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Vibrant Planet Helps Marin County Develop 11 Essential Projects to Reduce Fire Risk

11

prioritized projects

65 miles

of planned fuel breaks

1

mitigated wildfire

CHALLENGE

Assessing risk and prioritizing fuel break projects across a large landscape.

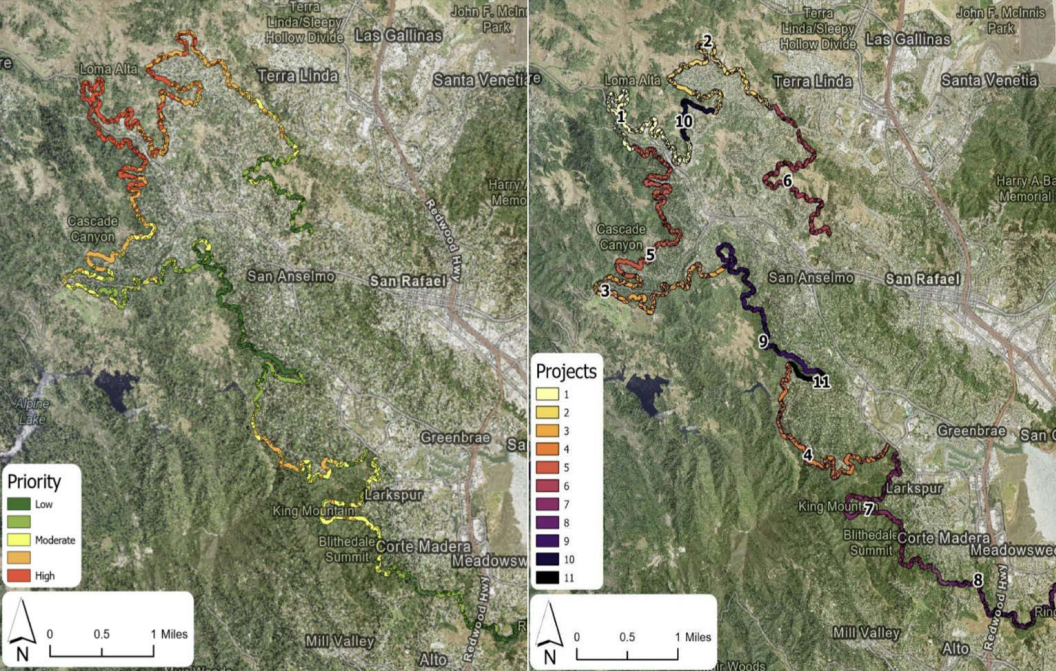
In 2020, the Marin Wildfire Prevention Authority (MWPA) built a plan to help manage wildfire risk across its community, known as a Community Wildfire Protection Plan (CWPP). Their CWPP was broad, and included prioritizing a 65-mile zone identified as the Greater Ross Valley Fuel Break (GRVFB). With limited time and resources available, MWPA needed to put their plan into action by developing a strategy that further segmented the GRVFB into specific and prioritized projects.

SOLUTION

Vibrant Planet powers community risk mitigation and ecosystem enhancement.

The MWPA team worked with Vibrant Planet to build a prioritized fuels treatment strategy. The team refined their project area, segmented it to produce operable treatment units with tree-level data, then attributed treatment units by property ownership, structural vegetation characteristics, fire risk from existing modeling powered by Pyrologix, a Vibrant Planet company, and estimated wildland health condition and value. These attributes were used to identify risk, treatment opportunities, and priority projects while minimizing ecological effects. Optimal project areas were generated based on a combination of fire probability, community asset exposure to fire intensity, and modeled treatment effects on reducing predicted fire behavior.





“Vibrant Planet’s modeling was validated by the fact that the first fire to impact the GRVFB area occurred where Vibrant Planet predicted the highest risk and where the highest priority treatment recommendation was located.”

– Mark Brown, Marin Wildfire Executive Officer

Left: Initial prioritization of GRFB segments based on fire threat rating and community exposure.

Right: Marin Wildfire’s project sequencing based on combination of fire severity risk, community exposure, and potential treatment effectiveness

RESULTS

MWPA implemented highest-priority fuel breaks, keeping a wildfire from becoming dangerous.

Vibrant Planet empowered the MWPA team to develop 11 sequenced projects (highest to lowest priority) with information associated with treatment opportunities and how treatments would reduce fire hazard. The cost of treatments plus the avoided loss of those treatments were also calculated. This armed the MWPA team with all the necessary information needed to budget, schedule and generate community buy-in to expedite the work.

The MWPA team began implementing hand-thinning and ground-based mechanical thinning treatments in order to create a “shaded fuel break” that followed Vibrant Planet’s sequenced recommendations.

In June 2023, a fire broke out in the south/central Marin area of Oak Manor, near the project Vibrant Planet had identified as #1 priority. The fire burned into the recently completed shaded fuel break, but stayed low to the ground, and gave the responding suppression team the upper hand to quickly extinguish the fire before it could negatively affect the community. The value of receiving prioritized treatments from Vibrant Planet, with the type, timing, and location of a treatment became clear for MWPA: while the GRVFB had 65 miles of shaded fuel break work planned, they were able to use Vibrant Planet’s best-in-class science and technology to pick the highest risk area to start with. With the help of fuels treatments informed by Vibrant Planet, a fire that might have been hazardous to the community and natural resources in the area burned less than an acre.

SUMMARY

Vibrant Planet’s Analytics as a Service enabled Marin Wildfire to prioritize the work that could make a difference:

- Identified risk, treatment opportunities, and high priority projects
- Broke 65 miles of planned fuel break work into 11 sequenced projects
- Implemented fuel breaks on top priority project, mitigating a real fire

Want to learn more?

Contact info@vibrantplanet.net to speak with a vibrant human.