



FIREWISE USA™
RESIDENTS REDUCING WILDFIRE RISKS



FIREWISE USA® RECOGNITION PROGRAM COMMUNITY ASSESSMENT TEMPLATE – Bayside Acres Neighborhood

This text is prepared for the use of individuals conducting community assessments as a part of the FireWise USA® Recognition Program. It is meant for insertion in those sections of the document cited.

1) Introduction

The FireWise USA® program is designed to provide an effective management approach for preserving wildland living aesthetics. The program can be tailored for adoption by any community and/or neighborhood association that is committed to ensuring its citizens maximum protection from wildland fire. The following community assessment is intended as a resource to be used by the San Rafael **Bayside Acres Neighborhood** residents for creating a wildfire safety action plan. The plan developed from the information in this assessment should be implemented in a collaborative manner, and updated and modified as needed.

The information for this assessment was gathered by the Bayside Acres FireWise Committee: The committee member are Diane Fruin, Julia Glenister, Ogden Hamilton (coordinator), Rick Hopper, Bruce MacPhail, Alan Schaevitz (ex officio), David Tattersall (ex officio), and Joe Tyszkiewicz.

2) Definition of the Home Ignition Zone –

Bayside Acres is located in a wildfire environment. Wildfires will happen--exclusion is not a choice. The variables in a fire scenario are when the fire will occur, and where. This assessment addresses the wildfire-related characteristics of the Bayside Acres Neighborhood. It examines the area's exposure to wildfire as it relates to ignition potential. The assessment does not focus on specific homes, but examines the community as a whole.

A house burns because of its interrelationship with everything in its surrounding home ignition zone, i.e. the house and its immediate surroundings. To avoid a home ignition, a homeowner must eliminate the wildfire's potential relationship with his/her house. That can be accomplished by interrupting the natural path a fire takes. Changing a fire's path by clearing a home ignition zone is an easy-to-accomplish task that can result in avoiding home loss. To accomplish that, flammable items such as dead vegetation must be removed from the area immediately around the structure to prevent flames from contacting it. Also, reducing the volume of live vegetation will affect the intensity of the wildfire as it enters the home ignition zone.

Included in this self-assessment are observations made by members of the Bayside Acres FireWise Committee after consulting with FireSafe Marin and the Marin County Fire Department. The assessment addresses the ease with which home ignitions can occur under severe wildfire conditions and how those ignitions might be avoided within the home ignition zones of affected residents. Bayside Acres residents can reduce their risk of destruction during a wildfire by taking actions within their home ignition zones. That zone principally determines the potential for home ignitions during a wildland fire; it includes a house and its immediate surroundings within 100 to 150 feet. By addressing community vulnerabilities, residents will be able to substantially reduce their exposure to loss. Relatively small investments of time and effort will reap great rewards in wildfire safety.

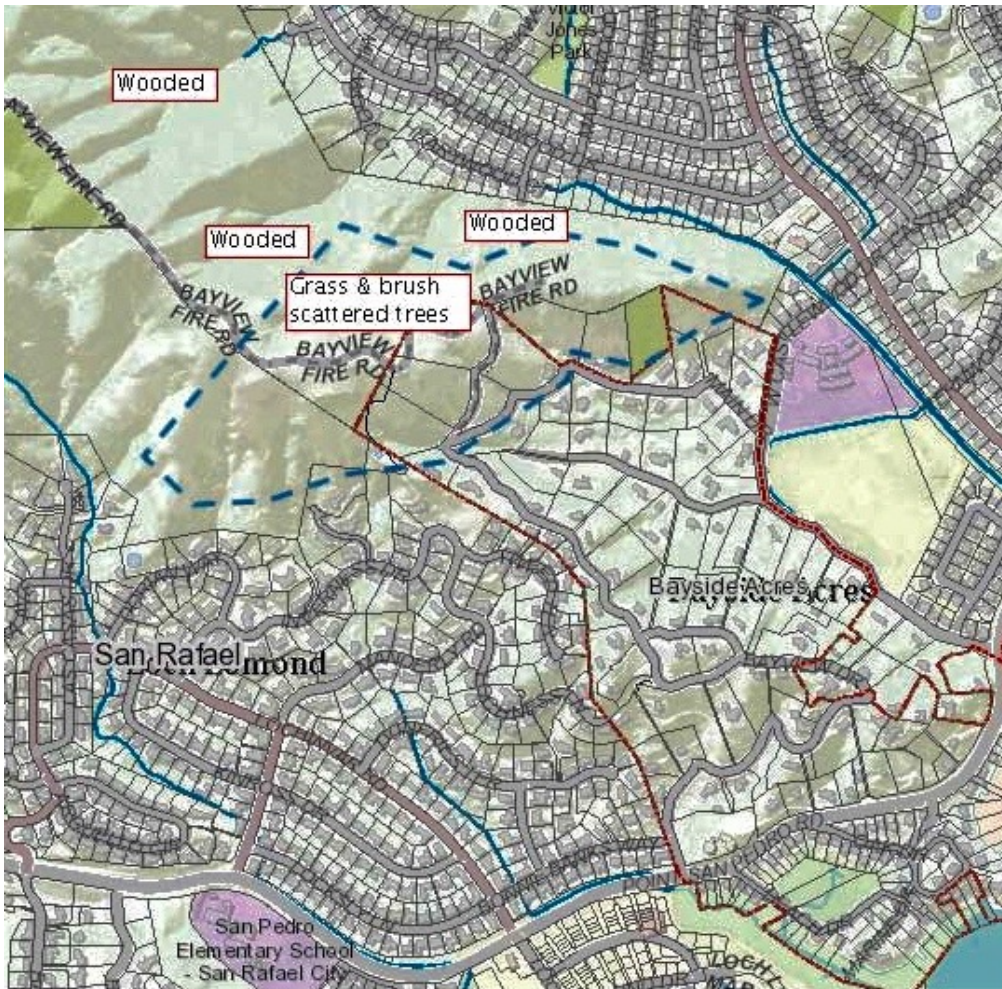
3) DESCRIPTION OF [SIZE AND NATURE OF THE SEVERE CASE WILDLAND FIRE CHARACTERISTICS] THAT COULD THREATEN THE AREA

