



Wildfire Prevention and Protection Action Plan

DRAFTED MARCH 2019



SAN RAFAEL
THE CITY WITH A MISSION



Background

Current standards adopted- 2007

“Be Bold”- August 20th, 2018

Draft Plan – January 22nd



Today

- Staff is recommending
 - The plan be adopted via resolution as the framework for our wildfire mitigation, prevention, and response activities moving forward
 - A timeline to return with proposed vegetation standard ordinances
 - Ongoing review and input to the plan
- Staff is NOT recommending
 - Any ordinance/law adoption
 - Any commitment of new funds





Intent & Vision

- Public safety and risk reduction
- Coordination and collaboration
- Environmental protection and sustainability
- Equity
- Cost effective implementation
- Incentives before penalties

Wildfires & the Climate

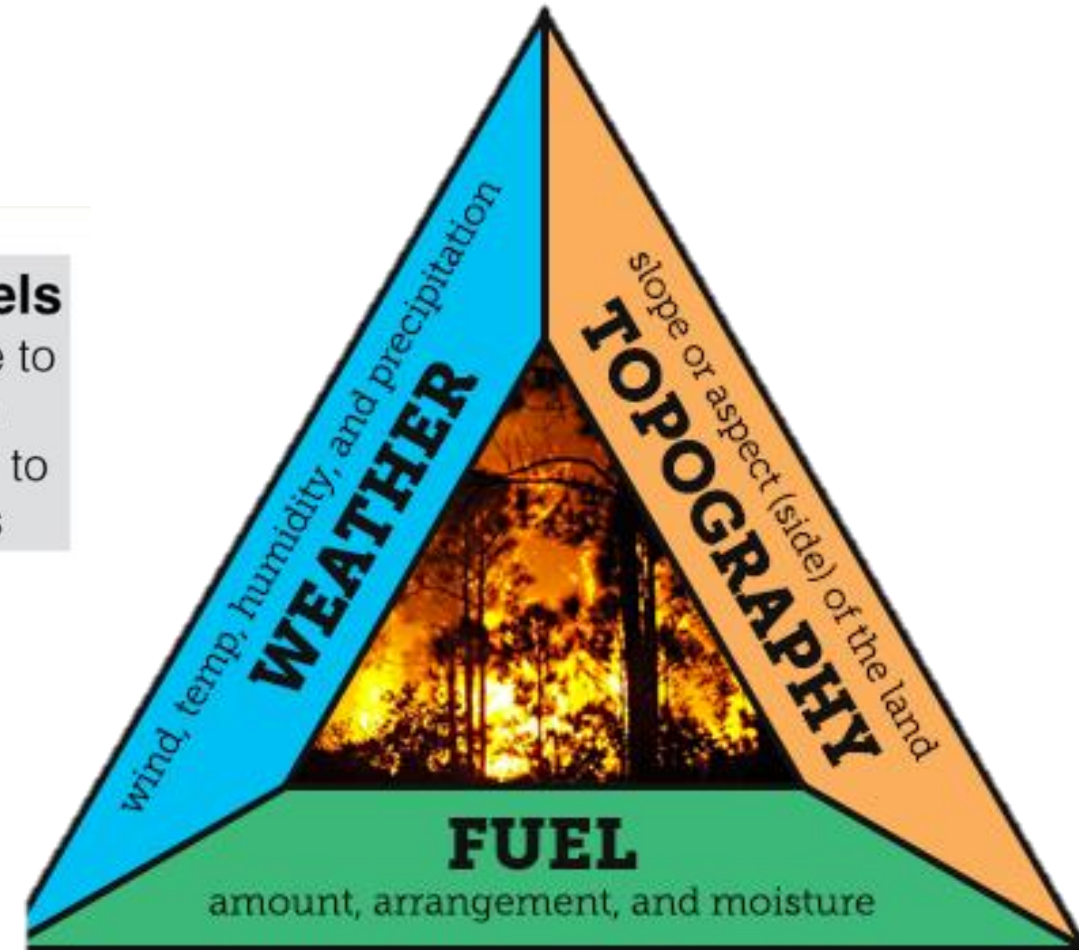
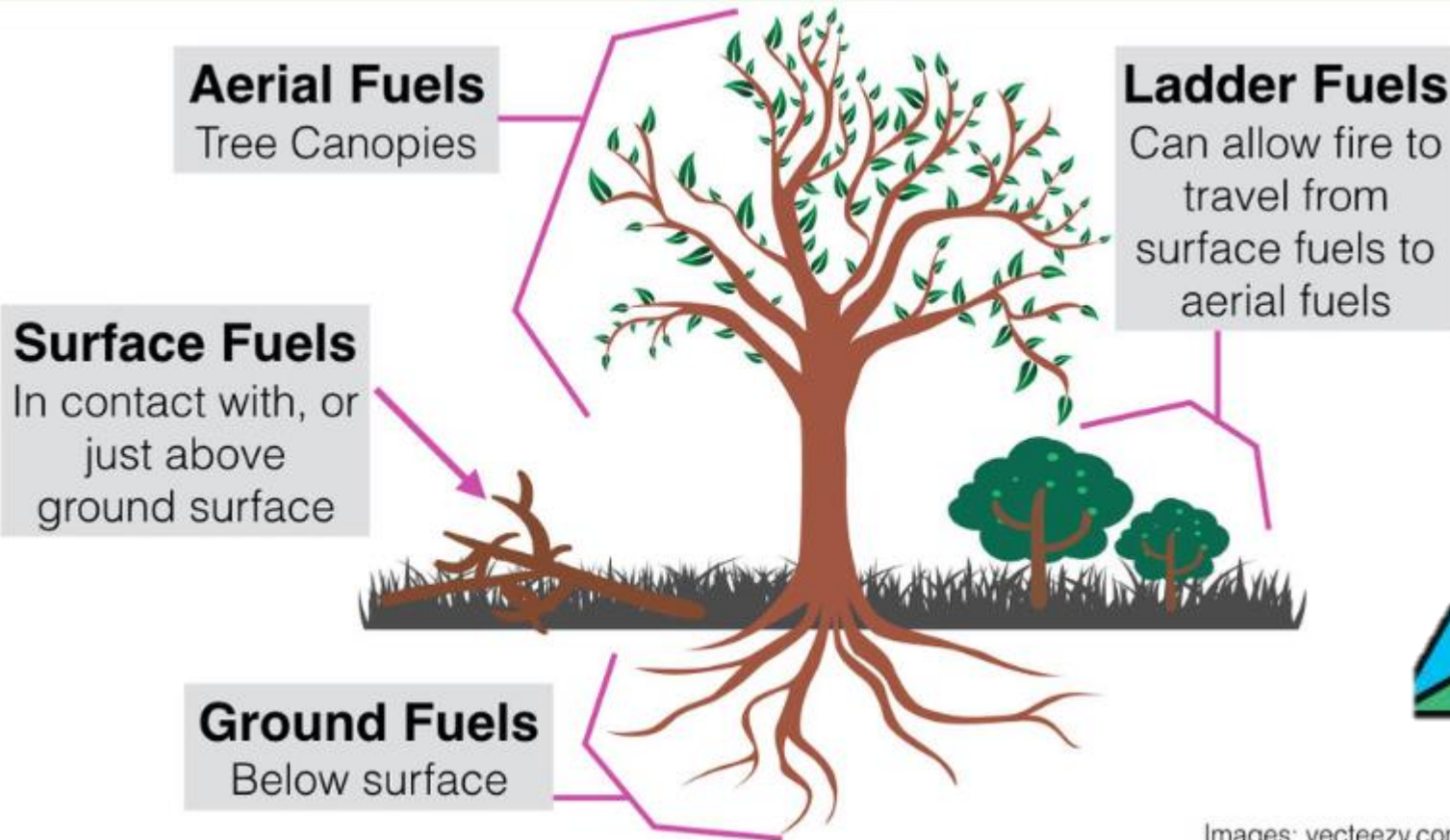
- Impacts on fuel moisture, tree health, winds, temperatures, humidity and other factors impacting fire behavior
- Wildfires release large amounts of carbon dioxide.
 - 2018 wildfires = CA energy for 1 year
- Preventing wildfires will have minimal impact of carbon sequestration

