

Notes and Questions on EG Scoping Project Final Report

I. High Level Questions:

- A. Do we have enough evidence in this study to get the money we need to do this work?
Related questions like: "Don't we want this modelled to determine cost/benefit of treatments by type and degree? This analysis focuses on risk to the community from wildfire on surrounding wildlands and does not include ignition potential, structure-to-structure fire transmission, or fire pathways within the El Granada community" - isn't that needed to get funding? How convert TE metric and the costs in appendix into an ROI for the treatment projects? How is ROI defined across property loss, insurance premiums, fire dept. costs (in preparation or active defense), etc. etc?"
?? Do RCD or the County think this study provides all they need to get the grants/funding for all the treatment areas? if not, for which? and for what duration of years?
- B. Do we need to answer the questions in this list? If not, why not? How do we benefit from NOT answering these questions?
- C. Do we need further study/simulation to justify ROI on where/how to spend the money?
- D. Per study: "there is no requirement for any party to implement any of the identified actions" - SO WHAT WOULD MAKE IT A REQUIREMENT?
- E. Who's in charge, and starting when? Loss of B. Kelly; fill-in with David Cosgrave; how do we get a permanent County position addressing these issues?
Did we ever get an answer to the question of whether or not SMC has a point person for acting on fire risk / fuel abatement issues? We need someone at the county level to talk to, not parks, not RCD, and it cannot be the entire board of supervisors. This effort absolutely requires a SPOC (single point of contact) for coordination. First question put to that person: Will the county be creating projects using the same areas reported in the action cards in the appendix?
Per study: "Each action identified in this report requires further development to become a "shovel ready" Project" - so WHO BY WHEN?
- F. A related question is: "*What would the full costs required be, and could grants cover those as well?*".
The caveat in the report text indicates that those treatment costs are not the "real costs". The caveat in the study is "*The cost estimates provided below do not include environmental compliance, project management, permitting, or post-project maintenance costs, which will increase the overall project cost.*" And I suspect we should add costs for obtaining the grants...
- G. What organization structure best coordinates stakeholders for obtaining results, and how does that structure assign and report on: project definition, funding, legal issues, task progress/completion, and auditing outcomes and ROI?

II. Detailed Questions:

A. Separability of Analysis for Action Prioritization:

1. Do the model results for treatment effectiveness assume ALL zones were treated or untreated in each model run? In other words, could effectiveness be determined within each zone in isolation, or did the resulting outcomes in one zone depend on treatments performed in adjacent zones?
2. Is there a critical mass or network of dependency among some treatment zones such that

they should or must be combined for action in order to achieve the desired effect? or can each 'project'/zone be done in isolation? If the latter, how are HVRA's and homes affected by different fire scenarios?

3. What does the study tell us about the value of only treating a given zone, and none of the others, in affecting outcome metrics in EG?

B. App B missing local weather station, and identification of WHO would DO each item?

C. Did CalFire sign off/agree to process in section 3.2.3?

D. page 22: who are "land managers" and do they have fire and forestry expertise? *"it is recommended that land managers use evidence-based analysis alongside local knowledge, participant input, ground-truthing, and other site-specific criteria to define final project areas, treatment methods, and sequencing"*

E. General: what is the duration of effectiveness given treatment? How does it decay over time? What are the multi-decade costs of various alternatives? Need to define the scope and cost of annual WF audits, and then periodic re-treatments...

F. Can we bundle some actions/projects together for more rapid resolution? For example, get a blanket permission for grazing and turn loose an army of goats immediately to help feed a new generation of mountain lions?

G. Do we need to create a Special Assessment District to get funding for this fire reduction effort?

H. Study identifies 17 'treatment zones' (aka "Projects") for wildfire mitigation in Appendix D. Two of those zones mention Denniston Creek, Zones 6 and 10 *[on pages 92 and 104 out of 127 in the PDF at that link]*. CCWD doesn't appear as a responsible party, but aren't those areas part of CCWD watershed, and would CCWD expect involvement in the design and execution of wildfire treatments in those areas (or others)?

I. Was CCWD consulted about their high value assets which might be at wildfire risk in the study area, and were those assets included?"

III. Technical Issues/Questions:

A. Study stops with risk of wildfire REACHING EG. Now, simulate the fire IN EG so we can evaluate the value of home hardening, stopping ADU's, funding CalFire doing something about evacuation, compared to more fuel reduction and breaks.

B. forthcoming CALFIRE WILDFIRE MAPS? Don't we need to redo the study when the new maps and updated meteorological data is available?

C. where is 'time to spread' data on wildfire? This affects the ability of residents to evacuate and would appear to be a key metric to include in assessing what to do and pay for.

D. Re Step 4, page 18: Did CalFire review/agree the treatment types and efficacy changes? What % changes in damage to HVRA's were observed before/after what methods of treatment in each zone (expecting lots of pages of before/after results)

E. "treatment effectiveness" Page 19 and figure 5 is color coded but not quantified in terms of outcome metrics. Why not?