Fire intensity and spread rate depend on the fuel type and condition (live/dead), the weather conditions prior and during ignition, and the topography. Generally, the following relationships hold between the fire behavior and the fuel, weather and topography.



- Fine fuels ignite more easily and spread faster with higher intensities than coarser fuels. For a given fuel, the more there is and the more continuous it is, the faster the fire spreads and the higher the intensities. Fine fuels take a shorter time to burn out than coarser fuels.
- The weather conditions affect the moisture content of the dead and live vegetative fuels. Dead fine fuel moisture content is highly dependent on the relative humidity and the degree of sun exposure. The lower the relative humidity and the greater the sun exposure, the lower will be the fuel moisture content. Lower fuel moistures produce higher spread rates and fire intensities.
- Wind speed significantly influences the rate of fire spread and fire intensity. The higher the wind speed, the greater the spread rate and intensity.
- Topography influences fire behavior principally by the steepness of the slope. However, the configuration of the terrain such as narrow draws, saddles and so forth can influence fire spread and intensity. In general, the steeper the slope, the higher the uphill fire spread and intensity.

In consultation with FireWise Marin and the Marin County Fire department, the Bayside Acres FireWise Committee has determined that the neighborhood will be at risk from dry vegetation, low humidity, and high winds that occur more frequently in summer and fall.



The 91 houses northwest of Point San Pedro Road are located on a ridge and in the adjacent valley that are next to the open area that separates them from the wooded part of China Camp State Park. They are vulnerable to windblown embers and direct impingement flames.

The 70 homes southeast of Point San Pedro Road are in a level area bordered to the southeast by the San Rafael Bay. The area has relatively little vegetation but the houses are relatively close together. They are vulnerable to windblown embers and to catching fire from radiant heat generated by a house next door.

The likely ignition point of a wildfire is the wooded area of China Camp. Bayside Acres' houses are about 1,200 feet from the wooded area, separated by an open area covered

with grass, brush, and scattered trees that comprises about 40 acres.

4) SITE DESCRIPTION

Bayside Acres Neighborhood

Bayside Acres is an unincorporated subdivision along Point San Pedro Road, primarily developed with large single-family homes on hillside lots. Homes located west of Point San Pedro and along the Bay are developed on smaller lots. It is a contiguous island and accessible by city streets. A few Bayside Acres properties have been annexed into San Rafael over the years. This area is about 149 acres in area and is considered one of San Rafael’s less-dense neighborhoods.



The Bayside Acres subdivision was created from a ranch in the 1910s. The Bayside Acres Homeowners Association (HOA) currently serves the subdivision. The HOA was formed when the subdivision was established and all parcel owners were required to be members. However, the mandatory requirement was dropped and it became voluntary in 1957.

Bayside Acres is currently receiving city fire protection services through CSA No. 19 and wastewater through San Rafael Sanitation District. However, there are some parcels not hooked up to the wastewater system, and instead utilize on-site septic systems.

The County Sheriff office provides law enforcement services, with the San Rafael police department responding to calls as needed.

