

Tuolumne County
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Heather Ryan
*Clerk of the Board
of Supervisors*

BOARD OF SUPERVISORS COUNTY OF TUOLUMNE

David Goldemberg, *First District*
Kathleen Haff, *Fourth District*

Ryan Campbell, *Second District*

Anaiah Kirk, *Third District*
Jaron Brandon, *Fifth District*

MINUTES

Fire Safety Advisory Committee – February 23, 2022 @ 10:30 am VIA Zoom – Virtual Meeting

AGENDA

1. Call the Meeting to Order: Meeting called to order by Supervisor Goldemberg at 10:35 am, roll call taken. Meeting was held via Zoom.
 - a. Committee Members present (quorum established with 9 members present)
 - i. Supervisor Ryan Campbell -District 2
 - ii. Supervisor David Goldemberg – District 1
 - iii. Chief Andy Murphy- Tuolumne County Fire
 - iv. Sheriff Bill Pooley – Tuolumne County Sheriff (Neil Evans as alternate)
 - v. Wesley Brinegar – District 3 (absent)
 - vi. Jerry McGowan -Tuolumne Band of Me-Wuk Indians
 - vii. Glen Gotschall – Tuolumne Firesafe Council representative (absent)
 - viii. Chief Mark Ferreira – Tuolumne County Fire Chief’s Association
 - ix. Dennis Randall – District 2 public representative (Absent)
 - x. Scott Fremd – District 1
 - xi. Monica Fox – Chicken Ranch Band of Me-Wuk Indians (absent)
 - xii. Eric Holly – District 4 public representative (Absent)
 - xiii. Chief Aimee New – Sonora City Fire
 - xiv. Malcolm Carden – District 5 – public representative
 - b. Others present via Zoom
 - i. Dore Bietz and Tracey McKnight – OES Staff
 - ii. Public – Various
 2. Public Comment
 - a. No public comment
 3. Approval of minutes for January 26, 2022 –
 - a. Supervisor Campbell motioned to approve, seconded by Malcom Carden
 - b. Vote taken all in favor, no nays,
- Public comment - none
4. Old Business – none
 5. Reports/Presentation

- a. TCTC Evacuation Planning Grant Presentation – recommendation and comments needed from Committee on identified areas for analysis.
 - OES Staff introduced project and Darin Grossi from TCTC to present on Evacuation Planning Grant. Darin provided an update on the evacuation work related to the TCTC grant. Tuolumne County Transpiration Council and Tuolumne County are co project managers for this evacuation planning grant. This grant will aid in planning and prioritization to improve efficiencies of transportation routes. Kittleson, the consultant has been hired to assist with this a few priorities; prioritization routes, improve evacuation flows, and improve public communication. This study is not an evacuation plan but a study to improve and identify evacuation related improvements. Matt Braughton and Grace Carsky from Kittleson presented and provided an update including project introduction, fire scenario analysis, evacuation roadway network analysis and strategies, and next steps. (presentation attached)

Committee members comments

- Scott Fremd asked about input for fire behavior calculations, did you use static wind input and the variables of weather, using base variables? Consultants replied that weather came from Green Springs and Mt. Elizabeth as go to stations. Daily weather was the most extreme @ 97%. Looking at large most damaging fires are products of wind event,
- Supervisor Campbell thanked consultants for the im[portant work this information will provide. Asked specific questions on Cedar Ridge area, what are some actionable measures this committee can take to inform about evacuations. Matt describes that this modeling does not form the evacuation models but through the analysis we will be able to identify future improvements needed to road infrastructure to facilitate better evacuations.
- Undersheriff wanted to reiterate these are drastic models and the public needs to know. Resources should include how much time we must get resources, closing of roads.... if we do not have resources and or time to put plan in place, nothing we can do. Time is vital.
- Supervisor Goldemberg asked a question about the five areas addressed and to consider the Columbia area as a subject area. The discuss consisted of considering all factors for the Columbia area and went into a further discussion to consider the Golden Oaks Road area possibly as well. If any changes are made, this would involve a contractual change, Darin will investigate adding with consultants.
- Chief New commented continuing education to the community is a vital piece as well as the issue of understaffing of Public Safety especially when you have many onlookers taking pictures is an ongoing challenge during an evacuation.

Public Comment

- MaryAnne Schmidt stated it sounds as though it will be hard to evacuate and get the message. There is a need to educate and out information out on how to evacuate with consideration...don't go buy groceries, don't go look at the car. CERT is an opportunity to create more volunteers. Identifying and continue to educate the public on evacuation, such as please do not stop to view fires, run errands, and steps on how to react when there is an emergency.

6. Working groups

- a. Communication and Education outreach workgroup
 - i. The Community and Education Workgroup – OES is planning to increase public outreach. Workgroup will be ramping up to assist with educating the public. Supervisor Campbell reported out on future meeting with Superintendent of Schools.
- b. Governance
 - i. Vegetation ordinance updates and discussion provided QR Code and link for Vegetation Ordinance Survey. Went over current responses to survey and meeting summary with

Tuolumne County Farm Bureau. 53 individuals have responded to survey so far and we will continue to ask for input. Goal is to get to introduce to Board of Supervisors this spring/early summer at the latest.