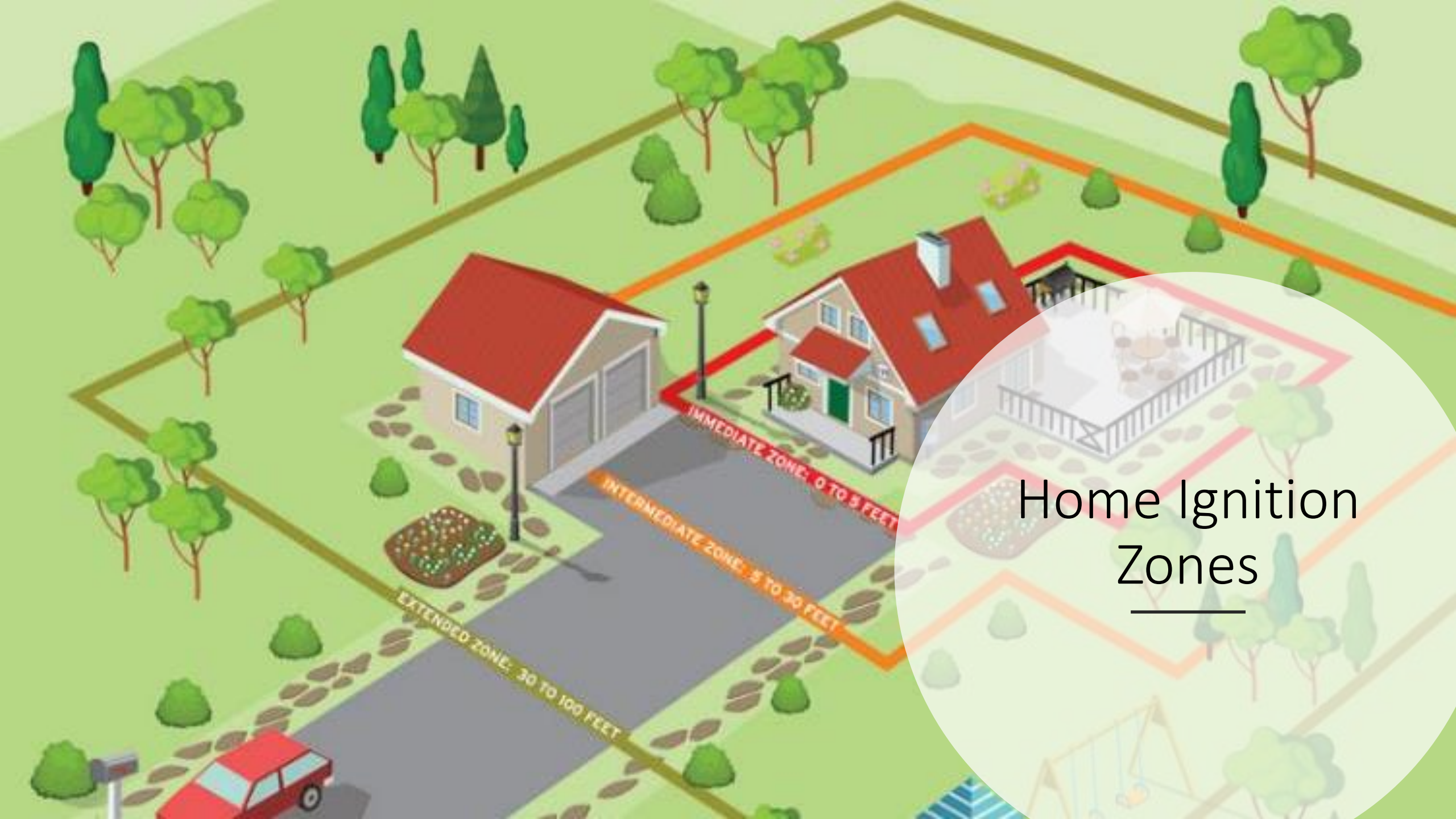
Related Plans

- Climate Change Action Plan
 - Provide information regarding fire resistance of different tree species
 - Manage open space for forest health and reduction of fuel load
- Community Wildfire Protection Plan
- *2017 Lessons Learned*



Fire Science





Home Ignition Zones

Where is this home vulnerable to ember attack?



Public Input

- Community meeting at City Hall on February 11th
- Meetings: Marin County Fire Chiefs, Marin Association of Realtors, Marin County Fire Prevention Officers, San Rafael Fire Commission, San Rafael Neighborhoods Association, and Friends of China Camp.
- Presentations, including time for questions and feedback: Gerstle Park Neighborhood Association, Lincoln-San Rafael Hill Neighborhood Association, Rotary Club of San Rafael, San Pedro Road Coalition, Villa Real HOA, and Marinwood Community Services District.
- San Rafael CERT, attendees of 1 Hour 2 Get Ready, and the County Public Disaster Education and Preparedness Committee (PDEP).





Digital



RESIDENTS

BUSINESSES

VISITORS

DEPARTMENTS

NEWS

EVENTS

CONTACT



Please provide feedback on the draft plan using the form below.

Wildfire Prevention and Protection Action Plan Feedback

Action Item/Objective *

General Comment ▾

Please select the item you are providing feedback for. These number match the original (January) draft plan. A cross walk of old and new numbers is available in the March version of the plan. The Feedback form will be updated following the March 18th City Council meeting.

