



SOLANO COUNTY CIVIL GRAND JURY

2021-2022

Effective Emergency Response Needs City and County Support

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Solano County Civil Grand Jury 2021-2022

I. SUMMARY

“Chaos!” is how some firefighters described the first hours of the LNU fire (August 2020) as it jumped county lines and began its trek into Solano County. The Solano County Civil Grand Jury learned that the “Chaos” came from various failings as firefighters rushed to stop the inferno’s progress. The problems went from difficulty communicating between the multiple firefighters trying to answer the call to some firefighters turning off their radios.

Communication begins with knowing with whom to communicate and what to communicate. The question “who are you going to call?” must be peremptory to those responsible for emergency communication. During the LNU fire, first responders did not know with whom to communicate, did not have leadership direction, and did not have crucial communication technology. These failings caused critical agencies to be caught off guard in Solano County. In the extreme and rapidly changing fire conditions, the responders were vulnerable and almost entirely on their own.

Failure of the first responders to set up an incident command post that would have coordinated firefighting efforts exacerbated communication failures. Instead, as one fire chief described it, the first ones on the scene did their own thing and started evacuation efforts. Others complained that they lost two hours of valuable time because no one was in charge (there was no incident command center). To make matters worse, once the emergency was over, the various fire districts met to “debrief.” Some experienced frustration because instead of looking for the issues and finding ways to make sure they were never repeated, the firefighters spent the time congratulating themselves on the fine job they had done. Except for two departments, no others filed after-action reports. Almost every firefighter who spoke to the Civil Grand Jury expressed that there tend to be fiefdoms among the fire districts in Solano County, so when trying to respond to fire incidents, everyone has to tread lightly to avoid offending anyone. The price of such caution is the safety of the community.

II. INTRODUCTION

Fires in California have become more frequent and ferocious. California no longer has a fire season—fire is a year-round threat. It has become imperative that all fire districts and departments within our county work together to effectively and efficiently fight the fires and protect Solano County. In light of the ferocity of recent fires in California, the Solano County Civil Grand Jury investigated the procedures taken to protect the county and the lessons learned.

III. METHODOLOGY

Interviewed:

Fairfield Fire Department Administration

Solano County Sheriff’s Office/Office of Emergency Services (OES) Administration

Solano County Information Technology Administration
Solano County Sheriff's Office Administration
Sonoma County Administration
Vacaville Fire Department Administration
Vacaville Fire Protection District Administration
Vallejo City Administration
Vallejo Fire Department Administration
Vallejo Police Department Administration

Reviewed:

National Emergency Communications Plan (September 2019)

After-Action Reports:

- Sonoma County: 2018 Tubbs Fire, 2020 Kincade Fire
- CalFire 2020 LNU Fire
- Solano County EOC 2020 LNU After Action Report and Improvement Plan
- Solano County OES 2020 After-Action Report

California legislation:

- California Emergency Services Act
- AB 38 Fire Safety, Defensible Space Inspection (2019)
- SB 99 General Plans: safety element: emergency evacuation routes (2019)

Joint Exercise of Powers of Agreement for Solano County Regional Radio
Communications System Authority (Draft)

Emergency Operations Plans (EOPs) for all cities and Solano County, revised 2022
versions.

LAFCO agendas, minutes, Municipal Service Reviews (MSR), and special reports:

- 2014 LAFCO: Solano Fire Districts Municipal Service Review
- 2020 LAFCO: Fire Special Study (aka Citygate report) of the four Solano Fire
Protection Districts

Solano County Board of Supervisors agenda 4/26/22

Solano County Documents:

- Board of Supervisors agendas and minutes
- Recommended and Adopted Budgets, 2021-22
- Fire Prevention Program Grant Applications
- Solano County Multi-Jurisdictional Hazard Mitigation Plans and annexes

Solano County Civil Grand Jury Reports and Responses:

- 2013 Suisun City Fire Protection District
- 2015 Fire Protection: Communication Consolidation
- 2015 Solano County Office of Emergency Services
- 2016 Cordelia Fire Protection District
- 2021 Wildfires on the Horizon, Solano Homes at Risk!

Sonoma County Department of Emergency Management, 2021-22 annual report.