The San Rafael General Plan 2020 notes that growth in this unincorporated area is not expected, however, the annexation of more properties into the city will remain a possibility.

Source: San Rafael Regional MSR Commission Bayside Acres

Bayside Acres comprises 161 homes and an estimated 350 residents. It is flanked by Glenwood on the east and by Loch Lomond and the Loch Lomond Highlands on the west. All three are certified FireWise neighborhoods. Bayside Acres is flanked by China Camp State Park on the north and by the San Rafael Bay on the south.

Map courtesy of the Glenwood HOA

5) ASSESSMENT PROCESS

Information to support Bayside Acres' assessment is provided directly or indirectly from the activities of our neighborhood's disaster-preparedness committee

Item from the March 24 meeting of the Bayside Acres HOA board of directors:

It was moved, seconded, and passed to adopt the 2019 Report of the Firewise Bayside Acres Committee (Att. 1).

Attachment 1

2019 Report of the Firewise Bayside Acres Committee

March 24, 2020

Preamble

Committee members are Joe Tyszkiewicz, Bruce MacPhail, Rick Hopper, Julia Glenister Diane Fruin, Ogden Hamilton, coordinator, David Tattersall ex officio, and Alan Schaevitz, ex officio.

The application for certification of Bayside Acres as a Firewise Neighborhood will be submitted later this year. We waited because the material in this report will comprise the most compelling information in the application. An excerpt from the minutes of the next board meeting also may strengthen the application.

In July SFRD performed a defensible space inspection of every lot in Bayside Acres. That preempted the initial task of the committee and provided valuable information on where we need to clear defensible space so we could move directly to implementation.

In July we created the framework of an interactive Firewise Website that is part of the Bayside Acres HOA website.

The committee's inaugural meeting was August 7, 2019. Todd Lando, Executive Coordinator, FireSafe Marin and Fire Captain Jordan Reeser from County Fire helped to determine the committee's initial priority: each home clearing defensible space.

At the annual barbeque on August 25 Jordan Reeser and three of his inspectors explained the recent inspection results to attendees. John Hansen, Director, Firewise Liaison for FireSafe Marin gave a short talk explaining what Firewise is, how it works, and how neighbors can participate.

Implementing the Firewise Website and reporting tool

September was spent developing copy for the Firewise website and debugging the online reporting tool. Use of the reporting tool was restricted to committee members. During that period there were only 13 transactions that totaled \$3,872 after hours were monetized at \$24.14.

In October we began soliciting neighbors to report clearing defensible space. We held off on the planned email blast; instead we used individual outreach to neighbors who obviously had cleared defensive space. During that period 18 neighbors reported \$30,691 invested in clearing defensible space. (The minimum investment for Bayside Acres to qualify for Firewise certification is \$4,100. :-)

On December 9 we sent out the email blast introducing Firewise Bayside Acres and asking neighbors to report their investments in clearing defensible space. It became clear that an email blast and a web link weren't going to get the job done, but it does appear that the email blast raised awareness. The continuing our use of individual outreach yielded 19 reports that totaled \$228,223 after hours were monetized.

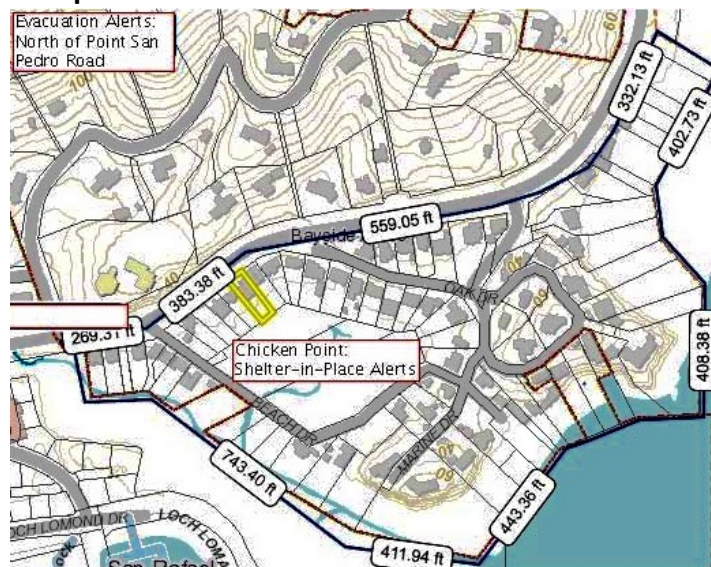
The full year results (below) show that 26 (16%) of our 161 homes reported investing more than a quarter of a million dollars in clearing defensible space. That works out to 65 times the \$25 minimum per-home investment required to be certified as a Firewise neighborhood. The median investment was about \$5,700, and as expected the bulk of our defensive space was cleared north of PSPR.