I have a question requiring a response

Feedback

I would like to provide feedback on a second item

Submit

- Dedicated website and feedback form
- Short explanation videos
- Nextdoor Polls
- Social media
- Snapshot & Hotshot
- Direct emails

Updates to organization and structure

- Expanded plan introduction
- Reorganized into 3 sections
 - Vegetation Management
 - Wildfire Prevention and Protection
 - Notification and Evacuation
- Objectives renumbered (Crosswalk at end of plan)
- Outcomes section added to each objective
- Includes additional total cost estimates per objective

COSTS	<p>\$\$\$ Costs to support residents meeting updated standards and assuring City property meets standards would require additional funding.</p> <p>@ Ordinance updates can be updated with existing staff</p> <p>@@@ Outreach, education, and enforcement would require additional staffing.</p> <p>Total cost to City: Initial staff time and equipment costs to implement are estimated between \$100,000-150,000 annually.</p>
STAKEHOLDERS	Fire Department, Building Department, residents, businesses, landowners, Marin Builders Association.
TIMELINE	Ordinance changes would be internally drafted, reviewed and presented at public meetings in the future. Staff hopes to have an initial round of ordinance updates ready for public and City Council input within 90 days. Building Code updates would be incorporated into the reoccurring review cycle towards the end of 2019.
OUTCOMES	Reduces hazardous fuels and wildfire risk throughout the Immediate, Intermediate, and Extended zones. Reducing likelihood of ember storms to create new ignitions in or outside of the WUI boundaries. Community wide resilience.

Table 3 - New and Draft plan Objective number Cross Walk

#	Objective	Draft #
1	Eliminate highly flammable vegetation near structures and roadways throughout San Rafael	1
2	Apply vegetation management and defensible space standards citywide	2
3	Reduce ember ignitions within immediate zones to prevent structure ignitions through enhanced standards and support	4
4	Expand goat grazing for vegetation maintenance	15
5	Establish additional fuel interruption zones	32
6	Improve public education regarding fire-safe landscaping and living with wildfire	11

Revisions

- Overall, objectives remain consistent
 - #38 was added to clarify intent to collaborate and partner
 - #27 was removed (VMPs for resale) and replaced with an item specifically addressing the need to harden homes
- Clarified commitment to collaboration with County, neighbors, and other landowning partners
- Clarification and addition of integration with existing plans and documents



Revisions

- Establishes Resilient Landscape Templates (RLTs) (maintains VMPs current role)
- Challenges reaching property owners not residing at unit (absentee and rental)
- Removes resale as a trigger or implementation, except flammable wood shake roofs replacement





Vegetation Management

- Reduce fuel available to start and spread fires
- Expand existing programs
- Communitywide effort
- Specific details of policies, procedures, and standards will be developed in the coming months with additional public input



1. Eliminate highly flammable vegetation near structures and roadways throughout San Rafael (Draft # 1)

- Specifies near structures
- Adds roadways
- Specifies scientific names
- Addresses point of sale



- Includes suggestion for Eucalyptus guidelines
- Need to review and update City hillside ordinance to make allowances for defensible space

2. Apply vegetation management and defensible space standards citywide
(Draft # 2)

3. Reduce ember ignitions within immediate zones to prevent structure ignitions through enhanced standards and support (Draft # 4)



- Clarifies immediate ignition zone is generally five feet
- Offers RLT as method for exemption
- Clarifies individual prescriptions, considering construction material, slope, and surrounding vegetation
- Emphasis on 'house out' efforts
- Includes possible adjustments at point of sale

4. Expand goat grazing for vegetation maintenance (Draft # 15)

- Emphasis on partnership to reduce costs
- Feedback was overwhelmingly positive



5. Establish additional fuel interruption zones (Draft # 32)

- Work to remove hazardous fuels in open space within 100 feet of structures
- Clarification that efforts would focus on shaded fuel breaks and removal of surface and ladder fuel





6. Improve public education regarding fire-safe landscaping and living with wildfire (Draft # 11)

- Expands outreach efforts to include FIRESafe MARIN “living with wildfire” campaign
- Better incorporates hardening home into outreach
- Incorporates outreach via point of sale locations
- Includes education on how to properly dispose of different debris

7. Establish more Firewise communities in San Rafael (Draft # 22)

- Includes FIRESafe MARIN and NFPA
- Discusses benefits of insurance incentives
- Feedback was overwhelmingly positive





8. Reduce hazardous fuels through an abatement process on privately owned unimproved lots and within 200 feet of a structure or 20 feet of roadway (Draft # 34)

- Expanded to include improved lots near structures or roads

9. Effectively coordinate the removal of vegetative debris from public and private property
(Draft # 37)

- Includes outreach encouraging homeowners to fill green carts each week to reduce need for bulk pick-ups
- Initial conversations with Marin Sanitary Service are underway



10. Engage Community Emergency Response Team (CERT) members, Neighborhood Response Groups (NRGs) and other volunteers in fire prevention (Draft # 33)

