

## Surviving The Next MidCoast Disaster

The San Mateo County MidCoast (Montara, Moss Beach, El Granada) faces unique vulnerability to wildfire and other natural disasters: tsunami, earthquake, and sea level rise. Yet there appear to be no plans in place to address the longstanding vulnerabilities which could wipe out entire towns, Paradise-style. The most recent transportation plan (Connect The Coastside (CTC)) did not even address long-standing disaster evacuation needs or solutions. And transportation is just one of dozens of issues needing immediate attention.

I, together with a group of supporting residents, am proposing San Mateo County take immediate action on the issues outlined in this document, as detailed herein.

Note I say 'immediately' because my research, and conversations with County and Cal Fire officials, have indicated that about half a dozen agencies will be involved in resolving all these issues, and that some of them are multi-year projects. So that is all the more reason we need to action these issues as soon as possible.

The recent wildfires in Paradise and Santa Cruz have underscored the vulnerability of the MidCoast to a wildfire. We have less than a quarter of the evacuation exits of Paradise, and live next to open spaces with widespread stands of eucalyptus trees which could fall and block our exits, and spread fire rapidly due to their combustibility. In addition, visitor traffic on any weekend brings traffic to a crawl even without the addition of panic flight during a disaster. Residents are facing loss of fire insurance and/or huge rate increases. Before we have a repeat of the wildfires a century ago which wiped out Montara and El Granada, we are requesting:

1. That San Mateo County appoint a single person (a Program Manager) in charge of managing, coordinating and overseeing the several agencies which will be needed to research, prioritize, and resolve the several Fire Prevention and Disaster Preparedness issues outlined below.
2. That the MCC take a lead role in assessing, prioritizing and communicating, with the assigned County Program Manager, the MidCoast community concerns and action items.
3. That the Fire Prevention and Disaster Preparedness Program begin with an expert assessment of the risks outlined below, and others as identified by residents, the MCC, and the County. Following that assessment, identify the agencies involved in remedying each issue, and prioritize the issues for funding and action. For those issues authorized for action, each agency must present to the County's Program Manager and the MCC the project plan(s), and report monthly, or sooner if status changes, on the progress and results of each.

The outline below is a first attempt to create an inventory of Fire Prevention and Disaster Preparedness issues, compiled through communication with over 56 local residents. We request that the MCC and assigned County Program Manager continuously broaden and deepen this list as research progresses. However, we request immediate action on the obvious items, even as we continue to learn more.

## Fire Preparedness and Disaster Prevention Discussion & Research Issues

### A. Disaster/Fire Evacuation

1. Road Capacity
  - a. Paradise had 4 or 5 times the exit roads
  - b. Weekend traffic here still slows to a crawl, even without the panic of a fire or other disaster, due to high visitor traffic.
    - 1) With only the SMC sheriff's department available, law enforcement from Half Moon Bay to the Lantos tunnel has been too sparse to enforce beach parking closures during SIP weekends, and the HMB mayor has had to lift COVID beach closures because without enforcement they're futile.
    - 2) And the lack of resources for that simple task reinforces the point of how inadequate SMC's policing resources would be in a sudden emergency evacuation.
  - c. Connect The Coastside did not address the evacuation needs of the MidCoast
  - d. We are in the 14th worst evacuation region in the State, with HMB close behind.
  - e. Trees could fall on roads during fire or earthquake, blocking roads
2. Lantos Tunnel availability
  - a. Is 50% of the evacuation capacity for the MidCoast
  - b. Has been unnecessarily shut down due to lack of backup power:
  - c. The tunnel must have battery backup on CO monitors and lights/signals
    - 1) cannot allow those non-essential devices to close the tunnel
  - d. Must Plan to keep tunnel open ALWAYS, and to have multi-modal warnings of shutdowns, because cell and electrical service are likely to fail in a disaster.
3. Evacuation is likely impossible in a timely fashion, thus:
  - a. We need a traffic plan in case of evacuation order, likely to focus on emergency vehicles and supplies.
  - b. How will HMB airport be used?
    - 1) Tanker planes & choppers refuel there?
    - 2) Supply deliveries and by whom?
  - c. How will Pillar Point Harbor we used?
    - 1) can people be evacuated from there?
    - 2) can supplies be received and transported to where they are needed, etc.?
  - d. We need a way to stop non-residents from driving to the MidCoast over Rt. 92 and Hwy. 1 north and southbound, when we have emergencies.
  - e. Need shelter zones of open space for residents to reach until are homes safe, because full evacuation will not be possible.
  - f. Define plan for rescues/aid for patients and elderly in Seton Hospital and senior care facilities/housing.
  - g. Moratorium on building more housing until substantial disaster evacuation measures are in place; more population will just add to the body count until we are have reduced wildfire risks and provided feasible evacuation and shelter infrastructure and plans.
    - 1) One test of the adequacy of those plans and infrastructure will be whether insurance companies will again offer fire insurance MidCoast after the CA Insurance Commissioners ban on cancellations expires.