AMOUNT INVESTED IN REDUCING WILDFIRE VULNERABILITY						
	All Homes		Chicken Point		North of PSPR	
	Count	%	Count	%	Count	%
Number of homes	161	100%	70	43%	91	57%
Number of Homes Reporting	25	16%	8	11%	17	19%
Investment in Cash	\$153,270	100%	\$40,355	26%	\$112,915	74%
Investment in Hours @\$24.14/hr.	\$112,710	100%	\$13,325	12%	\$99,384	88%
Total Investment	\$265,980	100%	\$53,680	20%	\$212,299	80%
Investment in defensible space and home hardening	\$255,575	96%				
Investment in Neighbor Outreach	\$10,404	4%				
Total Investment	\$265,980	100%				
Median Investment per Home Reporting	\$5,700					
Multiple of \$25/home Firewise Commitment	66					

Evacuation protocols

We devoted a lot of our time in November and December to writing evacuation protocols for Bayside Acres. Managing evacuations involves county fire, SFRD, and the sheriff's office so our evacuation instructions must be compatible with every one of those agencies.

In preliminary discussions Jordan Reeser and Woody Baker-Cohen, who runs Alert Marin for the County Sheriff, agreed with us that there is no



material difference between Chicken Point and the three retreat areas suggested at the inaugural meeting: San Pedro School, the brickyard, and the quarry. Therefore our draft evacuation protocols recognized that although north of PSPR would be an evacuation area, Chicken point might be a retreat area. (See the map.)

Battalion Chief Christie Neill from County Fire and Quinn Gardner from SRFD, who will manage any evacuation have signed off on what's posted on our website.

Later this year the city will release its first-ever evacuation maps. We expect their map will look like ours. However we've agreed not to post our map until the city has released its official maps.

It's important to understand that Chicken Point and every other retreat area will be, in fact, a possible retreat area, not a sure thing. In some cases the fire location and wind direction may lead to evacuations from Chicken Point as well as from north of PSPR. On both sides of PSPR the proper response to an alert will be very different if Chicken Point is told to shelter in place than if it is told to evacuate. Our challenge is to make sure our neighbors understand that they must be clear on what alert has been issued and how they should respond to it.

Ongoing cooperation with SRFD and County Fire

In working with Quinn Gardner we learned that the city sponsored an AmeriCorps volunteer program that clears defensive space for free. One of our committee members jumped on that immediately to see about clearing the large, wooded lot of a neighbor who is unable to clear the lot himself. Within two days she had arranged for AmeriCorps volunteers, supported Jordan Reeser, to clear the lot. Several crews converged on the lot in early December. They cleared it in about three days, clocking 330 hours that are worth about \$8,000 when monetized at \$24.14.

That's an example of what the solid relationship we've built with SRFD, County Fire, and Alert Marin makes possible. In 2020 if we want to write grants for clearing our undeveloped lots or for grading the two access roads to the Bayview Fire Road, or if we need special consulting to address some specific challenge or opportunity, we know whom to go to and they know who we are.

Where we are now

The defensible space part of Firewise Bayside Acres is completely established and can, with a bit of promotion and creativity, operate from now on pretty much as is. In 2020 the goal is not necessarily a greater amount of investment. The more important measure of progress is an increase in the percentage of neighbors reporting their investment.

The evacuation protocols are written and on our website, so we have what we need to undertake an aggressive neighbor outreach that will allow us to keep everyone safe if an evacuation is ordered. If and how to do that is on the agenda for this board meeting.

Here's looking forward to 2020!

End of Minutes Item

6) IMPORTANT CONSIDERATIONS

The FireWise USA® program seeks to create a sustainable balance that will allow communities to live safely while maintaining environmental harmony in a WUI setting. Homeowners already balance their decisions about fire protection measures against their desire for certain flammable components on their properties. It is important for them to understand the implications of the choices they are making. These choices directly relate to the ignitability of their home ignition zones during a wildfire.

Defensible space inspection by SRFD (Wind-blown embers)

In July 2019, the San Rafael Fire Department inspected 150 of the 161 Bayside Acres properties. SRFD provided a Notice of Defensible Space Inspection form and literature on defensible space, home hardening, evacuation at each property. Seventy-one of the 150 inspected properties had no notice of defensible space risks.

Of the 65 homes southeast of Point San Pedro Road (between PSPR) and the bay, 36 (55%) had no notice of risks. Of the 85 homes northeast of Point San Pedro Road (between PSPR and the open area bordering China Camp State Park), 35 (45%) had no notice of risks. Those numbers reflect the fact that the area northeast of PSPR is heavily wooded and the area the area southeast of PSPR (Chicken Point) has never been wooded and existing vegetation is largely ornamental. It appears that Chicken point is less vulnerable to wind-blown embers than is the area north of PSPR.