Committee comments

- Supervisor Goldemberg commented that our efforts are to make a safer place for all of Tuolumne County. Outreach with various groups and survey is important for public input and meetings with specific organizations such as the farm bureau is important. We will continue to move forward in discussions.
- Supervisor Campbell agrees and respects that the farm bureau is working for the agricultural community to ensure that there will not be an impact to their members. This ordinance is important for us to be proactive. The state is moving towards requiring vegetation ordinances and we want to be at the driver's seat
- OES stressed that we will keep working on public engagement. The plan is to have the next meeting on March 30th @ 6pm for a virtual meeting. Once the draft is released publicly, we will hold another to walk through the language.
- Chief New mentioned that the workgroup will meet Feb 28th to continue with work on language. We have reached out to Board of Forestry for clarification on whether it is the intent of the State for counties to take over 4291, just that they want ordinances to be in addition to.
- OES also mentioned comments regarding enforcement and or roll out of any ordinance. There will need to be a phasing of education before enforcement actions are taken. Also, many comments have come in about impact to property owners and Supervisor Campbell spoke of the need to have the ordinance in place before we

ii. Emergency planning workgroup –

- a. Update on workgroup including recent letter for Friends of Pinecrest. OES would like to remind committee that we are working towards an alert & warning plan with a recommendation and presentation to the board of supervisors May 3rd. Also excited about using FM Alert in Tuolumne County with possibility of having a presentation at next meeting.
- b. OES talked about testing of Everbridge in May. April we will be pushing more public information.

Committee Member Comments –

- Neil Evans – Undersheriff spoke about plan to bring forward to Board of Supervisors in April with update on other counties decision whether to join.
- Supervisor Campbell asked about timing and agenda items.

Public Comment – none

7. New Business

a. Fire Risk communities list

- i. OES provided an overview what is a Fire Risk Reduction Community (FRRC). What it means to be on the list, Fire Grant funding will remain to be available to all counties but FRRC communities are considered as priority applicants. FAQ and application criteria overview were provided by OES.

Public Comment

- MaryAnn Schmidt asked whether or not it should be a resolution or an ordinance? And whether or not there is impact or potential to fire insurance. Staff believe that it should not matter but the Board of Forestry has said that it must be an ordinance. Staff

also has asked if we could add this to the vegetation ordinance and Board of Forestry staff said yes. Staff is asking for Fire Safety Advisory Committee approves that we apply

- ii. Supervisor Campbell makes motion to support Tuolumne County applies for the Fire Risk Reduction Community List, Seconded by Supervisor Goldemberg.....all in favor.

8. Next Meeting and Adjournment

- a. Supervisor Goldemberg asked about moving back to in person meetings. Staff explained that the directive is to go back to either all virtual or all in person and that the committee had voted to hold meetings in person. We will go back to in person for the March meeting.
- b. Meeting adjourned at 12:30 pm. Next Fire Safety Advisory Committee Meeting – **March 23rd @ 10:30 am IN PERSON Board Chambers**

Tuolumne County Evacuation Routes and Communication Strategies

Tuolumne Fire Safe Advisory Committee

FEBRUARY 2022

Fire Safe Advisory Committee

- Key supporters in implementing the evacuation routes and communication strategies
- Provide guidance throughout project development



AGENDA

- Project Introduction
- Fire Scenario Analysis
- Evacuation Roadway Network Analysis + Strategies
- Next Steps

What is this study? What is it not?

This study is **NOT** an evacuation plan

This study does **NOT** identify evacuation routes or zones

Develop further understanding of fire risk based on historic data

Inform evacuation and communication strategies from analysis

Identify evacuation-related improvements to inform the
Regional Transportation Plan

SCOPE OF WORK



Project Kickoff Meeting



Identify High Risk Housing, Commercial Centers, Community Facilities



Identify Roadway Network Deficiencies and Strategies



Identify Vulnerable Populations



Develop Shelter-in-Place Guidance* (Plan B)



Public Participation / Outreach Plan



Communication Deployment Plan



Draft Plan & Final Plan



Tabletop scenario

Fire Risk Scenarios + Analysis

Fire risk scenarios

Fire scenarios were created to use as inputs for roadway network analysis.

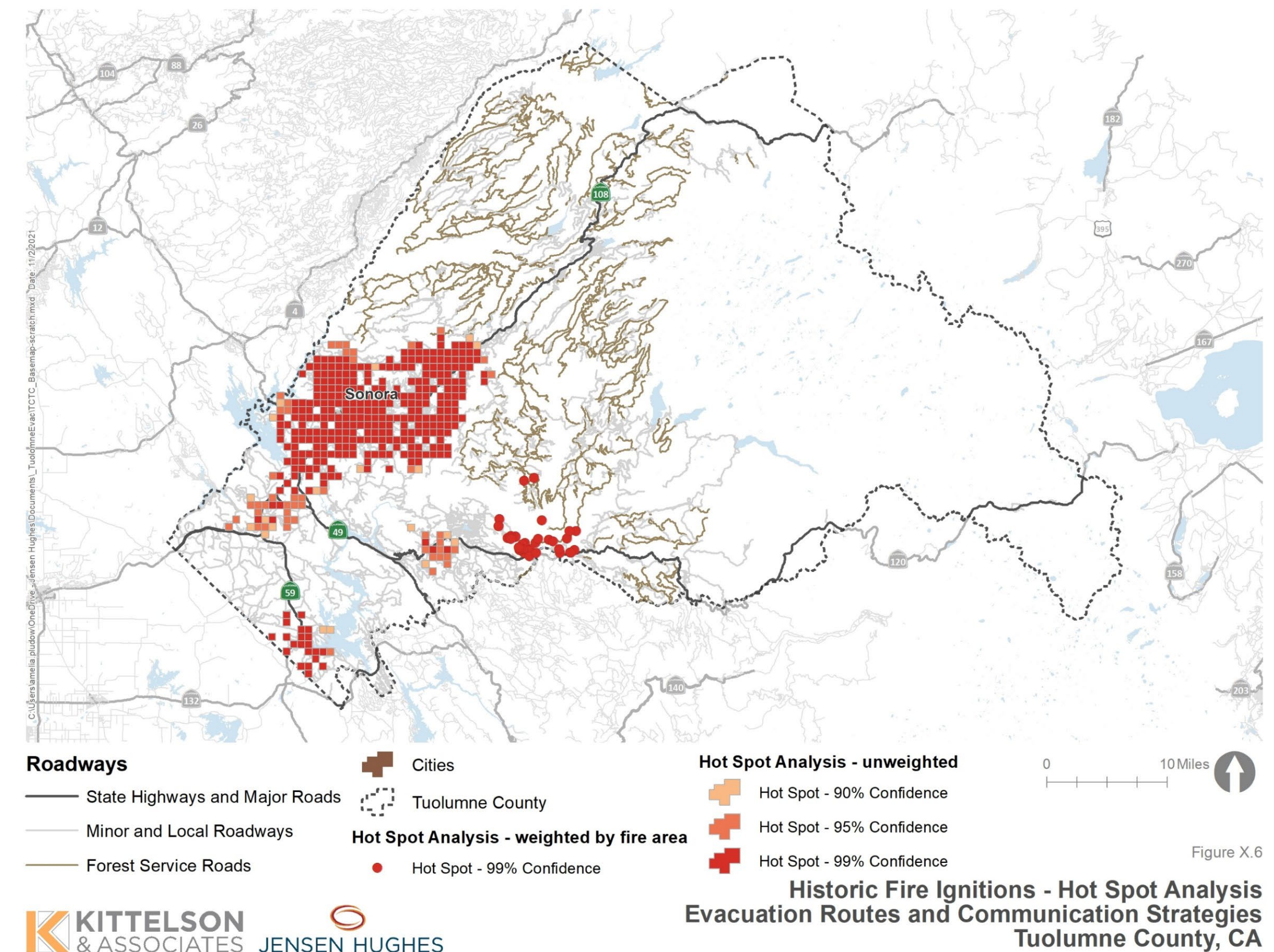
Scenarios are inputs into the planning and roadway network evaluation process