- h. Planning must leave open space OPEN, for refuge, and have agreements with property owners. This includes undeveloped lots, farms, and tracts of land within communities.
- 4. Communications & Coordination
  - a. History of confusing, mixed messages to residents on:
    - 1) tunnel closure, and
    - 2) HMB/Cal Fire with recent wildfires.
  - b. Need Single point of accountability at County level.
    - 1) Who decides how much of water agency water can be used in a fire?
    - 2) Who manages the half dozen agencies involved in these issues?
  - c. Role of CERT, and others in coordination and communication?
  - d. Zone Haven concept
  - e. Probable loss of electricity and cell service during disaster requires multi-modal methods of communication (sirens, signs, lights, etc.)
- B. Extreme Wildfire Risk MidCoast
  - 1. Per County risk map, we are highest in County
  - 2. Eucalyptus trees threaten houses and evacuation:
    - a. El Granada medians (e.g. Alhambra)
    - b. Quarry Park, El Granada
    - c. Rancho Corral de Tierra, Montara
    - d. Date St. in Montara, bordering on the CalTrans easement between Date and Elm
    - e. Route 92
    - f. North of the Lantos Tunnel on Hwy 1
    - g. near Hwy 1. at Frenchman's Creek,
    - h. CUSD property next to Clipper Ridge, Coral Reef Ave.
    - i. ... more to be identified.
  - 3. Monterey Pines are also a dangerous wildfire fuel.
    - a. Need survey of those locations
  - 4. Tree Removal requires Restoration
    - a. Aesthetic shock likely
- C. Earthquake or Tsunami Risks
  - 1. What fire preparedness infrastructure could be disabled?
  - 2. How would emergency response and evacuation proceed?
- D. Insurance Issues
  - 1. Extreme level of wildfires, getting worse, lasting longer, every year
  - 2. Rising Cost of policies to homeowners/landlords.
  - 3. Policy Cancellations
  - 4. Insurers losing money
    - a. In Calif., 2018 paid \$1.70 for every \$1 collected
  - 5. Changing Fire Hazard Map
  - 6. The ISO report governs industry attitude
    - a. There are questions pending with Cal Fire on vulnerabilities cited in ISO report
- E. Infrastructure Issues
  - 1. PG&E
    - a. Impact of electrical shutdowns on firefighting?
    - b. Risk of PG&E causing fires
    - c. Impact of increased use of home backup generators
      - 1) increasing residential fire risk? Kerosene or gas fuel is fire risk/accelerant.

- 2) Effect of well activity on local aquifer pressure and/or capacity?
  - 3) Ability to provide sufficient home fire sprinkler flow from home well, especially when using backup generator?
    - a) How is this audited?
2. Water agency vulnerabilities - Fire-Fighting Water
- a. New developments will require more MWSD storage capacity
    - 1) Is MWSD fire-fighting reserve capacity sufficient now? (240kgal)
      - a) 39% of nodes simulated below target levels<sup>1</sup>, but do pass current Fire Code. New developments will further stress this and may require higher and longer flows.
      - 2) With Big Wave – part 1 (+360kgal)
      - 3) With Big Wave – part 2 (+600kgal)
      - 4) With Cypress Point – dense 71 units including quadruplexes (???? kgal)
      - 5) Aggregate MWSD water storage is only 17.5% of CCWD's with equivalent population
        - a) More hills in MWSD area, but,
        - b) More commercial properties in HMB
        - c) CCWD mostly dependent on BAWSCA
  - b. Are CCWD tanks sufficient for a Quarry fire?
    - 1) How long to convey airborne water to fire – that delay affects amount of fire water storage required
    - 2) Impact of Bay Delta Plan on CCWD water reserves in Drought
      - a) BAWSCA forecasts up to 68% water reduction during drought years 4-8
  - c. Hydrants & pressures
    - 1) Cal Fire testing <1% of hydrants annually in CCWD & MWSD
      - a) GM claims MWSD tests them, but provides no statistics
      - b) MWSD has 40% of hydrants under 1,000GPM (which is legal)
      - c) CCWD has 2% of hydrants under 1,000GPM (quite a contrast)
    - 2) 2017 report simulated 39% of MWSD hydrants below their standard
      - a) how will added developments affect this?
    - 3) Will Cypress Point require an upgrade to pipes and hydrants in Moss Beach due to increased density?
    - 4) MWSD has 25% of the hydrants of CCWD; is that sufficient?
  - d. Fire-fighting water storage
    - 1) Hasn't grown in years with increasing population & density
      - a) CCWD has ~4 M gallons RESERVED (8M in total water)
      - b) MWSD has 240k gals (1.4M in total)
    - 2) NextDoor (website) has resident reports of low pressures during fire events
      - a) El Granada in Aug. 2020 (CCWD)
      - b) Moss Beach in Aug. 2020 when fire near Buena Vista (MWSD)
      - c) What are hydrant flows likely to be in 4th+ year of a drought?
        - i) Pressure should be the same, but would storage be full?
  - e. Impact of wildfire on water system
    - 1) Wildfire risk to system distribution & pressure
    - 2) Will well pumps run if power out?
      - a) How often are backups tested?
      - b) Will backup pumps trigger automatically during power outage?