Sonoma County Annual Adopted Budget, 2021-22.

Maps:

- High-fire severity zones in Solano County
- CalFire Districts with State Responsibility Areas (SRAs)
- Solano County Fire Prevention District boundaries

- Evacuation Annex, City of Benicia 2019:
- Evacuation zones and incident map, Sonoma County:
www.socoemergency.org/emergency/evacuation-zones

Newspaper Articles:

- <https://www.pressdemocrat.com/article/news/sonoma-county-to-overhaul-emergency-management-program-following-wildfires/>, August 18, 2018, Press Democrat - Sonoma County to overhaul emergency management program following wildfires
- <https://www.pressdemocrat.com/article/news/sonoma-county-residents-confident-in-regions-emergency-preparedness-survey/>, August 28, 2021, Press Democrat-- Sonoma County residents confident in region's emergency preparedness, survey finds
- <https://www.wintersexpress.com/city/local-officials-talk-actions-after-lnu-fires-to-improve-emergency-response>, December 3, 2020 - Winters Express - Local Officials Talk Actions After LNU Fires to Improve Emergency Response
- <https://www.timesheraldonline.com/2021/01/18/committee-needs-public-input-for-solano-county-hazard-mitigation-survey/>, January 18, 2021 - Times Herald - Committee needs public input for Solano County hazard mitigation survey
- <https://www.dailyrepublic.com/all-dr-news/solano-news/fairfield/solano-cities-county-cooperate-to-develop-hazard-mitigation-plan-that-includes-climate-change/comment-page-1/>, August 8, 2021 - Daily Republic -Solano cities, county cooperate to develop hazard mitigation plan that includes climate change
- <https://www.dailyrepublic.com/all-dr-news/solano-news/fairfield/fairfield-suisun-city-officials-declare-state-of-emergency-due-to-virus-spread/comment-page-1/>, March 18, 2020 - Daily Republic -Fairfield, Suisun City officials declare state of emergency due to virus spread
- <https://www.thereporter.com/2020/03/25/coronavirus-vacaville-city-council-approves-local-emergency-declaration/>
March 25, 2020 - Vacaville Reporter - Coronavirus: Vacaville City Council approves local emergency declaration

Websites

- <https://www.alertmedia.com/blog/after-action-report> (2019-103.pdf)
- <https://www.congress.gov/bill/106th-congress/senate-bill/800>
- <https://abc7news.com/colorado-fire-big-sur-monterey-county-california-wildfires/11500438/>
- <https://abc7news.com/colorado-fire-big-sur-monterey-county-california-wildfires/11500438/>
- <https://www.pressdemocrat.com/article/news/sonoma-county-to-overhaul-emergency-management-program-following-wildfires/>
August 18, 2018, Press Democrat - Sonoma County to overhaul emergency management program following wildfires
- <https://www.pressdemocrat.com/article/news/sonoma-county-residents-confident-in-regions-emergency-preparedness-survey/>
August 28, 2021, Press Democrat-- Sonoma County residents confident in region's emergency preparedness, survey finds

- <https://www.wintersexpress.com/city/local-officials-talk-actions-after-lnu-fires-to-improve-emergency-response>
- <https://www.justiceclearinghouse.com>
- <https://www.alertmedia.com/blog/after-action-report/>
- www.nwccg.gov
- <https://haggertyconsulting.com>
- <https://Rasmussen.answers.com>
- <https://sfdem.org>
- December 3, 2020 - Winters Express - Local Officials Talk Actions After LNU Fires to Improve Emergency Response
- <https://www.timesheraldonline.com/2021/01/18/committee-needs-public-input-for-solano-county-hazard-mitigation-survey/>
- January 18, 2021 – Vallejo Times Herald - Committee needs public input for Solano County hazard mitigation survey
- <https://www.dailyrepublic.com/all-dr-news/solano-news/fairfield/solano-cities-county-cooperate-to-develop-hazard-mitigation-plan-that-includes-climate-change/comment-page-1/>
- August 8, 2021 - Daily Republic -Solano cities, county cooperate to develop hazard mitigation plan that includes climate change
- <https://www.dailyrepublic.com/all-dr-news/solano-news/fairfield/fairfield-suisun-city-officials-declare-state-of-emergency-due-to-virus-spread/comment-page-1/>
- March 18, 2020 - Daily Republic -Fairfield, Suisun City officials declare state of emergency due to virus spread
- March 25, 2020 - Vacaville Reporter - Coronavirus: Vacaville City Council approves local emergency declaration
- <https://www.thereporter.com/2020/03/25/coronavirus-vacaville-city-council-approves-local-emergency-declaration/>

