dealer)
2395 Ogulin Canyon Rd Ste J
Clearlake, CA 95422
(707) 993-4543

Big Oak Center Storage
(U-Haul Neighborhood Dealer)
13300 E Hwy 20
Clearlake Oaks, CA 95423
(707) 998-0145



PAGE TEN | MOVING & STORAGE

EMERGENCY SERVICES

Lakeport Police Department
www.cityoflakeport.com/police/
2025 S Main St. Lakeport, CA 95453
(707) 263-5491

Lake County Sheriff's Office
www.lakesheriff.com
1220 Martin St. Lakeport, CA 95453
(707) 262-4200

Lakeport Fire Department
www.lakeportfire.com/
445 N Main St. Lakeport, CA 95453
(707) 263-4396

Kelseyville Fire Protection District
www.kelseyvillefire.com
(707) 279-4268
Station 55 - 4020 Main St. Kelseyville
Station 56 - Clear Lake Riviera
9757 Soda Bay Rd. Kelseyville

Kelsey Cobb Fire Station
8948 Highway 175 Kelseyville, Ca 95451
(707) 279-4924

Lake County Fire Protection District
www.lakecountyfire.com
(707) 994-2170
Clearlake -14815 Olympic Dr.
Station 73 -13536 Arrowhead Rd House B.
(707) 994-0733
Station 65 -16354 Main St. Lower Lake

Law Enforcement & Fire
Clearlake Police Department
www.clearlake.ca.us/Police-Department
14050 Olympic Dr. Clearlake, CA 95422
(707) 994-8251

Stay informed with the latest emergency notifications and key updates for residents.

Nixle – LakeCoAlerts
Alerts & Warning Systems – Lake County Fire Safe Council (firesafelake.org)

Watch Duty Fire Notification
www.watchduty.org/join
Hospitals/Medical Centers

Northshore Fire Protection District - Upper Lake
www.northshorefpd.com
9420 Main St, Upper Lake, CA 95485
(707) 275-2446

In case of an emergency dial: 911

Non-Emergency Dispatch
707-263-2690

PAGE ELEVEN | EMERGENCY SERVICES

HOSPITALS/MEDICAL

Medical Centers

Sutter Lakeside Hospital
www.sutterhealth.org
5176 Hill Road East, Lakeport, CA 95453
(707) 262-5000

Lakeview Health Center
www.mchcinc.org
5335 Lakeshore Blvd, Lakeport, CA 95453
(707) 263-7725

St. Joseph Health Medical Group
5150 Hill Rd E, Lakeport, CA 95453
(707) 262-3060

Sutter Lakeside Internal Medicine
5128 Hill Rd E, Lakeport, CA 95453
(707) 263-8302

Adventist Health Clear Lake
www.adventisthealth.org
15630 18th Ave, Clearlake, CA 95422
(707) 994-6486

Lake County Tribal Health
www.lcthc.com
925 Bevins Ct, Lakeport, CA 95453
(707) 263-8382



Pharmacies

CVS Pharmacy
www.cvs.com
949 11th St, Lakeport, CA 95453
(707) 262-0244

Safeway Pharmacy
www.local.pharmacy.safeway.com
1071 11th St, Lakeport, CA 95453
(707) 263-8779

Walmart Pharmacy
www.walmart.com
15960 Dam Rd, Clearlake, CA 95422
(707) 994-1671

Lake Pharmacy
www.lake-pharmacy.com
15230 Lakeshore Dr, Clearlake, CA 95422
(707) 994-3141

North Lake Medical Pharmacy
www.mygnp.com
347 Lakeport Blvd, Lakeport, CA 95453
(707) 263-1328

Rite Aid
www.riteaid.com
15025 Olympic Drive, Clearlake, CA 95422
(707) 994-8677

Morgan's Pharmacy
15175 Lakeshore Dr. Clearlake, CA 95422
(707) 994-6440

Lucerne Pharmacy
www.mygnp.com
6244 E Highway 20, Lucerne, CA 95458
(707) 274-6643

VETERINARIANS



Main Street Veterinary Clinic
www.mainstreetvet.org
2530 S Main St, Lakeport, CA 95453
(707) 263-6232

Wasson Memorial Veterinary Clinic
www.wassonmemorialvet.com
3083 Highway 175, Lakeport, CA 95453
(707) 263-5380

Clearlake Veterinary Clinic
www.clearlakevetclinic.com
3424 Emerson St, Clearlake, CA 95422
(707) 994-9100

Animal Hospital of Lake County
www.docjerri.com
14130 Lakeshore Dr, Clearlake, CA 95422
(707) 995-1138

Middletown Animal Hospital
www.middletownvet.net
21503 S State HWY 29, Middletown, CA 95461
(707) 987-2000

GROCERIES STORES

Safeway
www.safeway.com
Lakeport:1071 11th St, (707) 263-8072
Clearlake:14922 Olympic Dr, (707) 994-7275

Bruno's Shop Smart
www.shopsmartfoods.com
355 Lakeport Blvd
Lakeport, CA 95453
(707) 263-7337

Grocery Outlet
www.groceryoutlet.com
Lakeport:1155 South Main Street, (707) 263-0316
Clearlake: 14806 Olympic Drive, (707) 994-4475
Hidden Valley Lake: 18657 Oak Meadow Drive, (707) 355-4534

Hardester's Market
Middletown: 21088 Calistoga St, (707) 987-2325
Cobb:16295 Highway 175, (707) 928-5233
Hidden Valley: 18983 Hartmann Rd, (707) 987-2200

Where is the closest wholesale stores?

Costco Wholesale
https://www.costco.com/
1275 Airport Park Blvd,
Ukiah, CA 95482
(707) 313-8004

Walmart
www.walmart.com
15960 Dam Rd
Clearlake, CA 95422
(707) 994-6881

Foods Etc.
15290 Lakeshore Dr
Clearlake, CA 95422
(707) 994-6423

Oak's Red & White Store
12580 E Highway 20,
Clearlake Oaks, CA 95423
(707) 998-3767

Sentry Market
2265 E State Hwy 20
Nice, CA 95464
(707) 274-0127

Lakeview Market & Deli
6068 E Highway 20
Lucerne, CA 95458
(707) 274-5573

Upper Lake Market
160 CA-20
Upper Lake CA 95485
(707) 275-4018





PAGE FOURTEEN| GROCERIES STORES

HARDWARE STORES

Tractor Supply
www.tractorsupply.com
***Lakeport*:** 2023 S Main St, (615) 647-1724
***Clearlake*:**15930 Dam Rd, (615) 647-1724

Mendo Mill & Lumber Co
www.mendomill.com
Lakeport: 2465 S Main Street (707) 263-8400
Clearlake: 5255 Old Highway 53 (707) 994-1014

Kelseyville Lumber
www.kvlumber.com
3555 N Main St
Kelseyville, CA 95451
(707) 279-4297

Hardester's Market/
Ace Hardware
21088 Calistoga St.
Middletown, CA
Hardware: (707) 987-9796
Lumber Yard: (707) 987-2067

Lake Builders Supply
3694 E Highway 20,
Nice, CA 95464
(707) 274-6607

The Home Depot
www.homedepot.com
350 N Orchard Ave
Ukiah, CA, 95482
(707) 462-3009



PAGE FIFTEEN| HARDWARE STORES

EDUCATION

Lakeport Unified School District
www.lakeportusd.org
2508 Howard Ave.
Lakeport, CA 95453
(707) 262-3000

Kelseyville Unified School District
www.kvusd.org
4410 Konocti Rd.
Kelseyville, CA 95451
(707) 279-1511

Middletown Unified School District
www.middletownk12.org
20932 Big Canyon Rd.
Middletown, CA 95461
(707) 987-4100

Konocti Unified School District
www.konoctiusd.org
9430B Lake Street,
Lower Lake, CA 95457
(707) 994-6475

Upper Lake Unified School District
www.ulusd.org
401 Martin St.
Lakeport, CA 95453
(707) 275-2655

Lake County International Charter School
www.lcics.org
15850 Armstrong St.
Middletown, CA 95461
(707) 987-3063

Konocti Christian Academy
www.kcaeagles.com
401 Martin St, Lakeport, CA 95453
(707) 262-1522

Higher Education
Lake County has options for higher education through nearby institutions and local community resources.

Mendocino College
(Lake County Center)
www.mendocino.edu/locations/lake-center
2565 Parallel Dr
Lakeport, CA 95453
(707) 263-4944

Woodland Community College
(Lake County Campus)
https://wcc.yccd.edu/lake/
15880 Dam Road Ext
Clearlake, CA 95422
(707) 995-7900





PAGE SIXTEEN| EDUCATION

BANKING

Umpqua Bank in Lakeport
www.umpquabank.com
805 11th Street,
Lakeport, CA 95453
(707) 263-7500

Chase Bank
www.chase.com
555 N Main St
Lakeport, CA 95453
(707) 263-2680

Westamerica Bank
www.westamerica.com
Lakeport: 650 N Main St Ste A, (707) 262-5714
Clearlake:15342 Lakeshore Dr, (707) 995-4140
Middletown: 21058 Calistoga Rd, (707) 987-8650

Community First Credit Union
www.comfirstcu.org
(707) 546-6000
Lakeport: 808 Lakeport Blvd.
Clearlake: 14866 Olympic Dr.

Bank of the West
www.bmo.com
15050 Olympic Dr
Clearlake, CA 95422
(707) 994-6483

Tri Counties Bank
www.branch.tcbk.com
21097 Calistoga St
Middletown, CA 95461
(707) 987-3196

Wells Fargo
www.wellsfargo.com
14918 Olympic Dr
Clearlake, CA 95422
(707) 994-0294



The County of Lake is a Select Employer Group with Redwood Credit Union, offering you exclusive SEG benefits alongside standard membership perks.

Redwood Credit Union
www.redwoodcu.org
16095 Main St
Lower Lake, CA 95457
(800) 479-7928

STATE & FEDERAL AGENCIES

DMW
www.dmv.ca.gov
(800) 777-0133
Lakeport: 965 Parallel Drive
Clearlake: 15930 Dam Rd Unit B

Social Security Administration
www.ssa.gov
991 Parallel Dr, Lakeport, CA 95453
(800) 772-1213

Lake County Courthouse
www.lake.courts.ca.gov
Lakeport: 255 N. Forbes St, (707)262-1618
Clearlake: 7000 S Center Dr Ste A,
(707) 994-6598

Important Note for Out-of-State Individuals

- **Notify the state of your address change within 10 days of moving.**
- **Apply for a new driver's license within 10 days of moving.**
- **Apply for new vehicle registration within 20 days of moving.**





POST OFFICES

United States Postal Service
www.usps.com
Lakeport: 1151 11th St.
Kelseyville: 5500 Gaddy Ln.
Middletown: 21177 Calistoga Rd.
Clearlake: 14500 Olympic Dr.
Clearlake:13417 Lakeshore Dr.
Lower Lake: 16165 Main St.
Upper Lake: 9435 Main St.
Clearlake Oaks:13280 CA-20
Nice: 3964 CA-20, Nice, CA 95464
Lucerne: 6054 E Hwy 20
Glenhaven: 9530 CA-20
Cobb: 16595 Hwy 175, Cobb, CA 95426

The UPS Store
www.upsstore.com
371 Lakeport Blvd
Lakeport, CA 95453
(707) 263-6105

Pak N Mail
495 N Main St,
Lakeport, CA 95453
(707) 263-8657



LIBRARIES

Lake County Library
1425 N High St
Lakeport, CA 95453
(707) 263-8817

Upper Lake Library
310 Second St,
Upper Lake, CA 95485
(707) 275-2049

Redbud Library
14785 Burns Valley Rd
Clearlake, CA 95422
(707) 994-5115

Middletown Library
21256 Washington St
Middletown, CA 95461
(707) 987-3674

For additional digital library services, contact your local library or www.lakecountyca.gov/Library



PAGE TWENTY | LIBRARIES

TRANSIT

Lake Transit Authority
9240 Highway 53,
Lower Lake, CA 95457
(707) 263-8817
www.laketransit.org

Anytime Rides
422 S Main St
Lakeport, CA 95453
(707) 245-9575

Maria's Midnight Rides
2470 Winter Ave,
Lakeport CA 95453
(707) 349-0446

Lake Company Taxi
360 6th St
Lakeport, CA 95453
(707) 349-9903

Clearlake Cab Company
3746 Laddell Ave
Clearlake, CA 95422
(707) 994-8294

Redwood Taxi Service
1091 S State St
Ukiah, CA 95482
(707) 462-9000



ENTERTAINMENT

Lakeport Cinema 5
52 Soda Bay Rd
Lakeport, CA 95453
(707) 263-4215

Lakeport Auto Movies Drive-in
52 Soda Bay Rd
Lakeport, CA 95453
(707) 263-5011

Clearlake Stadium Cinema
3380 Washington Street
Clearlake, CA 95422
(707) 994-7469

LakeCounty.com is your go-to destination for all things fun in Lake County. Explore a variety of activities including wine tasting, dining, boat rentals, scenic trails, sightseeing, and local events. Discover dog-friendly spots, historical parks, outdoor recreation, and family-friendly adventures—all in one place!

Lake County, CA •
Clearly Different!
www.lakecounty.com



US CENSUS BUREAU, 2024

QuickFacts
Lake County, California

Population estimates, July 1, 2024, (V2024)	**67,764**
PEOPLE	
Population	
Population estimates, July 1, 2024, (V2024)	**67,764**
Population estimates base, April 1, 2020, (V2024)	68,164
Population, percent change - April 1, 2020 (estimates base) to July 1, 2024, (V2024)	-0.6%
Population, Census, April 1, 2020	68,163
Population, Census, April 1, 2010	64,665
Age and Sex	
Persons under 5 years, percent	5.4%
Persons under 18 years, percent	22.0%
Persons 65 years and over, percent	24.6%
Female persons, percent	50.0%
Race and Hispanic Origin	
White alone, percent	85.9%
Black alone, percent (a)(a)	2.2%

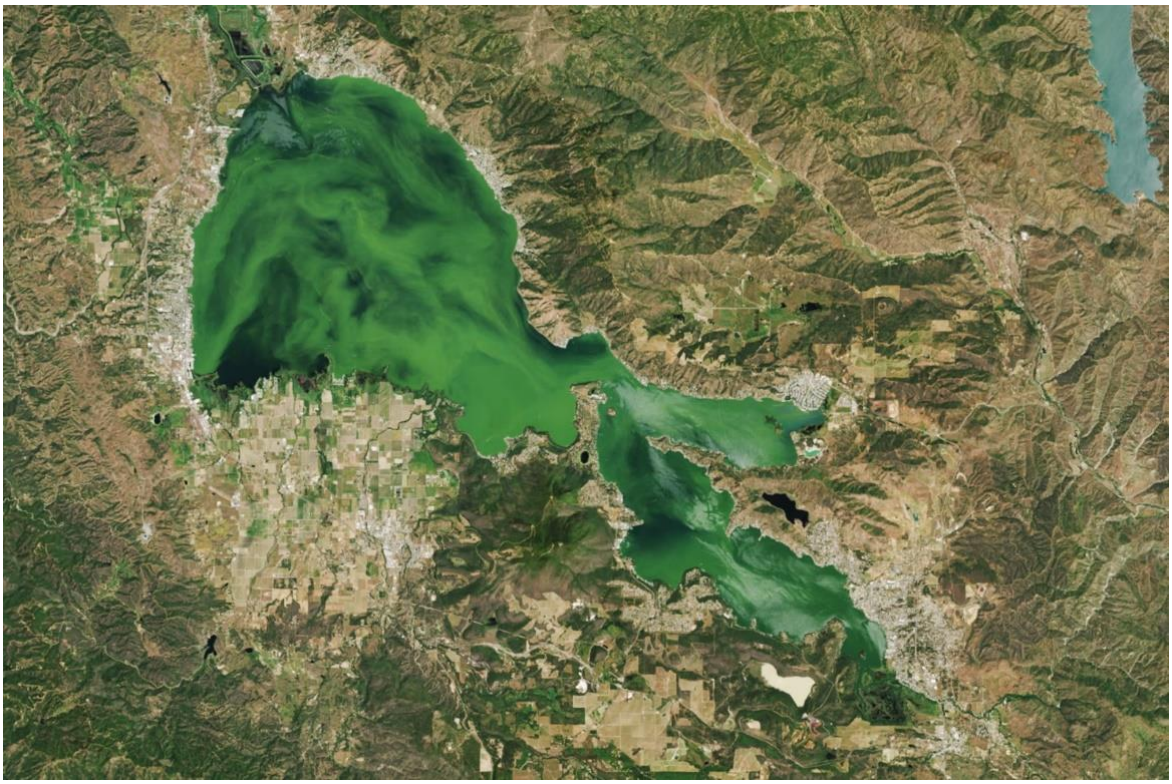
American Indian and Alaska Native alone, percent (a)(a)	4.8%
Asian alone, percent (a)(a)	1.6%
Native Hawaiian and Other Pacific Islander alone, percent (a)(a)	0.3%
Two or More Races, percent	5.1%
Hispanic or Latino, percent (b)(b)	25.4%
White alone, not Hispanic or Latino, percent	64.9%
Population Characteristics	
Veterans, 2019-2023	4,715
Foreign-born persons, percent, 2019-2023	9.3%
Housing	
Housing Units, July 1, 2024, (V2024)	34,634
Owner-occupied housing unit rate, 2019-2023	70.9%
Median value of owner-occupied housing units, 2019-2023	$316,800
Median selected monthly owner costs - with a mortgage, 2019-2023	$1,831
Median selected monthly owner costs - without a mortage, 2019-2023	$637
Median gross rent, 2019-2023	$1,292
Building Permits, 2024	114
Families & Living Arrangements	
Households, 2019-2023	26,364
Persons per household, 2019-2023	2.55

Living in the same house 1 year ago, percent of persons age 1 year+ , 2019-2023	87.3%
Language other than English spoken at home, percent of persons age 5 years+, 2019-2023	18.9%
Computer and Internet Use	
Households with a computer, percent, 2019-2023	93.8%
Households with a broadband Internet subscription, percent, 2019-2023	85.0%
Education	
High school graduate or higher, percent of persons age 25 years+, 2019-2023	87.1%
Bachelor's degree or higher, percent of persons age 25 years+, 2019-2023	17.7%
Health	
With a disability, under age 65 years, percent, 2019-2023	14.4%
Persons without health insurance, under age 65 years, percent	7.5%
Economy	
In civilian labor force, total, percent of population age 16 years+, 2019-2023	51.3%
In civilian labor force, female, percent of population age 16 years+, 2019-2023	49.2%
Total accommodation and food services sales, 2022 ($1,000)(c)	123,208
Total health care and social assistance receipts/revenue, 2022 ($1,000)(c)	412,555
Total transportation and warehousing receipts/revenue, 2022 ($1,000)(c)	18,436

Total retail sales, 2022 ($1,000)(c)	754,087
Total retail sales per capita, 2022(c)	$11,062
Transportation	
Mean travel time to work (minutes), workers age 16 years+, 2019-2023	30.3
Income & Poverty	
Median households income (in 2023 dollars), 2019-2023	$58,738
Per capita income in past 12 months (in 2023 dollars), 2019-2023	$34,768
Persons in poverty, percent	17.6%
BUSINESSES	
Businesses	
Total employer establishments, 2022	1,124
Total employment, 2022	10,209
Total annual payroll, 2022 ($1,000)	497,595
Total employment, percent change, 2021-2022	4.1%
Total nonemployer establishments, 2023	3,831
All employer firms, Reference year 2022	960
Men-owned employer firms, Reference year 2022	563
Women-owned employer firms, Reference year 2022	130
Minority-owned employer firms, Reference year 2022	S
Nonminority-owned employer firms, Reference year 2022	749

Veteran-owned employer firms, Reference year 2022	35
Nonveteran-owned employer firms, Reference year 2022	809
GEOGRAPHY	
Geography	
Population per square mile, 2020	54.2
Population per square mile, 2010	51.5
Land area in square miles, 2020	1,256.55
Land area in square miles, 2010	1,256.46

The Status of the Cyanobacteria Bloom In Clear Lake



Clear Lake Clouded by Algae (4)

SUMMARY

In May, 2024, Clear Lake, California's largest freshwater lake, turned a sickly shade of emerald green, capturing the attention of NASA scientists and national news outlets. According to a new report from UC Davis researchers, the source of the Lake's ongoing environmental problems may lie deep within the lakebed, which happens to be next to an old abandoned mercury mine!

Now, an unsightly and dangerous anomaly has been manifesting in this beautiful Lake - harmful algae blooms, known as HABs. These blooms happen when certain algae or microbes called cyanobacteria grow out-of-control, fueled by warm temperatures and phosphorus- and nitrogen-rich pollution. [1]

The impact of these harmful algae blooms ranges from disruptive to deadly. Some species of cyanobacteria release toxins, including microcystin that can affect humans, especially damaging the liver.

Three experiments are proposed to take place in the next three years to better understand and limit the Bloom cycle: The LG Sonic Buoy's experiment, the Hypolimnetic Oxygenation System (HOS), and the Ozone Nano Bubble Treatment (NBOT).

The first is the LG Sonic buoy's experiment, by the company LG Sonic, which has been approved by the Board of Supervisors and is scheduled to take place this year. The Mitigation Community Development Block Grant of $981,407 will fund this project (3).

The second experiment, the HOS system, by UC Davis, is slated to start in the summer of 2026 and will be covered by a federal grant.

The third experiment, NBOT, by the company Greenwater Services LLC, is in the beginning phase of the Blue Ribbon Committee's process, and no timetable has been established.

METHODOLOGY

The Grand Jury conducted several Interviews and reviewed multiple web sites, including research studies, government reports, and news articles. Jurors also attended a Blue Ribbon Committee meeting. Further, the Grand Jury interviewed members of the Board of Supervisors, a County Department head, and several water company employees.

BACKGROUND

The BLUE RIBBON COMMITTEE FOR THE REHABILITATION OF CLEAR LAKE (BRC)

According to the California Natural Resources Agency, the Blue Ribbon Committee for the Rehabilitation of Clear Lake states the following:

The 15-member Blue Ribbon Committee for the Rehabilitation of Clear Lake, created by Assembly Bill 707 (Aguiar-Curry, Ch. 842, Statutes of 2017) includes representatives from tribes, Lake County, UC Davis and the Central Valley Regional Water Quality Control Board. It also includes four members appointed by Lake County with expertise in agriculture, economics, environment and public water supplies.

The Committee has been given the important charge of making recommendations for rehabilitating Clear Lake, which is critical to Lake County's economy, ecosystem, and heritage. The expertise of these committee members will be invaluable to restoring this precious resource.

Creation of the committee is part of the State of California' ongoing investments in Clear Lake, which include a $2 million multi-year scientific research contract with UC Davis, $5 million in voter-approved bonds from Proposition 68, and a recent $15 million bond-funded investment to aid in the Middle Creek Restoration project.

The BRC has approved the first two experiments, and the third, NBOT, is currently proceeding through the committee.

CYANOBACTERIAL POISONING

Concern about the effects of cyanobacteria on human health has increased in many countries. These effects include cases of poisoning attributed to toxic cyanobacteria, which has raised awareness of contamination of water sources (especially lakes) resulting in increased cyanobacterial growth. Cyanobacteria have poisoned livestock and dogs. The first report of canine poisoning was in 1925 in Clear Lake. Dogs are especially susceptible to poisoning. as they drink the water while playing, eat floating debris from the Lake, and lick their fur after leaving the Lake. Signs are posted to warn of this danger to alert pet owners.

Humans can also be poisoned by toxic cyanobacteria:

> Outbreaks of human poisoning attributed to toxic cyanobacteria have been reported in Australia, following exposure of individuals to contaminated drinking water, and in the UK, where army recruits were exposed while swimming and canoeing. However, the only known human fatalities associated with cyanobacteria and their toxins occurred in Caruaru, Brazil, where exposure through renal dialysis led to the death of more than 50 patients. Little is known of the scale and nature of either long-term effects (such as tumour promotion and liver damage) or milder short-term effects, such as contact irritation. [9]

COST OF ALGAE BLOOMS

Algae blooms in Lake County, particularly in Clear Lake, cost money due increased water treatment costs, potential health issues, and economic impacts on tourism and fisheries.

"According to the Clear Lake Water Quality Report published in May, 2024

1. Increased Water Treatment Costs:

Contamination:

Algae blooms can contaminate drinking water sources, necessitating more expensive treatment methods to remove toxins and ensure water quality.

Treatment Technologies:

Communities may need to invest in technologies like granular activated carbon or powdered activated carbon to remove bacteria and toxins.

Example: Konocti County Water District has seen operating and treatment costs rise due to harmful algal blooms.

2. Health Impacts and Costs:

● Health Risks: Algae blooms can produce toxins that pose risks to human and animal health, leading to increased healthcare costs.

Recreation Restrictions: Blooms can make lakes unsafe for swimming and other recreational activities, potentially leading to decreased tourism and related revenue.

● Monitoring and Testing: Monitoring and testing for algal toxins and advisories cost money.

3. Economic Impacts:

Tourism Losses:

Algae blooms can deter tourists and negatively impact businesses that rely on the Lake for recreation and tourism.

Fisheries Impacts:

Toxins can accumulate in fish, leading to closures of fisheries and economic losses for fishing communities.

Property Values:

Algae blooms can negatively impact property values along the shoreline.

Example: A toxic bloom of *Pseudo-nitzschia* shut down the Dungeness crab and razor clam fisheries in 2015, resulting in $97.5 million in lost Dungeness crab landings and an estimated $40 million in lost tourism spending on the U.S. West Coast. [5]”

Algae growth is normal in Clear Lake and keeps the Lake fertile and healthy. The presence of algae in Clear Lake has been present for a long time.

> Sediment cores collected from the bottom of Clear Lake by the United States Geological Survey (USGS) indicate Clear Lake has had algae since the last ice age. [8]

In the last twenty years, the algae bloom problem has increased and will continue to increase if action is not taken. Global warming is predicted to add to the increased algae bloom problem.

> Researchers analyzed growth patterns of algae blooms in 71 large lakes across 33 countries and six continents. Studies indicate that just in the United States, freshwater blooms result in the loss of $4 billion each year (1).
>
> According to the State Water Resources Control Board, 43 of 58 counties in California have reported harmful blooms. The Board website lists the location, extent, and toxicity of the blooms . [8]
>
> The life cycle of algae blooms is dual -staged, active and dormant. When active, it produces cells rapidly and when dormant, it has little-to-no cell development.

Algae blooms also have some positive aspects. According to United States Geological Survey (USGS):

> They make energy from sunlight through photosynthesis, which leads to their being the base of the food web in marine and freshwater communities, and algae produce around 70 percent of the oxygen in the atmosphere.



DISCUSSION

Spurred by the growing health concerns of cyanobacteria-released toxins, the expectation is that the LG Sonic Buoy, HOS, and NBOT treatment experiments will slow the growth of the algae blooms (if not stop it entirely) in the sections where they will be deployed.

The first experiment, Sonic Wave Buoys, operate to reduce algae overgrowth. The sonic waves block sunlight and nutrients from getting to the algae by collapsing their gas vesicles and causing the algae to sink to the lake bottom, thereby cutting off their energy source and halting their growth. The use of ultrasonic technology to control algae growth has been around for decades.

The Mitigation Community Development Block Grant Money in the amount of $981,407.00, has been added to the Lake County budget for the Sonic Wave Buoys. Block grants are a form of grant-in-aid that the federal government uses to provide state and local governments a specified amount of funding to assist them in addressing broad purposes, such as community development, social services, public health, or law enforcement.

The project will give Lake County 14 buoys, with 4 of the 14 dedicated to collecting data every five minutes on the water quality of Clear Lake. [6]

Each Buoy is 2188 mm (l) (6.7 ft) x 2540 mm (w) (7.7 ft) 860 mm (h) (2.6 ft) in size and covers a Lake area of 1,600 ft diameter (500 meters).The Buoys will be placed near the City of Clearlake.

The proposed second experiment, Hypolimnetic Oxygenation System (HOS), oxygenating the bottom of Clear Lake, would control cyanobacteria by reducing concentrations of limiting nutrients (i.e., phosphorus).

> Low-to-no-oxygen, or anoxic, conditions near the lake bottom are created by seasonal temperature stratification, where a warm layer of water on top of the lake prevents oxygen from reaching the bottom. This could potentially reduce toxic algae blooms while improving both fish habitat and the Lake's aquatic health. [7]
>
> A Hypolimnetic Oxygenation System introduces pure oxygen into the hypolimnion of a lake or reservoir, which is the deep, cold water layer. This process preserves thermal stratification while preventing anoxia (lack of oxygen) and its associated water quality issues. HOS systems achieve this by using a storage facility for liquid oxygen, converting it to gas, and then dissolving the oxygen into the water through various methods like diffusers or contact chambers.

A more detailed explanation follows

1. Oxygen Source and Storage:

Modern HOS systems utilize either liquid oxygen storage tanks on-shore or on-site oxygen generators (like pressure swing adsorption).

The oxygen, in either liquid or gaseous form, is then transferred to the lake.

2. Transfer Mechanisms:

Bubble Diffusers:

Pure oxygen is bubbled into the hypolimnion through submerged diffusers, which can be linear or circular. These diffusers facilitate oxygen transfer into the water as bubbles rise.

Submerged Contact Chambers (e.g., Speece Cone):

A specialized chamber extracts hypolimnetic water, injects oxygen, and then returns the oxygenated water to the hypolimnion.

Side-Stream Saturation:

Water is drawn from the hypolimnion, oxygenated, and then returned, maintaining a constant flow. [6]

This experiment will take place in Clearlake Oaks.

The third experiment, the Ozone Nano Bubble Treatment, combats algae blooms by directly oxidizing and destroying algal cells, disrupting their growth and reproduction.

Ozone Nano Bubble Treatment operate in the following way, according to Greenwater Services LLC :

NBOT units are used to generate ozone nanobubbles. These units consist of an ozone generator and a pump system that delivers the nanobubbles into the water.

Ozone Generation:

Ozone generators use a process that mimics how ozone is naturally formed in the upper atmosphere. They typically involve passing compressed air through a high-voltage chamber, where oxygen molecules are split and then recombine to form ozone (O3).

Nanobubble Formation:

Greenwater Services LLC's NBOT units then use a pump system to deliver the generated ozone into the water. This process can create nanobubbles (very small bubbles, typically less than 200 nanometers) that remain suspended in the water for an extended period due to their small size.

FINDINGS

F-1) The ongoing algae bloom in Clear Lake is increasing and will continue to increase unless effective treatment is instituted.