11. Reengage volunteer “Broom Pull Days” (Draft # 35)



- Incorporates broader volunteer groups
- #10 Includes fuel removal tasks

SRFD VEGETATION MANAGEMENT INSPECTIONS, PROJECTS & PARKLAND CLEARING FY18

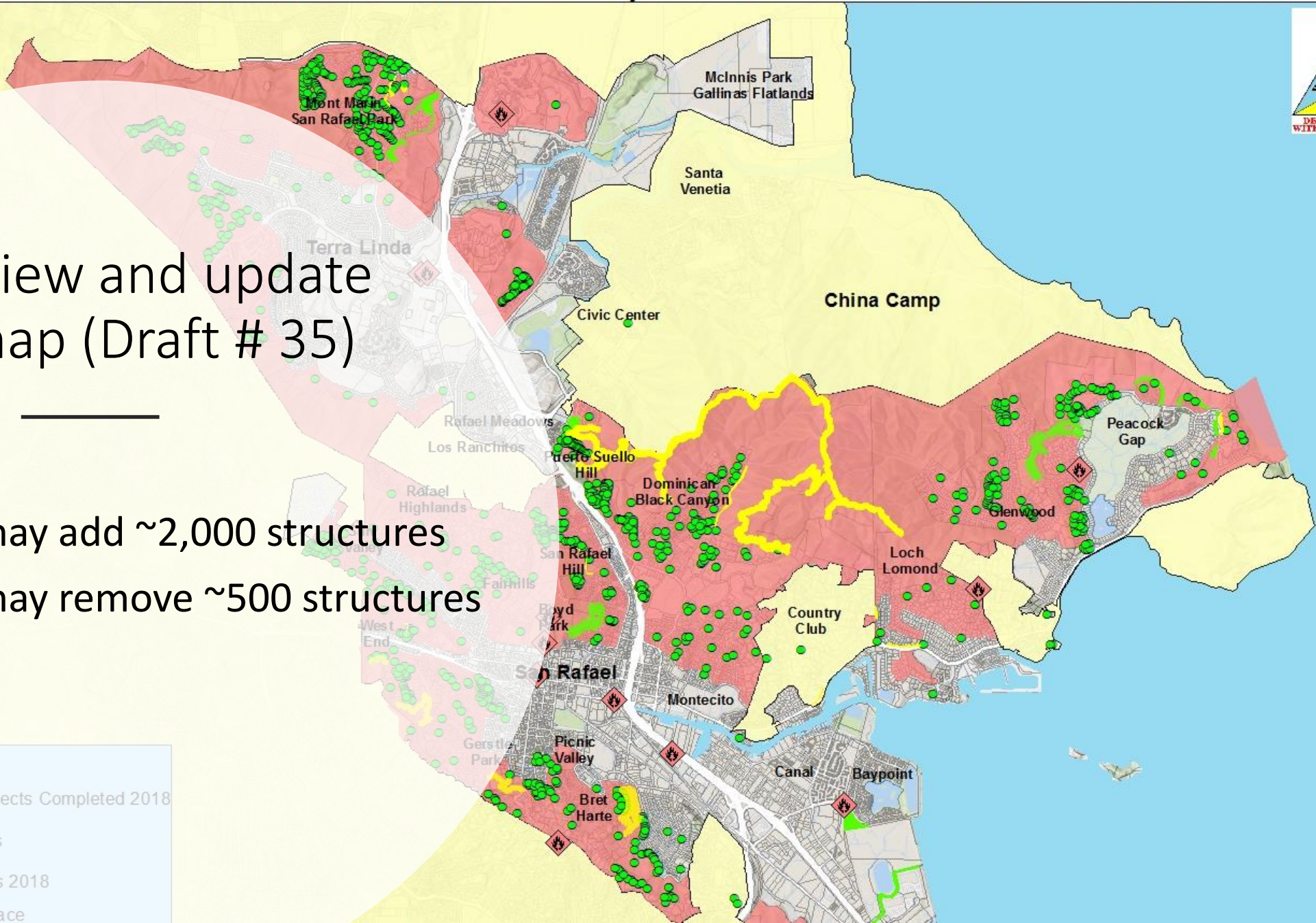


12. Review and update WUI map (Draft # 35)

- Updates may add ~2,000 structures
- Updates may remove ~500 structures

Legend

- City Open Space Projects Completed 2018
- 2018 Vegetation Fires
- Veg Mgmt Inspections 2018
- Wildland Urban Interface



13. Consider adoption of Public Resource Code 4290 and 4291 (Draft # 3)

- Calls for consideration, rather than adoption
- Allows for staff review to determine if adoption is helpful or redundant
- Countywide coordination





14. Develop new efforts, solutions, and resources dedicated to wildfire prevention and protection (Draft #7)

- Broadens objective and expands language to clarify intent
- Specifies intent to reduce financial burden on individuals
- Includes partnerships (DST, NCCC, volunteers, etc.), funding avenues (CalFIRE grant, HMPG, existing budget, etc.) and revenue opportunities (tax, fees, donations, etc.)
- Fuel management is a continuous capital improvement project



15. Immediately seize ignition sources at encampments and remove encampments in open space as quickly as possible (Draft # 8)

- Emphasis on removing all open space encampments
- Specifies compliance of Marin v Boise regarding camping limitations
- Evaluate City ordinances for appropriate time, place, and manner camping restrictions
- Call for consideration of fire safe identified areas
- Includes challenges of abandoned item cleanups and encampment relocations



Wildfire Prevention and Protection

- Prevent ignitions
- Limit spread and impact
- Assure prompt and safe response
- Increase public education

16. Reduce likelihood of ignition in undeveloped land (Draft # 5)

- Includes intent to work with State Parks and other land owning agencies to remove ignition sources, such as smoking and grills, during periods of fire risk
- Includes fuel reduction in and around open space parking lots



17. Explore opportunities in Fire and Building Code updates to increase use of fire-resistant materials and application of CA Fire Code Chapter 7A (Draft # 24)

- Clarifies intent is not to require retrofit, but that any new materials (new construction or remodels) be fire-rated
- Maintains fire and building code updates will occur in coordination with agencies throughout the County in late 2019





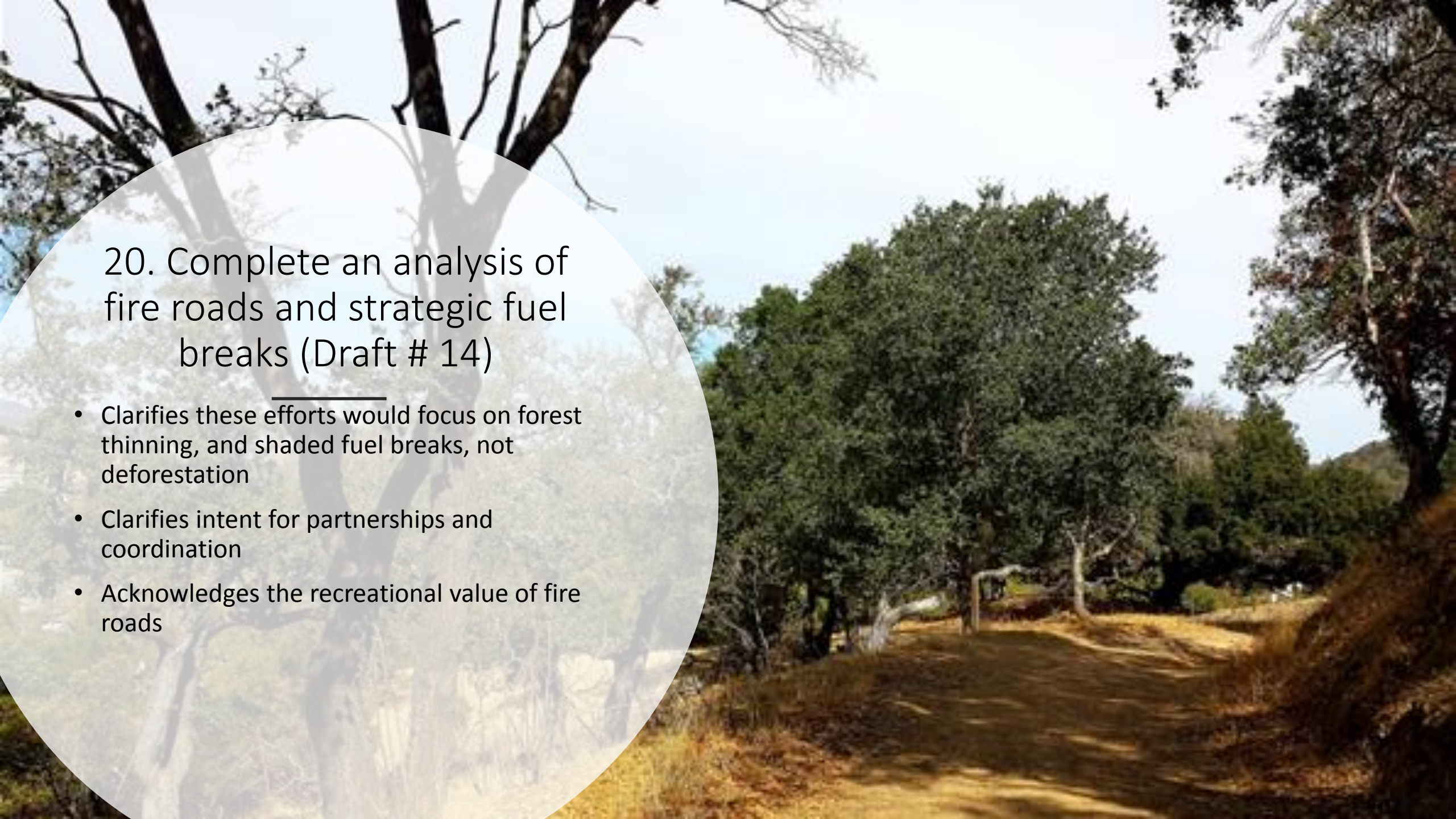
18. Eliminate fire hazard associated with shake and wooden roofs (Draft # 6)