IV. STATEMENT OF FACTS

The most alarming failure during the LNU fire was that an Incident Command Post (ICP) was not established in Solano County immediately after the blaze crossed county borders. According to at least one firefighter, “the first person on the scene of a multi-company incident, no matter what rank, is directed to establish command.” The ICP, a key feature in the US National Incident Management System (NIMS), is a standardized approach to emergency response command, control, and coordination and should be set up immediately. It provides a common hierarchy for responders allowing multiple agencies to be more effective. Originally, it was established to address the lack of coordination, communication, planning, and valuable and timely intelligence. NIMS also enhances the firefighters’ ability to predict and react to fire behavior. Responders to the LNU fire complained that failure to establish an Incident Command Post in a timely fashion wasted approximately two to four hours of valuable time after the fire entered Solano County. When the Solano County Civil Grand Jury tried to establish who was responsible for setting up the Incident Command Post, two different agencies were mentioned: the Vacaville Fire Protection District and CalFire (which was busy fighting a fire in a nearby county). Firefighters interviewed indicated that although CalFire is usually responsible for setting up the ICP during wildfires, the first fire chief on the scene takes on that responsibility until CalFire can respond.

At approximately 10:30 pm, the Fairfield Fire Department personnel received a warning from the Benicia Fire Department personnel that the fire was coming. Finally, between three to four the next morning, CalFire arrived and established the Incident Command Post.

The use of multiple radio communication systems meant not all responding departments and districts could communicate with each other. Some responders carry up to three radios for communication with various responding agencies. Firefighters who responded to Civil Grand Jury questions indicated that fire departments would benefit from multi-band handsets. Firefighters identified the ineffective current communication system and the lack of a universal county-wide system as the areas in dire need of improvement before the next disaster. Most of the county emergency services, except for Benicia and Vallejo, still use an analog platform for their communication needs; although there is a digital platform supported by the county for communications. The lack of coordination means that, in some instances, firefighters carry as many as three radios to keep in touch with all first responders involved in an incident. In Vallejo, some emergency responders use digital radios (which align with Contra Costa County) and use iPads and cell phones to avoid jamming communications.

The frequency and ferociousness of the fires that have raged across California for the past decade have emphasized the importance of having the ability to communicate and establish timely command and control at the scene of an emergency. Title XVIII of the Homeland Security Act of 2002 (6 United States Code 101 et seq.), as amended, calls for DHS (*Department of Homeland Security*) to develop the NECP (*National Emergency Communications Plan*) in coordination with stakeholders from all levels of government and the private sector. DHS updated the plan in 2014.

To address communication shortfalls, the United States Congress directed the DHS Office of Emergency Communications (in 2018, renamed the Emergency Communications Division) within the Cybersecurity and Infrastructure Security Agency (CISA) “to develop and periodically update the NECP.” The second and most recent update (September 2019) of the plan states “numerous after-action reports and national assessments have revealed, there are still communications deficiencies that affect the ability of responders to manage routine incidents and support responses to natural disasters, acts of terrorism, and other incidents.”

The NECP vision for the future state of emergency communications is:

“To enable the Nation’s emergency response community to communicate and share information securely across communications technologies in real time, including all levels of government, jurisdictions, disciplines, organizations, and citizens impacted by any threats or hazards event.”