Note: The scenarios intended to inform strategies and recommendations, they are not models of how an actual fire would unfold. The fire scenarios do not include the impact of firefighting operations and cannot capture all environmental factors that influence wildfire activity.

Fire Scenarios + Analysis

Model methodology

1. Review wildfire history and hazard severity data
2. Review ignition history
3. Identify potential points of ignitions as design basis fire scenarios (with local fire chief input)
4. Perform **fire modeling** using FlamMap
 - Simulate landscape fire spread and predicted fire behavior (flame length, rate of spread, crown fire potential)
 - Key inputs include historic fire weather and fire danger indices, wildfire ignitions, topography, vegetative cover and large fire history
5. Identify **5* representative design fire bases** per various selection criteria

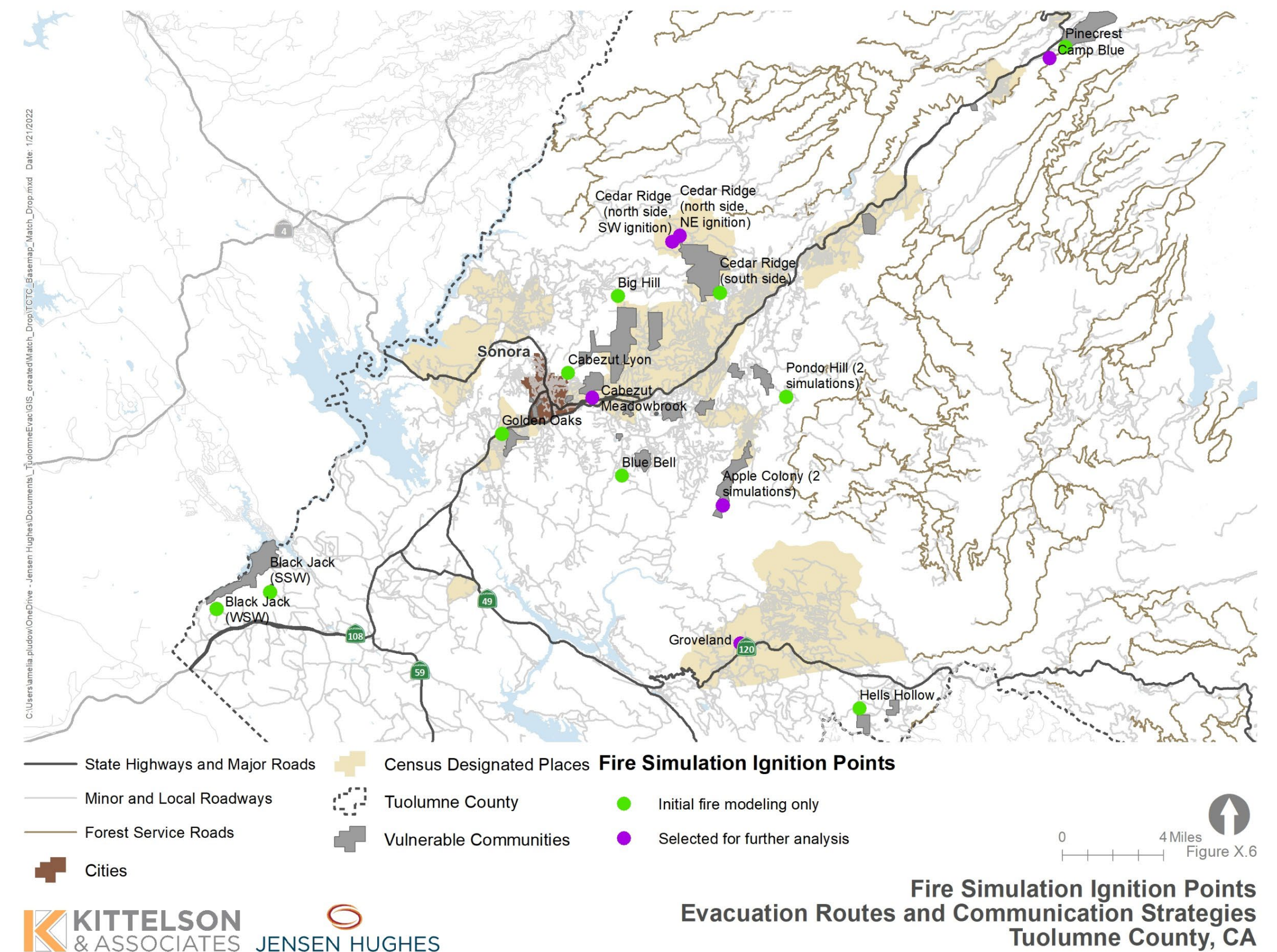


Fire Risk Scenarios + Analysis

Scenario selection criteria

Initial identification of 17 fire scenarios from which 5 were selected for further transportation analysis. Selection criteria included:

- Fires with a **higher likelihood of ignition, spread and severity**
- Fires that represent **scenarios across the county** and which potentially **impact multiple evacuation analysis subareas**
- Fires with the **potential to impact multiple vulnerable communities**, based on limited access/egress (per CALFIRE) or non-permanent residents (e.g., visitors, vacationers)
- Fires with the potential to **impact large populations**
- Fires with the **potential to physically impact roadways**



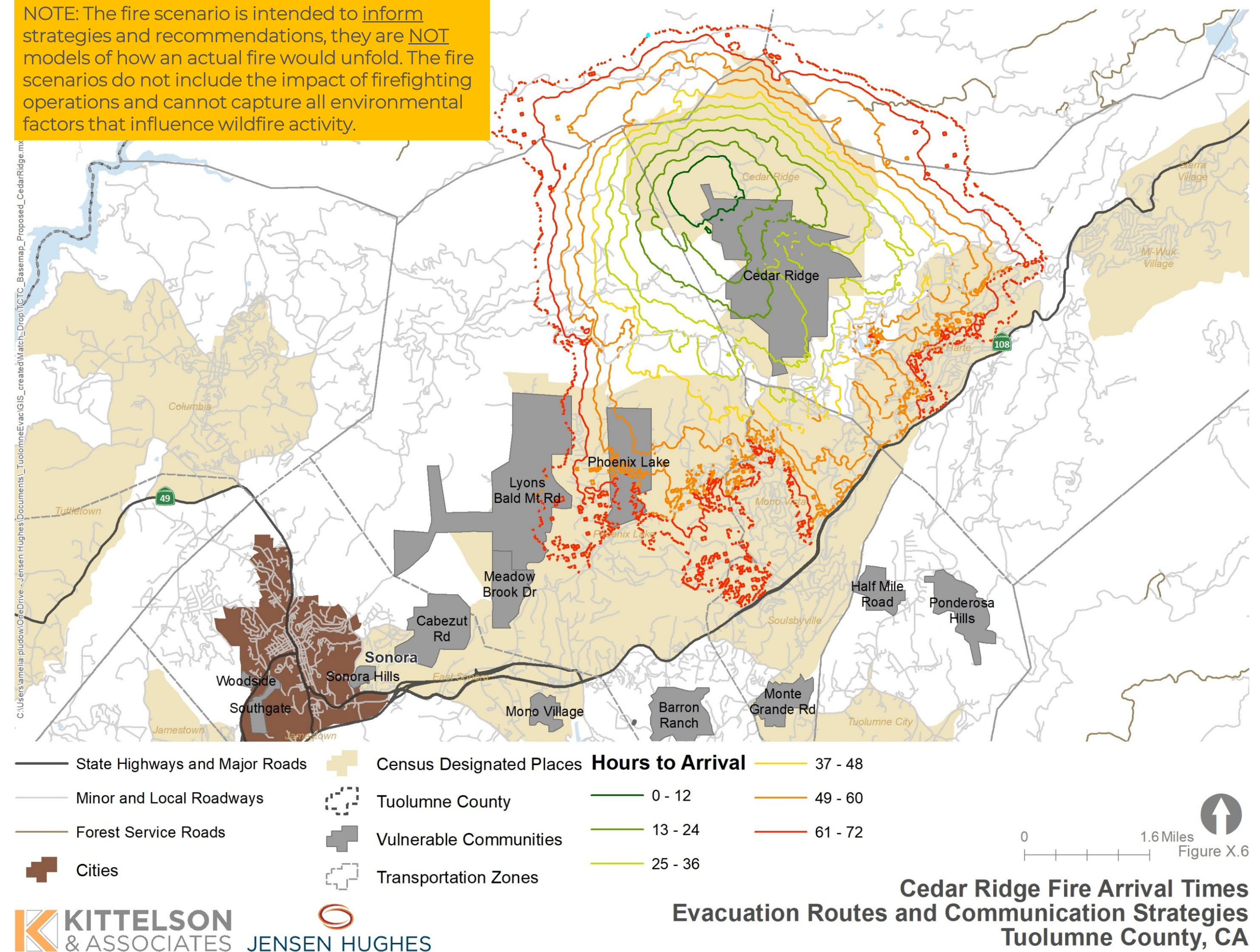
Cedar Ridge Fire Scenario

This model incorporates two ignitions at a ridgetop pushed downhill through homes.

A fire in this area could potentially impact multiple vulnerable communities.

Historically, there is a high ignition likelihood here and ignitions will most likely occur in the future.

NOTE: The fire scenario is intended to inform strategies and recommendations, they are NOT models of how an actual fire would unfold. The fire scenarios do not include the impact of firefighting operations and cannot capture all environmental factors that influence wildfire activity.