- Notes that staff believe fewer than 200 shake roofs remain in San Rafael
- Notes need to not negatively impact property transfers
- Timeline clarifies a need for allowance for home in escrow at time ordinance change becomes effective



19. Develop comprehensive San Rafael hazardous vegetation study and mitigation measures (Draft # 31)

- Clarifies that break out mapping by fire agency is called for in the *2017 Lessons Learned* report
- Continues to include a specific consideration for Eucalyptus groves and maintenance planning



20. Complete an analysis of fire roads and strategic fuel breaks (Draft # 14)

- Clarifies these efforts would focus on forest thinning, and shaded fuel breaks, not deforestation
- Clarifies intent for partnerships and coordination
- Acknowledges the recreational value of fire roads

21. Increase the number of hardened homes in San Rafael

- Additional item
- Replaces Draft # 27, a VMP requirement for resale
- Focuses on outreach, education, and assistance to help homeowners
- Includes intent to align efforts with FIREsafe Marin and broader county efforts

READY FOR WILDFIRE

Harden Your Home



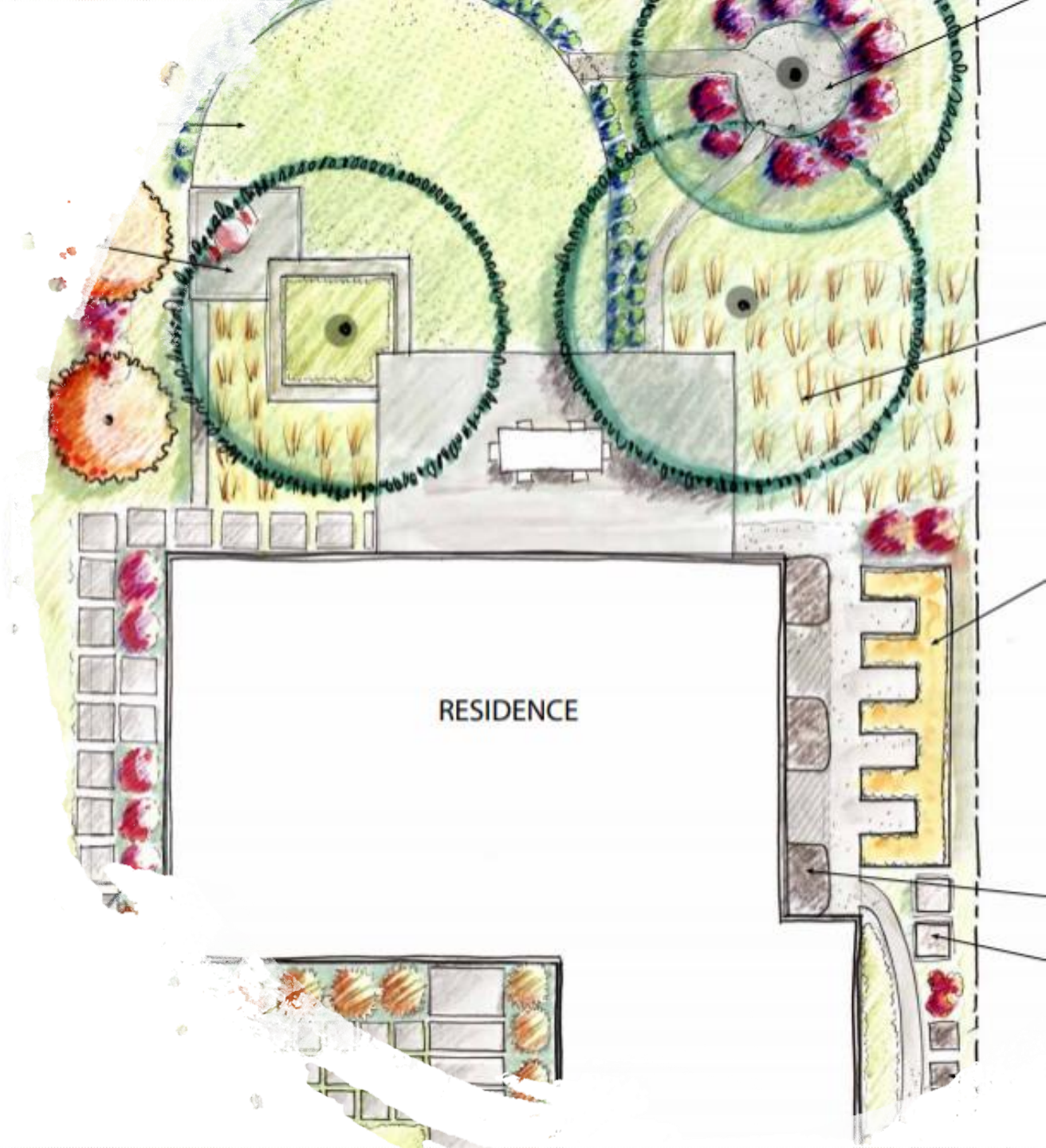
FLYING EMBERS CAN DESTROY HOMES UP TO A MILE FROM A WILDFIRE.