- c) Will backup pumps require manual access to activate during a fire?
  - 3) Can wildfire:
    - a) Cut ability to convey water?
    - b) Reduce pressures in system?
  - 4) Can systems be controlled during combination power outage and wildfire?
- F. Accountability Issues
  - 1. Who is accountable to:
    - a. Measure & Monitor risks & trends
    - b. Communicate deficiencies, and to whom?
    - c. Fix deficiencies
      - 1) *Side note: some CA fire agencies have paid for water agencies to add fire-fighting water storage*
- G. Growth Issues
  - 1. Cypress Point will add denser units (up to 4-plexes) and 200-300 people in an area of relatively low hydrant pressure
  - 2. Big Wave will add dense units and commercial spaces on mainline extension
    - a. Commercial fires take up to 1 million gals to extinguish
    - b. Informal Cal Fire estimates of fire storage
      - 1) 600,000 gals for full Big Wave plan
      - 2) 360,000 for recent Wellness Center configuration
  - 3. Will those expansions dilute and undermine existing MWSD fire safety?, or
  - 4. Will those expansions fund, in perpetuity, the extra firefighting storage they require?
    - a. Will residents be forced to subsidize public works infrastructure for new housing?
  - 5. Impact of additional dwelling units (ADU), esp. non-permitted ones, on fire risk due to increased population density?
- H. Potential Action Items
  - 1. Obtain Cal Fire assessment of ISO report and flag vulnerabilities for action
    - a. "Public Protection Classification"
      - 1) 10 is worst grade, failing minimum standard – MidCoast is level 3/3x
    - b. Will Big Wave or Cypress Point affect ISO rating?
      - 1) Will they affect the Basic Fire Flow (5<sup>th</sup> largest needed) of 3,000 gpm?
    - c. Multiple alarms, simultaneous incidents and life safety not considered in ISO report – only property damage.
    - d. Note that buildings over 35' increase need for ladder service, MidCoast score is  $0.29 / 4.0 =$  very bad.
    - e. Deployment Analysis score only 4.16/10
    - f. Company personnel: only 7.9/15
    - g. Some aspects of training (6.37/10) are low, as are pre-fire planning inspections. Big Wave would seem to impact this requirement.
    - h. Credit for Water Supply (34.12/40) low due to Supply System 25.2/30
      - 1) Which water systems contribute to this low rating?
    - i. Credit for inspection and flow testing (3.59/7) – given that less than 1% of hydrants are tested annually, this seems generous.
    - j. Low flows at hydrants: Pillar Ridge; 225 Wienke (School House Zone); Main & Purrisma; Main & Correas; Troon & Miramontes, Miramontes @ School.
  - 2. Have Cal Fire audit Fire Preparedness for MWSD and CCWD
    - a. Scope based on relevant concerns above
    - b. Report the audits to MCC and each agency

- c. Consider changes to the Fire Code for wildfire adjacent areas
3. Have each agency involved report on plans to reduce fire risk
  - a. SMC Parks
  - b. SMC Public Works
  - c. SMC RCD
  - d. Cal Fire
  - e. CalTrans
  - f. PG&E
  - g. MWSD
  - h. CCWD
  - i. more TBD
4. Request County suspension of new water connections until Fire Safety Audit is completed and passed.
  - a. Note that CCWD 2015 master plan cited a 47% cutback during drought, which is now forecast at 68% by BAWSCA due to Bay Delta Plan.
  - b. MWSD was drawing 'ancient' water from Alta Vista well at end of last drought, and had to reduce pumping.
  - c. Must size the civilization for Sustainability, and that means for drought level water supplies.
5. Request County suspension of new developments until Disaster Evacuation and Shelter plan confirms what open spaces are required for refuge.
  - a. Couple study of disaster refuge sites with the Land Use changes the CTC study failed to detail.
6. Put a "Disaster & Fire Preparedness" item on every MCC Agenda, and track the issues, responses, and outcomes of those involved
7. Require new developments to permanently fund the fire-fighting water storage they require, in advance, rather than leeching off existing capacity and undermining security for all.
8. Audit homes for non-permitted ADU's.

We look forward to engaging further with you on these issues, very shortly:

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