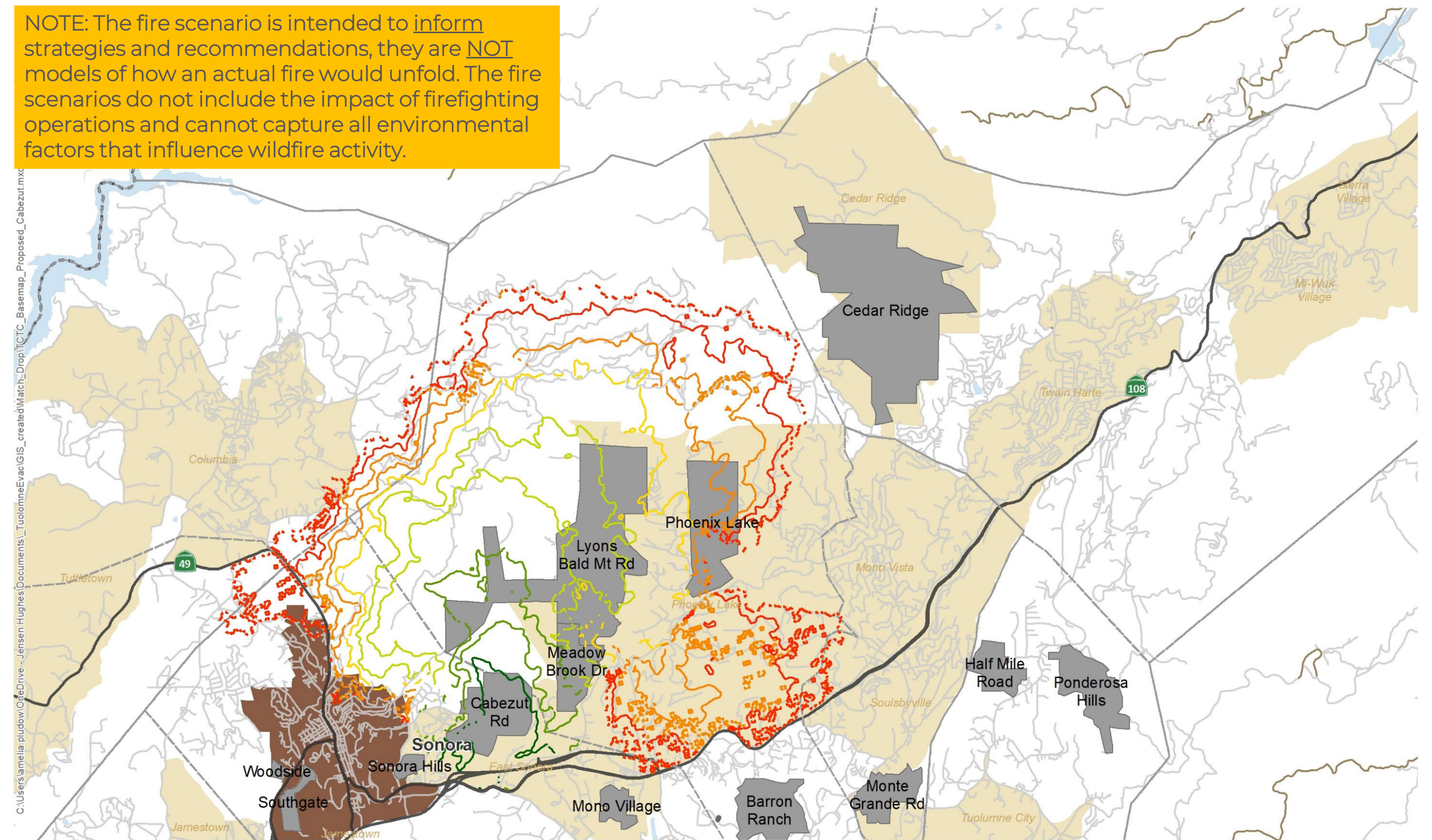


Cabezut Fire Scenario

A fire in this area could potentially impact several vulnerable communities and a large population center.

Historically, there is a high ignition likelihood here and ignitions will most likely occur in the future.

NOTE: The fire scenario is intended to inform strategies and recommendations, they are NOT models of how an actual fire would unfold. The fire scenarios do not include the impact of firefighting operations and cannot capture all environmental factors that influence wildfire activity.