It sets six goals for emergency communication:

Goal 1: Governance and Leadership: Develop and maintain effective emergency communications governance and leadership across the Emergency Communications Ecosystem

Goal 2: Planning and Procedures: Develop and update comprehensive emergency communications plans and procedures that address the evolution of risks, capabilities, and technologies across the Emergency Communications Ecosystem

Goal 3: Training, Exercises, and Evaluation: Develop and deliver training, exercise, and evaluation programs that enhance knowledge and target gaps in all available emergency communications technologies

Goal 4: Communications Coordination: Improve effective coordination of available operable and interoperable public safety communications capabilities for incidents and planned events

Goal 5: Technology and Infrastructure: Improve lifecycle management of the systems and equipment that enable emergency responders and public safety officials to share information efficiently and securely

Goal 6: Cybersecurity: Strengthen the cybersecurity posture of the Emergency Communications Ecosystem (National Emergency Communications Plan, September 2019, p. ES-1)

In 2015, Benicia hired a new police chief. When he arrived, he found that Benicia had an obsolete communication system. Officers could not effectively transmit back and forth with dispatch. The elements also affected the system—if the weather was bad, the transmission was worse. The Solano County Law Enforcement Administrators Association agreed to work together to move towards improving the county’s communication system. Benicia and Vallejo (both fire and police) followed Alameda and Contra Costa Counties’ lead and contracted with East Bay Radio Communications System Authority (EBRCSA) and implemented a modern digital communications system.

Three years ago, taking matters into their own hands, fire and law enforcement agencies from all seven cities as well as the Sheriff’s Office began a push to form a Joint Powers Agreement (JPA) in Solano County similar to the one in Alameda and Contra Costa County. Benicia took the lead and hired a consultant on behalf of the seven cities and the Sheriff’s Office to conduct a study on the issue of consolidating emergency communications.

On January 1, 2021, Benicia, Dixon, Fairfield, Rio Vista, City of Suisun, Vacaville, Vallejo, and Solano County started the process of forming a Joint Powers of Authority and began drafting a Joint Powers Agreement (JPA) specifically to address communication issues within the county. It proposed a unified county communication system.

The recitals for the JPA draft include: (There was no recital 1. listed)

2. **WHEREAS**, the Parties have a common powers, under their sovereign and police powers, to plan design, finance, construct, operate, and maintain public safety radio communication systems; and
3. **WHEREAS**, the Parties have determined that the public interest will be served by the joint exercise of these common powers through this agreement to create a Solano County regional radio communications system to serve all citizens of the Parties; and
4. **WHEREAS**, the Parties recognize the benefit of a joint effort to develop, implement, and subsequently operate and maintain such a centralized system that coordinates the use of publicly possessed radio channels utilizing a P-25 compliant (or equivalent) communications system; and
5. **WHEREAS**, the Parties recognize that the SCRRCs (*Solano County Regional Radio Communications System Authority*) will have regional consequences beyond the geographic boundaries of the Parties which will encourage participation by other governmental agencies and enhance services to their residents; and
6. **WHEREAS**, the development, operation and maintenance of a centralized system is more efficient, better serves the Parties and citizens of Solano County and bordering regions, and provides an opportunity for the Parties to collectively negotiate future contracts with third-party vendors. (Joint Exercise of Powers Agreement for the Solano County Regional Radio Communications System Authority draft 2021 p.1)

The purpose and method of the JPA draft include:

1. acquiring real, personal, and intangible property, and
2. providing hardware, software, services, and other items necessary and appropriate to establish, operate, and maintain a regional/centralized P-25 compliant (or equivalent) communications system for the benefit of the Parties (the “Backbone”); and
3. providing a forum for the Parties and other interested entities to discuss, study, develop and implement recommendations of mutual interest regarding public safety communications operations and related matters; and
4. providing access to the Solano County Regional Radio Communication System (“System”) via license or contract to other governmental and private entities. (Joint Exercise of Powers Agreement for the Solano County Regional Radio Communications System Authority draft 2021 p.3-4)

It should be understood that the JPA examined here is a draft and is subject to change.

Seven years ago, the Solano County Civil Grand Jury filed a report that indicated “Fire communication consolidation will improve public safety.” The report went on to recommend the implementation of a fire communications consolidation to enhance public safety. The Solano County Board of Supervisors response to the recommendation was:

“The Board of Supervisors agrees with the finding. Fire communication consolidation has been shown in other jurisdictions to reduce response times and, if implemented throughout Solano County, would simplify the current fire mutual callout process.”