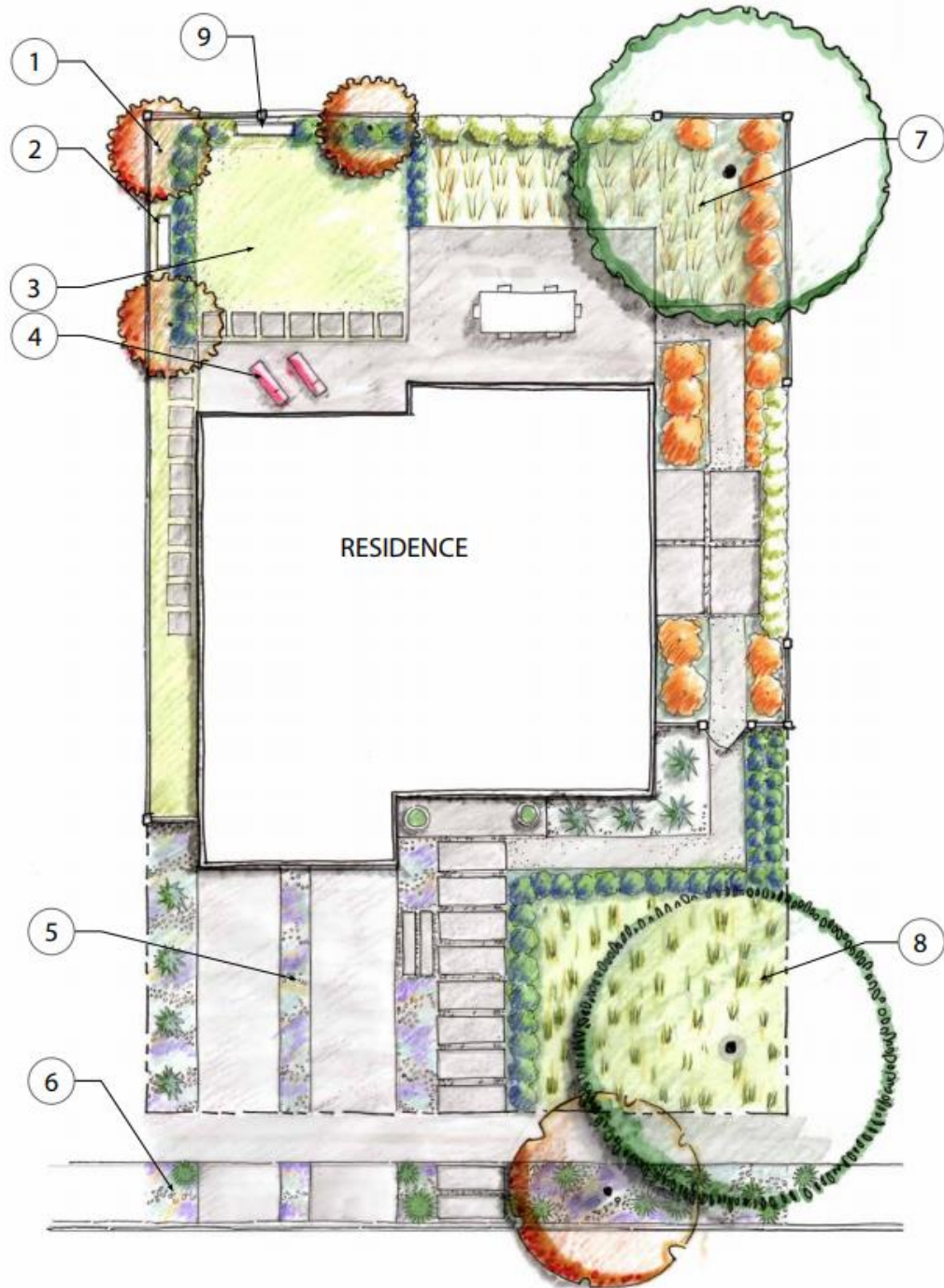
HARDEN YOUR HOME BY USING FIRE RESISTANT BUILDING MATERIALS.



22. Improve development and implementation of Vegetation Management Plans (VMPs) and create new Resilient Landscape Templates (RLT)s (Draft #17).

- Establishes new tools and templates for homeowners to create fire-resistant, drought-tolerant, carbon-sequestering, and beautiful landscaping.
- Includes efforts to align our VMP with VMP updates across the county