Paved fire break (Direct impingement flames)

As pointed out above, Bayside Acres comprises two distinct areas with significantly different vulnerabilities to wild fire.

Point San Pedro Road itself contributes greatly to the reduced vulnerability of Chicken Point to wildfire. Counting paved sidewalks the eastbound lane that borders Chicken Point and the westbound lane that borders the area north of PSPR comprise a 75-foot strip of paved fire break between Chicken Point and the area north of PSPR. The photo to the right is the eastbound lane that borders Chicken Point.



The photo to the left is the westbound lane that borders the area north of PSPR. Note that in the photos that the north side of each lane is bounded by a retaining wall. The sidewalk along Chicken Point is 20 feet above sea level. The top of the retaining wall along the north side of the westbound lane is 60 feet above sea level.

The fact that there is a 40-foot elevation drop between the area from which any wildfire would come and Chicken Point significantly reduces the vulnerability of Chicken Point to direct impingement flames.

Implications for evacuation protocols

In the committee’s inaugural meeting County Fire Captain Jordan Reeser and Executive Coordinator, FireSafe Marin Todd Lando advised that in past wildfires, firefighters have been able to protect evacuees who escaped the fire and reached a paved road.

When Bayside Ares evacuees reach Point San Pedro Road they would be directed to retreat areas such as the San Pedro School, the McNear brick yard, the Dutra Quarry, and Andy’s Market.

They stressed how important it is to evacuate only when it’s necessary and find a retreat area as soon as possible; that cars on the road unnecessarily impeded fire equipment and put everyone at risk.

In view of that advice and the similarities between Chicken Point and the four retreat areas suggested in the inaugural meeting, the committee approached Jordan Reeser about the possibility that Chicken Point also might be designated a retreat area.

After an in-depth study of the matter, Jordan Reeser and Woody Baker-Cohen, who runs Alert Marin for the County Sheriff, agreed with us that there is no material difference between Chicken Point and the three retreat areas suggested at the inaugural meeting: San Pedro School, the brick-yard, and the quarry. Therefore our draft evacuation protocols recognized that although north of PSPR would be an evacuation area, Chicken point might be a retreat area. (See map.)



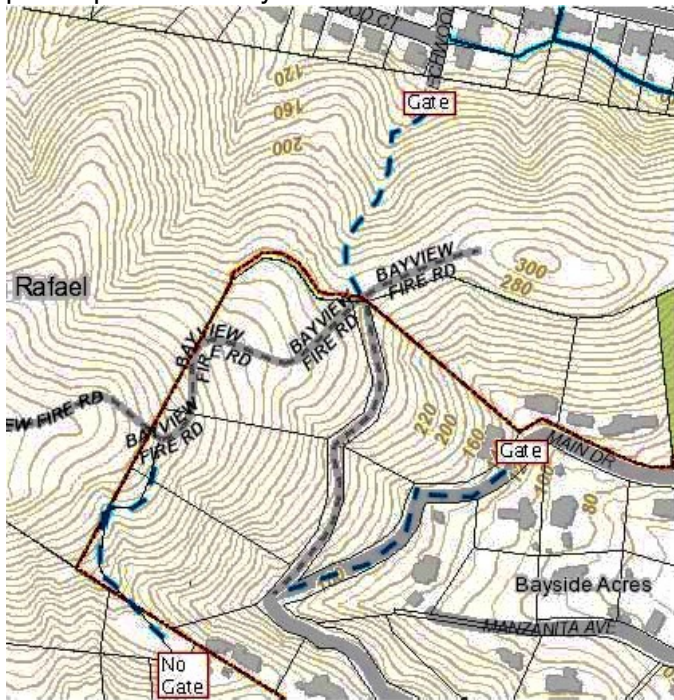
Later this year the city will release its first-ever evacuation maps. We expect their map will look like ours. However we’ve agreed not to post our map until the city has released its official maps. Regardless, when the board approves a program for outreach to neighbors, one contingency include in neighbor education will be that Chicken Point might receive a shelter-in-place alert when the are north of PSPR receives an evacuation alert. If everyone is aware that residents north of PSPR might evacuate to Chicken Point, an evacuation will be orderly and will keep the cars from up to 160 residences off PSPR.

See 5) Assessment Process for additional details on evacuation protocols.