F. What is the source study/document defining 97th% as the reasonable standard?

G. Where is documentation for this **secondary algorithm**, page 20: "*After initial grouping, segments of high treatment effectiveness that were not assigned to a project area were grouped to an adjacent project using a secondary algorithm*".

H. The material at the link for footnote 3, Alger, does NOT explain the algorithm used. Please provide the study/paper/description.

G. App C: who vetted the scores/numbers in Tables 1 and 2? CalFire? Published literature?

H. Questions re this quote: "*where the weights were determined by overlaying the fire perimeter outputs from each scenario across the structures within El Granada and calculating the cumulative number of structures impacted by each scenario. This resulted in a peak fire weather scenario weight of 52,467 structures affected and extreme Diablo fire scenario weight of 169,549 structures affected, representing an approximate ratio of 1:3 favoring the more extreme fire behavior experienced under Diablo conditions.*"

If you didn't simulate structure conflagration, how did you do this? Further, I thought there were only < 3,000 houses in EG, where did the rest of those structures come from?

I. Explain the frequency bar charts on pp18-19, esp. "slope" - and how they are used. It appears to indicate slopes of up to 80%, which are not evident on site.

J. pg 24 fig 13 : how is treatment effectiveness quantified and what are the implications of the various scores?

K. ?? where was eucalyptus removal and revegetation considered, as a more permanent solution? revegetation IS mentioned as a remedy but only for ground disturbance.

IV. Minor Issues:

A. Why was there not a summary table of costs and effectiveness? [[I put this together - GAD](#)]

Zone	Low	High
1	\$803,594	\$1,044,672
2	\$1,138,098	\$1,479,527
3	\$799,309	\$799,309
4	\$356,513	\$463,467
5	\$318,113	\$413,547
6	\$224,242	\$291,515
7	\$292,481	\$380,225
8	\$859,081	\$1,116,805
9	\$518,118	\$673,553
10	\$620,335	\$806,435
11	\$821,486	\$1,067,931
12	\$1,176,919	\$1,529,994
13	\$634,492	\$824,839
14	\$676,908	\$879,980
15	\$605,030	\$786,539
16	\$798,180	\$1,037,634
17	\$918,285	\$1,193,770

Total Treatment

\$9,326,641

\$14,789,742

B. EXPLAIN diff between 'study area' and 'treatment focus area' - what determined the segmentation?

C. typo? Words missing? Unclear: "Integrated hazard was mapped to show locations where high fire intensity overlaps with high fire probability."

D. Are residences HVRAs? Why not? *"Next, the HVRAs requiring protection were mapped and their response to fire was characterized. Wildfire risk was determined by evaluating where hazards occur near HVRAs" - per step 3 page 12, yes.*

E. I don't understand this part page 13:. Can we see how it worked in one simulation? *"In addition to built infrastructure and assets that are categorized as HVRAs, two strategic areas were included. First, a community transmission zone-based upon community wildfire exposure. This data identifies sources of exposure, where high values indicate larger numbers of buildings exposed to wildfires igniting in that pixel and spreading to adjacent developed areas. Second, a community buffer around the main community within El Granada. These strategic areas were assigned scores based on the average of all other HVRAs assessed"*

F. page 22: what is missing? " (Error! Reference source not found)."

G. Table 4 -Typo? explain: "Treatment is generally variable and is applied to mimic vegetation structure patterns that would exist in the areas intact disturbance regime and includes"

H. How does page 25: "Rearrangement – mastication or mowing" affect canopy fires, as it seems ground-based actions? "and is focused on significantly reducing fine fuels and ladder fuels and on reducing canopy bulk density"

I. ?Will goats graze on eucalyptus groves? tough to eat and low caloric value - hence Koala bears' behavior..

J. page 27, Typo: treatment methods selected within this report are considered likely and are not ***indented*** to be mutually exclusive.

K. Was our Midcoast CWPP empty, or did it have any substance?

L. page 27, are segments the same as the treatment/project zones? or are they granular elements of a zone? if the latter, where is the assignment of treatments to the details described?

M. page 28: what is "CalVTP coverage" [= [California Vegetation Treatment Program](#)] - and why is it important?

N. How do ADU's affect defensible space? are ADU's required to meet specific home hardening levels? why not? ? are ADU's, which exaggerate density, required to be fire hardened and/or require hardening of attendant master dwelling? [\[New requirements just arrived at SMC Planning, stay tuned\]](#) ? Do ADU's trigger increased RE Tax? [\[Yes, but unclear whether entire property or just a supplement\]](#) Why not?

O. page 30: clear action item, for whom? "A local RAWS within or in closer proximity to the El Granada

community would collect weather data that can be used for future location-specific fire modeling activities and help inform early fire response"

P. General: why no controlled burn as treatment alternative? AH in App B; requires more modeling...

Q. Appendix A: couldn't we run model algorithm to draw 'treatment zones' with consideration of land ownership? perhaps pairing adjacement areas into a 'project'?