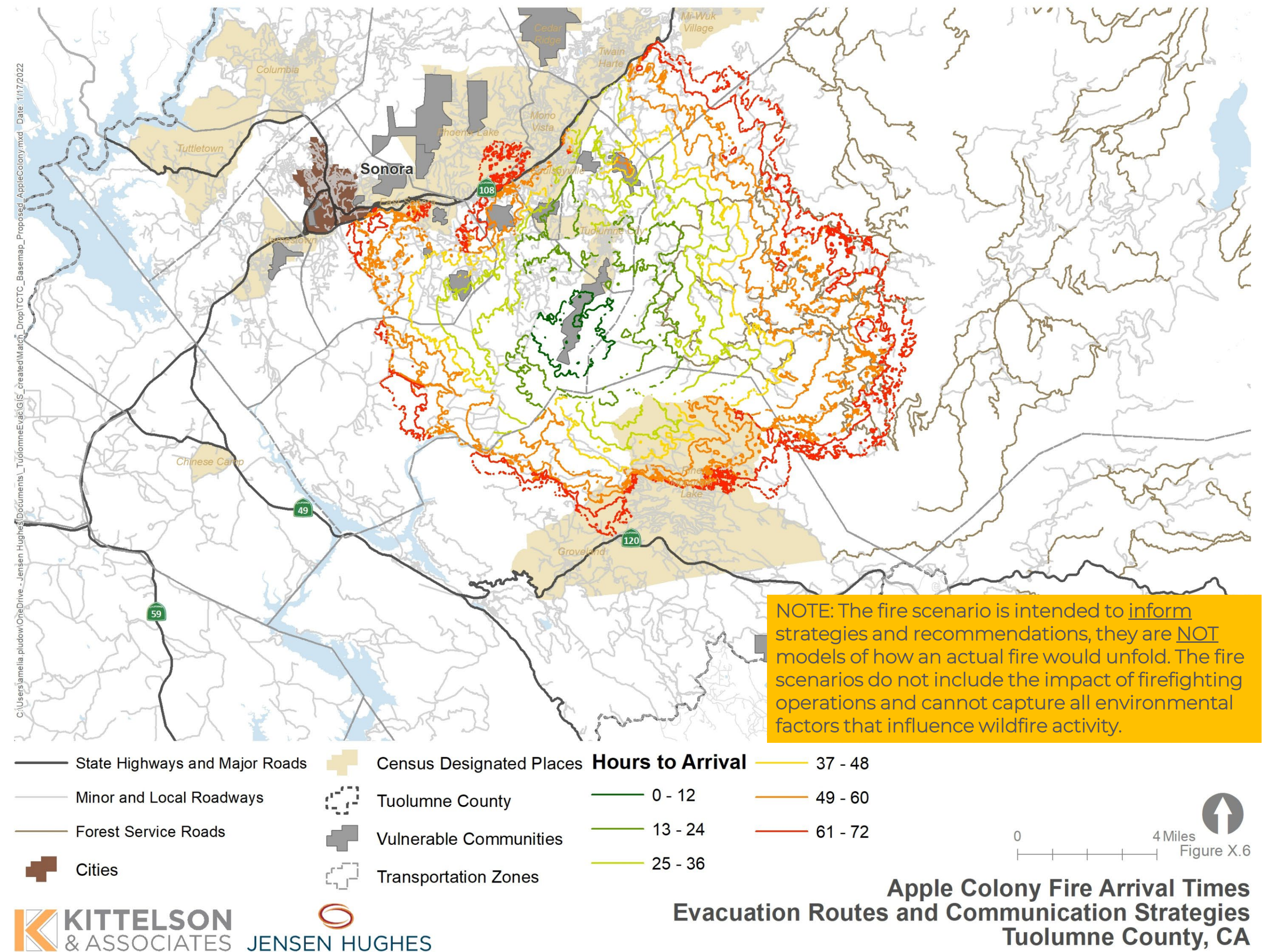


Apple Colony Fire Scenario

This scenario models a wind-driven canyon fire; this fire type has historically been difficult to control in Tuolumne County due to access and fire behavior.

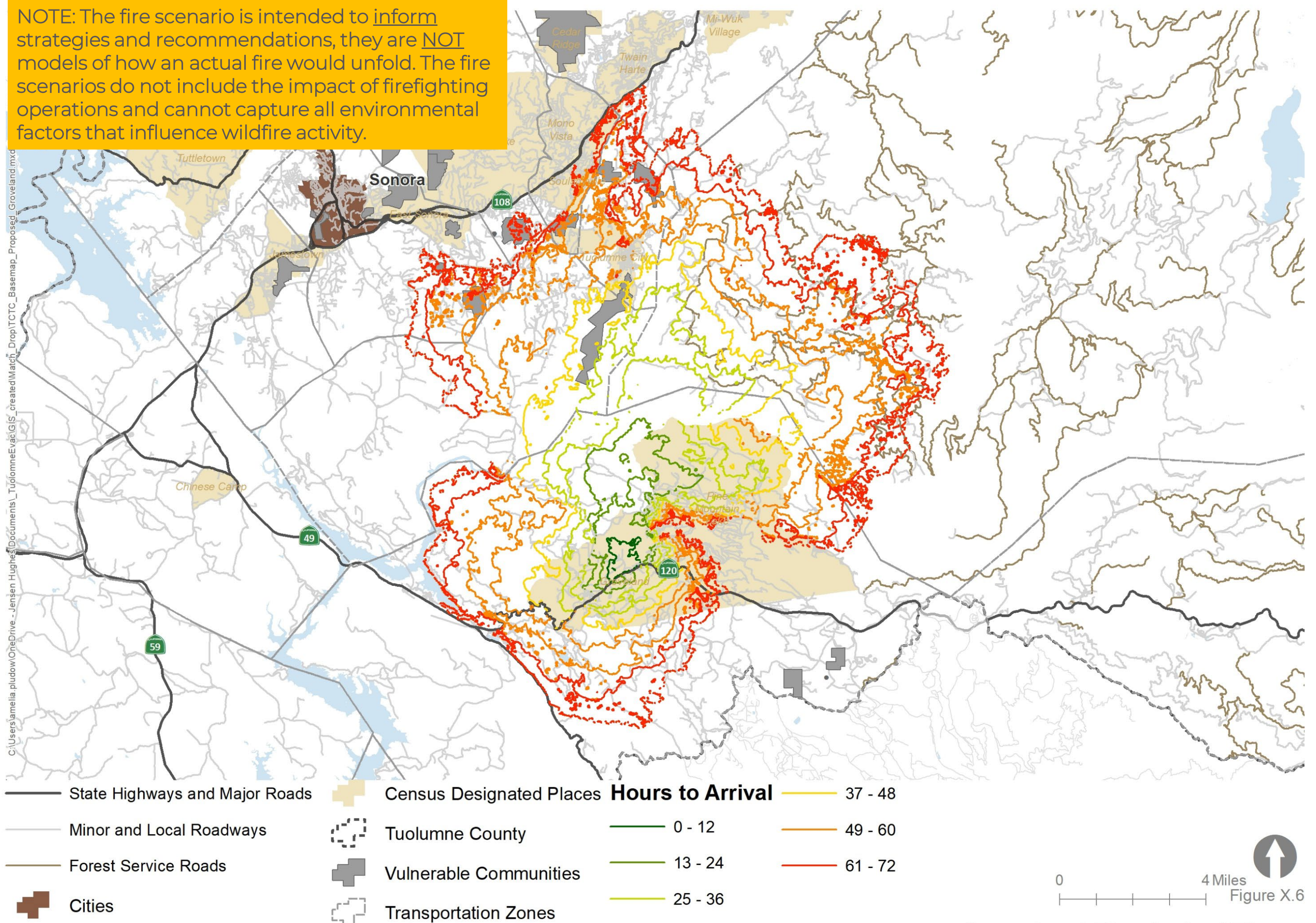
A fire in this area could potentially impact several vulnerable communities.