F-2) Cyanobacteria poses substantial health and financial risks to Lake County and its human and animal residents.

F-3) The Blue Ribbon Committee for the Preservation of Clear Lake has recommended two of the experiments (LG Sonic Buoy, HOS) and is beginning the investigation of the NBOT experiment.

F-4) The LG Sonic Wave Buoys system will be initiated during the Summer of 2025.

F-5) The size of the 14 Buoys will constitute a collision hazard to Clear Lake boaters.

RECOMMENDATIONS

R-1) That the Board of Supervisors direct their department heads to post warnings on websites and Facebook pages regarding the location of the Buoys and their potential hazards to boaters. (F-3, F-4, F-5)

R-2) That the Board of Supervisors have Public Works Department post signs at public ramps warning of the Buoy ’s location and potential collision hazard. (F-3, F-4, F-5)

RESPONSES

As per the California Penal Code, Section 933.05(a), (b), (c), the following responses are required:

Lake County Board of Supervisors: R-1, R-2 90 days

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Does Lake Pillsbury Have a Future?



SUMMARY

The story of Lake Pillsbury contains many issues the Grand Jury uncovered as they followed up on a complaint that was submitted in 2024. Despite the complaint's not being pursued, several issues loomed larger. The Grand Jury investigation indicated that the Lake Pillsbury Fire Protection District is in need of much assistance, including finances, equipment, and personnel. In addition, the residents living in communities near Lake Pillsbury had issues of their own, including water, crime, and emergency medical care, among others. Further, the roads to and from the Lake Pillsbury area are in dire need of repair.

Finally, the greatest issue facing the Lake Pillsbury area is the survival of the Lake itself. Pacific Gas and Electric Company (PG&E), owners of the Scott Dam that makes Lake Pillsbury a reservoir, has petitioned to decommission the dam. This project would eliminate the Lake altogether, a decision with severe potential impacts on the environment, water supply, fire safety, and the future of the recreational use of the Lake as a source of income for the area, as well as for Lake County as a whole.

This report will focus on what the County of Lake is doing to support and assist the community of Lake Pillsbury, as well as on the areas where the Lake Pillsbury community still needs assistance. Time constraints prevent a thorough analysis of the pros and cons of decommissioning Scott Dam, but the Grand Jury intends to raise awareness of several of the issues involved.[4-8]

BACKGROUND

Lake Pillsbury is a reservoir located in the Mendocino National Forest and rests within the boundaries of northern Lake County. Its primary inflow is the Eel River, with a Lake surface area of 2,280 acres and 31 miles of shoreline. The surface elevation is 1,818 feet.

In 1906, the Eel River Power Company contracted with the city of Ukiah for a hydroelectric generating station to increase city electricity. By 1921, the erection of the Scott Dam, a 138 foot high concrete gravity structure, finalized the hydroelectric projects that began in 1906 and created Lake Pillsbury. In 1933, PG&E acquired the Scott Dam, named after one of the founders of Snow Mountain Water and Power Company. The Scott Dam holds the Pillsbury Hydroelectric Plant, the only such plant in California's north coast region operated by PG&E. The Lake and Scott Dam are part of the Potter Valley Project (PVP), a hydroelectric facility operated by PG&E.

The community that currently resides near Lake Pillsbury is located in the Lake Pillsbury Basin and consists of from 300-500 year-round resident homeowners and ranchers. Many of the residents are multi-generational and have lived there for decades.

Today, the community of Lake Pillsbury consists of one gated residential area, in which a majority of the residents live. This community does not depend on the Lake for its water, as there is a spring in the hills that feeds into large holding tanks for that water. Additionally, there is no community energy/power available, and each home is powered by individually-obtained solar energy.

Outside of the gated community are single homes/homesteads on acreage around the Lake, again, with the total resident numbers unclear. Each homestead has its own well, with water from the same aquifer as the Lake's. If the Lake dries up, so

does their source of water. Also, no community energy/power is available, with, again, each homestead being powered by individually-obtained solar energy.

The population year-round in the Basin is about 300-500 persons. This number grows to 2,000-4,000 with the onset of fishing, camping, and hunting season and on the major holidays may reach 12,000. PG&E owns one of the largest campgrounds in the Basin, and many people flock to the Basin for summer vacations. A large number of these homes/homesteads are used only yearly as vacation homes, with a few residents living in them year-round.

The Lake Pillsbury Basin has one General Store, with aging, infirm owners. Residents are very dependent on this store, including for making emergency calls after the one community phone booth on-site was vandalized. A repeater (plus its vault) intended to increase 9-1-1 call response times in the Lake Pillsbury community is being stored in Lakeport on the grounds of the office of Emergency Services. Who will pay for its helicopter transport to Snow Mountain is uncertain.

The Grand Jury's investigation of Lake Pillsbury began in January, 2025, with a complaint from one of the residents in the gated community. The complainant's report was that another resident went into the complainant's private residence and showered and left dirty clothes strewn about. Actually, the private residence was located in the building that also included the community office. The resident allegedly entered the private residence from the office and showered there, harassing a woman who lived and worked in the residence/office to the point that she left and quit working for the gated community.

Later, another gated community member was harassed by the same person who had previously entered the private residence. That member filed a petition to obtain a restraining order against that trespasser.

None of these complaints materialized into investigations the Grand Jury could undertake, however, the Grand Jury did visit Lake Pillsbury to look into why the Lake County Sheriff's office did not respond to these complaints. While up there, the Grand Jury contacted the Lake Pillsbury Fire Protection District, which consists of two fire stations. What follows is what the Grand Jury learned about the Lake Pillsbury region.

Before the Grand Jury's visit to Lake Pillsbury, they interviewed the Lake County senior law enforcement officer and learned that, with regard to the initial complaint, the supposed victim never filed a formal request for the Lake County Sheriff's Department to investigate. The actual complaint was filed against the harasser by one of the volunteer firefighters on behalf of the supposed victim. The Grand Jury also learned that the harasser was facing a restraining order against him for harassing another resident.

DISCUSSION

THE GRAND JURY VISIT, January 28, 2025:

When the Grand Jury visited Lake Pillsbury, they toured the two fire stations – the Lake Pillsbury Ranch Station at the north end of the Lake and the Rice Fork Station at the south end of the Lake. The budget from the County for the two fire stations is about $14,000.00/year. The Grand Jury was informed that there are other funding programs that can help raise money for the two fire stations, and the fire district is currently trying to obtain another $30,000.00 per year in order to get by.



The Lake Pillsbury Fire Protection District (LPFPD) currently operates with a total of 13 volunteer firefighters, which includes the Fire Chief, Assistant Fire Chief, and 11 additional volunteers. When these volunteers are on-duty, they each get paid $10.00 per day. Most of the volunteers are firefighter-EMTs, and the majority of their calls, as is true of the other five County fire districts, are for non-fire-related

injuries. Two major wildfires have threatened the community recently – the Mendocino Complex fire in 2018 and the August Complex fire in 2020.



A Lake County Fire Protection Resources document describes LPFPD thusly:

> LPFPD provides first-response fire and medical services to approximately 300-500 residents in its 14,329 square mile district. Summer populations range from 500-3,500 people, with peaks up to 12,000.
>
> LPFPD operates with 20 property owners who currently volunteer, 15 of whom are "active" firefighters. Only 4 firefighters are year-round residents. An additional 5 volunteers are Support Personnel. None of the volunteers are paid and more are needed. The LPFPD is funded primarily through property taxes in the amount of approximately $16,000.00 annually.
>
> LPFPD is in need of radio communications, a new repeater for 9-1-1 dispatch, and an increase in current parcel taxes. (1)

A major problem the LPFPD faces with their low budget is the fact that they cannot operate any of their vehicles to drive anywhere because of diesel fuel issues. The diesel tank for both fire stations is 55 gallons of fuel per refill–which can only be used for bona fide emergencies.

To date, the fire stations have the following vehicles on site:

- Station 1 has: 1 boat, 1–6-wheel ATV, two fire engines, and 1 ambulance.
- Station 2 has: 1 fire engine, and 1 ambulance.
- They have 5 vehicles that carry water and need a water-tender truck.

The water sources for the fire stations are:

- Station 1–has a hydrant that gets water from Millcreek Water Purification Plant.
- Station 2–has a 2500 gallon tank that gets water from a spring.

Additional facts the Grand Jury learned were:

- The ambulances on site are used only on medical calls, approximately 18 times a year.
- The District does not have a mechanic.
- The District does not have any paramedics - most of the district volunteers are EMTs.
- The District needs a 'call box' for emergencies, placed near the Soda Creek store, which is a hub area. Recently, someone needed help, but no one was at the store. They knocked on homeowners' doors until they found someone who could call in the emergency for them.

The Grand Jury is pleased to report that in February, 2025, Rep. Mike Thompson (CA-04) announced that Lake Pillsbury Fire Chief Bret Butler as one of the two 2025 Lake County Public Safety Heroes.



THE ROLE OF THE FOREST SERVICE IN PATROLING THE LAKE PILLSBURY BASIN

The U. S. Forest Service is an agency within the U.S. Department of Agriculture and administers the nation's 154 national forests and 20 national grasslands covering 193 million acres of land.

Currently, there is a 5-year agreement between the County of Lake and USDA Forest Service/Mendocino National Forest, called the "2025 Cooperative Law Enforcement Operating Financial Plan". (See Appendix Exhibit A)

The 2025 Operating and Financial Plan states:

> This Financial and Operating Plan is hereby made and entered into by and between the Lake, County of, hereinafter referred to as "the Cooperator," and the United States Department of Agriculture (USDA), Forest Service, Mendocino National Forest, hereinafter referred to as the "U.S. Forest Service," under the provisions of Cooperative Law Enforcement Agreement . . . and is in effect through September 30, 2025. (1)

The Lake County Sheriff and the Undersheriff are named as the designated and alternate representatives authorized to make or receive requests for special law enforcement activities.

These services from the Lake County Sheriff's Department provide additional police support during the hunting, camping, and fishing season, as well as the efforts undertaken for eradication of illegal drugs in the Lake Pillsbury area. The current yearly allocation for these services from the Forest Service is $30K.

The Grand Jury learned that this Operating and Financial Plan has been in effect for the purpose of allowing Lake County Sheriff's Department officers to perform patrol activities, utilize equipment and supplies, engage in special enforcement situations, and handle controlled-substance operations in Lake County lands that do not have their own police/sheriff staff and equipment/supplies regularly on site.

Upon services being rendered in Lake Pillsbury for any of the above, such as patrol activities, Lake County will furnish itemized statements of expenses and billing for reimbursement either monthly, quarterly, or yearly to the U.S. Forest Service for payment from the $30K.



THE RESIDENTS' REPORTS TO THE GRAND JURY

During discussions while at Lake Pillsbury, the Grand Jury learned about several issues the residents face.

Jurors were informed by a volunteer firefighter that there is a high volume of crime in the Lake Pillsbury area, such as burglaries, vandalism, property crimes, and drugs-related crimes. Some of the suggestions this volunteer firefighter had for dealing with these problem areas were:

- Security/RING Cameras
- Access to Starlink to make emergency calls more quickly and efficiently.
- Installing the 'Repeater' that is intended for Lake Pillsbury for 9-1-1 calls.
- That the Grand Jury makes 1-2 visits up there per year.
- That two deputies be sent out for every call for assistance.

An interview with another firefighter volunteer stressed the poor quality of the roads in the Lake Pillsbury region. The volunteer noted that when there is an emergency requiring medical attention, if it involves blood loss or occurs in a

remote area, they can request a LifeFlight helicopter. Otherwise, the firefighters use one of their ambulances to take the patient down the mountain to a point where they meet with another ambulance coming up the mountain, make the transfer, and both ambulances return to their bases.

The Grand Jury learned that there are many roads that are dirt and then paved and then dirt and then paved throughout the area, making travel on them very laborious. Taxes and grant monies are suggestions to help pay for better roads into and out of the area, which is of paramount importance to enable evacuation from fires.

PG&E AND THE SCOTT DAM

Another issue of grave importance to the Lake Pillsbury area has to do with what the Grand Jury learned about the recent decision by PG&E to seek to decommission the Scott Dam and eliminate Lake Pillsbury.

Citing an increased seismic risk, PG&E announced in 2019 its desire to decommission the Dam. The Company is due to submit its final petition for decommissioning the Dam with the Federal Energy Regulatory Commission (FERC) in July, 2025. Even though power from the Potter Valley Project shut down in 2021, the system still delivers water all year long. The decommissioning, if approved, is likely a decade away and would involve tearing down the Cape Horn Dam in Mendocino County, as well as the Scott Dam in Lake County.

Known as “PG&E’s Surrender,” this proposal has two components:

- Application to surrender the license (decommissioning) the Scott Dam, and
- Application for Non-Project Use of Project Lands (New Eel Russian Project Facility)

The Dam takedown would alter the flow of the Eel River to the Russian River and would be accompanied by a new multimillion-dollar diversion facility routing water from both the Eel and Russian watersheds to Marin, Sonoma, Lake and Mendocino counties. The new Eel-Russian facility would be built near Cape Horn Dam to keep water flowing while the Eel River natural watercourse is restored. The proposed facility includes upgraded infrastructure and modern fish passages to “serve both ecological and human needs,” according to the Eel-Russian Project Authority

The estimated cost for decommissioning that PG&E submitted to State regulators on May 15, 2025 was $532M. The cost of maintaining/repairing the Dam has been estimated at around $400M+. The teardown costs would be funded in unclear part by PG&E's customers, many of whom also risk losing the year-round water supply the system delivers to 600,000 people across Northern California. The construction estimate for the new Eel-Russian Facility is around $50M, although that figure comes from a 2024 engineering report containing incomplete designs. The Facility will need to be constructed because the gravity-fed diversion will not work without the dams. A Joint Powers Authority, formed by agreement between Sonoma County, Sonoma Water, and the Independent Water Power Project, entails building a pump station that will lift the water about 30-35 feet to feed into the tunnel.

Unlike the Potter Valley Project's consistent diversion that has sustained Russian River area agriculture for more than a century, the new Eel-Russian Facility would halt transfers to the Russian River from mid-Spring through Summer when the Eel River water levels are too low, thus causing sharp cutbacks for downstream users and likely jeopardizing crops, ranching, and household water.

The potential negative effects on the Lake Pillsbury community were discussed at a Town Hall in Lakeport on May 28th and include compromised survival of the salmon and steelhead, and thus of the raptors who live off them (such as osprey and eagles), diminished firefighting capability from loss of immediate access to the reservoir, and depreciated property values. In addition, the Lake County Treasurer has estimated a loss of tax revenues of $850,000.

According to the Lake Pillsbury Alliance (LPA), these actions by PG&E are not reversible. FERC cannot deny PG&E's request, but it will condition it with environmental impact reviews, e.g., environment, water, safety.

Here are other impacts listed by the Lake Pillsbury Alliance:

- Campgrounds in the Lake Pillsbury basin are slated to be removed, unless someone is interested in taking them over.
- Only the roads used for construction will be repaired.
- The possibility of a license transfer is still on the table until FERC issues its final order. The Army Corps of Engineers is mentioned.

On the LPA website is their Mission Statement:

> Our mission: We value Lake Pillsbury as the reactionary and environmental centerpiece of the Mendocino National Forest; as an economic and recreational asset to Lake County; as a critical water resource for regional fire suppression; and as an integral part of our regional water supply system serving more than 600,000 municipal and agricultural users downstream in Mendocino, Sonoma, and North Marin Counties.
>
> The LPA advocates for the preservation of Lake Pillsbury (which is formed by the Scott Dam) during discussions on the future relicensing of the Potter Valley Project. They rely on the water supply for drinking, farming, aquifer replenishment, recreation and the economic well-being of their communities.
>
> Lake Pillsbury provides water for wild-lands firefighting efforts, as demonstrated during the Mendo Complex fire in 2018, and the August Complex fire in 2020." (2)

This issue of the decommissioning of the Scott Dam is a subject of grave importance to the Lake Pillsbury Basin residents, as well as all the surrounding communities that will be impacted in many ways by the loss of this lake.

This quote from a resident sums up the importance of this fight for the Lake's existence:

> In an era of multiple-year droughts where water for people, fire suppression, and wildlife is getting more scarce by the day, it is hard to believe anyone is considering eliminating Lake Pillsbury, which is such a valuable water resource for our region. [Engineer, Lake Pillsbury Fire Protection District.]

The Grand Jury learned that there has been much discussion in the Lake Pillsbury Basin and in neighboring counties concerning the impact to the environment, tourism and finances, water issues, and much more if the Scott Dam becomes decommissioned by PG&E and the campgrounds are eradicated. Water to the homes of those who do not live in the gated community would be severely

impacted by the loss of the water in the Lake because they draw their water from the Lake.

AN ALTERNATIVE

In addition to the decommissioning and upgrading options for Scott Dam, there is an alternative option brought forward by a retired Lake County water district member. The idea is to store and then "flush" more water through Clear Lake by raising Scott Dam by ten feet, which would include making the dam seismically safe. The water rights of this extra water are unclaimed so Lake County could obtain these rights. The additional water comes from flooding at Lake Pillsbury which happens about every other year. Currently, when flooding occurs, the excess water flows to the ocean.

The extra ten feet of water (about 25,000 acre feet) can be diverted to Middle Creek and then Tule Lake, where it would be held in storage and eventually flow into Clear Lake during the summer months. The elevation difference between Lake Pillsbury and Clear Lake is enough to act as a siphoning effect, lowering the expense of pumping the water. This process of "siphoning" is common in water projects today.

The benefits to this plan include:

1. Reducing Clear Lake's temperature, which reduces algae bloom
2. Helping the Hitch thrive because of the colder water
3. Increasing water flow into the Yolo County farmlands
4. Increasing water flow into the Eel River, especially during times of drought
5. Improving the quality of the drinking water
6. Adding make-up water to the Geyser Effluent pipeline
7. Offering better recreational opportunities

Opposition to this or similar plans comes from:

1. Wild river groups that oppose any dam
2. Parties outside of Lake County., although Lake Pillsbury is wholly within Lake County.

With "water storage" grant money available to help fund this project, there could be a cleaner, more usable Clear Lake, this water official concluded.

ISSUES CONFIRMED BY THE GRAND JURY:

Based upon their visit to Lake Pillsbury, the Grand Jury concluded that of the many issues facing the community, three were considered major:

- Phones and internet
- Roads
- Compromise of water supply following the removal of Scott Dam
- Taxes–the need to increase the tax base beyond $14K

Additional issues identified were:

- Increased vehicle abatement to remove abandoned vehicles there
- Installation of the repeater and vault
- Determination of an alternative to calls being dispatched out of Mendocino County
- Fundraising to generate another $30K per year.
- Make the parcel tax rates the same on developed and undeveloped land.
- While LPFPD responds to medical issues in 99% of their calls, the remaining five Lake County fire districts report a 66-75% rate.

FINDINGS

F-1: PG&E is set to decommission the Scott Dam in the near future, with serious impacts on many aspects of Lake Pillsbury's environment, ecology, and resident safety.

F-2: Lake Pillsbury volunteer firefighters are being paid a stipend of only $10/day and have an annual budget of only $14K.

F-3: The LPFPD needs additional monies to fund expenses for the fire stations, vehicles, equipment, gasoline, and personnel.

F-4: The Lake Pillsbury basin requires a "call box" for resident emergencies near the Soda Creek store.

F-5: Fresh water for the residents will be severely impacted by the decommissioning of the Scott Dam and the loss of Lake Pillsbury.

F-6: All the roads in the Lake Pillsbury area are in dire need of repair.

F-7: The Lake Pillsbury area residents need reliable cellular communication.

F-8: The residents further request that the County install its designated Repeater on Snow Mountain to facilitate emergency 9-1-1 calls.

F-9: Lake Pillsbury needs a parcel tax increase to include both developed and undeveloped parcels.

F-10: Raising the level of Scott Dam could solve a myriad of issues such as decreasing the algae bloom, saving the hitch, improving water quality, and perpetuating the recreational use of Clear Lake.

RECOMMENDATIONS

R-1: That the Lake Pillsbury Fire Protection District Board identify additional funding streams for Lake Pillsbury fire stations, personnel, and fire district needs. [F-2, F-3]

R-2: That the Lake Pillsbury Fire Protection District Board provide a "call box" at the Soda Creek store for the Lake Pillsbury Basin residents' emergency calls. [F-4]

R-3: That the Board of Supervisors develop a plan to prepare for alternative water resources and supplies for Lake Pillsbury upon the decommissioning of the Scott Dam. [F-1, F-5]

R-4: That the Board of Supervisors provide funding of road paving or repavement of essential roads into and out of the Lake Pillsbury area. [F-6]

R-5: That the Sheriff's Office arrange to transport from Lakeport to Goat Mountain the vault and Repeater that was purchased for Lake Pillsbury's residents' use. [F-7, F-8]

R-6: That the Lake Pillsbury Fire Protection District Board increase parcel taxes on developed and undeveloped parcels in Lake Pillsbury Basin. [F-9]

R-7: That the Board of Supervisors conduct an official study to explore the benefits and costs of increasing the height of Scott Dam by ten feet. [F-10]

R-8: That the Board of Supervisors obtain grants to pay for water storage for Lake Pillsbury and Tule Lake. [F-10]

REQUIRED RESPONSES

Pursuant to Penal Code sec. 933(c), the following responses are required:

Lake County Board of Supervisors	R-3, R-4, R-7, R-8	90 days
Lake County Sheriff's Office	R-5	90 days
Lake Pillsbury Fire Protection District Board	R-1, R-2, R-6	90 days

Bibliography

1. lakecountyca.gov/DocumentCenter/View/8975/Fire-Protection-Resources
2. Cooperative Law Enforcement Operating Financial Plan between the Lake, County of and the USDA Forest Service Mendocino National Forest: 2025 Operating and Financial Plan. USDA Forest Service: FS-1500-8a (VER. 05/24) OMB No. 0596-0217; FS Agreement #21-LE-11051360-011 (See copy under Appendix)
3. Lake Pillsbury Alliance website: savelakepillsbury.org
4. Carboni, N: A breakfast full of community conversation. Record Bee,, May 30, 2025.
5. Frederiksen, J: Life after the Potter Valley project: 'The water will not be cheap.' Ukiah Daily Journal, May 31, 2025.
6. Hustt, M: The trucker hat that sparked a fight for Lake Pillsbury. Mendo-Fever, December 12, 2024.
7. LaFever, M: PG&E customers face $532M bill for dam removal some don't want. SF Gate May 29, 2025.
8. Roller, W: Scotts Dam removal debated at Chamber sponsored forum. Record-Bee, May 30, 2025.



Appendix

Exhibit A: 2025 Operating and Financial Plan.

Exhibit A

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

FS-1500-19 (VER. 05/24)
OMB No. 0596-0217
EXP: 05/31/2027

MODIFICATION OF GRANT OR AGREEMENT

PAGE 1 OF PAGES 12

1. U.S. FOREST SERVICE GRANT/AGREEMENT NUMBER:	2. RECIPIENT/COOPERATOR GRANT or AGREEMENT NUMBER, IF ANY	3. MODIFICATION NUMBER
21-LE-11051360-011		006

4. NAME/ADDRESS OF U.S. FOREST SERVICE UNIT ADMINISTERING GRANT/AGREEMENT (unit name, street, city, state, and zip + 4):	5. NAME/ADDRESS OF U.S. FOREST SERVICE UNIT ADMINISTERING PROJECT/ACTIVITY (unit name, street, city, state, and zip + 4):
Pacific Southwest Regional Office, 1323 Club Dr., Vallejo, CA 94592-1110	Mendocino National Forest, 825 N. Humboldt Ave., Willows, CA 95988-9783
6. NAME/ADDRESS OF RECIPIENT/COOPERATOR (street, city, state, and zip + 4, county): Lake, County of, 1220 Martin St., Lakeport, CA 95453-9708	7. RECIPIENT/COOPERATOR'S HHS SUB ACCOUNT NUMBER (For HHS payment use only):

8. PURPOSE OF MODIFICATION

CHECK ALL THAT APPLY:	This modification is issued pursuant to the modification provision in the grant/agreement referenced in item no. 1, above.
☐	CHANGE IN PERFORMANCE PERIOD:
☒	CHANGE IN FUNDING: No Funding for 2025
☒	ADMINISTRATIVE CHANGES: Added training verbiage, and Combined Exhibit A&B ?
☒	OTHER (Specify type of modification): Replace (SO) SAC Darrell Scott with Brandon Robinson; (COC) Brian Martin with Lucas Bingham; (CAC) Chris Chwialkowski, and Brian Martin with Lt. Richard Ward and Gary Frace

Except as provided herein, all terms and conditions of the Grant/Agreement referenced in 1, above, remain unchanged and in full force and effect.

9. ADDITIONAL SPACE FOR DESCRIPTION OF MODIFICATION (add additional pages as needed):

10. ATTACHED DOCUMENTATION (Check all that apply):

☐	Revised Scope of Work
☒	Revised Financial Plan
☒	Other: Law Enforcement Billing Summaries, and Law Enforcement Activity Logs.

11. SIGNATURES

AUTHORIZED REPRESENTATIVE: BY SIGNATURE BELOW, THE SIGNING PARTIES CERTIFY THAT THEY ARE THE OFFICIAL REPRESENTATIVES OF THEIR RESPECTIVE PARTIES AND AUTHORIZED TO ACT IN THEIR RESPECTIVE AREAS FOR MATTERS RELATED TO THE ABOVE-REFERENCED GRANT/AGREEMENT.

11.A SIGNATURE (Signature of Signatory Official)	11.B. DATE SIGNED	11.C U.S. FOREST SERVICE SIGNATURE (Signature of Signatory Official)	11.D DATE SIGNED
11.E. NAME (type or print): LUCAS BINGHAM		11.F. NAME (type or print): BRANDON ROBINSON	
11.G. TITLE (type or print): Lake County Sheriff		11.H. TITLE (type or print): Special Agent in Charge	

12. G&A REVIEW

12.A. The authority and format of this modification have been reviewed and approved for signature by:
DARIUS PARKS
Digitally signed by DARIUS PARKS
Date: 2025.01.13 12:27:26 -08'00'
DARIUS PARKS
U.S. Forest Service Grants & Agreements Specialist

12.B. DATE SIGNED

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

FS-1500-8a (VER. 05/24)
OMB No. 0596-0217
EXP: 05/31/2027

FS Agreement No. 21-LE-11051360-011

Cooperator Agreement No. _____

EXHIBIT A

COOPERATIVE LAW ENFORCEMENT OPERATING FINANCIAL PLAN
Between The
LAKE, COUNTY OF
And the
USDA, FOREST SERVICE
MENDOCINO NATIONAL FOREST

2025 OPERATING AND FINANCIAL PLAN

This Financial and Operating Plan (Operating Plan), is hereby made and entered into by and between the Lake, County of, hereinafter referred to as "the Cooperator," and the United States Department of Agriculture (USDA), Forest Service, Mendocino National Forest, hereinafter referred to as the "U.S. Forest Service," under the provisions of Cooperative Law Enforcement Agreement #21-LE-11051360-011. This Operating and Financial Plan is made and agreed to as of the last signature date on the Cooperative Law Enforcement Agreement and is in effect through **September 30, 2025** unless modified during the annual review.

FY 22 Carry-over: $30,792.59
FY 23 Obligation: $30,000
FY 24 Obligation: $0.00
FY 25 Obligation: $0.00
FY 25 Total Operating Plan: $60,792.59
MOD 06

I. GENERAL:

A. The following individuals shall be the designated and alternate representative(s) of each party, so designated to make or receive requests for special enforcement activities.

Principal Cooperator Contacts:

Cooperator Program Contact	Cooperator Administrative Contact
Lucas Bingham, Sheriff 1220 Martin Street Lakeport, CA 95453 (707) 262-4091 lucas.bingham@lakecountyca.gov	Richard Ward, Lieutenant 1220 Martin Street Lakeport, CA 96453 (707) 262-4089 richardward@lakecountyca.gov

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

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Paperwork Reduction Act Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond, to a collection of information unless it displays a valid OMB control number. Persons are not required to respond to this collection of information unless it displays a currently valid OMB control number. The OMB control number for this information collection is 0596-0217. Response to this collection of information is mandatory. The authority to collect the information Section 7 of the Granger-Thye Act (16 U.S.C. 580d) and Title IV of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1751-1753). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering, and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: U.S. Department of Agriculture, Clearance Officer, OIRM, 1400 Independence Avenue, SW, Room 404-W, Washington, D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB# 0596-0217), 725 17th Street NW, Washington, D.C. 20503.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TYY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

FS-1500-8a (VER. 05/24)
OMB No. 0596-0217
EXP: 05/31/2027

Cooperator Alternate Program Contact	Cooperator Finance Contact
Gary Frace, Lieutenant 1220 Martin Street Lakeport, CA 95453 (707) 262-4082 gary.frace@lakecountyca.gov	Mary Beth Strong, Finance Manager 1220 Martin Street Lakeport, CA 95453 (707) 262-4225 marybeth.strong@lakecountyca.gov

Principal U.S. Forest Service Contacts:

U.S. Forest Service Patrol Contact	U.S. Forest Service Patrol Administrative Contact
Tad Call, Patrol Captain 825 N. Humboldt Ave Willows, CA 95988 (530) 638-6128 tad.call@usda.gov	Jaime Hobbs, Program Support LE&I 825 N. Humboldt Ave Willows, CA 95988 (530) 884-4444 jaime.hobbs@usda.gov
U.S. Forest Service Controlled Substance Contact	**U.S. Forest Service Special Agent in Charge Contact**
Tad Call, Patrol Captain 825 N. Humboldt Ave Willows, CA 95988 (530) 638-6128 tad.call@usad.gov	Brandon Robinson 1323 Club Drive Vallejo, CA 94592 707-562-8647 brandon.robinson@usda.gov

II. PATROL ACTIVITIES:

A. Time schedules for patrols will be flexible to allow for emergencies, other priorities, and day-to-day needs of both the Cooperator and the U.S. Forest Service. Ample time will be spent in each area to make residents and visitors aware that law enforcement officers are in the vicinity.

1. Patrol on following U.S. Forest Service roads:
   Lake Pillsbury Basin Area: to make vehicle patrols within Lake Pillsbury Basin, to include campgrounds and public access roads. Time and duration will be agreed upon by the Cooperator and Forest Service. Primary patrols will be conducted during HIGH visitor use season May 1st through September 30th. 5 months
2. Patrol in the following campgrounds, developed sites, or dispersed areas:

Mendocino National Forest, general patrol: High visibility patrols during opening weekends of deer season (Rifle). This includes all campgrounds and dispersed campsites within Lake County of the Mendocino National Forest.