“The recommendation has not been implemented, but may be in the future. A complete consolidation of fire communications in Solano County will take a commitment and effort on the part of all agencies with fire services. At this time, the independent fire protection districts of Suisun City, Cordelia, Vacaville and Montezuma and the two cities of Dixon and Rio Vista use Solano County dispatch with respect to fire communications. Transitioning the remaining fire agencies (municipalities) to the same consolidated system is feasible, but requires separate operational and independent agency commitments.”

Although the Board of Supervisors agreed with the recommendation and recognized the importance of a consolidated communication system, it did not commit to rectifying the situation. The NECP recognizes that “Communications investments are among the most significant, substantial, and long-lasting capital expenditures that public safety agencies make.” This may account for the Board of Supervisors’ slow implementation of the 2015 Solano County Civil Grand Jury recommendation.

At the April 26, 2022, Solano County Board of Supervisors’ meeting, the County Administrator recommended they “Receive a presentation and provide direction to staff on allocating \$1,900,000 in state revenue provided to Solano County for wildfire prevention efforts.” Approximately \$1.2 million of that money is earmarked for the “acquisition of radio equipment required for radio interoperability.” It could cost as much as \$30 million to convert the county communication systems to one universal system.

Efforts to advise the public during an emergency depended on a proactive population. Solano County has two methods of alerting the public during emergencies: Alert Solano (Everbridge) and Nixle. Unfortunately, the systems were dependent on the public to sign up for the service. During LNU, much of the effort to alert the public involved individuals going door to door. The county has upgraded its alert system with a wireless emergency alert that goes to all cellphones in a designated area, not just those who have subscribed. Solano County can learn a lesson from Sonoma County, which has developed a multi-pronged process alerting the public during an emergency. Sonoma County’s process also includes pre-training the public on emergency procedures. The process includes organizing neighborhood meetings which include instructions in Spanish. The county also provides kits that outline evacuation routes.

Almost all fire department personnel interviewed felt that the county needs a “county” fire department to better address incidents in unincorporated areas and update leadership. Currently, individual fire protection districts (which depend heavily on volunteers) and CalFire protect the unincorporated areas in Solano County. However, as fires in northern California intensify, the number of fire volunteers is diminishing. During the LNU, CalFire was busy addressing blazes in other parts of Northern California and was spread so thin that it could not immediately respond to the inferno threatening Solano County. Further, the unincorporated area spreads far and wide, stretching from the borders of Vallejo to the far reaches of Rio Vista. The prevailing opinion of firefighters that the Civil Grand Jury interviewed is that a county fire department will resolve some of the problems. They also went on to say that some of the current leadership within the firefighting community refuse to change and accept more modern technology and its advantages in fighting fires.

On November 2, 1993, California voters enacted Proposition 172, which established a permanent one-half-cent sales tax to maintain local public safety functions in cities and counties. According to a November 14, 2021, Daily Republic article, few of the dollars generated by Proposition 172 went towards fire safety. The article continues saying “County-controlled Proposition 172 funds go to the Sheriff’s Office, the District Attorney’s Office and the Probation Department.” The Civil Grand Jury interviewed fire chiefs throughout the county and they all stated that they did not receive any Proposition 172 funds for fire safety. However, according to the Daily Republic Dixon and Vallejo confirmed that they have used Proposition 172 funds to support their fire departments.

After-action reports are essential tools for reviewing performance and results when an emergency occurs. When the Governor declares a “State of Emergency,” there is a state mandate to submit an after-action report to Cal OES. When multiple entities participate in the incident, as was the case in the LNU fire, each entity plays a role and must be accountable for its part in the incident.

California Code of Regulations, Title 19, section 2450 (a) states “Any city, city and county, or county declaring a local emergency for which the governor proclaims a state of emergency, and any state agency responding to that emergency shall complete and transmit an after-action report to Cal OES **within ninety (90) days of the close of the incident period.**”

The purpose of an after-action report is to analyze the response to an incident, identify strengths, and identify potential areas of improvement. There are four parts of an after-action report.

1. Planning
2. Preparation
3. Actual Conduct
4. Follow through (the most important part)

It lays out vital details such as how the exercise went, what went well, and areas for improvement. It also suggests a concrete plan for improving the response should another similar incident occur. According to Alert Media (a safety publication used by various agencies and companies), creating an after-action report will allow the entity to identify gaps in response plans, learn from mistakes or oversights, and be better prepared. It also asserts that only after honest discussion, planning and follow-through will things improve for future incidents.