7) OBSERVATIONS AND RECOMMENDATIONS

Fire Roads

Bayside Acres is served by the Bayview Fire Road. The fire road begins at a locked gate at the end of the paved portion of Bayview Drive and runs 1.6 miles until it “T”s into the Gold Hill Fire Road and the Bayhills Fire Road above Dominican. Primary access is through a locked gate at the end of Bayview Drive.



In 2019 the entirety of the Bayview Fire Road was graded. Presently it could be mistaken for a groomed ski slope in Heavenly Valley.

Secondary access to the Bayview Fire Road is through a locked gate at the end of the paved portion of Main Drive, through another locked gate at the end of Beechwood Court in Glenwood, and from the top of a shared driveway off Inverness Drive in the Loch Lomond Highlands (no gate). Glenwood and the Loch Lomond Highlands are adjacent to Bayside Acres.

All three access roads would accommodate an all-wheel drive vehicle with a high road clearance. Each would have to be graded to accommodate any other vehicle.

Photos of the graded Bayview Fire Road follow.



Beginning of Bayview Fire Road



First turn up the hill toward China Camp State Park



Looking back from the saddle of the Inverness access junction



Looking up from the saddle of the Inverness access junction



Junction w/Mann Fire Road (also graded)
Mann Fire Road is accessed from Country Club.



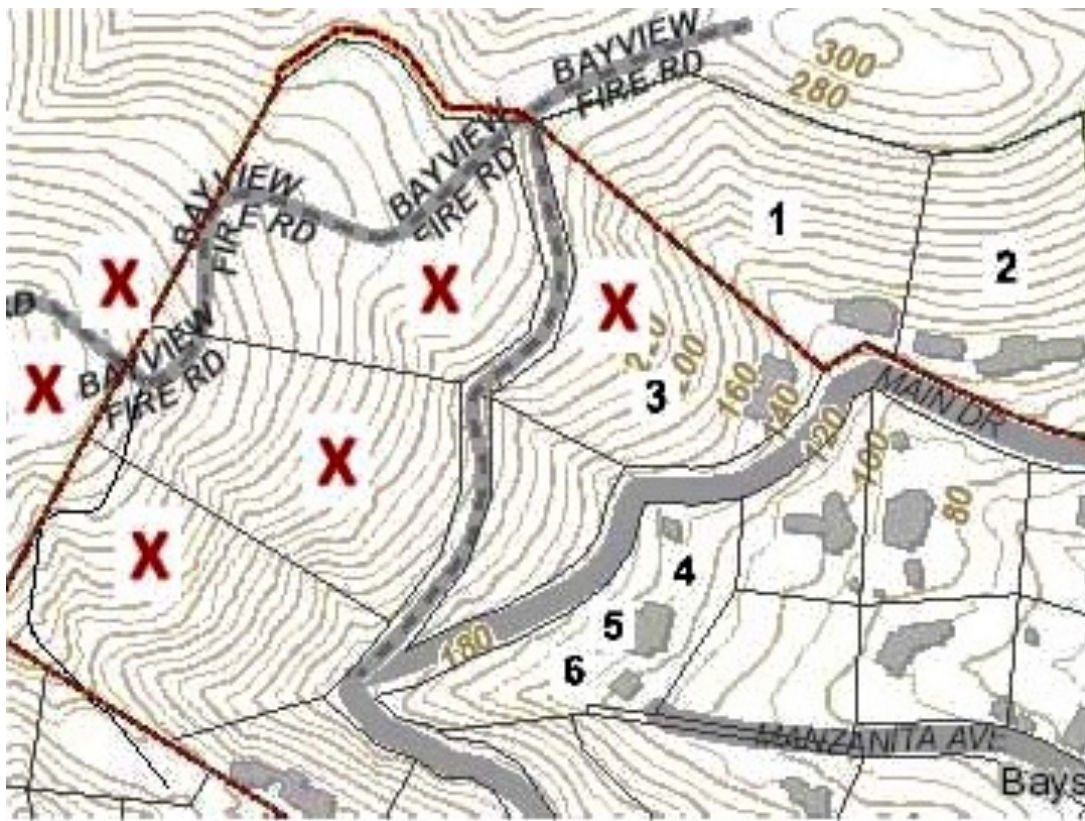
Junction w/Margarita Overlook Fire Road (not graded) The Bayview Fire Road ends in 100 yards

8) SUCCESSFUL FIREWISE MODIFICATIONS –

When adequately prepared, a house can likely withstand a wildfire without the intervention of the fire service. Further, a house and its surrounding community can be both FireWise and compatible with the area’s ecosystem. The FireWise USA® program is designed to enable communities to achieve a high level of protection against WUI fire loss even as a sustainable ecosystem balance is maintained.