Total reimbursement for this category shall not exceed the amount of: $100.00.

B. Reimbursement for activities related to patrol support shall be at the following rates unless specifically stated otherwise:

$0.655/mile patrolled

Per diem rate is $52.00/day Overtime Rate $71.50/hour

Base wages, overtime wages, and fringe benefits will be reimbursed at the individual officers' actual costs.

III. EQUIPMENT:

See Cooperative Law Enforcement Agreement Provisions IV-L, IV-M, and IV-N for additional information.

Total reimbursement for this category shall not exceed the amount of: $100.00

***IV.* SUPPLIES:**

See Cooperative Law Enforcement Agreement Provisions IV-L, IV-M, and IV-N for additional information.

Total reimbursement for this category shall not exceed the amount of: $100.00

V. SPECIAL ENFORCEMENT SITUATIONS:

A. Special Enforcement Situations include but are not limited to: Fire Emergencies, Drug Enforcement, and certain Group Gatherings.

B. Funds available for special enforcement situations vary greatly from year to year and must be specifically requested and approved prior to any reimbursement being

authorized. Requests for funds should be made to the U.S. Forest Service designated representative listed in Item I-A of this Operating Plan. The designated representative will then notify the Cooperator whether funds will be authorized for reimbursement. If funds are authorized, the parties will then jointly prepare a revised Operating Plan.

1. Drug Enforcement: This will be handled on a case-by-case basis. The request will normally come from the Patrol Captain; however, it may come from the Special Agent in Charge or their designated representative. Reimbursement shall be made at the rates specified in Section VII-C. Deputies assigned to the incident will coordinate all of their activities with the designated officer in charge of the incident. *See section VIII. Controlled Substance Operations.*

2. Fire Emergency: During emergency fire suppression situations and upon request by the U.S. Forest Service pursuant to an incident resource order, the Cooperator agrees to provide special services beyond those provided under Section II-A, within the Cooperator's resource capabilities, for the enforcement of State and local laws related to the protection of persons and their property. The Cooperator will be compensated at the rate specified in Section I-B; the U.S. Forest Service will specify times and schedules. Upon concurrence of the local Patrol Captain or their designated representative, an official from the Incident Management Team managing the incident, Cooperator personnel assigned to an incident where meals are provided will be entitled to such meals.

   Note: *Exhibit A sets the reimbursable rate for fire suppression support paid with 'P-Code'. Funding under this cooperative law enforcement agreement is not authorized for fire suppression support. Refer to Addendum A for reimbursable instructions for fire suppression support.*

3. Group Gatherings: This includes but is not limited to situations which are normally unanticipated, or which typically include very short notices, large group gatherings such as rock concerts, demonstrations, and organization rendezvous. Upon authorization by a U.S. Forest Service representative listed in Section I-A for requested services of this nature, reimbursement shall be made at the rates specified in Section I-B. Deputies assigned to this type of incident will normally coordinate their activities with the designated officer in charge of the incident.

VI. CONTROLLED SUBSTANCE OPERATIONS

Pursuant to IV- I of Agreement 21-LE-11051360-011, the following is in support of operations to suppress manufacturing and trafficking of controlled substances on or affecting the administration of National Forest System lands, with an emphasis on identification, apprehension and prosecution of suspects engaged in these activities:

A. The *U.S. Forest Service* agrees:

1. To reimburse the Cooperator for expenditures associated with the detection of locations and activities related to illegal production and trafficking of controlled substances, including;

   a. Ground reconnaissance to identify and inventory locations and activities associated with producing or trafficking controlled substances.
   b. Aerial reconnaissance to identify and inventory locations and activities associated with producing or trafficking controlled substances.

2. To reimburse the Cooperator for certain expenses resulting from investigative activities associated with investigating cases involving the illegal production or trafficking of controlled substances on or affecting the administration of National Forest system lands, including:

   a. Surveillance operations to identify persons illegally producing or trafficking controlled substances.
   b. Apprehension of persons suspected of producing or trafficking controlled substances.
   c. Collection of evidence to support prosecution of persons suspected of illegally producing or trafficking controlled substances.
   d. Prosecution of persons suspected of producing or trafficking controlled substances.

3. To reimburse the Cooperator for expenses resulting from the removal of cannabis plants from National Forest System lands, the U.S. Forest Service must approve eradication operations before they take place, especially when circumstances indicate that removal is necessary prior to completing an investigation. However, the Cooperator retains the authority to eradicate cannabis plants without reimbursement at its discretion.

4. To reimburse the Cooperator for the costs of purchasing supplies and equipment used exclusively for activities described in items A.1, A.2 and A.3 of this Plan. Purchases must be agreed to and approved by the U.S. Forest Service.

   Purchases of materials and supplies may **not exceed 10% of the total allocation** of controlled substance operations without prior approval by the U.S. Forest Service Designated Representative.

B. The Cooperator agrees:

1. Within its capability, to perform the following activities on National Forest System lands:

a. Detect and inventory locations associated with illegal production or trafficking of controlled substances and notify the U.S. Forest Service of such locations as soon as possible.
b. Investigations to determine the person(s) responsible for manufacturing or trafficking controlled substances.
c. Upon request and prior approval of the U.S. Forest Service, remove cannabis plants from National Forest System lands.

2. To furnish all activity reports, crime reports, investigation reports, and other reports or records, resulting from activities identified in Section II, A of this Operating and Financial Plan to the affected Forests for review and forwarding to the Regional Office for processing.

C. The *U.S. Forest Service* and the Cooperator mutually agree to the following:

1. The following rate schedule will apply to all expenditures that may be reimbursed to the Cooperator under this agreement:

Salary (base)	**Actual documented hourly rate,**
Salary (overtime)	**Actual documented costs base + ½ per hour,**
Per diem costs	**$59.00**/M&IE + **$98.00** /Lodging,
Travel (mileage and fares)	**$0.655 per mile,**
Helicopter flight time	**Actual documented costs,**
Supplies or equipment	**Actual documented costs**

2. The total expenditures of the Cooperator that may be reimbursed may not exceed the estimated amount for Modification 6.

VII. TRAINING:
See Cooperative Law Enforcement Agreement Provision IV-K for additional information.

Total reimbursement for this category shall not exceed the amount of: $100.00.

VIII. DISPATCH SERVICES:
See Cooperative Law Enforcement Agreement Provision IV-I for additional information.

Total reimbursement for this category shall not exceed the amount of: $100.00.

IX. BILLING FREQUENCY:
See Cooperative Law Enforcement Agreement Provisions II-H and III-B for additional information.

A. The Cooperator will furnish *itemized statements* of expenses and billing for reimbursement either monthly, quarterly, or yearly to the U.S. Forest Service. These expenditures shall be tied to the reimbursable expenses and the rate schedules of sections II-B. and VII-C-1 and shall be certified by the Cooperator as being proper. The statements must be completed and accompanied by a Law Enforcement Activity Report, form FS-5300-5 for each billing statement. These must be received no later than December 31st.

B. The following is a breakdown of the total estimated costs associated with this Operating Plan. These amounts include any carryover from previous Operating Plans under the 5-year agreement.

Category	Estimated Costs
Patrol Activities	$28,792.59
Patrol Equipment	
Patrol Supplies	
Controlled Substance Operations	$30,000
- Control Substance Equipment	*
- Controlled Substance Supplies	*
Training	
Dispatch	$2,000
Total	**$60,792.59**

* *If amounts are not specifically allocated, the cooperator may spend up to 10% of the Controlled Substance category allocation as specified above.*

Funds may be reallocated between categories within this agreement. All reallocations, regardless of amount, require prior written approval from the Forest Service. If the reallocation is 10% or less of the total obligation for this funding action, a written request must be submitted to the Forest Service for approval. If the reallocation exceeds 10% of the total obligation, including carryover amounts, a formal modification to the agreement is required.

C. E-mail invoices and copy of itemized billing summary (Attachment A) to:

Name: Jaime Hobbs	Name: Tad Call
Program Support LE&I	Patrol Captain
jaime.hobbs@usda.gov	tad.call@usda.gov

Annually update the registration of the Cooperator's UEI from the System for Award Management (SAM) website at www.sam.gov for the verification of the EFT (Electronic Funds Transfer) banking information.

D. Any remaining funding in this Operating Plan may be carried forward to the next fiscal year and will be available to spend through the term of the Cooperative Law Enforcement Agreement, or de-obligated at the request of the U.S. Forest Service. *See Cooperative Law Enforcement Agreement Provision IV-C.*

X. CLOSE OUT:

Final billing for reimbursement of this 5-year Cooperative Law Enforcement Agreement must be received by the U.S. Forest Service no later than 120 days from the agreement expiration date September 30th, 2025.



Medical Services at the Lake County Jail

SUMMARY

This report addresses the delivery of medical services to inmates at the Lake County Jail ("Jail"), which currently contracts with California Forensic Medical Group (CFMG) to provide physical and mental health evaluation. CFMG is owned by Wellpath, based in Nashville, Tennessee. Wellpath provides medical services to 34 of the 58 California counties.[31] Wellpath was formed when HIG Capital, a private equity firm, purchased Correct Care Solutions (CCS) in October 2018, and merged it with Correctional Medical Group Companies (CMGC)[2] . Later in 2018, Wellpath purchased CFMG. The CFMG contract continues to be in effect after the acquisition by Wellpath.

Following a complaint received by the Grand Jury, and after conducting interviews, document reviews, and comparative research, the Grand Jury identified several concerns regarding the quality, consistency, and accountability of medical services at the Jail. Specific issues include delays in medication access, insufficient documentation of required staffing levels, and delayed reimbursements for staffing shortfalls.

The Grand Jury acknowledges that Wellpath continues to provide necessary healthcare services to the Jail inmates under difficult conditions. Nonetheless, the reviewed complaints highlight structural vulnerabilities in service delivery, staffing, and oversight. Recommended actions are designed to ensure continuity of care, improve transparency, and protect both the County from liability as well as protect inmate rights. Lake County should consider whether its currently structured oversight mechanisms are sufficient to ensure quality inmate care.

METHODOLOGY

The Grand Jury:

- Attempted unsuccessfully to contact the original complainant
- Conducted site visits at the Jail
- Interviewed Jail staff, Wellpath management, and County Health officials

- Reviewed the current contract (at the time of this report) between Lake County and CFMG/Wellpath (including an amendment and compensation schedules)[4][5][6]
- Analyzed a set of inmate grievances from 2023 and 2024 marked as "founded" by Jail authorities
- Reviewed the Lake County Sheriff's Office Custody Manual, Chapter 7, pages 368 to 469, Medical -Mental Health [3]
- Reviewed prior Grand Jury reports (Lake County 2013 and 2021, and Sonoma County 2008)[7][8]
- Conducted comparative research on other jails contracting with Wellpath
- Consulted public sources on Wellpath's performance and current Chapter 11 bankruptcy status
- Reviewed Congressional Oversight letter (Exhibit B)

BACKGROUND

Lake County has subcontracted for medical care at the Jail since 1996 (with CFMG).[9] The current contract pays Wellpath approximately $4.1M annually.[4] The contract runs from 2023-2026 with two additional one-year extensions if the contract is not terminated.[4] Wellpath was the only company which submitted a bid for the Lake County contract.

Bankruptcy Filing

In November 2024, Wellpath filed for Chapter 11 bankruptcy in Federal Court in the Southern District of Texas and began restructuring operations nationwide. According to the filing, Wellpath reported $644M in debt.[10][23] Wellpath's annual revenue is more than $2B.[16][25] Due to the bankruptcy filing, Wellpath spun off its behavioral health services as Wellpath Recovery Solutions.[10] Each county contracting with Wellpath had to file a pleading in the Texas Bankruptcy court in order to stake its claim. A settlement with junior creditors was made on April 15, 2025[11] which includes a 33% equity stake. There is a controversy that filing

bankruptcy in a Texas court was intended to avoid paying families for inmate deaths.[15]

As of May 12th, 2025, Wellpath has restructured and emerged from Chapter 11 bankruptcy but, if at some point they are unable to continue providing medical care, the Lake County Health Services Department has developed a contingency plan.

Jail Sick-Call Procedures

Before arrested persons are booked into the Jail, they are medically evaluated. If they require medical attention they are taken first to the Sutter Hospital ER for clearance and/or treatment.

For medical care after booking, inmates initiate a sick call by entering their unique PIN into a jail-provided tablet. If a complaint about medical care is received by Wellpath staff, it is marked as either “founded” or “unfounded.” A “founded” complaint is one in which Wellpath staff agrees with the inmate. An “unfounded” complaint is where Wellpath does not support or substantiate the inmate’s request at which point the complaint is escalated to the Wellpath Health Care Administrator. If still rejected, the complaint goes to the Jail staff and, if still “unfounded,” the complaint goes to the Jail Commander as the final arbiter.

Jail authorities provided the Grand Jury with a set of 11 “founded” inmate grievances related to medical services dated from December 14, 2023 to October 20, 2024. Complaints included delays in medication, difficulties obtaining medical records, lack of access to durable medical equipment, and requests for pre-Jail prescriptions. In all “founded” cases reviewed, the requested medical intervention was provided within one to eighteen days.

Wellpath’s Performance

Concerns about Wellpath's performance are not unique to Lake County. Multiple counties across California (including Monterey,[13] Alameda,[14] and Santa Barbara[15]) and at least one location outside of California,[28] have reported issues with service delays, transparency, contract fulfillment and deaths.[8][12][14][24]

But not all jails have had service issues with Wellpath. The National Commission on Correctional Health Care (NCCHC)[16] issues accreditations for excellent medical care in jails. Jails that have partnered with Wellpath and received honors include:

Fresno County in 2020,[17]

Santa Barbara County in 2021,[18]

San Luis Obispo County in 2022,[19] and

Ventura County in 2024.[20]

DISCUSSION

The Grand Jury recognizes that correctional healthcare presents significant logistical and staffing challenges. However, consistent delays in medication access pose legal and ethical concerns. Although all grievances reviewed were resolved, delays of more than two weeks for essential medications undermine inmate-care standards and raise liability concerns for the County.

Wellpath's contract obligations include both service delivery and staffing minimums.[6] The contract calls for Wellpath to perform a reconciliation process at the end of the Contract Year to determine if any monies are owed to the County for Registered Nurse ("RN") coverage not meeting contractual requirements.[6] One example of this reconciliation process was in Santa Barbara County, which found in 2025 that Wellpath owed them $500,000[27] (The approximate annual cost of the Wellpath contract with Santa Barbara County is $14.7M[29] compared to $4.1M[6] for Lake County.)

Inconsistent RN coverage suggests a potential breach of service expectations. Furthermore, the current complaint resolution pathway, though procedurally sound, lacks emergency safeguards in cases where critical medications (e.g. insulin) may be delayed.

Staffing shortages may be contributing to treatment delays. The contract calls for 13.8 employees, and Wellpath has 20 people on-staff to meet that goal. (To determine the 13.8 employees, the total contractual hours per week (552) are divide by a 40 hour workweek to equal 13.8 FTEs. (FTE=Full-time employees) (See Matrix). The contract requires an RN to be on-site 12 hours daily. However,

complete documentation confirming full RN staffing in 2023 and 2024 is not transparent. The Grand Jury could not verify the entire number of unstaffed hours in 2023 and 2024 or whether reimbursements were documented and issued. The Grand Jury asked for two separate weeks of RN staffing data, which the Health Care Administrator provided. If the medical staff is not available, telehealth (video consultation) can be used to approve medications.[26]

CFMG
California Forensic Medical Group
INCORPORATED

Exhibt B

~~Attachment A~~: Proposed Staffing Matrix with 'RN/LVN' Night Shift Coverage

Lake, CA Staffing Plan									
Position	**Mon**	**Tues**	**Wed**	**Thur**	**Fri**	**Sat**	**Sun**	**Week**	**FTEs**
Day Shift									
Health Services Administrator	8	8	8	8	8			40	1.000
Administrative Assistant	8	8	8	8	8			40	1.000
Discharge Planner	8	8	8	8	8			40	1.000
Nurse Practitioner / PA	8	8	8	8	8			40	1.000
Registered Nurse	12	12	12	12	12	12	12	84	2.100
Licensed Vocational Nurse	12	12	12	12	12	12	12	84	2.100
MHP LCSW/LMFT	8	8	8	8	8			40	1.000
Medical Director	4							4	0.100
Psychiatrist	4							4	0.100
Dentist	4							4	0.100
Dental Assistant	4							4	0.100
Total Hours/FTE - Day								**384**	**9.600**
Night Shift									
Registered Nurse/Licensed Vocational Nurse	12	12	12	12	12	12	12	84	2.100
Licensed Vocational Nurse	12	12	12	12	12	12	12	84	2.100
Total Hours/FTE -Night								**168**	**4.200**
Weekly Total									
Total Hours/FTE per week								**552**	**13.800**

Which Staff Members can Approve and Dispense Medications

Medical Staff	Approve Medication	Dispense Medication
Doctor	Yes	Yes
Nurse Practitioner	Yes	Yes

RN	**No**	Yes
Licensed Vocational Nurse ("LVN")	**No**	Yes
Psych Tech	No	Yes
Doctor via telehealth	Yes	No

In October, 2024, Wellpath decided to proceed with invoicing for the Consumer Price Index (CPI) adjustment retroactive to January 1, 2024, and began reconciling the LVN shift data for the same period. That reconciliation is now underway, and Wellpath is committed to refunding or crediting the County for all applicable amounts where LVNs filled RN-designated shifts, in alignment with Wellpath's original proposal and the County's accepted terms. (See Exhibit A)

Although not in the contract, Wellpath management agrees that a psychiatric technician would be helpful to have on staff but have found it difficult to hire one. A psychiatric technician provides direct care to individuals with mental health disorders or developmental disabilities, working under the supervision of licensed professionals like nurses and doctors.[33] Psych Tech training can be given to LVNs to avoid having to hire additional staff. The Grand Jury learned that Napa Valley College offers psych tech training to LVNs.[30]

Wellpath has changed its pharmacy from Diamond Pharmacy[21] to Omnicare (a CVS company) Diamond provided medications by mail within 5 business days, while Omnicare[22] provides them within one day.

According to news reports, other California counties such as Alameda[14] and Monterey[13] are actively reevaluating their contract with Wellpath.

FINDINGS

F-1: In several reviewed cases, inmates experienced delays in receiving necessary medications even though those medications were ultimately dispensed.

F-2: Staffing shortages contribute to delays in inmates receiving medications.

F-3: There are no psychiatric technicians on staff. Wellpath representatives reported difficulty hiring for these positions.

F-4: The contract requires an RN to be on site 12 hours daily.

F-5: Complete documentation confirming full RN staffing in 2023 and 2024 was not provided at the time of this report.

F-6: The Grand Jury was unable to verify the amount of reimbursements for RN staffing shortages, as required by contract.

F-7: The County and Wellpath are not abiding with the contract by not providing an end-of-year audit of RN hours.

F-8: The current inmate medical complaint system involves a multi-step escalation process that may take up to 18 days to resolve. While procedural safeguards exist, there is no clear emergency protocol for ensuring timely delivery of life-sustaining medications such as insulin during grievance review.

RECOMMENDATIONS

R-1: That the Board of Supervisors direct the Health Services Director to establish a formal protocol for emergency access to critical medications through local pharmacies when Omnicare delivery is unavailable. (F1, F2, F8)

R-2: That the Board of Supervisors direct the Health Services Director to amend the Wellpath contract to include telehealth for medication approvals when in-person staff are unavailable. (F1, F2)

R-3: That the Board of Supervisors direct the Health Services Director to negotiate the next Wellpath contract to add the psychiatric technician classification, or offer psychiatric technician training to existing LVN staff. (F3)

R-4: That the Board of Supervisors compel the Health Services Director to report yearly the dollar value of unstaffed RN hours and associated reimbursements as required by contract. (F4, F5, F6, F7)

R-5: That the Board of Supervisors establish penalties in future Wellpath contracts when the auditing of RN hours has not been completed on time. (F4, F5, F6, F7)

R-6: The Board of Supervisors invoke a penalty for the current delay in processing audit of the RN hours. (F4, F5, F6, F7)

RESPONSES

Under California Penal Code section 933.03 (a-c), the following responses are required:

Lake County Board of Supervisors	R-1, R-2, R-3, R-4, R-5, R-6	90 days

The following response is requested:

Director, Department of Health Services	R-1, R-2, R-3, R-4	60 days

Exhibits A and B and C

A. Letter from Regional Director of Wellpath, April 23, 2025

Lake County Grand Jury
P.O. Box 1076
Lakeport, CA 95453 [sic]

Subject: Response to Grand Jury Inquiry Regarding Reimbursement of RN Shift Differential

Dear Members of the Lake County Grand Jury,

I am writing on behalf of Wellpath, LLC in response to your inquiry regarding the reimbursement of funds owed to the County of Lake in relation to the staffing of the night shift Registered Nurse (RN) position at the Lake County Jail Medical Clinic.

As background, Wellpath entered into a five-year agreement with the County of Lake effective January 1, 2023, to operate the jail's medical clinic. In preparation for the January 1, 2024 contract renewal, Wellpath submitted a written proposal to amend the staffing language for the night shift RN position. Due to persistent recruitment challenges in filling RN roles, the proposal allowed Wellpath to staff this shift with a Licensed Vocational Nurse (LVN) if an RN was unavailable. As part of this agreement, Wellpath committed to reimburse the County the wage differential for each shift worked by an LVN in place of an RN. Additionally, the renewal proposal included a provision for an annual Consumer Price Index (CPI) increase to the total contract cost, to be effective January 1, 2024.

On December 14, 2023, Wellpath received the County's signed acceptance of the proposal from the County Administrative Officer. While the County viewed this letter as sufficient to proceed, Wellpath's internal compliance and legal teams determined that a formal contract amendment was required for both the staffing adjustment and CPI increase to take effect. Accordingly, a draft amendment was submitted to the County. On April 10, 2024, the County Administrative Officer advised Wellpath that she would need to redraft the amendment into a format suitable for County Counsel review and eventual presentation to the Board of Supervisors. Wellpath has not received a finalized version since that date, and as a result, implementation of both the CPI increase and the LVN shift reimbursement calculations was delayed pending formal approval.

Despite this, in October 2024, Wellpath made the decision to proceed with invoicing for the CPI adjustment retroactive to January 1, 2024, and began reconciling the LVN shift data for the same period. That reconciliation is now underway, and Wellpath is committed to refunding or crediting the County for all applicable amounts where LVNs filled RN designated shifts, in alignment with our original proposal and the County's accepted terms. We regret the delay in processing these refunds and acknowledge the importance of transparency and timely fiscal responsibility. The delay was rooted in a genuine effort to ensure proper legal and contractual compliance, and not in any intent to avoid reimbursement obligations.

Wellpath is committed to maintaining a strong, accountable partnership with Lake County and will ensure that all reconciliations and refunds are completed promptly. A detailed accounting and credit summary will be provided to the County upon finalization.

Thank you for the opportunity to clarify the matter. Please do not hesitate to reach out if further information is required.

Respectfully,

Regional Director of Operations
Wellpath, LLC

B. Senator Elizabeth Warren's Oversight Letter

https://www.warren.senate.gov/imo/media/doc/wellpath_bankruptcy_letter.pdf

C. Text of article from Open Mind, May 14, 2025

Correctional Health Care Organization Wellpath Emerges From Chapter 11 Reorganization

Wellpath, which provides correctional health care services, emerged from Chapter 11 bankruptcy and completed its financial restructuring. The bankruptcy filing was announced on November 11, 2024. The company sought to reduce about $550 million in debt. As part of the reorganization, Wellpath transitioned ownership to a group of its current and former lenders, referred to as the Ad Hoc Lender Group.

On January 30, 2025, former Wellpath business line Recovery Solutions, which provides behavioral health services on behalf of public entities, completed a sale transaction that created an independent organization focused on behavioral health. A group of Wellpath's creditors now owns Recovery Solutions. Financial terms were not disclosed.

During the bankruptcy proceedings, Wellpath continued delivering services under its contracts. The company has a network of clinical professionals in 37 states who provide medical and mental health care services to over 200,000 people daily in more than 350 locations. The facilities include prisons, jails, state hospitals, forensic treatment facilities, civil commitment centers, and community-based services centers.

Wellpath was advised in this matter by McDermott Will & Emery as legal counsel, Lazard and MTS Health Partners as investment bankers, and FTI Consulting as restructuring advisor. The Ad Hoc Lender Group was advised by Akin Gump Strauss Hauer & Feld LLP as legal counsel, Ankura Consulting Group, LLC, as financial advisor, and Houlihan Lokey Capital, Inc., as investment banker.

This was reported by Wellpath on May 12, 2025.

More information about Wellpath's Chapter 11 cases, including the terms of the transactions consummated in connection with the Company's emergence, is posted at https://dm.epiq11.com/case/wellpath/info (accessed May 14, 2025).

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"Don't Move a Mussel"

An Alarming New Threat to Lake County Waterways



SUMMARY

Golden Mussel (Limnoperna fortunei), a highly invasive, non-native freshwater bivalve, was discovered in the Sacramento-San Joaquin Delta and just west of the Port of Stockton in October, 2024, the first known documentation of Golden Mussels in North America. Shortly thereafter, Golden Mussels were also identified in Merced County after undergoing genetic testing for confirmation (Genetic testing is done by the State at every new location.) The State of California issued an alert in November, 2024 that was followed quickly by a Lake County Alert later that month [1]. Then in April, 2025, the mussels were discovered during a boat inspection at Folsom Lake, only 130 miles from Clear Lake, by California Department of Water Resources staff while conducting routine operations. In May, 2025, they were confirmed on the hull of a boat at Alpine Meadows.

In response to this urgent threat, California has developed a Golden Mussel Response Framework to manage and mitigate the invasion. This species poses

significant ecological risks, and ongoing monitoring and management efforts are crucial to prevent its spread.

In waterways where this species is present, heavy encrustations of Golden Mussels have blocked municipal and industrial water intakes, necessitated ongoing complicated removal, harmed native species in the ecosystem, decreased water clarity impacts fish health, and diminished water quality. Forty percent of Lake County's drinking water is derived from seventeen public and private water companies filtering Clear Lake water, so, if these mussels invade the Lake, the cost of providing safe drinking water will increase astronomically, not to mention that the public's boating enjoyment will be drastically curtailed [3].

Preventing a Golden Mussel infestation has many moving parts, and complete eradication once infestation occurs is considered highly unlikely. Chemical biocides, while effective, are not feasible in large open waters due to environmental concerns. Manually scraping the mussels off hard surfaces such as boat hulls is the primary method available to boaters and water agencies. Prevention of their introduction is the only feasible method currently available to try to stave off a potential ecological and economic crisis.

The County needs to update its Water Vessel Inspection Ordinance 2936 to include the Golden Mussel so as to be permitted to apply for grant funding and increase fines and fees [2]. The Ordinance was passed in 2011 and revised a few months later to protect all Lake County water bodies from infestation by Dreissnid mussels, otherwise known as Quagga and Zebra mussels, and to address the sanctions for Ordinance violation. The Golden Mussel is a different species – Limnoperna - which needs to be included in ordnance 2936. Additionally, more types of boats, in addition to trailed or motorized vessels, need to be inspected. Boat inspections also need to be increased and upgraded and coordinated across all lakes to come up with an integrated logistics system that recognizes each other's inspection/ decontamination efforts. The related fees and fines need to be increased and enforced in order to provide additional financial resources while still encourage boater participation.

METHODOLOGY

The Grand Jury conducted multiple interviews with Lake County staff, Board of Supervisors, and Lake County Director heads. Multiple websites were perused and many articles were reviewed, including government reports and news reports. The Grand Jury wishes to acknowledge the informative slide presentation prepared by the former Invasive Species Program Coordinator, which is included in this report.

DISCUSSION

The California Department of Fish and Wildlife (CDFW), Department of California State Parks Division of Boating and Waterways, California Department of Water Resources (DWR), U.S. Fish and Wildlife Service, Bureau of Reclamation, California Natural Resources Agency, and other state, federal, and local agencies regularly coordinate through the Aquatic Invasive Species program. This partnership aims to limit the spread of invasive species in California's waterways that cause damage to native species and to the ecosystems that native species need to survive. Golden mussels are similar in appearance, biology, and impacts to Quagga and Zebra mussels, which have been a continued priority for prevention and containment in waters across the State by governmental agencies since at least 2011.

Golden mussels are native to rivers and creeks of China and Southeast Asia. They are known to be established outside of their native range in Hong Kong, Japan, Taiwan, Brazil, Uruguay, Paraguay, and Argentina. The initial introductions to these countries were also likely the result of ships from biofouling on the hulls and/or ballast water release. In most cases, the invaded range has expanded upstream from the point of introduction and inland from ports through local, human-mediated pathways. Within the invaded range, significant impacts are widely documented, resulting from the dense colonization of Golden Mussels on hard surfaces [3].

Golden Mussels were likely introduced to California by a ship traveling from an international port, and they can be transported overland from one lake to another by boaters. They are expected to spread throughout the Delta and through the

water conveyance systems associated with it, such as downstream through the Central Valley water project. Without containment, Golden Mussels are likely to spread to other freshwater bodies in California, and to other ports and inland waters of North America, and abroad.

What makes the Golden Mussel more dangerous is that they are smaller and can thrive in lower-calcium waters than Zebra and Quagga mussels, which means they could invade and thrive in more areas. Juveniles Golden Mussels are free-swimming, thus able to expand their area of infestation. Golden Mussels have a much wider tolerance threshold for eradication than Quagga-Zebra mussels, making them a very serious threat based on research from South America. They can also dramatically reduce the amount of zooplankton and phytoplankton, negatively impacting the food web for other species, including fish. Mussel infestations are known to be associated with an increased frequency of potentially toxic Microcystis blooms. Their propensity to rapidly colonize any hard surfaces such as hulls and to clog engines damages both, resulting in increased repair costs. Unlike their counterpoints, Golden Mussels can colonize on softer material as well.

Once an infestation occurs, the necessary governmental response is relentless and costly. For example, the cost to water-service departments in Brazil has been reported to be $20,000/day for operating and maintaining power plant pipes [4].

The Yolo County Flood Control & Water Conservation District, who owns the water rights to Clear Lake, have a vested financial interest in keeping the Golden Mussel from invading Clear Lake. The Yolo County Flood Control & Water Conservation District is overseen by a Board of Directors, who are appointed by the Yolo County Board of Supervisors.