Historically, there is a high ignition likelihood here and ignitions will most likely occur in the future.



Groveland Fire Scenario

A fire in this area would impact several vulnerable communities. Groveland has been evacuated multiple times in the last two decades.



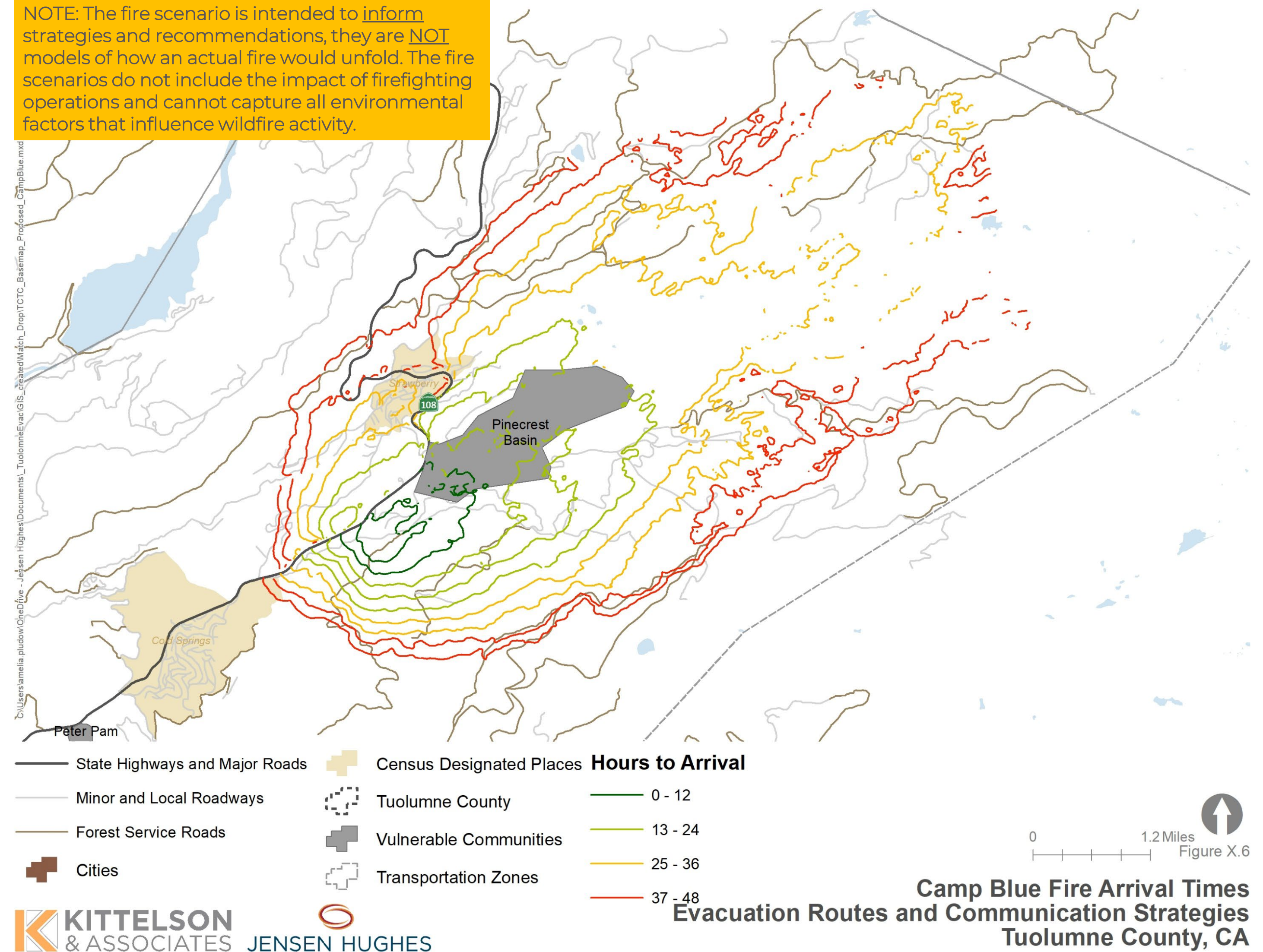
**Groveland Fire Arrival Times
Evacuation Routes and Communication Strategies
Tuolumne County, CA**

Camp Blue Fire Scenario

This area has a high density of second homes and recreational use. This leads to an evacuation challenge because of individuals unfamiliar with transportation routes.

The 2018 Donnel fire burned near here through second homes and recreational areas – there are similarities between this model and historic wildfires.

NOTE: The fire scenario is intended to inform strategies and recommendations, they are NOT models of how an actual fire would unfold. The fire scenarios do not include the impact of firefighting operations and cannot capture all environmental factors that influence wildfire activity.





Golden Oaks Fire Scenario [Under Development]

This fire will model an ignition southwest of Sonora in the vicinity of Jamestown.

This fire scenario was identified and based on feedback from the Project Development Team to provide a better understanding of an evacuation where the southwest part of the county is impacted





Fire Scenario Discussion

Discussion & input on fire scenario analysis

Any questions about the analysis or selection of scenarios?

Do these five scenarios cover areas of the county you would be most concerned about?