The regulation, cited above, requires any city or county declaring a local emergency to respond with such a report. It is unclear if the regulation requires each city to submit a report if the Solano County Sheriff’s Office/Office of Emergency Services submits a report on their behalf. Nonetheless, every city fire department and fire district experiences unique challenges during the disaster. Without candid input from each of the entities and critical analysis of their performance, the entities may not be able to identify the areas for improvement. Weaknesses in operations, personnel performance, and deficiencies in leadership during a disaster can be addressed and identified.

Only one of the participating cities or districts in Solano County submitted after-action reports (City of Vacaville). According to the Sheriff's Office, OES puts the after-action report together for Solano County.

In responding to a question regarding the importance of after-action reports, Vallejo Administration acknowledged that "They are important to address shortfalls." However, they also stated, "This was not our incident, so we didn't develop an after-action report." The Fairfield Fire Department and the Vacaville Fire Protection District made the same response.

After-action reports are tools used to self-examine each entity involved in the incident. Some critical shortcomings may be overlooked without a detailed, internal self-evaluation by each department/district. In response to a question regarding the LNU Fire Debriefing Meeting, one attendee stated, "The sequence of events was discussed. Unfortunately, it was not as open as it could be. They tend to walk softly." He also stated, "Relationships in the county between the different groups are very volatile." This type of open forum may not encourage free discussion. If each entity submits written after-action reports to the post-fire debriefing facilitator, the discussion may become more candid and productive.

V. FINDINGS AND RECOMMENDATIONS

FINDING 1 – The most dangerous failure during the LNU fire was the failure of the first Chief on the scene to establish an Incident Command Post.

RECOMMENDATION 1 – Train all emergency response personnel on the protocol for establishing an Incident Command Post. The Incident Command Post must be established immediately when the danger is detected.

FINDING 2 – The lack of a consolidated digital communication system in Solano County hampers effective firefighting efforts.

RECOMMENDATION 2 – The Board of Supervisors broaden efforts to fund and promote the establishment of a modern digital county-wide emergency communications system.

FINDING 3 – Although law enforcement and fire departments throughout the county have been working to establish a JPA to develop a consolidated communications system, there is little support from the county to finalize the efforts.

RECOMMENDATION 3 – Expedite JPA agreement within the county and develop a plan to move forward.

FINDING 4 – A county fire department is needed to serve the unincorporated areas of Solano County.

RECOMMENDATION 4 – Solano County establish a county-wide fire department to serve the unincorporated areas of Solano County.

FINDING 5 – Funding from Proposition 172 has not been equitably distributed within the public safety entities.

RECOMMENDATION 5 – Board of Supervisors and cities within the county reprioritize the distribution of funds garnered from Proposition 172 ensuring that it is distributed more equitably to include fire safety.

FINDING 6 – Only two agencies involved in the LNU fire produced after-action reports.

RECOMMENDATION 6 – Solano County and cities within the county require all responding emergency agencies using public funding to produce after-action reports.

COMMENTS

Because fires are becoming a part of Northern California’s new normal, there is no time to wait. Solano County and the cities within the county are out of time and must act now before the next catastrophic incident occurs.

REQUIRED RESPONSES

Solano County Board of Supervisors (2, 3, 4, 5)
Solano County Sheriff (Finding 2, 3, 6)
Benicia City Manager (Finding 2, 3, 4, 5, 6)
Fairfield City Manager (Finding 5)
Vacaville City Manager (Finding 5)
Vallejo City Manager (Finding 2, 3, 4, 5, 6)
Fairfield Fire Chief (Finding 2, 3, 4, 6)
Vallejo Fire Chief (Finding 2, 3, 4, 6)
Vacaville Fire Chief (Finding 2, 3, 4, 6)
OES Director (Findings 1, 2, 4, 6)
Vallejo Police Chief (Findings 2)
Solano County Administrator (all)
Vacaville Fire Protection District (Finding 1, 2, 6)
DoIT Director (Finding 2)

COURTESY COPIES

Sonoma Emergency Management Director