The seventeen Lake County water districts that get water directly from Clear Lake have a vested financial interest in keeping the Golden Mussel from invading Clear Lake. Lake County Special Districts oversees most of the water districts in Lake County. The independent water districts are controlled by the Lake County Board of Supervisors.

The Board of Supervisors could draft a Memorandum of Understanding with the Yolo County Board of Supervisors and Lake County's seventeen Lake County water districts about stopping the infestation of the Quagga, Zebra, and Golden mussels. There is already a Memorandum of Understanding (MOU) between Lake County and Yolo County over water rights. This new memorandum about Mussel infestation could include the following: Working together on grant writing to expand the inspection of Clear Lake, increasing the cost of water taken from Clear Lake, expanding inspection of **all boats** entering Clear Lake, and any other mutually-agreed action to stop any infestation of all mussels in Clear Lake.

Role of the Public

The California Fish and Wildlife Agency and its coordinators call upon every person working and boating in any State waters to

CLEAN, DRAIN, & DRY

watercraft and equipment every time it is removed from a waterway. Though a relatively simple measure, adherence to it has prevented the spread of the Quagga and Zebra Mussels. In addition, boaters need to comply with Lake County inspection requirements or face substantial fines and possible sanctions such as being barred from accessing Clear Lake for prolonged periods.

Attempted Golden Mussel Prevention Restrictions Elsewhere

Several California counties have instituted stricter regulations because of the Golden Mussel. The Tahoe Regional Planning Agency (TRPA) voted to adopt stricter inspection requirements for motorized watercraft entering **Lake Tahoe** TRPA's approved mandatory decontaminations for all visiting boats ahead of the boating season to combat the spread of Golden Mussels,

The Agency noted that since their October, 2024 discovery in the Port of Stockton, the freshwater mollusks have spread through connected waterways as far south as Bakersfield, alarming water and wildlife officials. In response, agencies across the Valley have begun imposing new boating restrictions — including bans, inspections,

and mandatory quarantines. Authorities there stress that Golden Mussels are a larger threat to California waters than other mussel species because they can thrive in a wider range of water quality conditions and can also resist diseases, withstand brackish water, survive in fish guts, and have no known natural enemies [4].

Concern about the effects of the Golden Mussel invasion is forcing the closure of **Lake Hennessey** in Napa County. The Lake is an important water supply for Napa and provides about half of the City's drinking water. The City is closing the Lake's boat launch and is banning boats [5].

There is also a 30-day quarantine program in effect for all boats entering **Lake Berryessa.** Any boats that pass through Berryessa will be tagged with a 30-day quarantine sticker and owners will not be allowed to launch during that time [5].

In an effort to prevent mussel infestation that would damage the Lakes' infrastructure and impact power generation and water delivery systems at Folsom Dam & Reservoir, on April 14, 2025, **Folsom Lake** and **Lake Clementine** were closed to all trailered or motorized vessels in order to observe a 30-day quarantine. After inspecting nearly 5,000 vessels, on May 6, California State Parks found that the hull of a boat had several live Golden Mussels attached to it. The boat, which had recently been in the San Joaquin Delta, never touched Folsom Lake. After May 15, all vessels were required to have a quarantine and/or decontamination seal intact and verified prior to entering the two lakes. State Parks has staff inspecting all boats at all open boat launch facilities in Folsom Lake and Lake Clementine. Again, authorities stress that Folsom Lake is only 130 miles from Clear Lake [5].

On May 30, 2025, inspectors at the Alpine Meadows Watercraft Inspection Station confirmed the presence of golden mussels on the exterior of a 65-foot boat, according to the Tahoe Regional Planning Agency. The inspection, which is required before a boat can be launched, was the first documented interception of golden mussels in the Lake Tahoe area. The agency confirmed that the boat in question had just been to the Sacramento River Delta a few days earlier.

Earlier this year, the East Bay Municipal Utility District also announced it would keep boat launches closed to private vessels for the 2025 season, banning private boats and other watercraft from nearby Lake Camanche.

The Lake County Sheriff has a floating officer on Clear Lake from May through September. During the Fourth of July weekend, four temporary officers and a mussel sniffing dog can assist with inspections during the holidays.

Issues

A total ramp closure will not prevent a Golden Mussel introduction. Seven hundred and forty-nine public and private boat access points permit boaters to bypass any screening, inspection, or decontamination and thus will increase the probability of mussel introduction.

Not all boats are inspected. Hand-launched, non-motorized watercraft, such as kayaks, canoes, paddleboards, outrigger canoes, rowing shells and rowboats are not subject to the inspection, quarantine and seal program. Hand-launched boats with electric trolling motors, such as fishing kayaks, and eFoils are also exempt from the inspection, quarantine or decontamination and seal program. All exempt watercraft still must follow the Clean, Drain, and Dry guidelines.

Increased screening, such as increased inspection and decontamination requirements for visiting boaters from the Delta, would be made difficult due to limited staff and limited funding. State and Local laws and ordinances are written specifically for Quagga / Zebra mussels. Currently there is limited legal framework to respond to or manage Golden Mussels.

At a Lake County Board of Supervisors meeting in April, 2025, Invasive Species staff had to ask for an additional $25,000 just to be able to continue with inspections for the rest of year.

FINDINGS

F-1:The Golden Mussel has not yet been added to Ordinance 2936, resulting in possible loss of funding.

F-2: Boat inspection fines need to be increased to generate additional revenue for boat inspections.

F-3: Boats entering Clear Lake from private access points may not be subject to inspection.

F-4: In fourteen years since the alert for Quagga and Zebra mussels, no credible report of mussel infestation in Clear Lake has been reported.

F-5: Non-motor watercrafts are not inspected.

F-6: The Yolo County Flood Control & Water Conservation District has a vested financial interest in keeping the Golden Mussel from invading Clear Lake.

F-7: Seventeen Lake County water districts have a vested financial interest in keeping the Golden Mussel from invading Clear Lake.

RECOMMENDATIONS

R-1: That the Board of Supervisors include the Golden Mussel in Ordinance 2936. (F-1)

R-2: That the Board of Supervisors increase fines from $1000 to $5000. (F2)

R-3: That the Board of Supervisors include all watercrafts that can be transported by a vehicle's roof be included in the Lake County inspection program. (f5)

R-4: That the Sheriff of Lake County add another floating officer on Clear Lake from May thru September (F2, F3)

R-5: That the Lake County Board of Supervisors create a Memorandum of Understanding with the Yolo County Board of Supervisors for financial support to prevent possible mussel infestation in Clear Lake.

R-6: That the Lake County Board of Supervisors create a Memorandum of Understanding with the seventeen Lake County water districts to focus on the prevention of a mussel infestation in Clear Lake. (F-7)

RESPONSES

As per California Penal Code, Section 933.05(a), (b), (c), the following responses are required:

Lake County Board of Supervisors	(R-1, R-2, R-5, R-6)	90 days
Sheriff of Lake County	(R-4)	60 days

SOURCES

1) County of Lake Golden Mussels Pose Potential Threat Nov. 20, 2024
https://www.facebook.com/story.php?story_id=994401592716308&id=100064394301466&_rdr
2) County of Lake ARTICLE IX. - WATER VESSEL INSPECTION PROGRAM Mar. 25 , 2025
https://library.municode.com/ca/lake_county/codes/code_of_ordinances?nodeId=COOR_CH15RE_ARTIXWAVEINPR
3) De Palma-Dow, Angela Lake County Invasive Golden Mussel Update 6
https://www.lakecountyca.gov/DocumentCenter/View/13027/GM-Update-Presentation-to-BOS_FINAL-Dec-10_2024?bidId= 6
4) Hunt, Daniel Threat of invasive golden mussels prompts new rules, fees for boats at Lake Tahoe. March 29, 2025 Sacramento Bee
https://www.sacbee.com/sports/outdoors/article302922619.html
5) Cleary, L: Boaters urged to stay “above board” as Folsom Lake battles invasive mussel threat.
6) California Department of Fish & Wildlife: California’s invaders: Golden Mussel.
California’s Invaders: Golden Mussel

2025 Lake County Invasive Golden Mussel Update

Angela De Palma-Dow
Invasive Species Program Coordinator
Lake County Water Resources Department



Conquiliologistas do Brasil

@lakecountywater

www.nomussels.com

A BIG thank you to our ramp monitors!

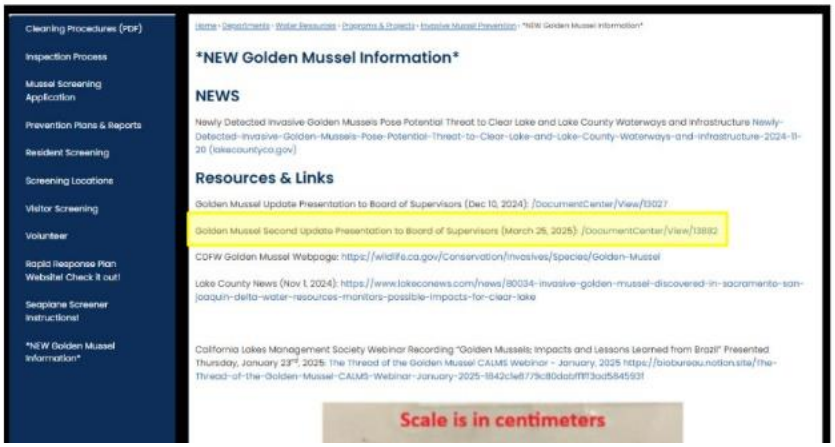
THIS PROGRAM ONLY WORKS BECAUSE THEY DO!!





Outline for today

- Update from December 2024 Golden Mussel Presentation
- Available on website



Quagga & Zebra Mussels (QZ)



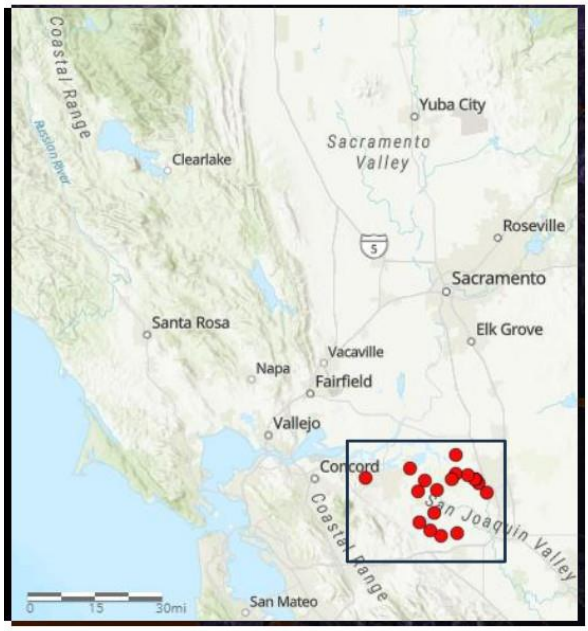
Golden Mussels (GM)



Not the same genus:

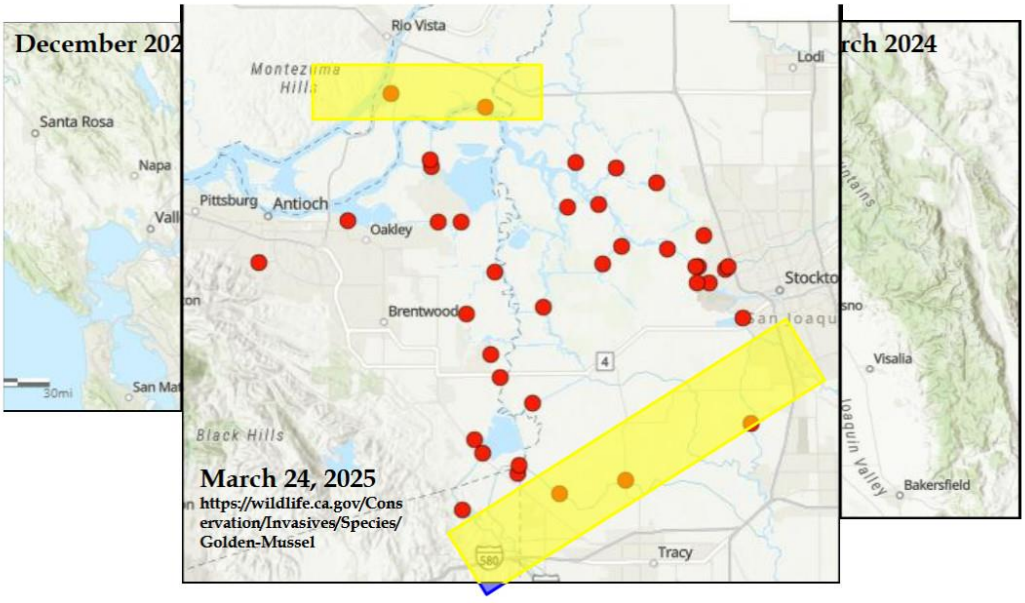
Dreissena vs. *Limnoperna*

December 2024 Golden Mussels found San Joaquin Delta, CA

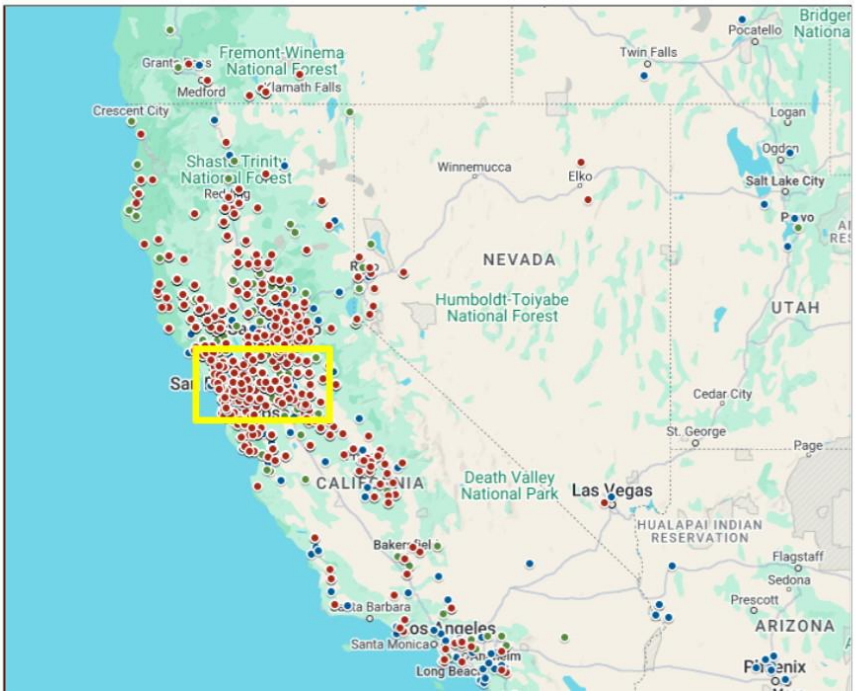


- Discovered in October 2024 by CDWR
- More detections every week
  - GM probably been here for year+
- We consider the entire Delta Infested
- ~150 miles from Clear Lake

March 2025 Golden Mussels found San Joaquin Delta, CA

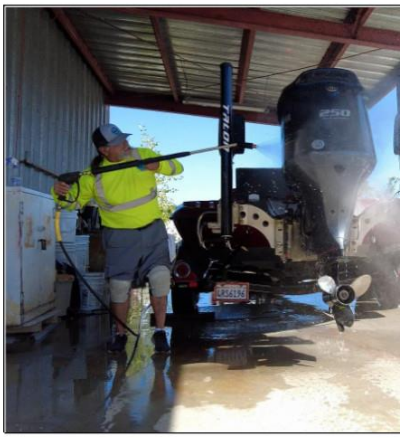


Where boats are from



Our Response:
We have strengthened the QZGM Prevention Program

- Continue hot water decontaminations
  - GM sensitive to hot water like QZ (140º)
  - Increased decons to boats visiting from Delta
- Increased ramps monitors presence
  - But will run out of hours by May
  - All part time staff (900 hours / year)



Increased Mussel Dogs Presence

- Added 12 more days in 2025 compared to previous years



Reduce traffic

- Communicated& Collaborated with CDFW
  - Reduced number of permitted fishing events
  - From 3 to 2 per day
  - Ease the inspection / decon burden on our staff
  - Economic impacts?



Early Detection Monitoring

- Monthly monitoring
  - Substrates
  - In-lake infrastructure
  - Shorelines
  - Juvenile mussel tows in water column (w/CDFW)
- So far, no QZGM mussels detected



Program support: Funds

- Request $25,000 in General Funds for remainder FY 2024-2025
  - For: Mussel Dogs and inspection staff augmentation
  - Add to $20K granted from District 1 in December 2024
  - Match to 2023 State and 2021 Federal Grant
- Maintain our prevention program (keep the lake safe) through the rest of the year



Fund needs – FY 25/26

District Staff can come to BOS next year to ask for rest of $245,000

Description	Type	Amount 24/25	Amount 25/26
Department coordinating and technical staff	Staff (coordinator and technician)	$5,000	$15,000
Ramp Monitoring / Inspection Staff Augmentation Services	Contractor (Mussel Dogs)	$10,000	$90,000
Education, monitoring, outreach (including, highway signage & radio, podcast outreach)	Supplies	$10,000	$40,000
Permanent Decon Machine Concept & Engineering Design, Permitting, CEQA, Grant Writing Support	Contracted Services	-	$100,000
Estimated Subtotals per fiscal year		$25,000	$245,000
Total Project Request		$270,000	

No current state grants for GM

2025 QZ Grant Program Update

Golden Mussel Work is not fundable for the QZ Grant Program

While DBW recognizes that prevention work for quagga and zebra mussels also prevents the spread of golden mussels, the statues and regulations governing the QZ Grant Program are specific to quagga mussels (*Dreissena rostriformis bugensis*) and zebra mussels (*Dreissena polymorpha*). The ability to grant or deny a complete application is based whether the applicant is trying to prevent infestation of QZ in its reservoir. Therefore, the QZ Grant Program cannot fund activities that discuss the golden mussel (*Limnoperna fortunei*) for the 2025 Grant Cycle. **Applications which discuss the golden mussel may be disqualified during the interagency review process.**

If you were forwarded this notice, click here to receive future QZ Grant Notices
For more information: Online: https://dbw.parks.ca.gov/QZGrant
Email: QZGrant@parks.ca.gov
Telephone: (888) 326-2822

California State Parks Division of Boating and Waterways | www.BoatCalifornia.com

BRC Prop 4 funds are available

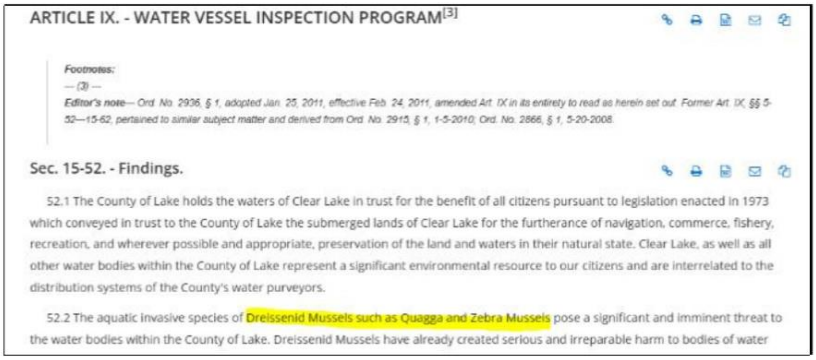
- Dec 2024 - District staff (Angela) went to Blue Ribbon Committee with Golden Mussel Update
  - Committee *very* interested in approving and funding Golden Mussel Project(s)
    - Staff, mussel dogs, outreach, education, construction of dip tanks (work with Public Services)





Next Steps

- Updating Ordinance 15 Water Vessel Inspection Program
  - Include Golden Mussels and other invasive freshwater mussels
- Starts notice period on Saturday March 29, 2025
  - Ready by April 8th earliest



ARTICLE IX. - WATER VESSEL INSPECTION PROGRAM[3]

Footnotes:
— (3) —
Editor's note— Ord. No. 2936, § 1, adopted Jan. 25, 2011, effective Feb. 24, 2011, amended Art. IX in its entirety to read as herein set out. Former Art. IX, §§ 5-52—15-62, pertained to similar subject matter and derived from Ord. No. 2915, § 1, 1-5-2010; Ord. No. 2866, § 1, 5-20-2008.

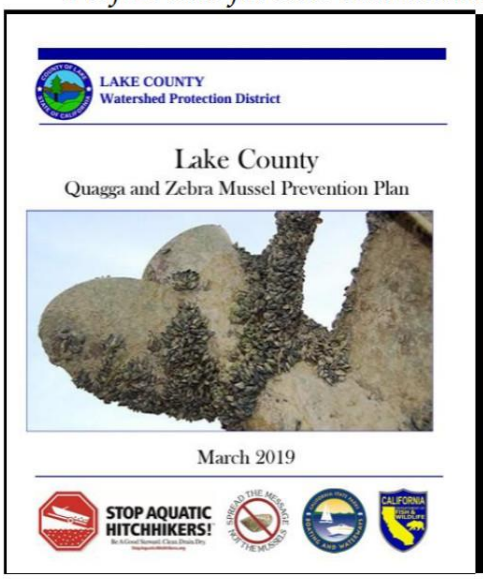
Sec. 15-52. - Findings.

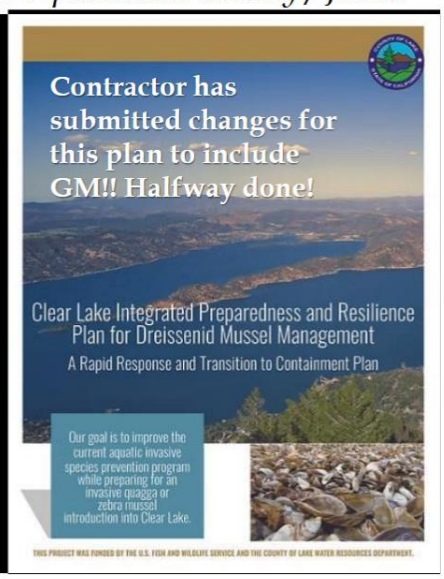
52.1 The County of Lake holds the waters of Clear Lake in trust for the benefit of all citizens pursuant to legislation enacted in 1973 which conveyed in trust to the County of Lake the submerged lands of Clear Lake for the furtherance of navigation, commerce, fishery, recreation, and wherever possible and appropriate, preservation of the land and waters in their natural state. Clear Lake, as well as all other water bodies within the County of Lake represent a significant environmental resource to our citizens and are interrelated to the distribution systems of the County's water purveyors.

52.2 The aquatic invasive species of Dreissenid Mussels such as Quagga and Zebra Mussels pose a significant and imminent threat to the water bodies within the County of Lake. Dreissenid Mussels have already created serious and irreparable harm to bodies of water

Update Plans specific to QZ Mussels

Perfect task for AIS coordinator replacement in May / June!!





Staff Augmentation

- Get more trained staff on ramps doing inspections!
- Increase Contract with Mussel Dogs
  - Provide more Dog sniffing teams more days
  - Options for providing trained inspection staff
    - Similar to Lake Sonoma, Lake Mendocino
  - Training and outreach resources too!
- Increased Western Inspection Database entries
  - Digital tracking of water vessels
  - Makes inspections more efficient

What can the public do?

- Get Screened and Sticker up! www.nomussels.com
  - From the Delta? Call ahead to get a free decon!
- Know about the risk of GM and QZ
- Follow ALL signage at any water body
- **Clean, Drain, Dry** All the time, Every time



What can the public do?

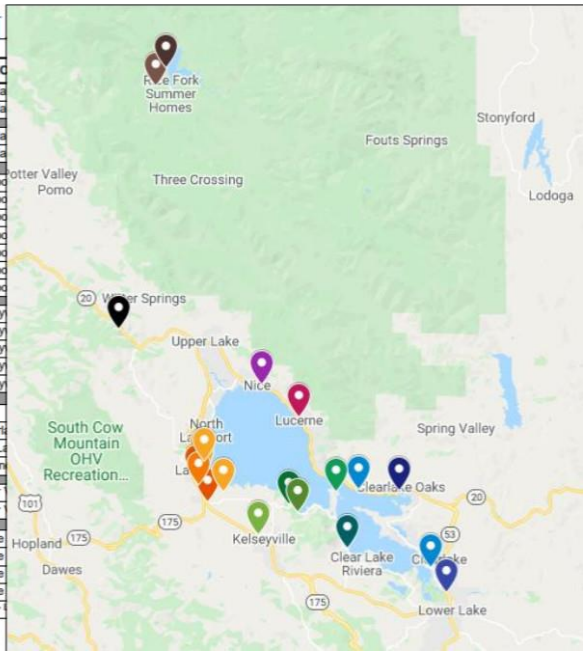
- If you think you see a Golden Mussel, contact us right away!!
- (707)263-2344
- Facebook @Lakecountywater
- Water.resources@lakecountyca.gov





QUAGGA MUSSEL

NAME OF LOCATION	ADDRESS OF LOCATIO	
Indian Beach Resort	9945 Hwy 20	Clearla
Limit Out Tackle	12607 E. Hwy 20	Clearla
Clearlake Bait & Tackle	14699 Lakeshore Dr.	Clearla
Clear Lake Campground	7805 Cache Creek Way	Clearla
McAtee's Marine Repair	3450 Hill Road	Lakepo
Hillside Powersports	460 S. Main St	Lakepo
Clearlake Outdoors	96 Soda Bay Rd.	Lakepo
Lake County Chamber of Commerce	875 Lakeport Blvd.	Lakepo
Konocti Vista Casino Resort Marina	2755 Mission Rancheria Rd.	Lakepo
Skylark Shores	1120 N. Main St.	Lakepo
Lakeport Bait & Tackle	1050 N. Main St.	Lakepo
Braito's Marina	1555 East Lake Drive	Kelseyv
Clearlake State Park	5300 Soda Bay Road	Kelseyv
Kelseyville Lumber & Supply Co.	3555 N. Main Street	Kelseyv
Borenbega	9080 Soda Bay Road	Kelseyv
Clear Lake Vista Resort	6190 Soda Bay Road	Kelseyv
Lake Builders Supply	3694 Highway 20	Nice
Chris Hudgins, SeaDoo Dr	325- B Hwy 20	Upperl
Narrows Resort	5690 Blue Lakes Rd	Blue La
Konocti Bait Shop	6199 Hwy 20	Lucern
Lake Pillsbury Resort	2756 Kapronos Rd	Potter
Soda Creek Store	26853 Elk Mountain Road	Potter
Suzanne L-B	Indian Valley Reservoir	Mobile
Bob Sullivan Screening/Inspection	Flexible	Mobile
Conrad Clobrandt	Flexible	Mobile
Mark Holloway	Flexible	Mobile
Robert Valdez	Flexible	Mobile -



Lake County Invasive Quagga/Zebra (Q/Z) Prevention Program: Your Q/Z Mussel Sticker at Work

The Lake County Water Resources Department has partnered with many local small businesses to sell Q/Z Invasive Mussel Prevention stickers for water vessels in launching in Lake County. A single Q/Z boat sticker costs $20 and the figure below breaks down exactly where that sticker sale revenue is going and how it is being used.



High Drinking Water Impact Costs



Economic Impacts of Zebra Mussels on Drinking Water Treatment and Electric Power Generation Facilities

Nancy A. Connelly · Charles R. O'Neill Jr. · Barbara A. Knuth · Tommy L. Brown

Table 5 Mean economic impacts caused by zebra mussels, 1989–2004 by expenditure category, for drinking water treatment facilities with different capacities

Expenditure category	Mean per facility with some type of expenditures		
	≤ 1 MGD	2–10 MGD	≥ 11 MGD
Prevention efforts	$17,078	$59,144	$152,468
Lost production and revenues	$0	$1,453	$0
Chemical treatment	$26,618	$21,981	$64,736
Planning, design, and engineering	$17,429	$13,140	$85,934
Retrofit and/or reconstruction	$20,989	$30,283	$53,916
Filtration or other mechanical exclusion	$2,893	$2,906	$47,352
Monitoring and inspection	$17,615	$11,387	$27,388
Mechanical removal	$2,956	$4,567	$19,179
Nonchemical treatment	$211	$0	$0
Research and development	$11	$0	$8,173
Personnel training	$911	$1,780	$3,036
Customer education	$3,571	$94	$3,443
Other	$0	$0	$39,836
	$110, 282	$146,735	$505,461

Note. MGD, million gallons per day

Economic Costs of AIS & QZ

Nationally

- At least $120-$138 billion in *annual* cost

Great Lakes Basin

- $30 million in *annual* cost for mussel monitoring and control

California

- Estimated mussel damage ~$30 billion drinking water systems in California

Drinking Water Systems on Lakes & Reservoirs

- < 1 Million Gallons Per Day Facility
  - ~$110,000 / year

OTA 1993; Pimentel et al. 1999, 2005 ; CA Resources Agency 2008; US Fish and Wildlife; Rosaen et al. 2012; Rothlisberger et al. 2012

The State Of Groundwater in Lake County

SUMMARY

Lake Country is facing a significant potential groundwater deficit in the Big Valley Basin, projected to be a loss of as many as 25,000 acre-feet per year by 2042 if steps are not taken to meet the requirements of the Sustainable Groundwater Act (SGMA). One acre-foot of water is equivalent to 325,851 gallons, which amounts to a total of 7.8 million gallons of water. For context, a family of four in California typically consumes between 8,000 and 12,000 gallons of water monthly. The projected yearly loss of 25,000 acre-feet is equivalent to the annual water consumption of 81.2 families of four.

This deficit can be mitigated by adopting groundwater recharge practices such as flood-managed aquifer recharge (Flood-MAR) and rainwater harvesting with hydro infiltrators (HRHS). Adjustments in agricultural practices, including changes in crop types, can also reduce water consumption. Furthermore, advances in technology, such as Project Nexus - which explores the use of solar panels over canals to reduce water evaporation - can help alleviate the situation. Evaporation from water bodies can lead to the loss of as much as 20% of stored water.

While the challenges faced by Lake County are substantial, they are less severe than those encountered in the Central Valley, where groundwater overuse and subsidence (the sinking of the landscape due to groundwater depletion) are critical concerns. To avoid severe consequences, Lake County must plan for its future water needs and implement solutions proposed in this report.

METHODOLOGY

The Grand Jury conducted multiple interviews and reviewed websites and articles, including academic studies, government reports, and news articles. Jurors also Interviewed several water system employees and members of the Board of Supervisors.

BACKGROUND

Lake County has seven major basins: Big Valley Basin, Coyote Valley Basin, High Valley Basin, Scotts Valley, Burns Valley Basin, Clearlake Cache Formation Groundwater Basin, and Lower Lake-Middletown Area

Big Valley Basin:

Located in the west-central portion of Lake County, this basin is one of the largest and most important for groundwater.