Identification of Roadway Network Deficiencies and Strategies

Evaluate countywide roadway network

Identify roadways likely to fail due to congestion in an evacuation scenario

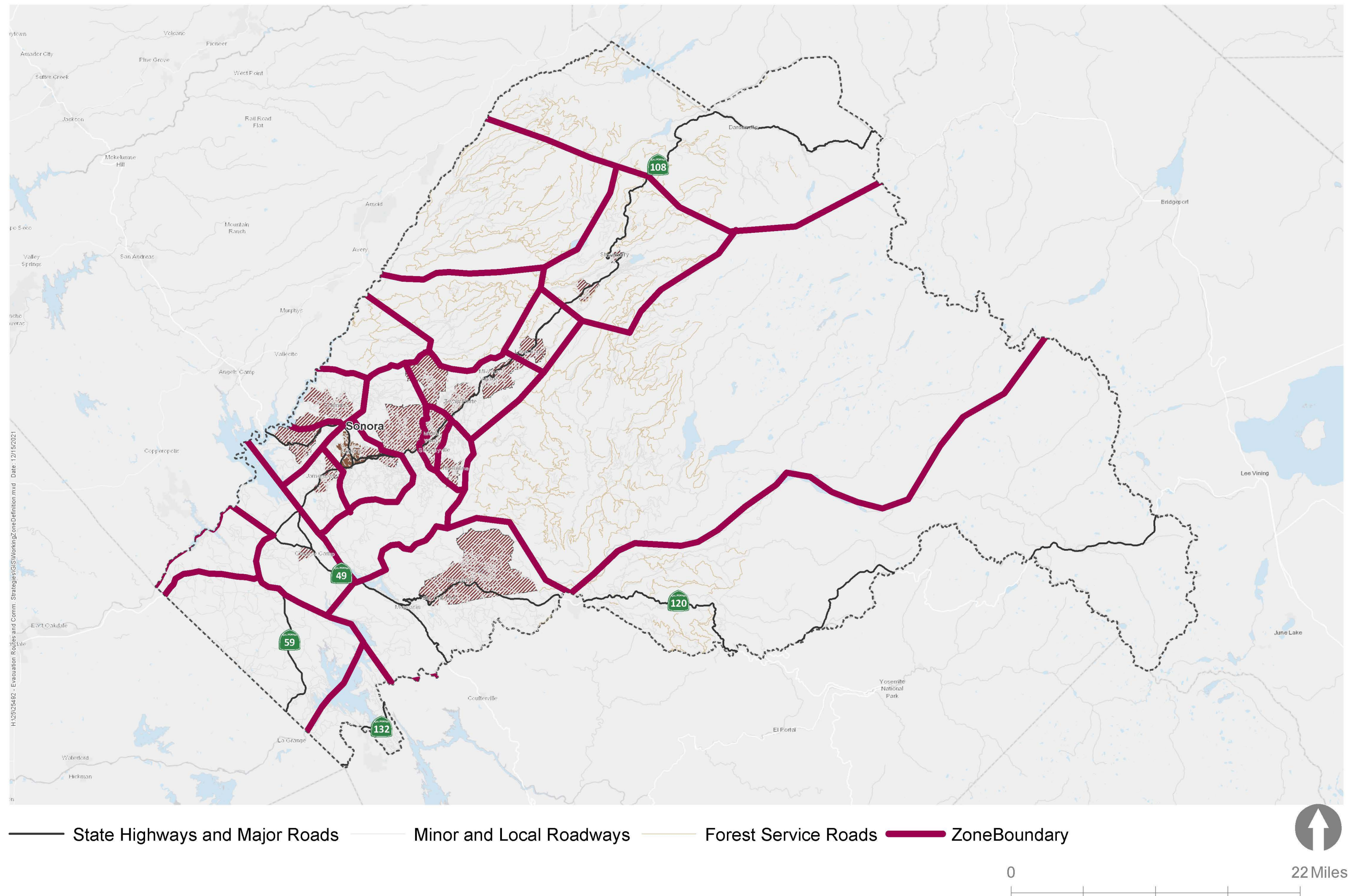
- Propose strategies to increase ability to effectively move people
- Develop concepts to illustrate potential improvements
- Identify and prioritize circulation system improvements

Evacuation Analysis Subareas

Used to “load” the transportation system for the different fire scenarios.

Evacuating traffic routed based on fire spread and time of arrival

Identify roadways likely to fail due to congestion





Evacuation Analysis Considerations

PDT Evacuation Observations:

Washington Fire shut down the City of Sonora and many bottlenecks

Many people were driving to see the fire or to stop at gas stations or grocery stores for provisions, not evacuating right away

Most people evacuate into the Central Valley – no one wants to the east, even if it is safer

Many people trying to get in during evacuations to get livestock, family members, belongings, etc.



Evacuation Analysis

Discussion & input on upcoming evacuation analysis

Any questions about the approach to the evacuation analysis or zones?

Are there particular evacuation routes you would like to see analyzed relative to the fire scenarios?

Are there any observations you have of previous evacuation events you would like to share?



Evacuation Capacity Strategies



**Staged
Evacuation**



**Reversible Lane/Contra
Flow**



**Extend Shoulders and Cone
Additional Lanes**



**Infrastructure
Upgrades**



**Temporary
Intersection
Modifications**



**Uninterrupted
Outbound Flow**



Signal Modifications



**Secondary or
Modified Access
Points**



**Path or Fire Road
Conversion**



Capacity Strategies Considerations

PDT Evacuation Observations:

Consideration of potential infrastructure susceptible to thermal damage (e.g., bridges or culverts)

Are there recommendations for structural hardening of infrastructure for fires?

Importance of fuel reductions along critical roadways

How to restore infrastructure after thermal damage – Rim Fire closed roads due to sinkholes from burning roots

What funding or resources are available for capacity improvements



Capacity Strategies

Discussion & input on capacity strategies

Are there any additional questions about any of the strategies mentioned?

Do you know of any additional strategies you would like to be considered?

Are there any observations you have of previous evacuation event roadway bottlenecks?

NEXT STEPS

Comprehensive fire risk mapping

Roadway network deficiencies and strategies

Vulnerable populations and shelter-in-place locations

Initiate public outreach