PLANTING CONCEPT

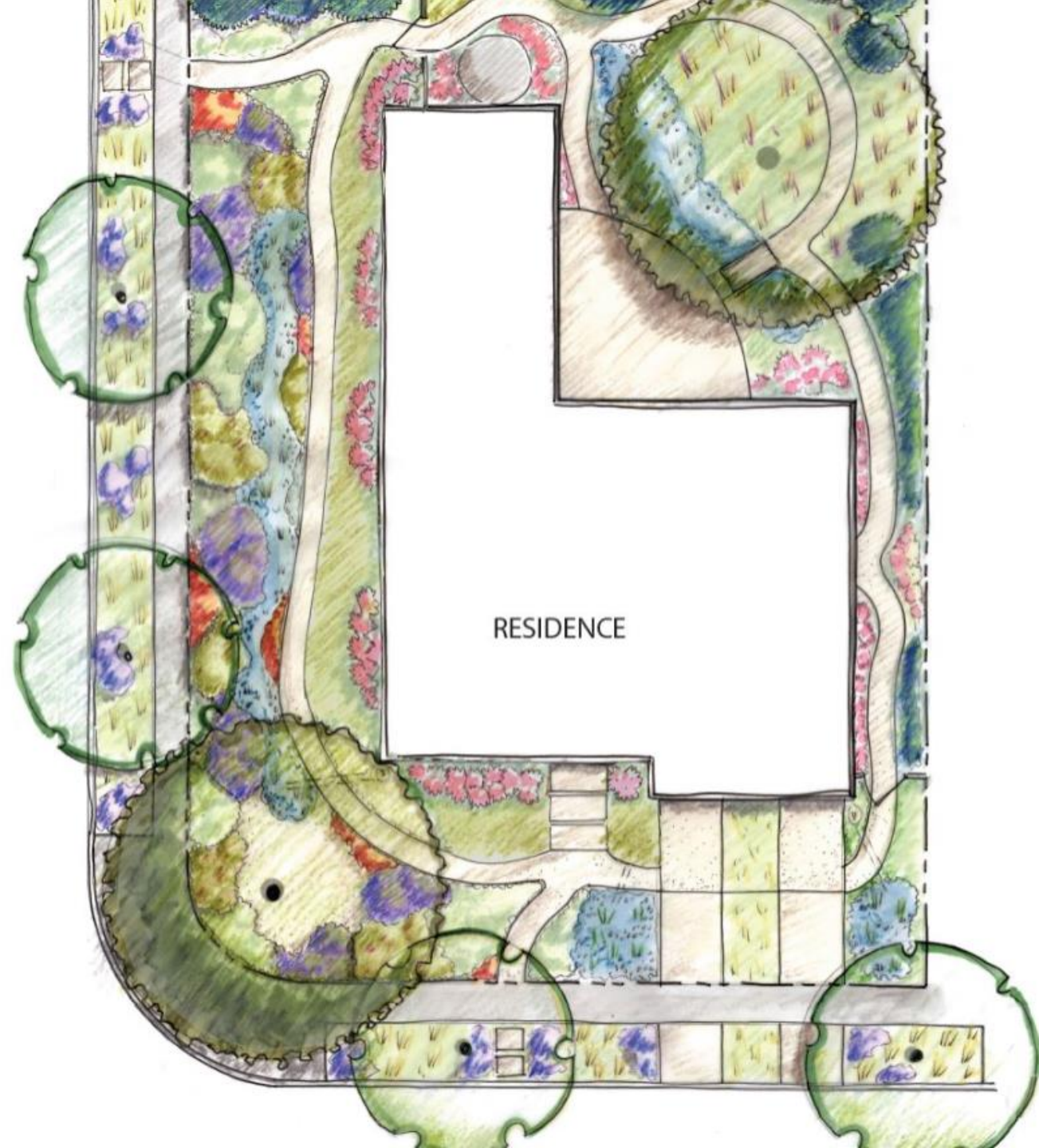


LEGEND

- | | | | | | |
|---|-----------------------------------|---|--|---|-------|
| 1 | Fruit tree | 5 | Driveway with gravel strip with succulents (no irrigation) | 9 | Bench |
| 2 | Sculpture | 6 | Decorative gravel, Idaho Fescue, succulent mix | | |
| 3 | Native low water lawn alternative | 7 | Grasses planted on grid | | |
| 4 | Lounge chairs | 8 | Meadow or grasses planted on grid | | |

23. Increase the number of completed Vegetation Management Plans (VMPs) and Resilient Landscape Templates (RLTs) (Draft # 26)

- Includes RLTs as resource for homeowners
- Looks to explore new opportunities to have homeowners complete RLTs or property owners complete VMPs
- Considers offering support and resources to those completing VMP or RLT





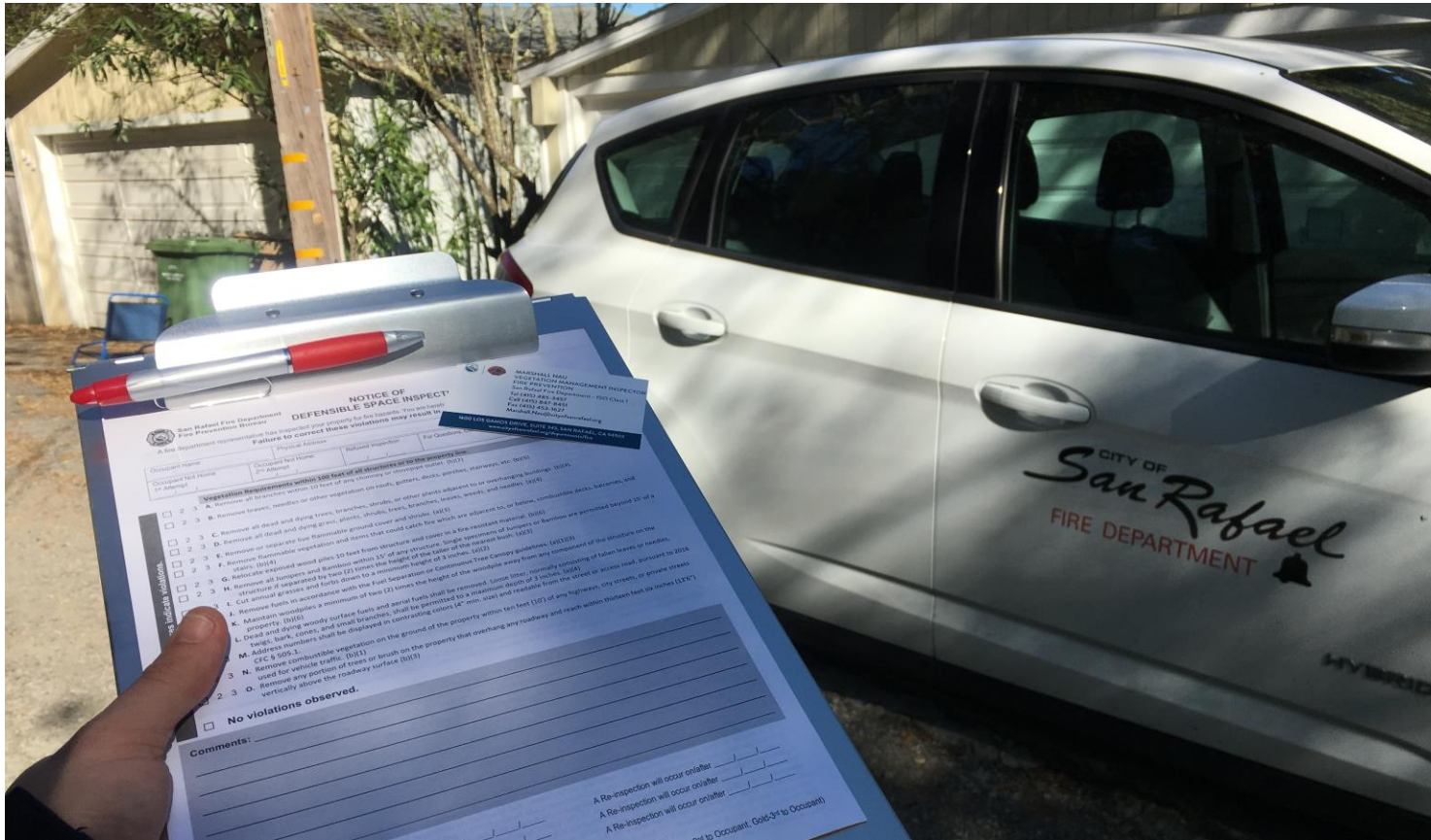
24. Improve the public's fire risk awareness with sign improvements and installation (Draft # 36)

No significant changes

25. Reduce fire risk and keep visitors using short-term rentals safe
(Draft # 29)

- Accounts for current City policies and review process regarding management of short-term rentals
- Includes attempts to work directly with short term rental companies like VRBO and AirBnB to share safety information
- Incorporates new RLT or similar vegetation template





- Encourages additional staff to be skilled in all areas of disaster mitigation
- Creates redundancies in emergency preparedness and response capabilities
- Expands request to include 3 seasonal employees to support inspections, outreach, project management, and homeowner support

26. Hire additional staff dedicated to vegetation management and disaster mitigation (Draft # 9)



27. Increase Police Ranger staffing (Draft #10)

- Also includes support for evacuation planning
- Continues emphasis on need for more patrols in Open Space to prevent ignitions

A night-time photograph of a city street with cars and streetlights, overlaid with a large, bright, orange and yellow fire in the sky. The fire is the central focus, with its glow illuminating the scene. The cars in the foreground have their headlights on, and the streetlights are visible. The overall atmosphere is one of emergency and danger.