Coyote Valley Basin:

Found in the southern part of Lake County, this basin is characterized by alluvial deposits and some volcanic rock formations.

High Valley Basin:

Located in the eastern part of Lake County, this basin is known for its agricultural use of groundwater.

Scotts Valley:

This basin is located in the western part of Lake County and is known for its agricultural and residential water usage.

Burns Valley Basin:

Located in the western part of Lake County, it's known for its Quaternary alluvium and upland terrace deposits.

Clear Lake Cache Formation Groundwater Basin:

Located east of Clear Lake, this basin is characterized by the Clear Lake Cache Formation.

Lower Lake-Middletown Area:

This area includes several smaller valleys where groundwater is derived from alluvial deposits.

California passed the Sustainable Groundwater Management Act (SGMA) in 2014, requiring local groundwater sustainability agencies (GSA) to create and implement groundwater sustainability plans (GSP).

> To comply with SGMA, GSA of "Critically-Overdrafted, High-Priority, and Medium-Priority Basins" must achieve sustainable groundwater management, defined by SGMA as the avoidance of locally-defined undesirable results. To achieve sustainability, GSA must develop and implement effective groundwater management plans that consider the interests of all beneficial uses and users of groundwater, including environmental users of groundwater. [Water Code § 10723.2.]

The Big Valley groundwater GSA was started in 2022, so the County has until 2042 to make its groundwater usage sustainable or face fines and/or penalties. In 17 years, Lake County will have to make up a possible 25,000 acre feet per year to be in compliance.

PENALTY

Non-compliance with the SGMA in California can lead to several penalties, including state intervention, probationary status for groundwater basins, and potential financial penalties. The State Water Resources Control Board (SWRCB) can assume management of a basin if local Groundwater Sustainability Agencies (GSA) fail to meet SGMA requirements. In addition, property owners may face fees, assessments, and other restrictions on their water use, including well spacing requirements and reporting obligations.

Below is a more detailed breakdown of the penalties:

State Intervention:

If a GSA fails to adopt or implement a GSP, or if the GSP is deemed inadequate, the State Water Board can step in and assume management of the basin. This can include monitoring wells, managing fees, and implementing pumping restrictions.

Probationary Status:

The State Water Board can place a basin on probation if it fails to meet SGMA requirements. While on probation, GSAs have a period of time to address issues, and if they fail to do so, the State Water Board may implement an interim plan.

Financial Penalties:

Individuals and entities may face financial penalties for non-compliance with SGMA regulations. These penalties can include fines for violating orders, permits, or regulations, as well as fees for groundwater extractions in probationary basins.

Property Owner Restrictions:

GSAs can impose various restrictions on private property owners, including fees, assessments, well spacing requirements, and regulations on groundwater extractions.

Loss of Contracts:

Organizations that fail to meet SGMA compliance requirements may lose government contracts or be disqualified from bidding on future contracts. [3]

DISCUSSION

Lake County is doing quite well with groundwater compared to the Central Valley. Of the seven major Groundwater basins in Lake County only the Big Valley Basin is being monitored by the State. It is listed as a “moderate” problem. The Water Resources Provisional 2001 Land Use Report listed Big Valley Basin as using 15,000 acre-feet per year with a 15% recoverable return (rain/snow).

At present, groundwater meets about 60% of Lake County's urban and agricultural water demand. but in the future the demand for water may increase by as much as 21% in 2024. [2]

Unlike Lake County, the Central Valley has two substantial problems: overuse of groundwater and subsidence (sinking land due to the shrinking water basin).

> In the San Joaquin Valley more than 4,000 square miles – an area half the size of New Jersey – sank by over 12 inches, reaching about 30 feet in some locations, from 1925 to 1970….
>
> Additional analysis by the researchers suggests that San Joaquin Valley aquifers require approximately 220 billion gallons of water coming in each year – through natural or engineered processes – to prevent future subsidence [8].

PRESENT SOLUTIONS

RECHARGING GROUNDWATER

There are two types of recharge for groundwater - natural and artificial. The natural recharge method is precipitation (rain, snow). Artificial recharge of groundwater has five methods - spread irrigation, recharge ponds, injection wells, canal seepage, and stormwater capture.

One example of this is the half moon -recharge system.

Credit: Andrew Millison/YouTube

> The Great Green Wall initiative began in 2007 to keep the Sahara Desert from encroaching on the rest of the continent. By 2024 the rejuvenation of 300,000 hectares (about the equivalent of 600,000 football fields) had been accomplished …
>
> Half-moon shaped ditches dug in such a way that water flows into them on the straight side with an embankment built on the rounded

side to hold the water in. Each half moon is 4 meters in diameter and takes about a day for one person to dig.

Local vegetation, such as sorghum and millet, are planted in these half moons, rehabilitating the land and feeding the local community at the same time. [4]

Ten to fifteen percent of the water will soak into the ground to replenish the water table, creating a more sustainable agricultural process.

If this desertified "wasteland" can be rejuvenated so successfully, it provides hope for recovering other land that many people might write off as useless or barren. [3]

This may be a way to salvage parts of the Central Valley where the land is now barren due to overuse of groundwater and subsidence.

Other ways to recharge the water basins include a water management approach called flood-managed aquifer recharge (flood-MAR), which is being widely adopted in California. It involves diverting excess surface water from precipitation and snowmelt to locations where the water can percolate down and recharge the aquifers. [5]

There is also a new technique called rainwater harvesting with hydro-infiltrators (HRHS). Rainwater harvesting involves capturing rainwater before it reaches the aquifer—usually from roof gutters—and storing that water for future use, typically for irrigation and/or livestock watering during dry periods. The rainwater is often stored in tanks (above or below ground), a pond, or a cistern.[7]

The new hydro-infiltrator consists of a net-like shell filled mainly with biochar (charcoal-like substance made from burning organic material like wood chips, manure, and crop waste. It's used to improve soil health, reduce greenhouse gas emissions, and produce energy). It is cylindrical in shape, is placed vertically and is half-buried in the soil

around the crop tree to facilitate the infiltration of rainwater, irrigation or runoff water deep into the soil. [7]

Recharging the groundwater basins can be accomplished by making more dams, storage ponds and improving agricultural irrigation techniques. This will offset the groundwater loss in Lake County as well as the Central Valley.

Another present solution is changing the types of crops grown in the Big Valley Basin. As can be seen by the chart below, different crops require different amounts of water. If we change the type of crop grown, we can decrease the amount of water used.

Pasture (clover, rye, bermuda and other grasses), 4.92 acre feet per acre

Almonds and pistachios, 4.49 acre feet per acre

Alfalfa, 4.48 acre feet per acre

Citrus and subtropical fruits (grapefruit, lemons, oranges, dates, avocados, olives, jojoba), 4.23 acre feet per acre

Sugar beets, 3.89 acre feet per acre

Other deciduous fruits (applies, apricots, walnuts, cherries, peaches, nectarines, pears, plums, prunes, figs, kiwis), 3.7 acre feet per acre

Cotton, 3.67 acre feet per acre

Onions and garlic, 2.96 acre feet per acre

Potatoes, 2.9 acre feet per acre

Vineyards (table, raisin and wine grapes), 2.85 acre feet per acre

Many people also question how much water cannabis needs to grow. The Department of Water Resources did not track water usage for cannabis in its 2015 data, but The Washington Post reported in 2015 that the crop uses 1.4 acre feet per acre. (1)

A future solution includes improved technology.

One example is capturing evaporating water from a lake. Lakes can lose about 20% of their water through evaporation. A water generator ranges from home-based units that can produce 1 to 20 liters of water per day to commercial-scale units capable of 1,000 to more than 10,000 liters per day.

The cost is prohibitive at this time due to the amount of electricity needed, but in the future, generation may become a viable source of clean water.

California is testing installing solar panels over canals to generate renewable energy and reduce water evaporation (Project Nexus).

> Project Nexus includes the installation of solar panel canopies over various sections of Turlock Irrigation District's (TID) irrigation canals. Project Nexus serves as a Proof of Concept to pilot and further study solar-over-canal design, deployment, and co-benefits on behalf of the State of California using TID infrastructure and electrical grid access.
>
> The Project is expected to be completed and commissioned by 2025.

[6]

These two solutions may be a way to use groundwater from the eastern part of the County where boron needs to be eliminated from the water. In the future, the cost of using a water generator may be offset by the electricity provided by the solar panels.

Also in the future, an injection well (a well that adds water to the aquafilter) can infuse all this excess water into the Big Valley Basin.

Constructing more dams and storage ponds, plus improving agricultural irrigation techniques, will also help offset the groundwater loss in Lake County, as well as in the Central Valley.

FINDINGS

F-1: In 2042, Lake County is projected to be out of compliance with the Sustainable Groundwater Management Act.

F-2; The Big Valley Basin is the only Lake County Basin being monitored by the State of California.

RECOMMENDATIONS

R-1: That the Board of Supervisors designate flood-managed aquifer recharge areas in the Big Valley water basin. (F-1, F-2)

R-2: That the Board of Supervisors conduct a comprehensive review of agricultural water use in the Big Valley Basin. (F-1, F-2)

R-3: The Board of Supervisors evaluate the feasibility of implementing hydro filtration technologies in the Big Valley Basin. (F-1, F-2)

RESPONSES

As per the California Penal Code, Section 933.05(a), (b), (c), the following responses are required:

Lake County Board of Supervisors: R-1, R-2, R-3 90 days

REFERENCES

1) Pera, Matt California crops that use the most water June 24, 2021

THE PRESS DEMOCRAT https://www.pressdemocrat.com/article/specialsections/these-are-the-california-crops-that-use-the-most-water/

2) County of Lake Increase use of groundwater

https://www.lakecountyca.gov/1241/Groundwater-Management#:~:text=Groundwater%20is%20one%20of%20Lake,meeting%20Lake%20County's%20water%20needs.

3) fines and penalties with failure to meet sgma requirements

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Grand Jury Report on Site Visit to Mendocino County Juvenile Hall: April 9, 2025



On April 9, 2025, the Lake County Civil Grand Jury paid a site visit to the Mendocino County Juvenile Hall (MCJH), located at 585 Low Gap Road, Ukiah, CA 95482. Website: mendocinocounty.gov/government/probation/juvenile-hall

SUMMARY

The Grand Jury is commissioned to look at detention centers and prisons. The Grand Jury performed a site visit to the Mendocino County Juvenile Hall, per, Penal Code (PC) section 919: " . . .requires the Grand Jury to "inquire into" the following topics: the condition and management of "all public prisons" within the county, and the "willful or corrupt misconduct in office of public officers of every description within the county."

The Penal Code also contains a number of mandated procedures that the Grand Jury is obligated to follow during its investigations and report writing.

- Each finding (conclusion or value judgment) in a grand jury report must be supported by documented evidence (PC 916)

- If the findings identify a problem, the grand jury must include in the report one or more recommendations to solve that problem (PC 916)
- The report's recommendations must include the financial means for solving the identified problems, when applicable. (PC 916)

PC 919(b): The grand jury shall inquire into the condition and management of the public prisons within the county.

BACKGROUND

Upon arrival, we were greeted by members of the Department of Probation.

According to their website, the primary function of this facility is to "provide for the physical and emotional care of incarcerated youth in Mendocino County." Currently, not only is it open to youth of Mendocino County, but also, due to a lack of such facilities in nearby counties, it also houses youth from Lake and other neighboring counties.

The MCJH facility houses up to 40 youths and offers medical, psychiatric, and dental services. Their school program operates in cooperation with the Mendocino County Office of Education. They also provide meetings for Alcoholics/Narcotics Anonymous, as well as religious services.

"According to the Board of State and Community Corrections (BSCC): Given the passage of SB 823 and the eventual closure of the state's youth correctional facility, the Board of State and Community Corrections understands that agencies may have questions about the housing of youthful offenders in local detention facilities. The BSCC is the designated state agency that monitors local juvenile detention facilities for compliance with the federal Juvenile Justice and Delinquency Prevention Act (JJDPA), which requires that juveniles not have "sight and sound contact" with adult inmates. (34 U.S.C. 11133(a)(11)(B).) This "Separation Requirement" allows states to define the terms "juvenile" or "minor". In California, the term "minor" is used to refer to a person under 18 years of age.

"In California, the court of jurisdiction is important in determining whether separation is required between a person 18 years of age or older and a minor in a juvenile detention facility. To assist agencies, the BSCC developed Frequently Asked Questions:

1. What is the full age of criminal responsibility in California? 18 years of age.
2. What is the maximum age of extended juvenile jurisdiction in California? 25 years of age. Under the new section 208.5 of the Welfare and Institutions Code, any person whose case originated in juvenile court can stay in a juvenile facility until the person turns 25. (1)

County oversight for Juvenile Corrections is provided through three entities: The Community Corrections Partnership, the Juvenile Justice Coordinating Council, and the Juvenile Justice and Delinquency Commission. Information for these organizations and minutes for their meetings can be viewed on the MCJH website.

The Lake County Juvenile Probation Department budget for 2025 is $250,000.00.

METHODOLOGY

This report is on the site visit to MCJH.

DISCUSSION

During our visit, the Grand Jury learned the average stay for most youths incarcerated there was 21 days, with the least stay one day, and the most was one year. The Grand Jury also learned there were currently 15 incarcerated youths in the facility, with 2 of them from Lake County. The percentage breakdown male to female, overall, was 15% female to 85% male.

It's noteworthy that incarcerated youths from Lake County have been housed in neighboring counties since the closure of Lake County Juvenile Detention Center in 2015, which was shuttered due to decreasing numbers of incarcerated youths.

Following the closure of the Lake County Juvenile Detention Center, the incarcerated youths were housed in the Mendocino County Juvenile Hall beginning 10/15/15 through 9/30/17. When Lake County youth numbers continued to decline, the incarcerated youths were relocated in Tehama County in 2017. When contract negotiations failed in Tehama County, they were housed briefly in Butte County. Near the end of 2017, Lake County contracted with Yuba and Sutter Probation Departments, utilizing the Maxine Singer Youth Guidance Center, known

as 'Camp Singer.' Tehama County Juvenile Hall was the primary location for housing the youth while using other facilities as needed, including Butte County, Mendocino County, and Tri-County Juvenile Hall in Yuba City. Finally, on June 26, 2024, they have been housed in Mendocino County Juvenile Hall.

The cost to Lake County for these out-of-county housing facilities for Lake County incarcerated youth was not obtainable from every county utilized. Costs were available from the Mendocino County website where the incarcerated youth are currently being housed. Lake County currently pays the following to Mendocino County:

- $150.00/per bed/per day, with a guaranteed minimum of 12 beds per month.
- Additional beds beyond 12 per month minimum= $120.00/per bed/per day.

The reason for the closure of the Lake County Juvenile Hall, and housing of Lake County incarcerated youth in other nearby county facilities, is discussed in the article below at great length, where the state of California youth prisons is explained. Here is where that explanation begins:

"In 2020, Governor Newsom signed Senate Bill 823 into law, requiring the state's youth prisons to shut down by June 30, 2023, and disallowed counties from sending youth to the Division of Juvenile Justice (DJJ) as of July 1, 2021.

"SB 823 called for counties to provide the "least restrictive appropriate environment". Such an environment would be as minimally punitive as possible while remaining appropriate and safe for the youth, the staff, and the surrounding community. The bill also sought to "reduce the use of confinement by utilizing community-based responses and interventions. Today, all youth remain in their home county or nearby, if their county does not have a juvenile facility, which is often the case in smaller counties with few, if any, incarcerated youth." (2)

Over the past few decades, the rules, policies, and methods of juvenile justice and incarceration have drastically changed, moving all juvenile offenders out of juvenile prisons and into facilities where the attention and focus is on rehabilitation and redirection of juvenile incarcerated youth, with better outcomes and success than was achieved previously under State Juvenile Prisons.

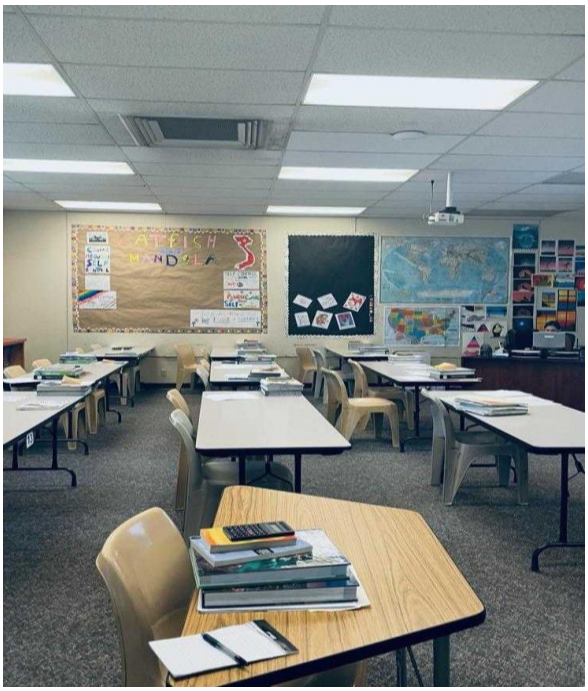
Unfortunately, due to the closure of Lake County's juvenile facility, the County has had to re-house the incarcerated youth to facilities in other counties, which poses problems for family members who must travel sometimes great distances to visit their incarcerated youth. It also costs Lake County substantial fees when out-of-county incarcerated youth must be transported to and from home county courts or be taken to medical facilities for medical reasons. These costs can run Lake County in the hundreds of dollars per trip.

THE GRAND JURY TOUR:

The Grand Jury toured the facility beginning with the intake area, and proceeding through cell areas, and group recreation areas. The tour continued to the cafeteria where the incarcerated youth are served meals daily. The meals are not prepared there in the cafeteria, but brought daily to the Juvenile Hall from the county jail facility.

On the tour, the Grand Jury also viewed a separate recreation area where inmates who have earned good behavior status can go to relax, play games, read books, and interact.

Additionally, the Grand Jury viewed the classroom where incarcerated youth go daily to receive educational instruction, and upon coming into the room, it impressed us how like a "normal" classroom it appeared. Desks for the students were in the middle of the room. In front of the room were the teacher's desk and a behavioral health assistant's desk.



Along the walls were bookcases with various teaching materials, including books, art supplies, educational games, and other resources. The classroom was very well-stocked with usual and expected teaching materials and resources. There was a bank of windows along the back wall, which provided natural lighting and allowed students a peaceful place to look out at.

In the front of the classroom was a very large audio/visual screen, obviously used for teacher instruction. It was tuned to a nice cityscape on the internet. Additionally, the walls were artfully decorated with teacher-created bulletin boards, sporting various instructional themes on each one. Also, there were posters throughout the room with instructional aids such as English pronouns, and mathematical formulas on them.

On one wall, there were posters the student's had made–artfully designed and signed by them, that were interesting to look at and read. The classroom was very neat and clean, with an atmosphere inviting the inquiring mind to learning and exploring.



The grounds in the courtyard of the facility were kept very nicely, and provided a peaceful, greenspace area when traveling through there. Overall, there was a sense of support and care for the incarcerated youth in providing an environment suitable to low-conflict, low-pressure residency while serving their terms.

During the tour, the Grand Jury was able to ask many pertinent questions of the staff. The questions ranged from what types of lawbreaking had brought the incarcerated youth there, to what types of meals did they receive daily. Some incarcerated youth had been convicted of committing murder, and most had been victims of many types of abuse. The Grand Jury asked about their daily schedule, visits with parents/family, and access to physical exercise, as well as types of discipline, and asked questions to the staff about the work they did there.

The staff can be commended for candidly answering the many probing questions the Grand Jury asked of them, and we thank them. They also shared with the Grand Jury many success stories they had been a part of–youths that had managed to make necessary changes in their lives and leave the facility in a better emotional and mental place.

The Grand Jury learned about the now famous "mural project" in the cafeteria of the MCJH–completed in 2018. The "mural project" was reported on in the Ukiah Daily Journal by Curtis Driscoll, August 23, 2018. In the article he relates that the project was done by local artist Danza Davis, and is 29.5 feet long and 9.5 feet high, featuring a typical summer in Northern and Inland Mendocino County. (3) (See Appendix for photo attached).

The Grand Jury expressed praise for the notable artwork when we viewed it. Not only did the artist Danza Davis help create the mural, but she was able to draw many of the youth in the facility into the creation process with her.

The article states: "Because many of the students had different levels of experiences, part of Davis' work focused on making sure that students of all art backgrounds felt comfortable in painting parts of the mural and feeling like they were creating something unique." (3)

Davis went on to say: "Honestly, the hardest part was convincing them that you really can participate and don't be intimidated because you have never painted before . . . You should really just try it and find out there is a lot of joy to be found in painting and with guidance you can come to a result people can appreciate." (3)

Finally, an Assistant Chief Probation Officer said: " . . . he has heard from parents of kids who worked on the painting that it has reinvigorated their artistic spark and made the kids want to continue to work on art beyond just the project." (3)

FINDINGS

F-1: The positive mutual working relationship and cooperation between Lake County and Mendocino County Juvenile Divisions was evident and was a substantial benefit to the youths.

F-2: The condition of the facility and the number of programs for the youths was impressive.

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APPENDIX

Photos courtesy of Lake County Grand Jury, 2025.

Grand Jury site visit to Konocti Conservation Camp #27: April 10, 2025



The CDCR and Cal Fire staff of Konocti Conservation Camp #27.

BACKGROUND

Konocti Conservation Camp #27 is jointly operated by the California Department of Forestry and Fire Protection (Cal Fire), and the California Department of Corrections and Rehabilitation (CDCR).

The Konocti Conservation Camp (KCC) is located at 8275 Doten Road, Lower Lake, CA 95457. KCC #27 opened in April 1963

According to the KCC website, the "primary mission of the camp is to provide incarcerated hand crews to support local, state, and federal agencies in response to emergencies such as wildfires or floods. Camp participants also complete community service and conservation projects, year-round." Additionally, they also

service all emergency fire vehicles in Lake County in one of the largest heavy equipment garages in the area.

Cal Fire utilizes the crews from KCC for many conservation projects providing local communities with thousands of crew hours on work projects including local and county fire stations, Northshore Fire Protection, Mt. Konocti Recreation Area, and many more.

KCC has five incarcerated fire crews, trained and able to respond to fires at any time. They operate a Cal Fire Mobile Kitchen Unit (MKU) that responds to major incidents, and provides meals for all personnel involved. They also operate a Mobile Equipment Unit (MEU) that responds to major incidents to repair and maintain the vehicles and equipment responding to incidents.

Under CDCR jurisdiction, KCC offers inmates rehabilitation and educational services such as substance abuse programs and religious programs, as well as GED and college courses. The training and education inmates receive during their time at KCC prepares them for successful reentry into their communities upon release.

DISCUSSION

On April 10, 2025, the Grand Jury visited the Konocti Conservation Camp #27, a yearly event.

While the Grand Jury has visited KCC many times in the past, the jurors are always encouraged to see their successes achievements over and over. Their successful rehabilitation rate, compared with many similar types of rehabilitation programs, has remained high at 70%, while other programs are at a 31% rate.

A hallmark of the KCC program revolves around providing life-changing job skills as well as much needed concentrated education for inmates. Some of the skills and education they receive at KCC includes: firefighting, cooking and chef training, grounds maintenance and improvement, mechanics (including training in heavy-duty vehicles), carpentry, milling of lumber, cement and masonry, landscaping, and many more. These skills are easily transferable into lifetime jobs, careers, and even businesses.

They have perfected their ability at KCC to not only grow and harvest food, but also make meals for large numbers of people, such as with fire emergencies and natural disasters. Their mobile kitchen is set up to feed as many as 1,000 people, three meals a day for five days at any given time! That's efficiency and skill at a very high level!

At KCC, they can have 100-150 inmates. At the time of the site visit there were 88 inmates. These inmates are set up in 15-man teams ready to go to events such as fires and any other needs that arise in a moment's notice.

As the Grand Jury was taken on a tour of their facilities, all marveled at the stone and masonry work everywhere that had been done by inmates, including beautiful grounds work everywhere and lovely fountains with bubbling water sounds filling the air. The grounds are extensive and situated on an idyllic hillside and valley with views any painter would admire.

Of note, the grounds of KCC are mostly unfenced. Inmates stay there on the property under what is known as an "honor system". They know the rules, and they are instructed to follow them or there will be consequences they will suffer. Correctional and Fire Staff are present 24/7 on the property and they monitor the inmates as they go about their daily work and duties.

The concept of KCC operates around the premise that inmates must learn individual responsibility as well as group accountability–necessary goals toward being able to turn from lives steeped in unlawfulness and wrong behavior, toward lives of productivity and success. Many find that path, but sadly, some do not. Nevertheless, the opportunity is presented to each of them and the choices are theirs to make.

In order for inmates to qualify for conservation camps, the Grand Jury learned that inmates cannot have an excessive history of misconduct or certain disqualifying offenses, such as sex offences, arson, or escape. They must volunteer for the program, and have a remaining sentence of at least five years and not more than eight years, to allow them time to learn the skills and education necessary for a successful future. Additionally, they must be physically and mentally able to perform strenuous labor.

The Grand Jury also learned that inmates can apply for jobs through Cal Fire to work as firefighters upon their completion of their sentence. Additionally, they can earn one to two days off of their sentences for every day they work at KCC. Cal Fire hand crew firefighters are typically paid a starting minimum of $15.00 per hour, with potential for overtime and hazardous pay.

Finally, as an annual site visit bonus, the KCC inmates handily prepare a sumptuous luncheon for the Grand Jury visitors, utilizing their skills to prepare and serve a wonderful feast. This year, the Grand Jury partook of sumptuous Teriyaki chicken and coconut shrimp, served with rice and fresh green beans grown on the property. Dessert was a marvelous Apple Pie.

The Grand Jury had an enjoyable time on this site visit to KCC. The Grand Jury commended the staff and leadership for an exceptional job making KCC as successful as it has been and will continue to be.

This report is Pursuant to Penal Code sec. 933 #6.

KONOCTI CONSERVATION CAMP #27
8275 Doten Rd.
Lower Lake, CA 95457

Lt. Stephen Harkness
Camp Commander

Paul Duncan
Division Chief

LAKE COUNTY GRAND JURY REPORT
April, 2025

Submitted by

CALIFORNIA DEPARTMENT OF FORESTRY
AND FIRE PROTECTION
"CAL FIRE"
Sonoma-Lake-Napa Unit

CALIFORNIA DEPARTMENT OF CORRECTIONS
AND REHABILITATION
"CDCR"

PURPOSE:
Penal Code 919(b) provides that the Grand Jury shall inquire into the condition and operations of public detention facilities within Lake County. The Grand Jury representatives reviewed the facility report presented to them by Chief Duncan and Lieutenant Harkness on April 10th, 2025.

PROCEDURES:
Konocti Camp's joint commanders Division Chief Paul Duncan of CAL FIRE and Lieutenant Stephen Harkness of CDCR conducted a tour of the camp and supplied lunch that was prepared and served by the inmates assigned to the camp kitchen. The Grand Jury reviewed handouts provided during the presentation and tour. No inmates were interviewed, and no photos were taken.

OVERVIEW:
Konocti Conservation Camp #27 (CC #27) opened in April 1961 and is one of 31 conservation camps in the state. CAL FIRE and CDCR jointly operate the camp. The camp's primary mission is to provide inmate fire crews for state-wide fire suppression. In addition to fire suppression, the inmate hand crews provide a work force for conservation programs and community service projects in Lake, Napa, Sonoma, Yolo, Colusa, and Mendocino counties.

CC #27 staffs a CAL FIRE Mobile Kitchen Unit (MKU) that provides meals to thousands of Emergency firefighting personnel assigned to major fires. The MKU cooks are comprised of inmate kitchen staff. CDCR staff provides security supervision of the inmate cooks who respond to incidents with the MKU.

CC #27 operates a facility mobile equipment maintenance and repair shop that performs emergency and routine equipment maintenance for numerous vehicles. The CAL FIRE Heavy Fire Equipment Mechanic trains and supervises shop mechanic inmates to assist in mobile equipment maintenance and repair. They also staff the Mobile Equipment Unit (MEU) when it is dispatched to major emergency incidents. CDCR staff provides security supervision of the inmate mechanics who respond with the MEU.

All inmates must have 24/7 supervision while assigned to projects and incidents. These services are vital to the emergency fire suppression mission.

CDCR is responsible for the selection, security, supervision, care, and discipline of the inmates. CAL FIRE maintains the camp's facilities, provides mandatory safety training, and supervises the work of the inmate fire crews. CAL FIRE is responsible for the custody of the inmates while performing daily CAL FIRE work projects. CDCR staff accompanies the inmate fire crews when they respond to major incidents and for local projects as needed to provide for their security, care, and custody.

LOCATION:
CC #27 is in Lake County and is located 7-miles North of Lower Lake off Highway 29 and is situated on approximately 30-acres.

STAFFING:

- ***CAL FIRE***
- *7 - Fire Crew Captains (FCs)*
- *1 – Heavy Equipment Mechanic (HEM)*
- *1 – Grade III Water/Wastewater Treatment Plant Operator (WASPO)*
- *1 – Office Technician (OT)*
- *1 – Division Chief (DC)*

- ***CDC&R***
- *7 – Correctional Officers (CO's)*
- *2 – Assistant Camp Commanders (Sergeant)*
- *1 – Camp Commander (Lieutenant)*

INMATES:
CC #27 facility designed capacity houses 100 + 10% reserve (110) minimum custody convicted male felons. At least 85% of the population must be "grade eligible." This means they must be able to work on community work projects and emergency incidents. The inmate fire crews typically represent five 15-man crews. The remaining "in-camp" inmates serve as:

- Fire fighters assigned to the camp's fire engine.
- Cooks / Kitchen Workers
- Mobile Equipment Mechanics
- Facility Maintenance (plumbing, electrical, carpentry, etc.)
- Warehouse workers
- Launderers
- Porter / Janitorial
- Landscape / Maintenance

- Vegetable / Fruit Gardener
- Water / Wastewater plant operators
- CAL FIRE and CDCR Office Clerks

INMATE SELECTION:
The inmates are selected and initially trained at Sierra Conservation Center near Jamestown and then assigned to the conservation camp program as needed. To qualify for conservation camp placement, inmates must have at least 5-years of their sentence remaining. They are then screened by an intensive classification process. Most of the inmates are serving time for alcohol, drugs or property related offenses.