R. Sounds like homes, right? "Structures \geq 500 sq. ft"

S. App B. need more info/explanation on these items:

Services and procurement:

Living/interactive risk model Fire modeling after action implementation

People and equipment Staff positions, aging equipment replacement

T. Which method was used for Crown Fire simulation? "Scott and Reinhardt (2001) method, but you may also choose the Finney (1998) method. Both methods are based on the same component crown fire behavior models, although there are minor differences in implementation. These subtle differences lead to significantly more predicted crown fire activity using the Scott and Reinhardt method compared to the Finney method." - [AH, per page 62 of 127, they used the Scott & reinhardt method.]

U. Appendix C Fig 8, what are all those grey non-burnable areas?

V. App C, page 8: why wind speed group from 6-41 MPH and not more granularity there? Yet, 0-2,2-4,4-6 breakpoints which are very granular?

W. Typo: Modeling parameters use for Minimum Travel Time (MTT) runs in FlamMap [Fig 7 heading] Where were the private owner locations which created hazards by clearing ground of vegetation or excessive limbing? What steps need be taken to prevent reoccurrence?

X. "Action Cards" - huh?

Y. For project 1, the coloration of the map is not matched by the explanatory scale. For example, the darker grey/blue on the map is not shown on the scale. Similarly, there are two shades of brown on the first Project 2 map, but only one brown on the scale. Perhaps these shadings are the result of the contour effect presented on the map??

Z. ?? If an area is going to be burned out by wildfire, why are we requiring a sensitive resources/species study before allowing treatment? If we **don't** treat the area, won't that wipe out the species of concern, thus making this issue moot?

AA. I don't believe that is the right metric to use at all to gauge fire risk. Why don't they use a historical analysis of the red flag warnings issued each month by the National weather Service for El Granada? By default, red flag warnings mean: low humidity, high NE winds, and critically dry fuels.

BB. I think the most contentious issue is wind modelling. QP wind meters please.

CC. Do we need to form a FireWise Group? - I suspect a FireWise group is a necessity for "standing". CERT responds to many types of disasters - Firewise attempts to prevent fires.

DD. We need a meeting to understand the modeling process and to provide results in the two scenarios we expected - The Diablo wind (hot, dry and from the east north east) and "Peak Fire" wind (cool, moist and from the northwest- Maritime Wind ?)

- We need to receive the ember propagation and transport information that we were expecting.
- We need to understand the much lower than expected hazard ratings in QP (Figure 7). Are they due to the anticipated effectiveness of the shaded fuel breaks (especially during a Diablo wind event).
- The Panorama concept of "Peak Fire" and the 97 percentile reorients the discussion back to the "normal" fire events that are not our primary concern. ' *El Granada's Peak Fire conditions, the wind direction trends from northwest, bringing maritime winds with speeds ranging from 2 to over 64 miles per hour with mean 10-minute speeds of 25 miles per hour (Vibrant Planet 2022a)* ' - Cool and moist maritime winds from the NW are what frequently allow firefighters to successfully fight the out-of-control fires produced by the Diablo winds.

V. Related Action Requests:

A. Wind meter near Quarry Park.

B. the National Weather Service "Fire Snooper" fire forecast sites for northern California seems to have disappeared. This service actively monitors NWS wind sites for fire weather criteria and you can see these at a glance - fire crews use this to help determine where to send resources. Now it appears they only offer this service for southern California. I had bookmarked their NorCal site previously, but that has disappeared. Obviously we have elevated fire risk in NorCal also, so we would like their **service to be reinstated in our area**, both for our fire crews and interested civilians.

<https://www.weather.gov/lox/fire>

<https://www.weather.gov/lox/fwmV3?wfo=lox>

C. - Invite Kellyx and the RCD to apply for grants to reduce the amount of fuel in the western third of Quarry park (including the incomplete fuel break). This is the portion of Quarry Park that the San Mateo County Parks Department does not have plans to do anything with and the primary reason why a single point of contact that is not in County Parks is needed. Kellyx keeps saying they need to be invited. Kellyx keeps saying after the Scoping Project she will have more time. Kellyx keeps saying the Science that the Scoping Project will provide what is need to help with grants. For Gods sake, will someone please invite the RCD to do this? It's like she is begging to be invited.

D.- Regarding the "Save the Median Trees" group. Listen to the part of their message that says reduce the number of trees so the folks on El Granada Blvd won't die when evacuating.

E- Why don't we hear from Coastside Fire Protection District (other than regarding Zone Haven) regarding how folks along El Granada Blvd and other roads close to Quarry Park in Very High Fire Hazard Severity Zones, will be able to safely evacuate given the tree density, people density and lack of safe evacuation routes? Why is CFPD quiet about the risk Quarry Park is to El Granada?

F. for evacuation of El Granada Blvd, we need curbs on the road curves to be painted red so cars and trucks stop parking there and blocking so much of the curved part of the road. In many cases this reduces the road to a one-way passage - not good if we need to evacuate!

G. Explore formation of FireWise group, and an SPOC is essential. Should it be tied to MCC/ Firesafe Council???