A homeowner/community must focus attention on the home ignition zone and eliminate the fire’s potential relationship with the house. This can be accomplished by disconnecting the house from high and/or low-intensity fire that could occur around it. The following photographs were taken in **Bayside Acres** and are examples of good FireWise practices.

Bayside Acres most important defensible space



In 2019 three neighbors at the end of Main Drive and Manzanita Drive cleared defensible space that is strategically vital to Bayside Acres.

The red “X”s on the map designate the undeveloped Bayside Acres lots that comprised the site of most of the 2016 fire.

The cleared areas are numbered 1 through 6 on the map.

Those areas comprise the first line of defense from any fire that burns down the hill from China Camp State Park.

Photos of the areas of defensible space follow.



Map of all six cleared Areas



Areas 1 and 2 from the Bayview Fire Road



Area 1 from Main Drive



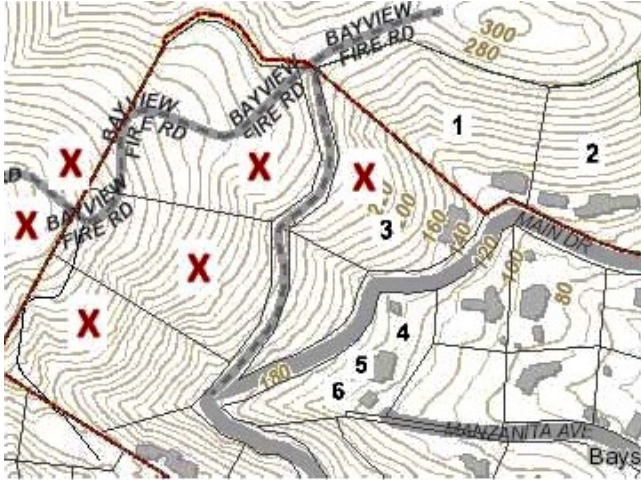
Area 2 from Main Drive



Area 3 from Main Drive fire road access
(Note the palm tree in the left foreground.)



Area 3 from Bayview Fire Road (After 2016 fire)
(The area burned all the way down to the palm tree.)



Map of all six cleared Areas



Area 4 from Main Drive fire road access



Area 5 from Main Drive fire road access



Area 6 from Main Drive fire road access

9) NEXT STEPS

After reviewing the contents of this assessment and its recommendations, the Bayside Acres Board of Directors seeks FireWise recognition in cooperation with the Marin County Fire Department and Alert Marin, which is operated by the Marin County Sheriff..

To date, Firewise Bayside Acres has done the following, all of which is subsumed by the **2019 Report of the Firewise Bayside Acres Committee** that comprises Assessment Process (5) above:

To continue the process with respect to community education, clearing defensible space, and hardening homes, the Bayside Acres Firewise committee will work to increase the percentage of residents reporting wild-fire vulnerability abatement investments. In 2019 the percentage was 16% overall; 19% of the lots north of Point San Pedro Road, which are most vulnerable to wildfires.

The committee expects to expand its role significantly in 2020. To that end the Bayside Acres HOA Board of Directors took this action, which is documented in the minutes of its March 24 meeting:

A template for a plan for community outreach in an emergency was submitted by Ogden (Att. 2). The board charged the Firewise Bayside Acres Committee to submit a detailed 2020 outreach plan for adoption by the board.

Attachment 2

Suggested goals: The outreach effort should assure two things:

1. To the extent possible, every neighbor is signed up Alert Marin, knows what kinds of alerts to expect, and knows what to do when an alert is issued.
2. Small groups of neighbors (cohorts?) are established to take responsibility for being sure that everyone is educated in evacuation protocols, accurately informed, and accounted for in an evacuation.

Possible steps in the process: There are three:

1. The board recruits one person to lead the outreach effort. (The effort may requires two or three leaders.)
2. The committee, the board and the outreach leaders recruit, say, 20 neighbors to be cohort leaders. (Twenty cohorts of eight neighbors each would cover all 160 homes in Bayside Acres. Most cohort leaders probably will self-select because they have a natural cohort that they've know for years.)
3. Committee members meet with the cohort leaders, spell out their responsibilities, and educate them in what each neighbor needs to know, specifically
 - Sign up for Alert Marin, know the possible alerts and what to do whey the are issued.
 - Understand who evacuates to where depending on the alerts given.
 - Exchange phone numbers and email addresses and set up a contact chain to be used whenever an alert is issued.
 - Establish a process by which new neighbors are invited into the cohort.



Each cohort leader will make a record of cohort members, including contact information that can be distributed to each member and also archived by the person responsible for the outreach program. The consolidated record would be updated as changes are recorded so no new neighbors don't fall through the cracks.