INMATE BENEFITS:
Inmates receive financial compensation for their work. The majority are laborers who receive $2.50 per day. Skilled inmates such as our inmates who go out on fires, may earn up to $10.24 per day and that is starting for our swampers. If you're on a saw, you can earn up to $6.68. Scrapers receive $5.80 and drag spoons can earn up to $7.80. While assigned to emergency incidents, inmates may earn $1.00 per hour. They may purchase items such as toiletries, correspondence materials, and snacks from the camp canteen. Inmates also participate in hobby craft projects and other leisure time activities. Some of these activities include horseshoes, handball, basketball, and pool during their off- work hours. Visitation is conducted during the weekends. Families can bring a picnic lunch to share with their inmate family member during visits. The conservation camp program quickly teaches the inmates that life at a conservation camp is much more desirable than life behind the walls of a state prison.

MEDICAL:
The inmates are taken by a CDCR bus to Sierra Conservation Center for medical and dental care. We have an agreement with Sutter Lakeside Medical Facility in Lakeport for emergency treatment needs. There is not a medical facility on CC #27 premises. Emergency 9-1-1 medical needs are provided by Kelseyville Fire Department which is approximately 2 miles from the camp.

HOUSING:
Inmates are housed at the camp in open dormitories, with a dining hall that is staffed with inmate cooks and is supervised by CDCR staff. The CDCR staff provide 24/7 around-the-clock supervision of the inmates while they are in camp.

FOOD/MEAL PROGRAM:

CC #27 provides an excellent meal program for the inmates with menus consisting of a balanced food program. Weekly menus might include omelets, fresh and frozen vegetables, lasagna, chicken, fish, enchiladas, spaghetti, salads, and desserts, just to name a few. Dinner breads, buns and rolls are made from scratch. We manage to provide 3 meals per day to inmates on an approximate budget of $4.00 per person, per day. CC #27 takes great pride in the quality and quantity of food prepared for the inmates. It serves to maintain their health and to replenish and hydrate their bodies after performing laborious duties. We also have started a meals on wheels program for our inmates to, provide food for fire fighters while they're on the fire line.

REHABILITATION:

The inmates participate in programs such as AA/NA, pre-release programs, DMV., G.E.D., continuing education to positively influence the inmates. Community volunteers provide spiritual services and program support 4-days per week. CC #27 assists and encourages inmates to take classes to obtain certifications to facilitate personal growth and to prepare them for their eventual release and parole. As part of the rehabilitation program, in recent years we have parolees who have been hired by CAL FIRE both permanently and seasonally due to the inmate's experience, training investment and show of commitment to self-improvement during their incarceration. We currently have three available positions, one of those is occupied by an inmate in training for Water and Wastewater Treatment Plant Operations. We have seven available positions and one of those is occupied by an inmate in training for Automotive Service Excellence Certifications. We take rehabilitation seriously as it is one of their tools to becoming responsible, employed, and contributing members of society upon their release.

COMMUNITY SERVICES:

During the 2024 calendar year, CC #27 provided:

- 211 crew days for community projects and conservation.
- In addition to conservation and project work the inmates provided approximately 76,214 hours of emergency response to fires and floods.
- Responded to 54 Emergency Incidents.

INMATE PROGRAMS:

- Department of Motor Vehicles (DMV) assistance.
- Employment and Parole Resource Information.
- Employment Resume' Assistance.
- Travel Plan Coordination (for release/parole)
- Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) meetings sponsored and chaired by community volunteers.

- Faith / Church Services.
- Pre-Release Program.
- Correspondence Courses and Certification Program.

CAL FIRE AND CDCR take pride in their joint effort to maintain a "good neighbor" policy and standing in Lake County. CAL FIRE, CDCR and Konocti CC #27 inmates contribute to California's call for emergency protection and local community needs in a proactive and positive way.

Lithium-ion Battery Fires: Learning to Manage the Risk

SUMMARY

While Lake County has not yet experienced a disastrous lithium-ion battery fire, first responders know that such fires are likely to occur here and they are acutely aware of the consequences and are taking steps to educate their departments in the management of such events, though broader expansion of knowledge is needed.

Lithium-ion is the most popular rechargeable battery chemistry in use today to power our commonly-used devices. These batteries store a lot of power in a small space and are widely used in portable electronic devices and electric vehicles, including cellphones, e-bikes, laptops, wireless headphones, scooters, trucks, and cars. Fueled in part by the State's desire to transition away from fossil fuels, the use of lithium-ion batteries has skyrocketed over the last two decades — but so, too, has the number of battery fires and, as a result, the number of first responders calling for exigent preparation and safety solutions.

Fires can be caused by overcharging, overheating, physical damage, or product defects, which trigger a process known as "thermal runaway" — where excessive heat inside a battery creates a self-sustaining chemical reaction that can then easily spread to adjacent batteries. Once thermal runaway starts, the process cannot be stopped, and batteries will continue to burn for hours. Depending on the size of the battery, complete immersion in water may be possible – the "surround and drown" approach - but large, multiple-battery fires can burn for days, all the while releasing toxic gases such as hydrogen fluoride, hydrogen chloride, carbon monoxide, and carbon dioxide.

Battery fire specialists urge greater safety by purchasing devices only from reputable manufacturers, storing them in a cool, dry place, and using a charger with the correct voltage. Transportation safety could be increased through the use of lowboy trailers that are at lower risk of overturns and also transporting the batteries at a 30% charge, which is already a requirement for batteries shipped by air. Manufacturers are also enclosing batteries in thicker cases and

increasing the space between batteries to lower the risk of fires spreading. Alternatives to lithium-ion are also being explored.

METHODOLOGY

The Grand Jury interviewed numerous first responders from the fire services and law enforcement and, in addition, lithium-ion battery fire specialists. Jurors also researched the incidence and outcome of battery fires in California and elsewhere.

DISCUSSION

Lithium-ion batteries are an integral part of everyday life, both at home and in the workplace. They are found in most portable devices, electric vehicles, and renewable energy storage systems. While these batteries have many advantages, their safety depends on how they are manufactured, used, stored, and recycled.

Domestic Lithium Production in California

While Imperial County consistently ranks among the most economically distressed places in California, the county is also sitting on enough lithium to produce nearly 400 million batteries, thought sufficient to completely revamp the American auto fleet to electric propulsion. Even better, that lithium may be extracted in a way consistent with broader goals to reduce pollution.

The traditional ways to extract lithium involve either hard rock mining, which generates much waste, or large evaporation ponds that waste a lot of water. In Imperial Valley, companies are pioneering a third method by extracting lithium from the underground briny water brought up from a mile underground during geothermal energy production from its 11 geothermal plants and then injecting that briny water back into the ground in a closed loop. This method is thought to yield the cleanest, "greenest" lithium possible, although lithium extraction's significant water use, waste generation, and air pollution are side effects as production steps up and truck traffic increases.

Environmental Benefits of Lithium-ion Batteries

- **Renewable energy sources:** Lithium-ion batteries can store energy from renewable resources such as solar, wind, tidal currents, bio-fuels, and hydropower. Using renewable energy means we get fuel for our cities and homes from sources that are naturally replenished and create fewer carbon emissions than fossil fuels.
- **Resilience:** Stored energy as with battery systems can be beneficial in the case of disasters that threaten the power supply. Having reserved energy in portable containers helps us to be resilient: able to recover from unfortunate circumstances such as natural disasters.
- **Long service life:** Lithium-ion batteries have a long service life and can be recharged thousands of times. While recycling of lithium-ion batteries is not yet optimized, long-term use of batteries and products can result in reduced consumption and electronic waste.
- **Smarter energy use:** Devices powered by lithium-ion batteries can be used to monitor and manage energy usage and efficiency.

Environmental Drawbacks

- **Intensive extraction:** Two types of mining commonly required to extract minerals for batteries are open-pit mining and brine extraction. These extraction processes can cause erosion and pollution.
  - **Open-pit mining:** In order to make way for an open pit, vegetation must be cleared away. Then, a deep pit is dug. Together, these factors create conditions for erosion. Mining can create toxic soils and dust with high concentrations of heavy metals. These dusts become contaminants that can put people and animals at a higher risk of illness.
  - **Brine extraction:** Brine extraction drains water from natural underground reserves of drinking water. This water is depleted from the ecosystem more quickly than it can be replaced through the water cycle. Brine extraction also requires toxic chemicals to process lithium. The release of these chemicals harms air, soil, and water quality.
- **Electronic waste:** When lithium-ion batteries are disposed of, they become electronic waste, also known as e-waste, which has been declared one of the

world's most pressing issues for environmental and human health by the United Nations. Much electronic waste is not disposed of properly; rather than being dismantled professionally, devices wind up in commercial waste or landfills, or unsafely deconstructed or burned to harvest small valuable components. The batteries disposed of in commercial waste and landfills can be inadvertently shorted and cause a large fire in those areas which are extremely difficult to control due to the large amount of combustible waste with which they are mixed.

-
- **Growing fire risk:** Battery fires are notoriously difficult to put out because they include so many types of combustibles — plastics, flammable liquids, electrical components, and metal. They burn extremely hot and can spew toxic fumes and explosive gases. Responders assess the location of the fire and the threat to the public before deciding whether to fight it defensively or offensively – with flooding it with water in an attempt to cool it or letting it consume all of its fuel and then self-extinguish. In November, 2019, the National Highway Traffic Safety Administration launched a probe into Tesla's batteries, citing the "alarming number of car fires that have occurred worldwide."

  If a battery degrades, gets hot, or suffers a short circuit, heat and pressure build up inside. Warning signs that a battery is likely to fail include bulging or swelling, sometimes accompanied by other signs such as discharging too fast and/or the battery's being hot to the touch.

  Exploding batteries can blow out windows or doors of buildings. In late 2022, for example, crews fighting a warehouse fire where pedicabs with lithium-ion batteries were stored in New York's East Village thought they were being shot at because of the noise from exploding batteries sending material into the building's metal walls. This incident focused new attention – and fears – on the rapidly changing technology of the fuel cells that were helping drive the country's clean energy transition.

  Large volumes of water are required to suppress these lithium fires, making them "extremely difficult" to extinguish. In 2023, New York City reported 268 fires triggered by lithium batteries, which injured 150 people and killed 18. Many of these batteries

were being used in e-bikes and most of them were being stored inside apartments or businesses.

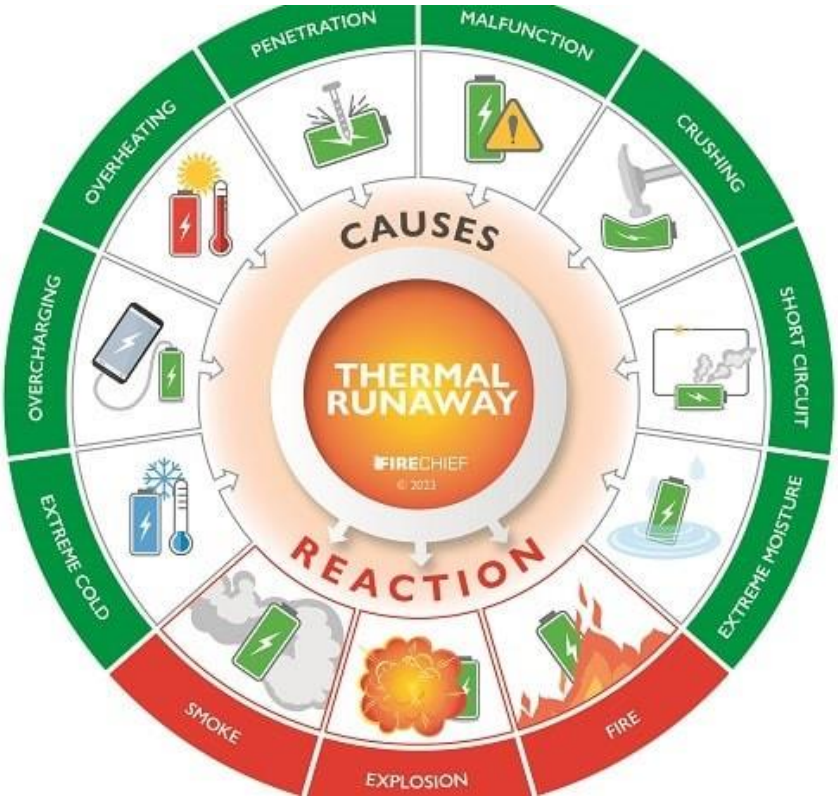
Current US data suggest that in 2023, 338 fires involving Lithium-ion batteries were caused by e-bikes and e-scooters. In the UK, Lithium-ion batteries discarded in domestic and business waste are thought responsible for an estimated 201 fires a year, a figure considered to be increasing weekly. Furthermore, a 2023 European study suggested that, by 2025, as many as 78 million Lithium-ion batteries could be discarded daily worldwide.

In March of 2024, Rep. Ritchie Torres (D-N.Y.) introduced HR 1797 "Setting Consumer Standards for Lithium-Ion Batteries Act," which aimed to tackle the issue of lithium fires. The bill requires the U.S. Consumer Product Safety Commission to set up a safety standard for rechargeable lithium-ion batteries used in micro-mobility devices such as electric bikes.

Thermal Runaway

At a certain level, the chemical reaction creates thermal runaway, causing rapid overheating and quickly affecting adjacent cells. Batteries will spontaneously ignite, burning at extremely high temperatures of between 700◦c and 1000◦c, and releasing dangerous off-gases that in enclosed spaces can become a flammable vapor cloud explosion. The temperatures involved and the sparks generated cause a fire, further fueled by the vented gases as the battery cells decompose further, resulting in rapid fire spread. This process happens far more quickly than in any other type of fire.

The reactions, once started, increase so speedily that the cells typically appear to 'explode.' Due to the self-sustaining process of thermal runaway, Lithium-ion battery fires are especially difficult to quell. Larger batteries, such as those used in electric vehicles, may reignite hours or days following the event, even after being cooled.



Effective Firefighting Techniques

With all this in mind, what tools can firefighters employ to stop thermal runaway and extinguish these fires?

- **Firefighting Foam**

Firefighting foams work by creating a blanket to smother a fire. Many types of foam have properties that cool the surrounding area by assisting the water in absorbing heat. Unfortunately, getting the foam to the failed cells is difficult in vehicle fires, if not impossible, because the thermal runaway event is happening inside a watertight, fire-resistant box. Additionally, even if it were possible to get the foam inside the box and flood the area with foam, the foam's main purpose is typically to starve a fire's oxygen supply, but a lithium-ion battery cell does not need external oxygen to burn. Consequently, currently available foam agents are ineffective at stopping a thermal runaway, but their future is promising.

- **Class D Extinguisher**

Class D extinguishers contain a powder that is designed to extinguish combustible metal fires. While they are called lithium-ion battery cells, the cells do not contain solid lithium metal, making the extinguisher ineffective. There is also no easy way to get the powder from the extinguisher directly to the cells on fire due to the construction of the box and the speed at which the battery cells fail.

- **Pancake Nozzle**

These nozzles are designed specifically to slide under a vehicle and spray cool water at the bottom of the battery box. The water is meant to cool the battery box, ideally stopping the thermal runaway. Unfortunately, extinguishing a fire in the high-voltage battery requires a large, sustained volume of water. The water needs to flow inside the box, directly cooling the battery cells. These nozzles will likely be ineffective due to the design of the battery structure, and the numerous layers between the underside of the vehicle and the battery cells.

- **Fire Blanket**

A fire blanket is traditionally used to smother a fire to starve it of oxygen. As noted, a lithium-ion battery does not need oxygen from the atmosphere to burn, so trying to smother the fire may not be effective. However, these blankets can be used to contain the fire for toxic exposure protection. A word of caution, though: the harmful and flammable gasses that battery cells give off can become trapped under the blanket, and removing the blanket could cause a heightened fire event when the gasses are released. Exposure to hydrogen fluoride, for example, can cause permanent damage to firefighters' lungs and eyes. Proper PPE must be worn when responders are around these fires.

How do EV fire blankets work?

- Smothering the fire: When placed over a burning vehicle, an EV fire blanket cuts off external oxygen to the flames, helping to reduce the fire's intensity.
- Containing toxic smoke: EV fires release hazardous gases, including hydrogen fluoride and carbon monoxide. The blanket helps contain these dangerous emissions, improving safety for both firefighters and bystanders.

- Preventing fire spread: Lithium-ion battery fires can spread quickly. The fire blanket acts as a barrier to prevent flames and heat from affecting nearby vehicles, buildings, or structures.

How to use an EV fire blanket

- Assess the fire: Ensure a safe approach and determine if the fire blanket is the right tool for the situation.
- Deploy the blanket: At least two firefighters should carefully pull the blanket over the burning vehicle, fully covering it.
- Wait for containment: The fire should lose intensity within minutes, but the vehicle may need to remain covered for several hours to prevent re-ignition.
- Monitor and remove: After containment, firefighters should use thermal imaging to check for residual heat before safely removing the blanket.

Limitations of EV fire blankets

- They do not fully extinguish battery fires. They mainly contain and suppress flames while mitigating the risks.
- For deeply involved battery fires, additional cooling (such as submersion or prolonged water application) may still be needed.
- EV fire blankets require proper training and deployment techniques to be most effective.
- They are not reuseable *ad infinitum* due to contamination.

Recent Fire Blanket Deployment Report on Facebook

Snohomish Regional Fire & Rescue – March 16, 2025

This morning, Snohomish Regional Fire & Rescue (SRFR) responded to a mutual aid call in Granite Falls for an electric vehicle (EV) fire on SR-92. Upon arrival, Aid 81 deployed a specialized EV fire blanket and placed it over the burning vehicle. These blankets are carried on our battalion vehicles. The crew then secured the blanket tightly with a strap while simultaneously applying water to the vehicle's battery in an effort to cool it and prevent further thermal runaway.

EV fires present unique challenges because they are not easily extinguished with water and produce highly toxic smoke. These batteries generate intense heat, store large amounts of energy, and contain their own oxidizers, allowing them to sustain combustion without oxygen. They even burn underwater. To make matters more difficult, EV fires can reignite hours, days, or even weeks later. Due to this risk, E87 followed the tow truck to the impound lot, as there have been instances where EVs have reignited while on flatbeds.

If you are involved in a crash involving an EV and suspect the battery has been compromised, stay far away from the vehicle and call 911. Do not attempt to extinguish an EV fire yourself.

We are also grateful for the recent addition of EV fire blankets, which we have been actively training with and were able to deploy effectively in this incident.

One of the County's fire districts recently purchased a reusable blanket for $3,000.



- **Piercing Nozzle**

Piercing nozzles are designed to puncture the battery box from underneath a vehicle in an effort to deliver large quantities of water inside the box to cool the battery cells. This solution is dangerous due to the electrocution hazard. There is also a possibility of causing more battery cells to fail by crushing cells or shorting out electrical components inside the box. The National Fire Protection Association (NFPA) and EV manufacturers warn against any attempts at gaining access to the inside of the battery box and emphasize that high-voltage components should NEVER be penetrated with tools.

While some piercing nozzles are designed to be remotely activated, firefighters will eventually have to remove the nozzle from the vehicle. Placement is also a concern, as many battery box structures have cross-car frame rails that are not able to be penetrated. Sealed compartments within the box could also cause a problem for firefighters if the nozzle pierces the wrong compartment and floods an unaffected area. Additionally, the inside of some boxes is filled with polyurethane foam, making it impossible for water to flow through the box.

What works: Let it burn

The truth of the matter is that there is no simple solution or tool to stop a thermal runaway in an EV's high-voltage battery. Directly cooling the battery cells is the best method, however the manufacturers do not give first responders direct access to the inside of the battery box. Trying to cool the battery cells from the outside will only extend a crew's time on-scene.

If the battery box is intact and there are no exposures, the best solution is to simply wait for the battery to burn itself out, then extinguish the remaining class A fire. While this strategy is not ideal – and not one favored by all firefighters – it is generally thought to be a reasonable approach, depending on the location of the vehicle. It should only take an hour or so for the battery to burn itself out. The alternative would be to continually dump water on the vehicle for 6 to 8 hours. Nonetheless, the vehicle must be stored safely thereafter for 24-48 hours as the battery may reignite.

Or: Don't let it burn

The specific issue of tunnels and bridges is unique – and parking garages, too – in that a burning vehicle in one of these locations has the real potential to result in catastrophic events. Consideration must be given to hydrogen fluoride gas that is being released and potentially trapped in a tunnel environment, plus the potential impact of fire on structural members. Clearly, the "let it burn" mantra CANNOT be a long-term solution, at least not where structural stability is involved.

Some strategic suggestions focuses on three basic steps:

- The fire service will knock down the fire to the best of their ability, while other responsible parties (RP) locate a tow/push vehicle.
- The highway agency or RP pushes or pulls the vehicle to a less vulnerable space (out of the tunnel or garage and off the road).
- The fire department continues extinguishment or stands by, protecting exposures, until the fire burns out.

Local Lake County fire service leaders would do well to solidify these plans with CalTrans and the County Roads Department and/or parking garage owners in advance of EV incidents. For example, in such a rural or a private area, Incident Commanders would be looking at a bulldozer, a snowplow, a snatch-tow vehicle, or some other obscure piece of equipment to move a vehicle to a safer location. Best to identify that vehicle ahead of time.

Recent Impactful Domestic Incidents

In February, 2020 in Cerritos, CA, a Tesla charging in a garage caught fire, spread to the house, and seriously burned a child. By 2023, battery fires were recognized In California as presenting unique challenges to firefighters. In May, 2023, the San Diego Fire-Rescue Department spent 14 days battling a hazardous fire that ignited at a lithium-ion battery storage facility in Otay Mesa. After a fire ignited in one of seven buildings containing racks of stored lithium-ion batteries, crews sprayed millions of gallons of water onto the building. Although the fire was thought to have been extinguished, the following evening the batteries experienced thermal runaway and kept reigniting, and the fire continued for a little more than two weeks.

After the devastating wildfires on Maui in August, 2023, responders formulated a plan for all of the batteries found in electric vehicles and homes in and around Lahaina. They used a liquid solution containing salt to de-energize the batteries so they could be safely transported for recycling. In all, batteries from 94 electric and hybrid vehicles and 274 residential energy-storage systems were shipped to a processing facility in Reno, NV.

And a smaller fire was sparked in September 2023 at a battery storage unit in Valley Center in San Diego County, prompting regional evacuation orders for almost three days.

In July, 2024, a lithium-ion battery fire set off by an overturned truck on Interstate 15 near Bakersfield left freeway drivers trapped for hours in 109-degree heat.

In August, 2024, a Tesla semi went off Rt. 80 near Emigrant Pass in Placer County, hit a tree, and slid down a grade, bursting into flames and igniting nearby vegetation. All lanes were blocked for 14-15 hours as responders used about 50,000 gallons of water to extinguish the fire and cool the batteries. The burning semi also spewed out toxic fumes, prompting closure of the freeway in order to keep motorists at least half a mile away. Additionally, CalFire applied fire retardant by aircraft as a precaution against a wildfire.

In November, 2024, a crash in the East Bay city of Piedmont of a Cybertruck that exploded in a fire killed three college students and critically injured a fourth.

Then in December, 2024, a fire spewing toxic gases in an overturned big rig carrying batteries on a Los Angeles bridge caused millions of dollars in shipping delays as access to and egress from the Los Angeles Port was severely impacted for more than 48 hours.

Most recently, on May 1, 2025, an electric vehicle at a charging station caught fire, as reported on Facebook:



City of Mountain View - Fire Department is with City of Mountain View and Mountain View Police Department. Yesterday at 8:03 AM ·

On Thursday, May 1 at 4:52 p.m., a 9-1-1 call was received reporting smoke coming from an Electric Vehicle (EV) charging in the parking lot of a large commercial office building in the 1300 block of Shorebird Way.

Fire units were dispatched at 4:53 p.m. and arrived on the scene at 4:59 p.m. Units arrived to find an active fire coming from a Jeep Wrangler EV had spread to the three vehicles parked near it. Firefighters quickly extinguished the flames with a preconnected fire-attack hose line, preventing the fire from spreading further to additional vehicles.

The fire was extinguished with no injuries. The origin of the fire was determined to be the Jeep Wrangler EV. The cause of the fire was determined to be related to the vehicle's lithium-ion battery charging system.

The estimated damage to the Jeep, two Teslas, one Honda and the electrical charging station is $275,000. Fire crews turned the scene over to on-site security before leaving.

Airline Incident Examples

Incidents triggered by lithium-ion batteries are now, on average, a weekly occurrence on U.S. flights, according to the U.S. Federal Aviation Administration (FAA), with cabin crews expressing increasing concern over the risk.

In 2024, 69 lithium battery incidents involving smoke, fire, or extreme heat occurred on U.S. flights as of Dec. 16, FAA data showed, which equated to more than 1.3 incidents per week. Between March 3, 2006, and Nov. 5, 2024, a total of 579 lithium battery incidents were recorded, with the majority of cases coming from passenger carriers. Since 2015, the number of such events has increased by more than 330 percent. Battery packs and batteries accounted for the bulk of these incidents, with 229 events, followed by e-cigarettes/vape devices with 122, cell phones with 81, laptops with 70, and the rest involving other electronic and medical devices.

On Oct. 5, 2024, a passenger carry-on bag caught fire during the boarding process in Buffalo, New York, with lithium batteries being the culprit. Passengers were removed from the aircraft, while the fire was extinguished and the batteries were removed from the plane. Then on Nov. 5, 2024, a smoke detector alarm from the lavatory of a United Airlines flight out of San Francisco went off. Flight attendants found a passenger in the lavatory who stated their laptop began to overheat. A flight attendant placed the laptop in a thermal containment bag, and the aircraft continued to its destination without further incident, the FAA said.

Lithium-Ion Battery Fire at Moss Landing, January, 2025

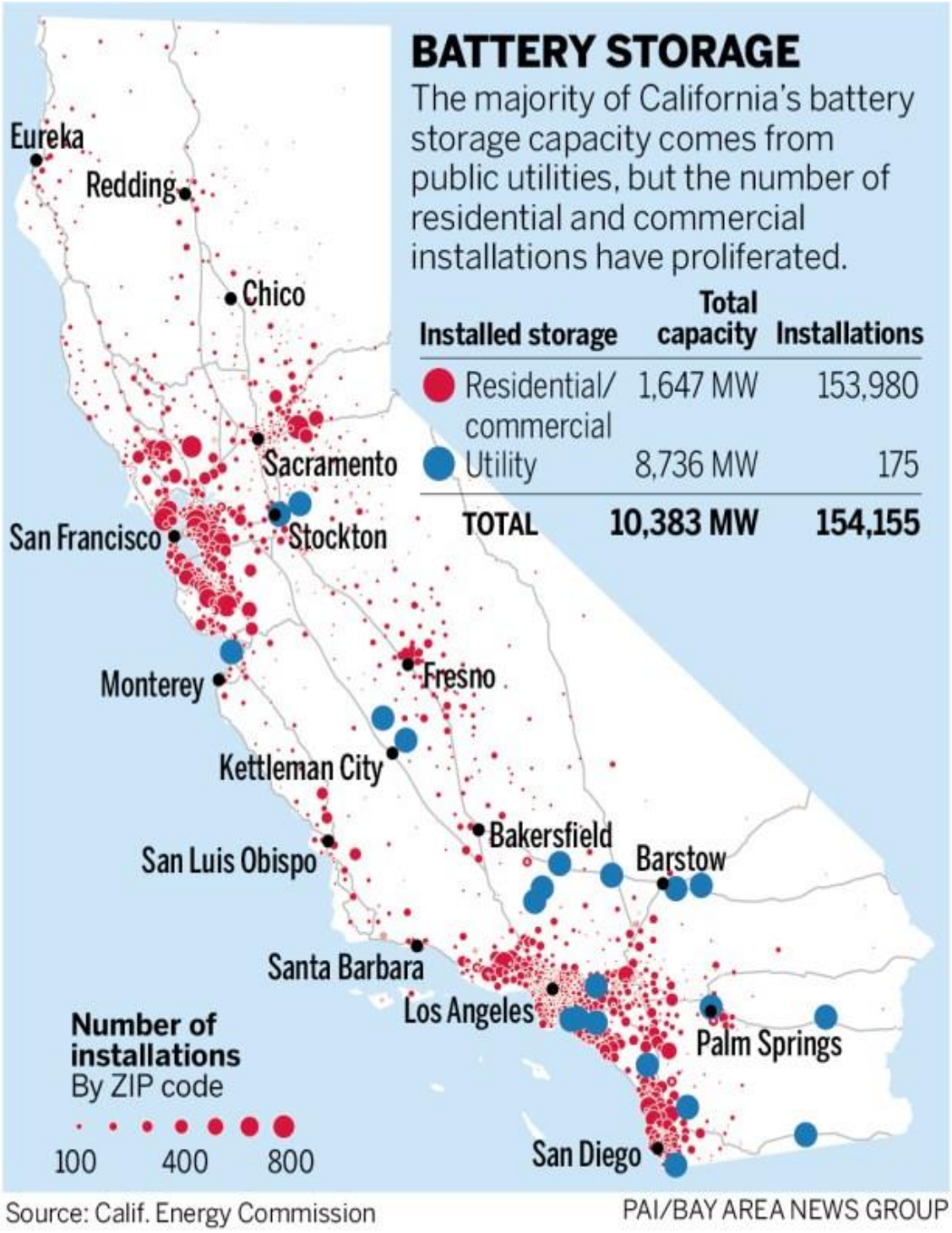
Lithium-ion batteries are ubiquitous, not just in earbuds, phones, and cars, but also in these massive facilities that store renewable energy for times when the sun doesn't shine or the wind dies down.



The massive fire at the Vistras Moss Landing plant that broke out in January, 2025 that caused the evacuation of 1,200 people and the closure of Highway 1 for three days - and reignited on two occasions - was the largest battery storage plant fire to have occurred in the United States. The cause of the blaze has not yet been determined, but it spread a toxic cloud across miles of residential and farm areas near the Santa Cruz-Monterey County border. Even though the U.S. Environmental Protection Agency announced three days after the fire that "results for hydrogen fluoride and particulate matter showed no risk to public health throughout the incident, and smoke from the facility has greatly diminished," hundreds of residents in the area have complained of respiratory problems, sore throats, a metallic taste, and other health concerns.



Across California, large battery storage plants are being planned and constructed in dozens of locations at a pace faster than anywhere else in the United States. They are a critical part of the state's plans to expand renewable energy, by storing electricity that solar farms and wind turbines generate to use later when the sun isn't shining and the wind isn't blowing. (See, Exhibit A for a state map.)