Notifications and Evacuations



28. Reduce fuels along roadways (Draft # 19)

- Includes intent to maintain the “Tree City USA” status
- Focus on safe evacuation routes, fewer roadside ignitions, and safe access for responders



29. Establish a residential hillside “parking box” program (Draft # 25)



- Includes exploring considerations to support property owners trying to establish off-street parking
- Includes review of open space parking areas

30. Improve public emergency alerting capabilities and policies (Draft # 13)

- Clarifies intent of Sirens
- Incorporates coordination with traditional media
- Incorporates peer-to-peer communication (NRGs)
- Acknowledges need to comply with Senate Bill 833 and Assembly Bill 1877





57 Z:1.0 MARINF:mbrown:18.52d © Nevada Seismo Lab 2019/01/22 12:13:19.26 Home

Leaflet | Map tiles by Stamen Design, and OpenStreetMap, under CC

31. Increase capability for early fire warnings and detection (Draft # 12)

- Includes efforts to report confirmed fires to National Weather Service to support NOAA alerting if needed
- Efforts to install cameras are ongoing

32. Review and expand evacuation plans, incorporating areas of refuge, and support neighborhood evacuation drills. (Draft # 30)

- Includes support of neighborhood evacuation planning and drills
- Clarifies inclusion of planning for those with access and functional needs
- Incorporates areas of refuge into evacuation maps
- Considers direct coordination with technology services like Waze, Google Maps and others



33. Assure safe and resilient critical infrastructure (Draft # 20)

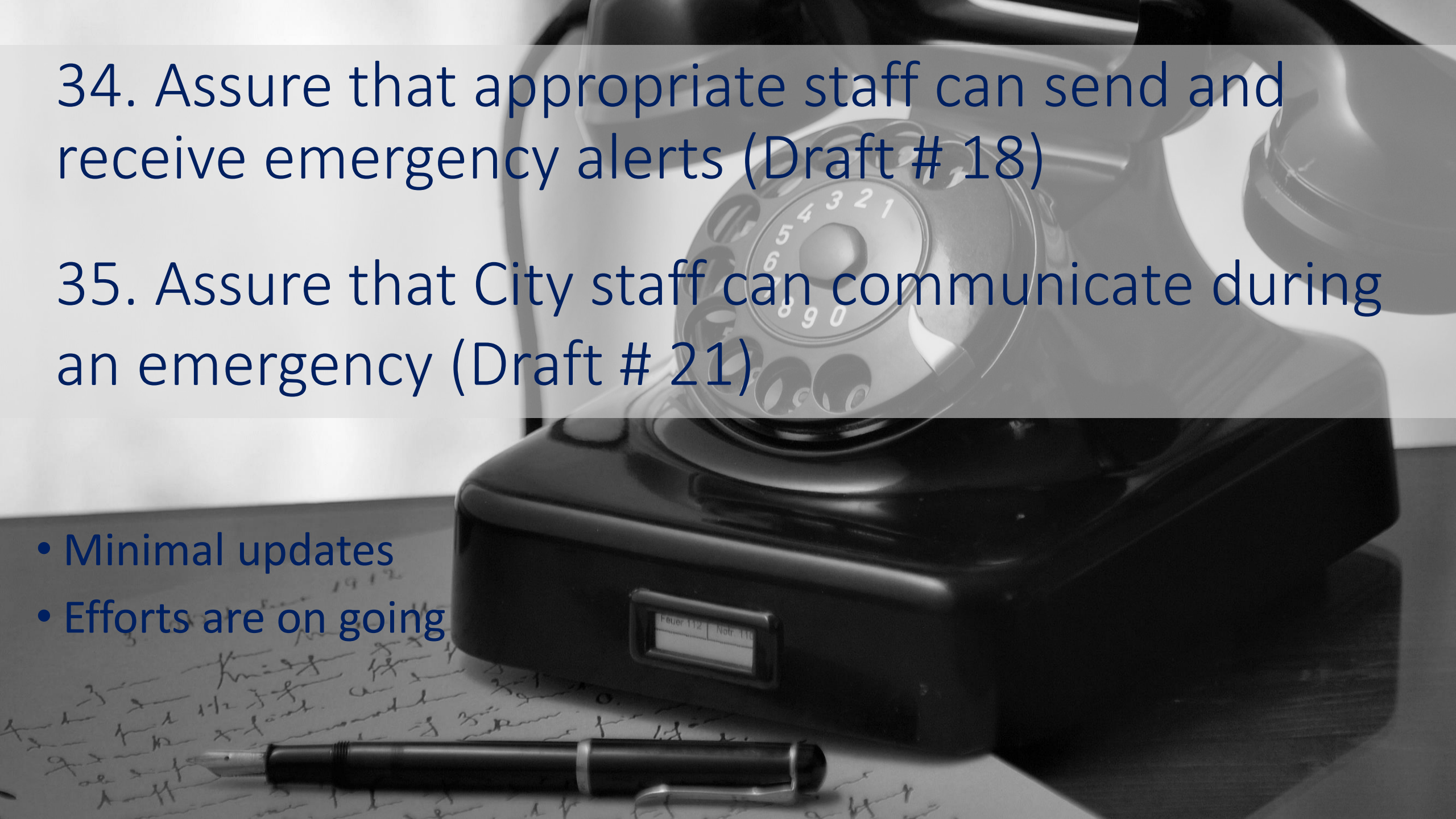
- Broadens focus from fuel removal to safe and resilient
- Includes roadways
- Works to assure redundancies are in place



34. Assure that appropriate staff can send and receive emergency alerts (Draft # 18)

35. Assure that City staff can communicate during an emergency (Draft # 21)

- Minimal updates
- Efforts are on going



36. Assure that residents can evacuate through garage doors if power is out (Draft # 16)

37. Prevent potential entrapments by requiring 2 gates in any fence in designated areas (Draft #28)

- Clarification of intent to support low-income individuals and those with access and functional needs





38. Maintain and expand coordination of wildfire prevention and response planning with Marin County, other Marin jurisdictions, Marin County Fire, FIRESafe MARIN, and neighboring landowning partners.

- New item to clarify ongoing intent to coordinate and collaborate
- Build off of existing partnerships and programs



www.cityofsanrafael.org/wildfire-action-plan/