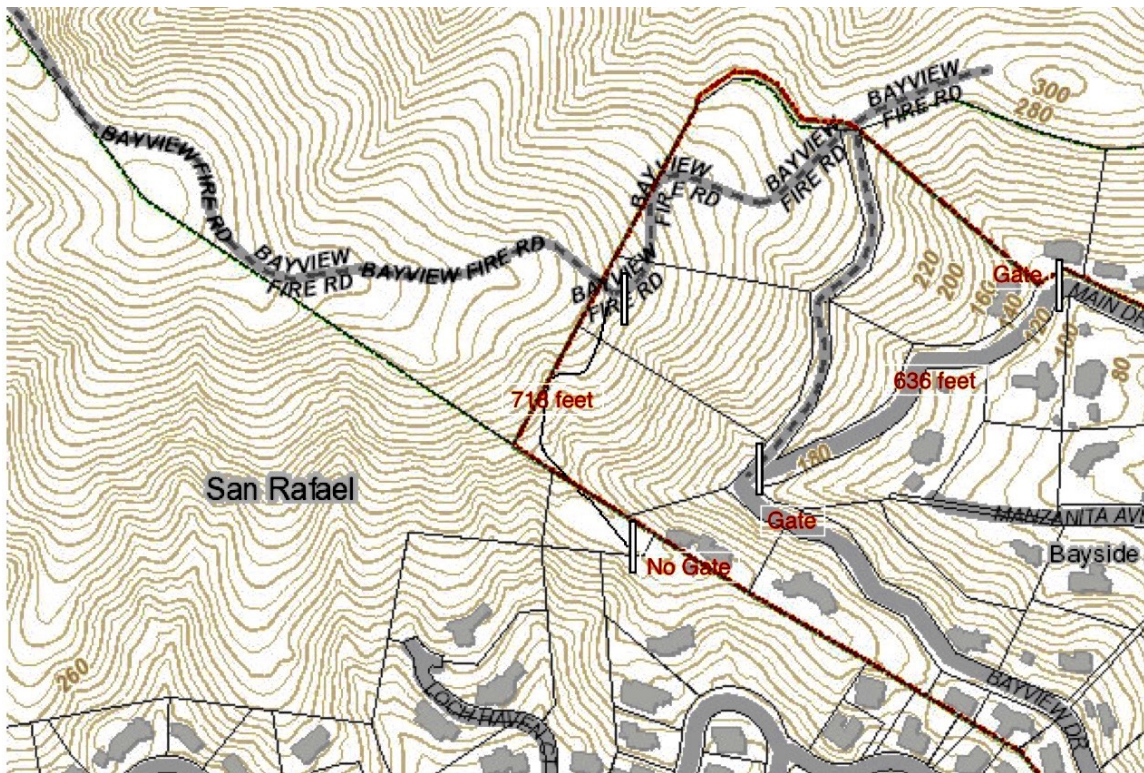
A routine should be established in which call chains are exercised periodically. That practice will identify any changes in membership or contact information. It also will keep the cohort pertinent to people—something that's necessary with preparation for anything that's extremely unlikely like an evacuation. The practice probably will increase the participation in reporting defensible space and home hardening as well.

End of Minutes Item

The plan for 2021 is to continue the work of 2020 and to extend the work to include work funded by grants..

The first tranche funding from Measure C will not be realized until December 2020. The committee will be prepared to apply for grants when those terms are released by the Marin Wildfire Prevention Authority. These are the three anticipated grant requests:

1. Grade the two Bayside Acres accesses to the Bayview Fire Road. On the map the roads to be graded are bounded by vertical white bars.



The Main Drive access requires grading 636 feet.

On the map it's shown as a paved road; it's not.

The Inverness Drive access requires grading 718 feet.

On the map its shown as a skinny line that runs from the vertical white bar at the Bayview

Fire road and ends at the vertical white bar at the notation "No Gate." In fact the road is identical to the Main Drive access and a paved drive continues down to Inverness Drive.

We will ask the County Department of Public Works to grade with roads as a public service.

- Clear two of the four undeveloped lots between the open area below China Camp State Park and Bay-side Acres Houses.

The Red Xs indicate lots that burned during the 2016 Bay-side Ares fire.

Lots 1 and 2 are to be cleared.

Lots 3 and 4 are owned by secretive LLCs whose agent has advised that the owners don't want to be contacted.



- Remove mature eucalyptus trees at various locations on Bayview Drive and on the undeveloped side of Main Drive. The property on Main Drive is owned by the San Rafael School District and is under the jurisdiction of the City of San Rafael

We will ask the Vegetation Specialist at SRFD to fund removal of the trees on Main Drive.