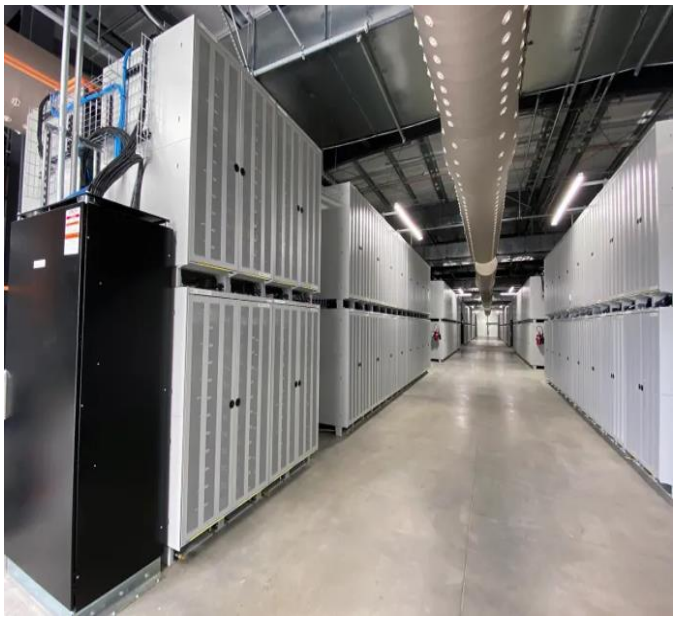


In 2018, former Gov. Jerry Brown signed a law requiring that 100% of the state's electricity come from carbon-free power like solar, wind, geothermal, hydroelectric and nuclear by 2045. Today the state is at 61%. Since 2020, companies in California have built more large-scale battery storage projects than anywhere else except

China. Now the utilities are making money by buying power at cheap prices in the middle of the day when it is plentiful and selling it at a higher price in the early evening. There are now 187 battery storage plants in California — up from just 17 in 2019, according to the California Energy Commission. Battery storage has increased 1,343% in the past six years in California, from 928 megawatts in 2019 to 13,391 megawatts today. A megawatt is enough electricity to run 750 homes.

Two of the biggest battery-storage plants are in Monterey County. The Pacific Gas and Electric Company (PG&E) built Moss Landing's two 500-foot concrete smokestacks in 1950 as part of the gas-fired Moss Landing Power Plant, next to Monterey Bay. When Vistra, a Texas company, took ownership in 2018, the company proposed building a battery energy storage system at the site. With California searching for clean energy solutions, the project garnered attention and support, including from the Sierra Club, which had previously criticized Vistra for being the nation's worst climate polluter in the power sector. The site now is home to Vistra's 750-megawatt battery storage plant and a 182.5-megawatt plant owned by a Tesla-PG&E partnership, two of the largest such plants in the world.

The interior of Phase II of the Vistra Zero Moss Landing Energy Storage Facility showing thousands of lithium-ion battery racks in the facility, that along with the Phase I building store enough power from solar and wind sources for 300,000 homes.





PG&E's 182.5-megawatt Tesla Megapack battery energy storage system, located at its Moss Landing electronic substation, has the capacity to store and dispatch as much as 730-megawatt hours of energy to the California power grid at a maximum rate of 182.5 megawatts for up to four hours during periods of high demand.

Erin Brockovich Remains An Activist

Twenty-five years ago, Julia Roberts won an Oscar for the hit movie "Erin Brockovich. " She portrayed the real-life single mother of three who, as a paralegal, spearheaded a major lawsuit against PG&E for its years of polluting water supplies in the small Mojave Desert town of Hinkley, which residents said caused cancers and other health problems. PG&E settled the case for $333 million in 1996. Today, Ms. Brockovich is still an environmental activist and is working with a San Diego law firm representing the residents of Moss Landing in one of several lawsuits.

Fire Was a Known Risk

The Vistra plant had had a history of problems, as fires had broken out at the plant in September 2021 and February 2022. Investigations showed that they were caused by a malfunction in a fire sprinkler system that released water and caused several of the units to overheat.

Then in September 2022, a fire broke out at the nearby PG&E Elkhorn battery plant. Police closed Highway 1 for 12 hours. An investigation found it was caused by an improperly installed vent shield on one of the 256 units, which allowed rainwater to get in and short out the batteries. There were no injuries to firefighters, PG&E employees or the public. Afterwards, however, Gov. Gavin Newsom signed a law requiring battery storage plants in California to draw up emergency response plans with local fire departments and to increase fire safety practices.

Following the January, 2025 Moss Landing fire, Assemblywoman Dawn Addis, D-Morro Bay, has introduced a bill, AB 303, that would block construction of new battery storage plants within 3,200 feet of homes, schools, hospitals and businesses.

State Sen. John Laird wants tighter battery safety standards: A new bill from the Central Coast's Senate representative would require owners of future battery storage facilities to consult with local fire authority and integrate emergency response plans. Facilities would also need to undergo safety inspections by local fire officials or the state fire marshal, and all expenses for the inspections would fall on the facility. As Senator Laird laid out, Senate Bill 283 was a direct response to the Moss Landing battery fire disaster in January.

Toxic Metals Detected Post-Fire

Less than two weeks after the fire, researchers have detected microscopic particles of nickel, cobalt and manganese — all of which are found in the thousands of lithium-ion batteries that burned— roughly a mile away in the mudflats and tidal marshes at Elkhorn Slough at levels roughly 100 to 1,000 times higher than normal. The elevated levels of battery metals were found in the top few millimeters of soil, not at lower levels. Elkhorn Slough is comprised of a County-protected network of wetlands, creeks, and wildlife habitat popular with birders and kayakers, and its contamination has turned attention to the impact of the battery fires on animals and humans who live near the plant.

These Plants Are Costly

U.S. Department of Energy's (DOE) $7.5 billion loan proposal to StarPlus Energy LLC was announced in December, 2024. The LLC is a joint venture between Stellantis and Samsung. The DOE's loan to StarPlus intends to finance the construction of two lithium-ion battery cell and module manufacturing plants in Kokomo, Indiana. The facilities are projected to produce about 67 gigawatt-hours of batteries annually—enough to power approximately 670,000 electric vehicles each year. The initiative is expected to create around 3,200 construction jobs and up to 2,800 permanent operations positions, according to the DOE.

Additionally, exactly a month before the Moss Landing Fire, Santa Cruz County received an application from a Massachusetts-based company for a $200 million,

200 mega-watt lithium-ion battery storage facility just outside of Watsonville. The project is expected to come before the Santa Cruz County Board of Supervisors later this year. Now, in the wake of the Moss Landing disaster, county officials are acknowledging that the proposed battery plant is going to be a much tougher sell, and will depend, in part, on the completed investigation into the Moss Landing fire.

The PUC Acts to Prevent Moss Landing 2.0

In March, 2025, a unanimous decision by the five-person California Public Utilities Commission (CPUC), responsible for regulating privately-owned utility companies, was effected. Each battery energy storage system will now be required to submit its own emergency response and action plans and to work with local authorities to develop emergency plans, or face financial penalties. Operators of these battery storage systems will also need to report safety incidents, including injuries, fatalities, thermal runaways, fires "or other system failures" to the CPUC within 24 hours. Previously, operators weren't required to report these incidents to the regulator. In updating its rules, the CPUC now has the ability to fine the owners of battery storage facilities for noncompliance, the amounts of which will be determined case-by-case.

The CPUC noted that battery storage expansion has been rapid over the past several years and is expected to continue into the next decades. In 2019, California claimed 500 megawatts of energy storage throughout the state. By the end of 2024, California had 13,000 MW, a 2,500% increase. A general rule of thumb is that a single megawatt can power 800 to 1,000 average households. The state has set a storage capacity goal of 52,000 MW by 2045.

That expansion has included a number of setbacks. Since 2021, the CPUC has counted nine "safety-related incidents," four of which happened in Moss Landing. The regulator defines these incidents as any event causing injury, significant property damages, or fires, explosions and "hazardous emissions." None, however, has been more high-profile than the January blaze.

Underwriters Laboratory's Formal Recommendations for the Public

Choose Certified Products: Prioritize one's safety by selecting lithium-ion battery-powered devices that are certified by a nationally recognized testing laboratory to ensure they meet important safety requirements.

Handle Lithium-Ion Battery-Powered Devices with Care: Always follow manufacturers' guidelines and use the provided charger for lithium-ion battery-powered devices. Avoid modifying batteries or chargers, and charge your devices in safe environments away from extreme temperatures, direct sunlight, and flammable materials. For larger devices, such as e-bikes, charge in a location that does not block one's exit path, is separate from sleeping areas, and is ideally outside your home. Refrain from overnight charging of large devices.

Stay Alert for Warning Signs: Regularly inspect devices for any signs of damage, such as swelling or punctures. Be aware of unusual sounds like hissing or popping. Watch out for excessive heat or a strange odor. White or gray wispy smoke indicates there is immediate danger of fire. If you notice any of these warning signs, stop using the lithium-ion battery-powered device immediately.

Recycle Devices and Batteries Properly: Responsibly dispose of old or damaged batteries and devices by taking them to a designated battery recycling center. Never discard batteries, chargers, or battery-powered devices in regular trash bins.

Get Out Quickly if There's a Fire: Know the warning signs to look and listen for a fire, and get out if you see or hear a fire. Follow your home fire escape plan to leave immediately, closing doors behind you as you exit and call 9-1-1.

Educate Others on Safe Practices: Help protect your family and community by sharing how they can help ensure Battery Safety.

Additional Recommended Precautions for the Public

- Only use equipment and chargers supplied by reputable manufacturers.
- Make frequent inspections of batteries for signs of damage.
- Never use damaged or defective batteries.
- Ensure battery handling and storage areas are dry, cool, well-ventilated, and free from high levels of humidity.
- Ensure battery handling and storage areas are free from flammable or combustible materials and sharp objects, and that batteries are not left in contact with conductive materials.

- Ensure battery charging is well managed by trained persons, making sure that batteries are removed from chargers after charging is complete and that batteries are not left in chargers in unoccupied locations.
- Train purchasers on emergency procedures and specific instructions for dealing with damaged or faulty batteries. Sales staff should be aware of their own safety in relation to dealing with fires involving Lithium-ion batteries.
- Keep batteries not in use in appropriate containers, such as a proprietary metal battery storage cabinets or fireproof safety bags.
- Limit the size of storage areas and ensure they are dedicated to Lithium-ion battery storage only.
- Reduce the potential for thermal runaway by reducing the State of Charge (SOC) of Lithium-ion batteries and devices containing them.

Alternatives to Lithium Being Explored

A world that runs on renewable energy would need 200 times more battery capacity than exists today—and that likely means a different kind of battery. A decades-old technology may be rising to the challenge: batteries that use sodium rather than lithium ions to carry and store charge. Sodium is everywhere, in seawater and salt mines, so supply and cost aren't problems. But the metal isn't as good at storing a charge as lithium because its ions are three times bigger, restricting their ability to slip in and out of existing battery electrodes while storing a charge. The need for larger cells to hold the same amount of power adds cost and bulk. Sodium battery researchers have struggled to reach even half the storage capacity of the best lithium batteries. Research is still in the early days of understanding the basic chemistry of sodium-ion batteries, but technologic advances are promising.

Awareness is Expanding

Despite the increasing incidence of fires involving Lithium-ion batteries, awareness of the risks and education and mitigation planning on the part of manufacturers, insurers, safety professionals, and first responders is now a growing focus, especially following the shock waves resulting from the Moss Landing fire. Nonetheless, a survey of insurance companies between September, 2023 and

February, 2024 indicated that 71% of respondents had not updated their fire-risk assessments to address the risk of these fires.

CONCLUSION

The findings from any risk assessment should provide recommendations on how to ensure that Lithium-ion batteries are handled, used, stored, or charged safely and must be aligned to provide first-responders a strategy for fire management. Education and awareness on the part of firefighters is critically essential, and commitment to emergency response training and the development of an "action plan" with emergency contact information distributed to regional agencies could prove crucial in limiting the resulting personal and property damage when battery fires erupt. As well, clear evacuation procedures should be established for first responders and the community.

FINDINGS

F-1: Lithium-Ion batteries power a wide range of consumer products, from electric vehicles to e-bikes/e-scooters/electric wheelchairs to e-cigarettes to portable electronic devices to cellphones to solar energy/battery storage facilities.

F-2: The number of fires caused by lithium-ion batteries is growing.

F-3: Lithium-ion fires have unique attributes and are difficult to extinguish

F-4: These fires have four major impacts: injuries/deaths, emergency agencies' response, service disruption, and monetary losses.

F-5: The public generally is not well informed about safe storage, charging, and disposal of lithium-ion batteries in consumer products.

F-6: Drafting and disseminating emergency response plans to fire departments and law-enforcement agencies would enhance the professionals' understanding of and reactions to these critical incidents.

F-7: Fire blankets and certain foams can be helpful in providing adjuncts to fire agencies' response to these fires in addition to relying on water alone.

RECOMMENDATIONS

R-1: That the Board of Supervisors authorize OES to prepare educational materials on lithium-ion batteries and fires for distribution to all County employees. (F1-F5)

R-2: That the County's six fire protection districts draft emergency response plans regarding causation and mitigation of these battery fires, including online and/or in-person training, for both paid and volunteer firefighters. (F1-F5)

R-3: That the Lakeport and Clearlake police departments and the Sheriff's office coordinate with OES to distribute education and mitigation materials to their employees. (F1-F5)

R-4: That the fire and law-enforcement agencies within the County collect and disseminate data on the ignition source of lithium-ion battery fires to support accurate statistics and thus risk reduction. (F1-F5)

R-5: That the fire protection districts coordinate purchase of fire blankets and certain foam products to augment their mitigation options. (F-6)

RESPONSES

Pursuant to Penal Code Sections 933 and 933.5, the following responses are required:

Board of Supervisors	R-1	90 days
Clearlake Fire Protection District	R-2, R-4, R-5, R-6, R-7	90 days
Clearlake Police Department	R-3, R-4	90 days
Kelseyville Fire Protection District	R-2, R-4, R-5, R-6, R-7	90 days
Lake Pillsbury Fire Protection District	R-2, R-4, R-5, R-6,R-7	90 days
Lakeport Fire Protection District	R-2, R-4, R-5, R-6, R-7	90 days
Lakeport Police Department	R-3, R-4	90 days
Northshore Fire Protection District	R-2, R-4, R-5, R-6,R-7	90 days
Sheriff's Department	R-3, R-4	90 days

South Lake County Fire Protection District R-2, R-4, R-5, R-6,R-7 90 days

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EXHIBIT A

DANGERS OF LITHIUM-ION BATTERIES

SAFETY TIPS AND PRECAUTIONS

Fires caused by lithium-ion batteries have increased dramatically in New York City with deadly consequences. These rechargeable batteries are found in electric bikes, mopeds, and scooters. Damaged or unstable batteries and improper charging, storage or disposal can cause the batteries to overheat, leading to an explosive, aggressive fire that spreads rapidly, can reignite, and is challenging to extinguish.

Use approved batteries
Only purchase and use devices that have a reputable testing agency mark such as UL. These show that the product has been safety tested.

Use supplied charger
Follow the manufacturer's instructions for charging and storage. Use the correct cord and power adapter made specifically for the device.

Use the wall outlet
Always plug directly into a wall electrical outlet for charging.

Make sure you can get out
Never block your primary way in or out of a room/apartment.

Store in open space
Batteries should be stored away from anything flammable (ex. pillow, bed, or couch).

No overnight charging
Do not leave devices unattended while charging or charge them overnight.

Keep away from heat
Keep batteries and devices at room temperature. Keep away from direct sunlight and any heat source such as a radiator.

Dispose of batteries safely
Do not place lithium-ion batteries in a trash or recycling bin. It is illegal. Bring them to NYC Battery Recycling Centers. Find one at nyc.gov/batteries

FIRES AND EMERGENCIES

If a battery overheats or you notice an odor, change in shape/color, leaking, or odd noises from a device, stop using immediately. If safe to do so, move the device away from anything that can catch fire and call 911.

Lithium-ion batteries are known to unexpectedly re-ignite minutes, hours, and even days after all visible fire has been put out.

If you observe a lithium-ion battery fire, leave the area, CLOSE the door, and call 911 immediately.

Water and fire extinguishers do not work on lithium-ion battery fires.

EXHIBIT B



BATTERY WARNING SIGNS

RECOGNISING THE SIGNS

If you notice any of the following signs on a battery you are using, take immediate action and inform your manager. Dispose of the battery responsibly.

PHYSICAL DAMAGE: Do not use batteries that show visible cracks, dents, or any other form of physical damage.

SWELLING: A battery that appears swollen or bulging is a sign of potential danger. Stop using it immediately.

GASSING: If you observe the battery releasing gas or emitting unusual sounds, discontinue use and report it.

OVERHEATING: An abnormally hot battery could be a fire hazard. Safely disconnect and remove it from the device.

NOISE: Unusual or excessive noise coming from the battery could be a sign of internal damage. Stop use and report it immediately.

RAPID DISCHARGE: Batteries that lose power quickly without normal usage may be defective. Report this issue promptly.

STRANGE ODOURS: Unusual smells, such as a strong chemical or burning scent, indicate battery malfunction. Seek assistance.

LEAKAGE: If you notice any liquid or substance leaking from the battery, handle it with caution and dispose of it properly.

REMEMBER, YOUR SAFETY IS OUR PRIORITY. ALWAYS FOLLOW PROPER PROCEDURES FOR HANDLING AND DISPOSING OF BATTERIES.

In case of any concerns or questions, please reach out to:

Health and Safety Department:

Manager:

Disclaimer: This poster is for illustrative purposes only and does not replace official safety guidelines or instructions. Always refer to your organisation's policies and procedures regarding health and safety.



The e-mobility device landscape in the United States — comprised primarily of e-bikes and e-scooters — is undergoing a significant expansion fueled by advances in lithium-ion batteries and the allure of convenience. Market analysts report a surge in e-bike sales in recent years, with the sector now valued in the billions.

This rise is driven not just by consumer preference, but also by practicality. Commuters are drawn to the time and cost savings offered by e-bikes, while the delivery sector has embraced their versatility. ULSE surveys estimate roughly 23.2 million Americans have used e-bikes and e-scooters for work-related tasks, including 16.7 million who have done so in the past 12 months. In New York City alone, more than 65,000 gig workers rely on e-bikes and e-scooters to make deliveries. The rental market reflects this growing adoption. As of 2022, more than a quarter-million e-mobility devices were available across 363 U.S. cities, catering to both commuters and tourists. Significantly, a growing number of riders report integrating e-bikes and e-scooters into their daily routines, with an estimated 20 million e-bikes hare and 57 million shared e-scooter trips recorded in the U.S. in 2022.

However, amid this rapid growth has come a troubling knowledge gap. Recent UL Standards & Engagement surveys, reveal a surprising lack of understanding among e-bike and e-scooter riders about the main technology powering their devices: lithiumion batteries. Compounding this issue, many users report receiving inadequate information — or little to no information — from manufacturers and retailers regarding battery safety and proper charging practices.

This educational deficit extends to neglecting routine maintenance, another factor that increases the risk of batteries going into thermal runaway — a state of uncontrollable heat that can result in fire or explosion if the lithium-ion battery is damaged, overcharged, or defective. The New York City Fire Department reported a dramatic rise in such fires in 2023, with 268 incidents leading to 150 injuries and 18 deaths. San Francisco tells a similar story, with 215 battery fires documented since e-bikes and e-scooters gained popularity there in 2017. Both cities have taken legislative action, requiring that e-mobility devices conform to safety standards. This risk and these fires, however, do not have geographic boundaries and are happening everywhere.

While some riders are aware of the risks associated with their e-bike batteries specifically, more than half of owners are unaware that their e-bike is powered by a lithium-ion battery. Even more concerning, when presented with common e-mobility charging and battery related hazards, users perceived little threat to themselves, underestimating the severity.

These public awareness gaps and misconceptions further underscore the urgent need for standards to support safer products. Promoting responsible use and dispelling misconceptions are paramount to ensuring the safe future of e-mobility. Below is an in-depth look at key trends across two separate UL Standards & Engagement online surveys of 2,200 U.S. adults on e-mobility safety, fielded in January and April 2024.

E-Bike and E-Scooter Market Grows as Consumers Seek Mobility Alternatives

The U.S. e-bike market — inclusive of sales and rentals — continues to grow as more Americans are drawn by convenience and cost savings versus driving. Moreover, shifting consumer mobility choices and needs are driving greater reliance on these two-wheelers, with three-quarters of riders using e-mobility devices at least once a week and 55% saying they use their e-bike or e-scooter more often now compared to last year.

Market footprint expands as e-mobility options proliferate: E-bike sales in the U.S. leaped by 269% between 2019 and 2022 according to analyst firm Circana. The market size is expected to have grown further in 2023, to be worth $2.59 billion. E-bikes also drive a strong rental market via bike share programs: 12% of U.S. adults in ULSE surveys say they rent e-bikes once a month or more often, while 4% do so once a week or more often. An estimated 20 million e-bikes hare and 57 million shared e-scooter trips were taken in the U.S. in 2022.

UL Standards & Engagement's surveys revealed that 55% of e-bike and e-scooter adult riders are male. The majority are young, with 38% of riders ages 18-34 and 26% ages 35-44. Nearly half of riders (45%) live in urban areas, far more than the national average (32%). So many riders living in close proximity emphasizes the importance of increasing awareness of e-mobility risks, as lithium-ion battery fires are fast and fierce, and can spread quickly from apartment to apartment and even from building to building.

Buyers are attracted by convenience and cost savings:

Convenience of charging e-bikes and e-scooters at home (89%), saving money on gas (84%), and saving money on commuting costs (81%) are the primary motivators behind e-mobility use. For 54% of current owners, they purchased an e-bike or e-scooter to support work-related tasks such as package or food

delivery gigs. Riders tend to be low or middle income, with 39% of riders reporting household incomes below $50K and 32% reporting incomes between $50K-99K.

Limited Awareness, High Belief the Risk Isn't Personally Relevant

Consumer safety education regarding e-mobility continues to lag behind market growth. Many riders do not even know what powers their device and are uninformed about battery safety or best practices for charging and care. Though many consumers have heard about e-bike or e-scooter related battery fires in the news, the predominant lack of awareness translates to miscalculating the relevance of those risks and hazards to themselves.

Unsafe Behavior is Raising the Risk of Fire

The lack of rider awareness is contributing to behaviors that further increase the safety risks of e-mobility devices. Many of the devastating fires that have been caused by lithium-ion batteries were the result of damaged batteries or substandard or counterfeit replacement batteries. Further, in several cases in which death occurred, the victim's exit was blocked by the device. Increasing e-bike and e-scooter owner education at the point of purchase may help solve some of these concerning behaviors

Several local governments have decided the risk is significant enough to require safety standards. In 2023, New York City enacted a law that states all e-mobility devices sold, leased, or rented in the city must comply with the three standards developed by UL Standards & Engagement. San Francisco approved ordinances that emphasize clear guidelines for safe charging and storage practices, along with requiring certified batteries to minimize fire risks associated with e-bikes and e-scooters. Other areas, including Washington, D.C., and Denver, are incorporating ULSE safety standards into their incentive programs. These initiatives highlight the growing recognition of the need for stronger safety requirements as e-bike use continues to rise. Several pieces of legislation are currently pending in Congress that aim to reduce the risk of lithium-ion related fires, one of which would direct the U.S. Consumer Product Safety Commission to require all e-mobility batteries be tested to multiple safety standards published by UL Standards & Engagement. Beyond regulation, many manufacturers and e-mobility companies are choosing to have their products tested and certified to safety standards. This accountability to safety is critical to ensuring that the proven and growing market for e-bikes and e-scooters can continue to thrive.

Methodology:

The results are taken from two separate ULSE Insights surveys, each consisting of responses from 2,200+ U.S. adults, conducted January 8-12, 2024, and April 12-21, 2024. E-mobility owners were oversampled in order to provide more precise estimates of their opinions and experiences. Responses for this group are weighted to reflect their correct demographic proportions in the overall population.

After data collection was completed, completed interviews were weighted by five variables: age, sex, geographic region, race, and education, to ensure reliable and accurate representation of the total U.S. population, 18 years of age and older. In the analysis and presentation of some data, calculations reference U.S. online adult population estimated at 240.2 million using two sources of publicly available data: 2020 wave of the U.S. Census for U.S. adult population estimate of 258.3 million, and Pew Research Center's Internet/ Broadband Fact Sheet which estimates 93% of U.S. adults use the internet, as of 2021.

The margin of sampling error at 95% confidence for aggregate results is +/- 2.2%. Sampling error is larger for subgroups of the data. As with any survey, sampling error is only one source of possible error. While non-sampling error cannot be accurately calculated, precautionary steps were taken in all phases of the survey design and the collection and processing of the data to minimize its influence.

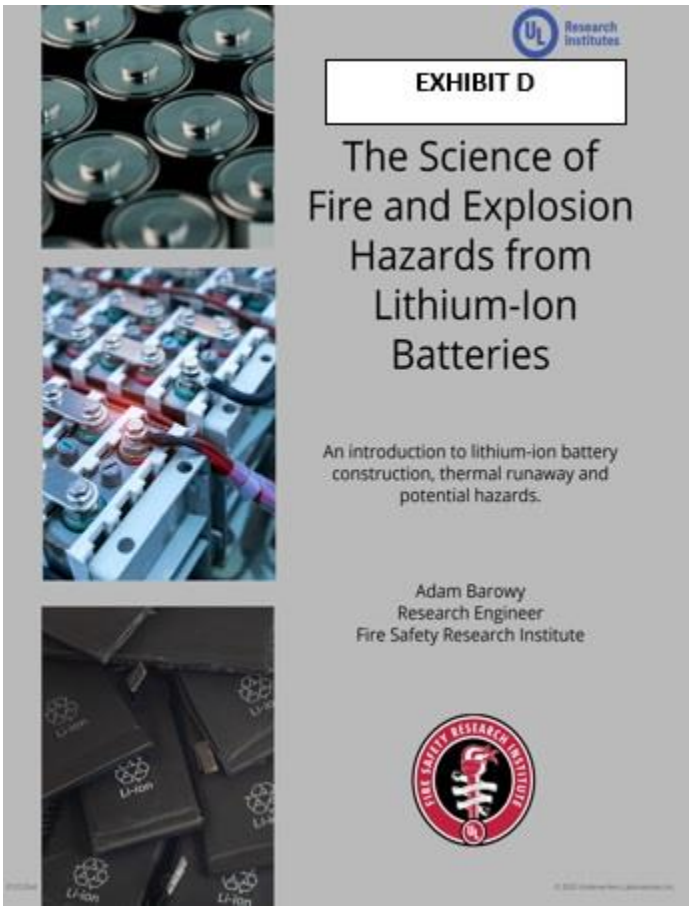
All studies were designed and formulated by UL Standards & Engagement.

Surveys were administered online by BV Insights. As a member of the Insights Association and ESOMAR (the European Society for Opinion and Marketing Research), BV Insights adheres to industry ethics and best practices, including maintaining the anonymity of respondents.

Note: All numbers are percentages unless otherwise noted. Figures may not total 100% due to rounding. of circumstances that threaten safety:

Perceptions of E-mobility

11% 24% Battery Safety 16% 28% caught on firewere overheating Lithium-ion batteries are widely damaged from a crash or collision were swelling or bulging used by e-bike and e-scooter manufacturers but these batteries can present safety hazards to owners if damaged, improperly charged, poorly manufactured, or counterfeit. Educating consumers about safety hazards and associated risks such as thermal runaway are paramount to ensuring the safe future of electric micromobility.



INTRODUCTION

Lithium-ion battery-powered devices play an increasing role in every aspect of our lives - phones, laptops, toothbrushes, power tools, electric vehicles, scooters and bikes. They are even being deployed at a massive scale to improve the resilience of our national electrical grid

Despite many advantages, a significant safety drawback is the possibility that these batteries can overheat, catch fire, and in extreme cases, cause explosions.

Fires involving various lithium-ion battery-powered products have been increasing at an alarming rate and have resulted in numerous injuries and fatalities. Even when the initial cause of a fire is not the lithium-ion device, the involvement of lithium-ion batteries can increase the intensity and magnitude

In 2022, a high-profile fire in New York involving lithium-ion batteries injured almost 40 people. The fire was one of more than 500 documented incidents caused by lithium-ion batteries in the United States since 2021. Although, this number is likely higher because litium-ion battery fires are not yet captured These incidents drive the need to better understand the physical phenomena that determine how hazards develop during lithium-ion battery incidents and develop strategies to mitigate the associated risks.

This resource will focus on the foundational research conducted to date, including lithium-ion battery components, thermal runaway and how fire and explosion hazards can develop.by the national fire incident reporting system..

COMPONENTS OF A LITHIUM-ION CELL

A lithium-ion cell is composed of four primary components - the anode, cathode, separator and electrolyte. The components work together in the cells to provide an electrical current to devices we use on a daily basis.

Lithium is stored in the anode and cathode. Depending on whether the battery is charging or discharging, the lithium will move from the anode to the cathode or vice versa. The electrolyte, a liquid, transports the lithium ions through the separator creating free electrons and, thus, electrical potential.

For example during discharge, lithium ions move from the anode to the cathode and free electrons are created in the anode. These free electrons create a an electrical potential, which enables an electrical current to move through a powered device.

THERMAL RUNAWAY

Thermal runaway is a phenomenon in which a lithium-ion cell enters a state of uncontrolled self-heating. Thermal runaway often begins when the heat generated within a cell exceeds the heat dissipated to its surroundings.

If the cause of excessive heat generation is not remedied, the condition will worsen. The elevated heat causes chemical reactions that further release thermal energy. High enough temperatures can cause distortion or melting of the separator, which can cause an internal short circuit.

The rapid thermal energy generation during an internal short circuit is typically the tipping point after which thermal runaway occurs. Internal cell temperatures will continue to rise, increasing the rate of the chemical reactions and creating a feedback loop.

The rise in temperature in a single cell will transfer heat to other cells. Propagation of thermal runaway can occur when these cells are heated enough to also going into thermal runaway, and the process may continue throughout a battery pack.

A basic description of the thermal runaway process is as follows:

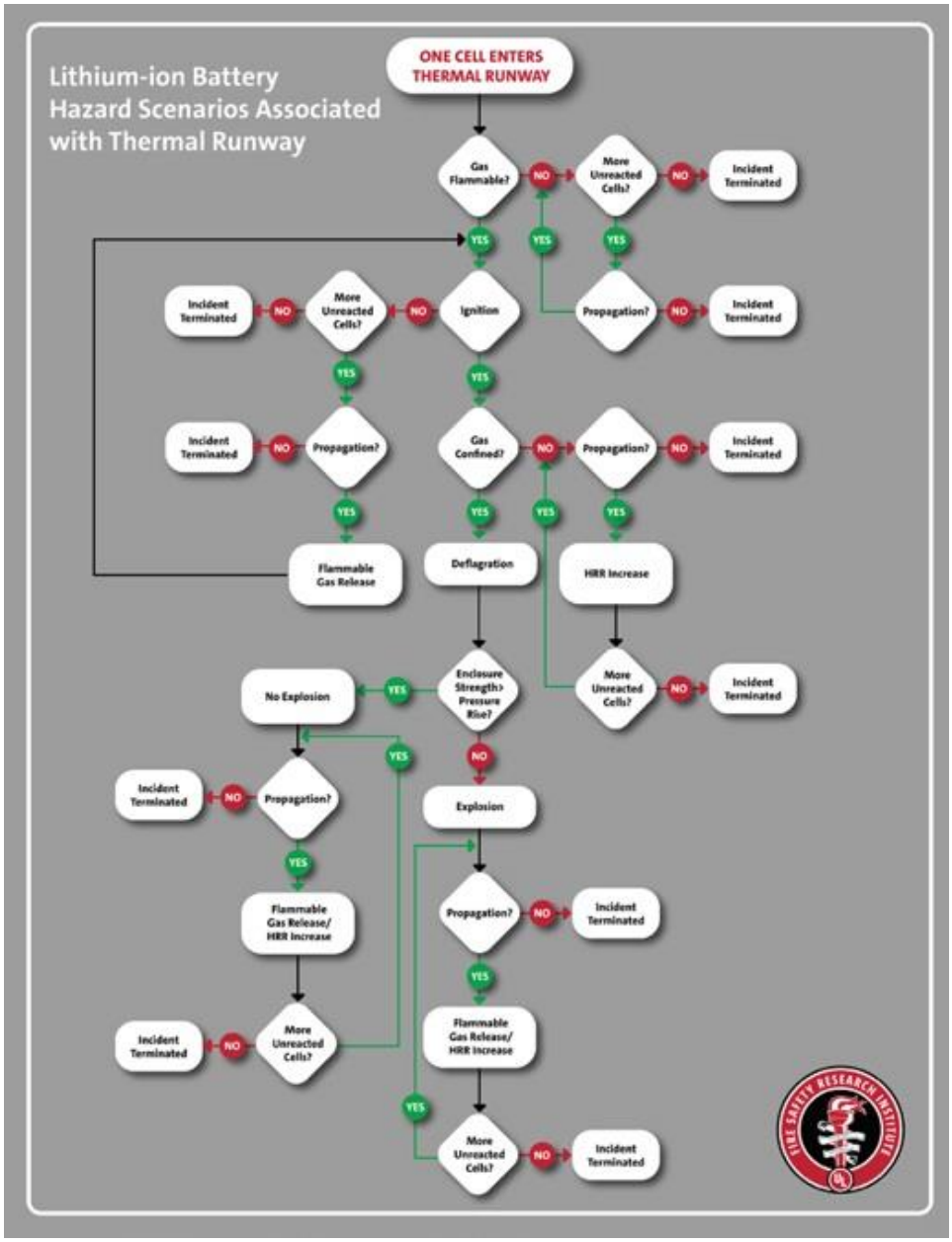
1. Excessive heat is generated in the lithium-ion cell. The protective layer covering the anode begins to break down. This is an exothermic reaction, so the temperature of the cell increases.

2. As the temperature of the cell increases, the electrolyte starts to break down, releasing additional thermal energy. Eventually, the separator begins to melt. 3. As the separator becomes compromised, an electrical short may be possible. The electrical short adds even more heat to the system.

4. Eventually, the cathode will begin to break down. This releases heat and bound oxygen, which can react with products from thermal decomposition and contribute to the combustion reaction that may occur once the cell catches on fire.

HAZARD SCENARIO FLOWCHART

The process by which fire and explosion hazards develop from thermal runaway is complex. This flow chart shows the relationship between the factors that contribute to hazard development and the four hazard scenarios: flammable gas release, flaming, vented deflagrations and explosions.



CALL TO ACTION

While battery research has been conducted for decades, increasing lithium-ion involved fire incident frequency has resulted in increasing focus on lithium-ion battery fire safety research. Fire Safety Research Institute (FSRI) is actively involved in two areas of battery related research.

First, to better understand the potential consequences associated with thermal runaway in large battery packs in residential applications, FSRI is researching the impact of battery fire involvement in residential fires on fire dynamics and the development of potential explosion hazards.

(https://fsri.org/research/impact-batteries-fire-dynamics)

Secondly, FSRI is conducting experiments to better understand the development of hazards from e-mobility device thermal runaway in living spaces and means for mitigating those hazards. (https://fsri.org/research/examining-fire-safety-hazards-lithium-ion-battery-powered-emobility-devices-homes)

Understanding lithium-ion cell construction, thermal runaway and its causes, and the associated potential hazard scenarios can help you reduce the chance of lithium-ion battery-powered devices going into thermal runaway, and reduce the severity if thermal runaway occurs.

FSRI has created a detailed online training that provides a deeper understanding of the information shared in this document. The training is available for free through our Fire Safety Academy. (link)

FSRI also recommends the resources available from FDNY Smart for immediate guidance.

(https://www.fdnysmart.org/be-fdnysmart-when-using-any-devices-powered-by-lithium-ion-batteries/)

Battery technologies and the safety science addressing battery hazards continue to evolve. Stay connected with FSRI to learn more as we share updates from our research and collaborative work with FDNY and other partners.

2024-2025 Citizen Complaints

CITIZEN COMPLAINT LOG						
Number	Subject of complaint	Date Rec'd	Acknowment s	Committe Assignment	Disposition	Accep/rej
1	Feels like he was taken hostiage by Police	7/24	no	no	Rej	
2	Highland Spring	7/24	yes	no	Rej	
3	Crimanl case against Code Inforcment	7/24	yes	no	Rej	
4	Property Taxes	7/24	yes	no	Rej	
5	higher ground property	8/24	yes	no	Rej	
6	Meds at jail	8/24	yes	yes		
7	Hostile work enviorment	8/24	yes	no	Rej	
8	Wants the Sherrif to pay lost wages	9/24	no	no	Rej	
9	Northshore fire department	8/30	yes	no	Rej	
10	Wants help with S.F. court	10/24	no	no	Rej	
11	Harrassment in Pillsbury area	10/24	yes	yes		
12	DA threaten him to plead guitly	1/25	no	no	Rej	
13	son got beatup at the jail	1/25	yes	no	Rej	
14	Wants the County to pay back over payment	1/25	yes	no	Rej	
15	Submerge land	2/4	yes	no	Rej	
16	Animal Countrol Hostel work	2/25	yes	no	Rej	
17	Water District hostil work	1/25	yes	no	Rej	
18	Animal control returned 3 dogs to abusive owner		yes	no	Rej	
19	Procedures on inmate transport	2/25	yes	no	Rej	
20	Resume lake bed recovery project	3/25	yes	no	Rej	
21	Not getting a fair trial	3/25	no	no	Rej	
22	Superior court did not dismiss DUI	3/25	no	no	Rej	
23	misuse of public funds	4/25	yes	no	Rej	
24	.PC 147	4/25	no	no	Rej	
25	.Potholes in Spring Valley	5/25	yes	no	Rej	
26	Spring Valley pot holes	5/25	yes	no	Rej	
27	Price hike for water/sewer in Lackport	5/25	yes	no	Rej	
28	Estate sale payment	5/25	yes	no	Rej	
29	brown Act, Pra Violations	5/25	yes	no	Rej	
30	Western Region Town Hall ignores his app fc for Officer	6/25		no		
31	Investigate donation of $83,623 to the Clearlake Animal Association	6/25				

LAKE COUNTY CIVIL GRAND JURY

2024-2025

RESPONSES TO GRAND JURY REPORT

2023-2024

CITY OF CLEARLAKE ANIMAL SHELTER

FINDINGS

F-1: The animal shelter is overcrowded when there are more than 40-45 dogs being housed there.

F-2: The 10-year contract at $375,000.00 per year has no provision for an increase over time.

F-3: Timely medical care is not always provided.

F-4: There continues to be an overall lack of communication between NBAS and the Community.

F-5: Cleaning practices need improvement.

F-6: There is no set schedule for food deliveries and expired food is being fed to the dogs.

RECOMMENDATIONS

R-1: That the City of Clearlake limit the population to 40-45 dogs at this time. (F-1)

RESPONSE:

R-2: That the Clearlake City Council review the contract with North Bay Animal Services annually. (F-2)

RESPONSE:

R-3: That the Clearlake City Council exercise regular oversight of NBAS to ensure that timely medical care is provided. (F-3)

RESPONSE:

R-4: That the Clearlake City Council ensure that that NBAS improve communication with the public. (F-4)

RESPONSE:

R-5: That the Clearlake City Council ensure that NBAS comply with the terms of the contractregarding the University of California at Davis, Veterinary School's recommendations for cleanliness. (F-5)

RESPONSE:

R-6 That the Clearlake City Council support regular food deliveries through a local food distributor. (F-6)

HOMELESSNESS IN LAKE COUNTY

FINDINGS

F-1: Section 8 Housing in Lake County is limited.

F-2: Only approximately 2% of applied-for EHV's are awarded.

F-3: Homelessness has increased despite the funds that are spent for abatement.

F-4: Once a person or family becomes homeless, returning to a normal sheltered life seems insurmountable.

F-5: The housing voucher system is ineffective; essentially "broken" due, in part, to the loss of the housing supply as a result of wildfires since 2015.

F-6: The cost of homelessness abatement has risen along with everything else.

F-7: Government rules for homeless relief are too complex

RECOMMENDATIONS

R-1: That the Board of Supervisors investigate if a quick-response county-run Housing Agency would be more effective in finding, negotiating, and procuring available housing space in a shorter time to serve more clients with less delay. (F-1), F-2), (F-5), (F-7)

RESPONSE: DISAGREE, will not be implemented.

Explanation: The County of Lake takes housing and homelessness in Lake County very seriously. In consideration of the great needs associated with housing supply at all income levels, development of a Housing Action and Implementation Plan (HAIP) is presently underway. Once published

(expected Q4 2024/Q1 2025), that countywide Plan is expected to serve as a playbook for housing-focused action in Lake County.

R-2: That the Board of Supervisors improve oversight of county-wide homeless services, including comprehensive use and analysis of HMIS data. (F-3), (F-5)

RESPONSE DISAGREE, will not be implemented.

Explanation: Our Board is deeply concerned that individuals experiencing homelessness receive the best services possible, and are connected to any appropriate social, medical and other supports. Lake County Behavioral Health Services is Lead Agency for the Lake County Continuum of Care (CoC), and many County agencies are already engaged in providing supportive services within resource limitations. Our Board's expectation is that these services are delivered at a high standard of quality. Absent new revenue, it is not feasible to commit to enhancing County-provided oversight.

R-3: That the Board of Supervisors develop a comprehensive plan to increase low-income housing supply in Lake County. (F-3), (F-4), (F-5), (F-7).

RESPONSE AGREE, has been implemented.

Please see R1 response.

RECYCLING IN LAKE COUNTY

FINDINGS

F-1: The role of waste management companies needs to be reevaluated and regulated.

F-2: The California State Legislature should consider passing legislation that entails a multistream, free market-driven system.

F-3: CalRecycle should be responsible to audit, oversee, and enforce mandates of the State.

F-4: Lake County has no one to oversee the recycling grants from the State of California.

RECOMMENDATIONS

R-1: That the Lake County Board of Supervisors should appoint someone to oversee recycling grants. (F-4)

RESPONSE:AGREE, has been implemented.

The Public Services Department will continue to engage State Integrated Waste Management funding opportunities within their scope and staffing and resource limitations. Climate-focused priorities and funding opportunities are also regularly monitored by the County's Chief Climate Resiliency Officer. No additional staffing of this function is presently feasible.

PACIFIC GAS AND ELECTRIC

UNDERGROUNDING IN LAKE COUNTY

FINDINGS

F-1: PG&E did not follow the guidelines set forth in the CATTCH handbook to which PG&E is a signatory. DPW stated explicitly in writing, that PG&E was to follow CATTCH recommendations.

F-2: PG&E did not notify emergency services when it closed off access to the Golf Road area in Cobb.

F-3: PG&E did not notify the Golf Road area residents that the access to individual roads would be closed, with no alternative routes set out.

F-4: There was insufficient oversight by Lake County DPW, due to simultaneous projects by PG&E running county wide.

F-5: The distance between several PG&E crews working simultaneously stretches DPW inspection resources.

RECOMMENDATION

R1: That DPW explore funding additional inspectors, at the expense of PG&E. (F4, F5)

RESPONSE: "PACIFIC GAS AND ELECTRIC UNDERGROUNDING IN LAKE COUNTY" While the Board of Supervisors was not required to respond, our Board is responsible for oversight of the Department of Public Works (DPW). Administrative Office staff and our Board have reviewed and concur with the Responses of Public Works Director, Glen March. Our Board expects and encourages effective collaboration between PG&E and the Department to provide for efficient and compliant

construction, and appropriate emergency services and residential notifications.

R-2: That DPW contract with a licensed engineering firm to perform inspections of PG&E, and their subcontractors, during heavy inspection times. (F4, F5)

RESPONSE: SEE R1

R-3: That DPW enforce the CATTCH guidelines, per their encroachment permits. (F1)

RESPONSE: SEE R1

R4. That DPW ensure that PG&E make all required emergency service and residential notifications in a timely manner. (F2, F3)

RESPONSE: SEE R1

QUAGGA MUSSEL FUNDING

FINDINGS

F-1: Funds, revenues and expenditures by year was not found on the Water Resources Department web page. https://www.lakecountyca.gov/407/Water-Resources (accessed April 5,2024) for expenditures of the Lake County Quagga and Zebra (herein "Q/Z mussels") Invasive Mussel Program. No accounting sheets were found on the DWR web site.

F-2: Observations of billboards along state highways leading into Lake County. Signs are generally in good repair; the reflective material is fading and needs rejuvenation.

F-3 At municipal boat launch facilities in Lakeport, the inspectors and Quagga sniffer dogs were present most boating days even during winter months.

F-4 Private boat launches, such as small developments in mobile home parks, clusters of homeowner groups, lack signage about invasive species. The public billboards posted on all state highways leading into Clear Lake are a key part of educating boaters about being a responsible operator.

RECOMMENDATIONS

R-1: That the Department of Water Resources conduct monthly inspections of highway signs for condition, and February nighttime inspection to observe reflectivity, allowing time to repair or maintain signage before boating season starts. (F-2)

RESPONSE: AGREE

Thank you for the opportunity to comment on the Grand Jury's recommendation

R-1 regarding the Water Resource Department (WRD, also the Watershed Protection District, or "District") monthly inspection of highway signs for condition and nighttime / winter time sign inspections to inspect reflectivity, as it related to F-2 regarding billboard observations.

Some of our ramp locations are staffed with ramp monitors as early as 4am, due to fisherperson's and fishing tournament schedules, and during these early morning dark hours, monitors provide inspections of posted program signage and inform District staff of any needed maintenance. Recent signs purchased in 2020, which are replacing outdated signage around public access locations, are large 4ft x 5ft and painted with reflective red and silver paint. These signs can only be installed at public location maintained by the County of Lake, provided to Cities to install, and for private properties upon request, if they provide the install and participate in our local Quagga sticker program. Some locations, such as the Clear Lake State Park, which is shown on the cover of this section of the Grand Jury Report (Page 56) is not under the jurisdiction of County of Lake or Lake County Watershed Protection District. The District can offer available signage to other property owners but the District has no authority for what signs are posted at state properties.

As a majority grant-funded program, the District staff can only repair and replace Invasive Mussel signage and billboards as grant funds allow, and unfortunately, some year's grant funds are not plentiful enough to support staffing needs and physical outreach products. However, during the 2022-2024 year, the Department had access to some federal U.S. Fish and Wildlife Service QZAP

LAKE COUNTY

WATERSHED PROTECTION DISTRICT

grant funds and were able to order and replace several of the large signs along highways leading to Clear Lake.

Some images and locations of these replaced signs are provided below to demonstrate implementation with the recommendation R-1.

CLEAN, DRAIN, DRY.

STICKER UP OR

PAY $1,000

NoMussels.com

QZ program sign updated with new vinyl September 2024, Hwy CA-29 x Grange Rd., Middletown, CA (38.784663, -122.568313

CLEAN, DRAIN, DRY

COMING TO CLEAR LAKE? STICKER UP OR

PAY $1,000!

NoMussels.com

QZ program sign updated with new vinyl

September 2024, Hwy CA- 20 x Phipps Creek,

Clearlake Oaks (38.997073, -122.554208)

R-2: That the Department of Water Resources post yearly expenses and expenditures on its website for the Invasive Mussel Program. See Exhibit A-C. (F-1)

RESPONSE: AGREE

R-3 That the Department of Water Resources improve its web page to show revenue and expenditures by year. (F-1)

RESPONSE: AGREE

OFFICE OF EMERGENCY SERVICES

FINDINGS

F-1: The OES is currently updating their EOP (Emergency Operating Plan).

F-2: The OES is part of the Sheriff's Office. Part of its operations are budgeted and tracked in Budget Unit 2704, Emergency Services. Other parts are budgeted elsewhere in the Sheriff's Office budget.

F-3: The use of Emergency Services funding is confusing and lacks clarity about the true cost of OES.

F-4: The Office of Emergency Services, together with the Sheriff's Department, has made substantial improvements in the ability of county emergency responders to respond to disasters of all types which may occur in Lake County.

F-5: The emergency notification systems are not user friendly to the public.

RECOMMENDATIONS:

R-1: That the Sheriff's Department/OES complete the updating of the EOP. (F-1)

RESPONSE: AGREE, and will be implemented. The Emergency Operations Plan (EOP) is in progress, will be completed and made available to the public in the fall of 2024.

R-2: That the Sheriff's Department needs to segregate OES Budget Unit 2704, from the remainder of the Sheriff's Department budget, to include all costs related to OES operations. (F-2)

RESPONSE: DISAGREE (partially), this cannot be completely implemented. 2704 is simply a grant budget that only covers a portion of OES operations. As an example, we have employees who have management responsibilities within OES only during emergencies but work primarily in Patrol (Budget Unit 2201). Most emergencies and EOC (Emergency Operations Center) activations involve multiple county departments, with multiple budget units within their respective departments. I do understand this makes overall costs of OES events difficult to track, but they can be tracked. I would be happy to work with the Grand Jury to answer any specific cost questions they have on future or past events.

R-3: That the Sheriff's Department take immediate steps to improve public access to the emergency notification system. (F-5)

RESPONSE: AGREE, has been implemented.

The Sheriff's Department has, and will continue to, explore ways to improve public access to our notification systems. The following are examples of systems and policies in place in the county:

Lake Co Alerts: Lake County Sheriff's Office (Unincorporated County): The Lake County Sheriff's Office (LCSO) and OES send emergency alerts via phone call to your landline or cell phone, TTY/TTD, text and/or SMS messages, email and via social media.

The City of Clearlake and City of Lakeport provide alert and warning within their city limits. Registration and information provided is independent of the Sheriff's LakeCoAlerts. Integrated Public Alert and Warning System (IPAWS)may send

- Lake County Sheriff's Office is an iPaws Alerting Authority and emergency alerts that disseminate via the Emergency Alert System (EAS), Wireless Emergency Alert (WEA) or other alerting systems.
- EAS delivers alerts via AM, FM and satellite radio, as well as broadcast, cable and satellite TV.
- Cell phones and mobile devices receive WEA based on location.

Warning Sirens

Some communities purchase and maintain their own community warning sirens. Activation for tests and actual emergencies are conducted by the Sheriff's Office.

While LakeCoAlerts is an "opt in" emergency communication method, OES employs several methods to encourage public opt-in and understanding including:

Websites:

- https://Ready.LakeCountyCA.gov
- https://www.lakesheriff.com
- https://www.lakesheriff.com/about/oes and all sub-pages
- https://www.lakecountyca.gov

Social Media:

Facebook: Https://facebook.com/lakecountyoes

Facebook: https://facebook.com/lakesheriff

X- https://x.com/i/flow/login?redirect after login=%2Flake sheriff

Instagram - Lake County CA Sheriff (@lakesheriffca) Instagram photos and videos

• Community Events

Booths at public events such as the Lake County Fair, Health and Heroes Safety Fair, and more. Sheriff, OES and volunteers sit at booths and help visitors look up their zone and register for LakeCoAlerts.

Other Outreach designed to reach multiple people at once vs the individual only as described above.

Information disseminated via Operational Area Emergency Coordinator's group. Usually by e-mail with information about how agencies/ departments can share information with their clients/ constituents/ community served.

- Presentation to community groups that target a larger audience including:Lakeport Rotary Club - with encouragement to "partner" and share LakeCoAlerts information.
- Lake County Tourism Improvement District - including ideas to help inform the public such as via newsletters/meetings and outreach to vacation rentals, etc.

Lake County Realtors Association - two separate presentations including a small group of realtors and the entire Realtor's Association general meeting. Encouraging awareness/understanding of LakeCoAlerts and ways to share the information including potential realtor specific magnets in newly sold/purchased homes, newsletters and other communication platforms.

Outreach to Spanish speaking communities via existing relationships (i.e. EDD) that included LakeCoAlert information and a survey to learn more about methods that information should be disseminated.

Emergency alerts rely on the public's want of the information and do not replace the "boots on the ground" approach to evacuations that include Deputies going door to door, using hi-lo sirens and neighbors helping neighbors. The Sheriff's Office is committed to consistency with the emergency alert system and carefully selected the Everbridge platform for LakeCoAlerts. The user has control of their information at all times and can opt in to receive alerts for multiple locations via multiple pathways (email, text, phone call, etc.).

LAKE COUNTY JAIL

FINDINGS

F-1: The correctional facility has a shortage of female custodial officers.

RECOMMENDATIONS

R-1: That the Sheriff's Department expand its efforts to obtain female correctional officers. (F-1)

RESPONSE: AGREE, has been implemented. The Sheriff's Department has and will continue to expand our efforts to obtain and retain female correctional officers. We have worked closely with Human Resources to advertise and recruit specifically for this position. We have worked closely with the Board of Supervisors to establish a $20,000 hiring incentive for this position (that is currently $10,000 more than for any other position in the county). We have worked closely with the Board of Supervisors to improve salaries and benefits for this position. We will continue to expand our use of social media and on-line job recruitment sites. We are also committed to increasing our personal visits and recruitment trips to educational institutions and job fairs.

KONOCTI CONSERVATION CAMP #27 TOUR

FINDINGS

F-1 The Konocti Conservation Camp #27 was very pleased to announce one of the inmates had successfully completed his program while at the Camp and is now a CalFire employee.

RECOMMENDATIONS

There are no recommendations at this time

THE STATE OF CANNABIS IN LAKE COUNTY

FINDINGS

F-1: Due to the tax burden and the large number of illegal farms, many of the legal cannabis companies are going out of business or leaving the state.

F-2: Laboratory testing is unreliable and needs to be monitored more closely.

F-3: There are no legal cannabis testing laboratories in Lake County.

F-4: Lake County law enforcement has insufficient resources to investigate illegal farms.

F-5: Illegal growers undercut the legal growers causing market deflation.

F-6: Lake County's sd needs to be protected.

RECOMMENDATION

R-1: That the Board of Supervisors increase oversight to inspect cannabis companies more closely and to shut down illegal grows in the County.

RESPONSE: DISAGREE wholly with finding.

Explanation: Department Staff has consistently performed annual compliance monitoring site visits to all permitted cannabis-related businesses, for the last two years.

Lake County has vast areas of remote lands, full of nooks and crannies which make illegal cannabis a challenge to abate. CDD continues to develop and enrich its grant program operations to expand staff capacity

to abate illegal farms. The department appreciates any and all support of the Board of Supervisors for this endeavor.

R-2 That the Board of Supervisors consider a portion of cannabis revenues to be used to enforce compliance with cannabis laws.

RESPONSE: DISAGREE partially with finding.

Explanation: Use of cannabis funds is at the discretion of the Board of Supervisors, and we defer to them for comment.

R-3 That the Board of Supervisors take steps to protect groundwater overuse by cannabis growers (legal and illegal).

RESPONSE:DISAGREE wholly with finding. Explanation: CDD requires a hydrology report for every discretionary permit application that proposes use of ground and/or surface water. The report must be conducted by a licensed professional, and must report the existing water capacity, the proposed use for the project, and what impacts this new use would have on the project and surrounding area.

Illegal cultivation, with no regulation of water use, is a threat to the supply and quality of groundwater resources, and must be abated. The Department appreciates the ongoing support of the Board of Supervisors to continue this endeavor.

The tireless work of the Grand Jury is very important for the betterment of our systems and community. Our department appreciates the opportunity to respond to the Grand Jury's Final Report. As always, CDD stands ready to assist the Grand Jury, should they have future questions or concerns.

INDIGENT LEGAL REPRESENTATION

FINDINGS

F-1: The Board of Supervisors acknowledged the problems with LID and appointed a Public Defender.

RECOMMENDATIONS

No recommendations at this time.

CONCLUSION TO FOUR YEAR

GRAND JURY INVESTIGATION

OF ELIJAH HOUSE

FINDINGS

F-1: The internal audit was incomplete, because the County was provided incomplete documentation of how the money was spent.

F-2: Oversight obligations set forth in the contract between Lake County and Elijah House, and required by statute, were not met by the LCBH or CoC, and resulted in approximately $200,000.00 in undocumented expenses.

F-3:: The County now has entered a formal MEMORANDUM OF UNDERSTANDING with Continuum of Care relating to the operation of a homeless shelter for the people of Lake County.

RECOMMENDATIONS

R-1: That the County of Lake Board of Supervisors review annually the financial records of the current holder of the contract as they relate to provision of homeless shelter services in Lake County. (F-1) (F-2)

RESPONSE: DISAGREE Enough documentation was received from Elijah House that the County believes that all expenses were eligible except for $23,268.15 which were deemed unallowable expenses

R-2: That the County of Lake Board of Supervisors pursue reimbursement from Elijah House for undocumented expenses more than $200,000. (F-2)

RESPONSE: DISAGREE Enough documentation was received from Elijah House that the County believes that all expenses were eligible except for $23,268.15 which were deemed unallowable expenses. County oversight was given to each invoice received to ensure expenses were eligible, but like the CoC, review practices for such contracts were just beginning for invoice review. Copies of documentation are now required. According to the audit completed by the County Administrative Office, the $200,000 referred to was where no documentation was provided. However they were eligible expenses. The audit did find $23,268.15 that were unallowable expenses.

Accolade: Beverly Benedict Hill

Foreperson, Lake County Grand Jury, 2024-25



With sincere appreciation, we honor Beverly Hill for her extraordinary service to the Lake County Civil Grand Jury. Over the course of 24 years, Beverly has served **eight terms**, including **four as foreperson**, making her one of the most experienced and trusted voices in our county's civil oversight process.

Her leadership has been a steady compass through complex investigations and shifting civic landscapes. Always thorough, always composed, Beverly brought institutional memory, keen judgment, and unwavering dedication to every report she touched. Her efforts helped guide our work with purpose, precision, and integrity.

All of us on the current Grand Jury have spent many hours under Beverly's careful guidance, as we have plowed through Plenary meetings every week. And we have all come to love and cherish her special "LOOKS," those glances that say it all when we've stepped out of line, or when we end up in fights with each other across the room, from time to time.

Or her "LOOKS" that come with her special smile when we all finally agree in one accord on something. She is peacemaker, judge, adjudicator, principal, teacher, and friend. When she is silent, she gives us her "LOOK." And when she is affirming, as the leader she is, her eyes light up as she speaks a crisp "YES!"

She knows how to lead us without a heavy hand and works to draw out the best in all of us, allowing us the space to 'figure things out on our own.' Without a doubt, one of her many gifts is the ability to get the best out of all of us, even if many times she personifies that now famous phrase we all use –"herding cats."

A particular "joy" we have all experienced with Beverly has been attending Edit and Review meetings when reports are put through the shredder of careful

scrutiny, comment, evaluation, dissection, and endless rewrites. Many of us have endured the intense pressure of these times, only to return again and again, weekly, for more of the same until each report reaches a point of expected completion.

Those changes and more changes have unnerved us all, and yet Beverly remains a staunch and steady advocate for *"we must get it right!"* It's our sworn duty, and she holds us all to the line of making sure each report we produce is the truth, has the facts, and is complete in all its arguments. A lesser person would shrug and bow to the urge to capitulate under the pressure and accept work falling below the highest quality. But Beverly keeps her eyes on a higher goal and inspires all of us to do the same, unwaveringly.

It remains a mystery how Beverly can sit in her chair at the head of our table and listen quietly while our discussions are literally flying around the room at jet-speed, all talking at the same time and getting into heated arguments and discussions. Then, just as suddenly, the room will go silent, and all eyes turn toward her. Someone will ask her opinion, and with her soft-spoken voice, she will somehow manage to untie and unravel everything we have been in an uproar about, bringing sudden light of clarity and wisdom out of the chaos.

Hers is a very rare wisdom, borne out of a life lived in service to her fellow human beings and to the place of her chosen home. She possesses that quiet confidence that age brings so gracefully to those who have lived through much and have learned from it. Her voice is the softest one in the room and yet it contains more power and the weight of authority and wisdom than any others.

Today, we have chosen to honor her for her value to not only the Civil Grand Jury of Lake County, but the value she holds in each one of our lives as we have been touched by her influence, her candid wisdom, and her love and friendship.

In Beverly's own words, her service has been "a privilege, a duty, and an opportunity — a privilege to be trusted with the authority accorded civil grand juries by California statute, a duty to investigate issues thoroughly and

objectively, and an opportunity to be of service to the residents of Lake County, where I have chosen to live."

All of us unruly "cats" continue to need the steadying hand of Beverly's wise and careful "herding" to compel us to be the best jurors we can be as we serve the people of Lake County. We have learned from her to plumb the depths of every subject with which we deal. We have learned from her to ask not only the right questions, but also to 'leave no stone unturned' in our goal of investigative accuracy and competency by asking the bold questions, the moral and powerful questions, to reach to the heart of each matter. And we have learned from her to listen, carefully – to her and to each other in order to gain a consensus that will guide us as we work to solve the difficult problems with which we are faced.

Beverly Hill's legacy is one of care, rigor, high standards, and quiet excellence. She has modeled what public service can look like when approached with both heart and accountability. We thank her for setting the standard, and for reminding us—through her example—that "as much as you give, you shall receive."



Photo by Claudia Konocti, owner of Konocti Computers