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FEATURED

Getting ready to fight fire with fire at Butano State Park

Site of project to remove underbrush, reduce fuels and set the stage for controlled burns

By Rachel McCrea Daily Journal correspondent Aug 17, 2024





Almost four years since the <u>2020 CZU Complex fire</u> took out Butano State Park's water supply and burned through Big Basin Redwoods State Park to the south, the San Mateo Resource Conservation District is leading the <u>Butano State Park Forest Health Project</u>, an effort to clear undergrowth from about 450 acres of forest using machines and hand crews.

Burn scars linger on the park's trees. The park's Ben Ries campground is still closed, California State Parks spokesperson Angelica de la Peña said in an email, and the water system is still being repaired with no timeline for completion. Most of the trails are open, she said.



Three-hundred acres of underbrush have been mowed so far, San Mateo RCD district forester David Cowman said. The project was still being planned when the CZU Complex fire hit the park, and mowing began last summer. Contractors are planning to finish by November but there's a chance they continue on to an extra section, Mountain F Enterprises project manager Jim Finney said.

The project's goal is to improve biodiversity and reduce fuels for forest fires, and to prepare the park for the return of prescribed fire. The RCD is working alongside California State Parks, Cal Fire and contractors.

"All of these areas were managed very heavily by indigenous people from about 11,000 years ago until the 1850s ... primarily through prescribed fire," Cowman said, standing in the middle of a recently restored oak woodland.

The project is twofold. California State Parks provided funding for oak woodland and meadow restoration, and Cal Fire funded project planning and understory treatment: removing undergrowth by mowing it with machinery and creating fire lines to prepare for controlled burns.

A crew of five runs an excavator and two mowers, Finney said. The mowers each have a driver and a "spotter," someone who clears away logs and keeps an eye out for wasps, poison oak and the public.

The crew also keeps a sharp eye open for fire and closely monitors humidity, wind speed and temperature.

"It's the biggest concern that we've got for this," Finney said.

Fire and undergrowth

California State Parks is planning to bring fire back to Butano this fall, Hudson Northrop, an environmental scientist with the Santa Cruz District of California State Parks, said.

Fire has been suppressed in California for about 140 years, said Len Nielson, Cal Fire's staff chief of prescribed fire and environmental protection, and one of the work group leads on beneficial fire for the California Wildfire and Forest Resilience Task Force. However, the state's ecology is adapted to and dependent on regular fire. Fire returned to landscapes every seven to 20 years for millennia due to lightning strikes and cultural burning, used by indigenous tribes as a land management strategy.

"That's how California was formed," Nielson said. "How do we maintain it?"

The most efficient way is using fire, but with 140 years worth of built-up fuels, you can't just set fires anywhere, he said.

Removing acres of undergrowth with machines or by hand makes it safer to restart controlled burns in Butano State Park.

"If a wildfire were to occur in this area following this treatment, the vegetation reduction would promote a lower intensity fire," Alexander Hudson, a forestry assistant with Cal Fire CZU and fuel reduction coordinator for San Mateo County, said in an email. This makes a wildfire easier to control and safer for firefighters.

"We're trying to change the fire effects within the forest so that more of the forest is likely to survive," Cowman said. "The ultimate goal is for the fire to essentially settle down when it hits some of our projects." Ideally, a forest fire would burn through smaller, flammable vegetation and dead plants instead of jumping into the tree canopy.

Habitat restoration

The sounds of heavy machinery mingle with birdsong under the tree canopy in a newly restored oak woodland. The crew is hauling a new machine up to their work site.

Cowman names the plants poking up from the forest floor: California blackberry, California bottlebrush, native thistle and hedge nettle.

By restoring oak woodlands and meadows and encouraging plant diversity, he said, the project hopes to bring more wildlife into the area like pollinators, deer, birds, small mammals and salamanders.

Crews trimmed the understory plants down to their roots and removed small Douglas fir trees, which compete with oaks for sunlight and are more flammable. The firs moved into the woodland and the nearby meadow in the 1950s once the—

land was no longer being managed, Cowman said. "They create less of a resilient ecosystem," he said.

Before this project, Northrop said, the oak woodland was moving toward a Douglas fir takeover. "By opening it up and protecting these oaks and this grassland, we just create more habitat types and varieties, which we're just slowly losing as the forest homogenizes with the Douglas fir trees," he said.

There are areas in Butano and the Santa Cruz Mountains that are past the point of restoration, Cowman said, which have lost their oak trees and transformed into Douglas fir stands.

'Heartburn'

There can be a "visceral reaction" to seeing trees get cut down, heavy machinery in the forest and forests burning, Cowman said. Seeing the forest change so rapidly can also be tough for people who have been visiting the park over a lifetime.

"The snapshot of the forest they're used to is this really dense one, and they don't realize, like, how much it has changed over the last centuries," Northrop said. "The number of trees per acre has just grown exponentially, and these are just fundamentally dynamic systems."

Fuel loads have reached a tipping point, said Nielson, the Cal Fire staff chief, and the public is coming to terms with the need for prescribed fire after recent catastrophic forest fires.

"There's been this acknowledgment that prescribed fire is an important tool in forestry for a really long time," he said.

The RCD and its partners work with consultants like foresters and biologists as they clear out the forest's understory. Trees are flagged in advance if they want to protect them from mowing, and foresters visit a section of the forest before the crew gets there to flag natural and archaeological resources. Biologists do surveys twice a week to create buffer zones around bird nests and other wildlife. The San Mateo RCD and State Parks staff also visit the park twice a week.

"On most days, we have at least one person, often two to three people, doing various things to help plan or prepare for the work that actually gets done," Cowman said, plus the crew manning the machines.

Crews are currently working on the ridges of the park to avoid endangered marbled murrelet nests, and will move to the interior of the park once the nesting season is over.

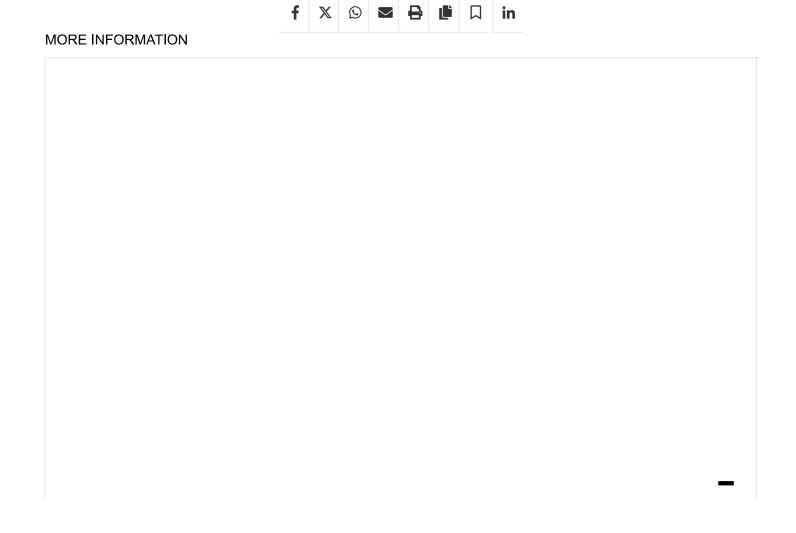
Money

California State Parks provided \$560,000 for targeted oak woodland and meadow restoration, Cowman said, and Cal Fire's Forest Health Grant Program put about \$3 million toward project planning, understory treatment, and a mapping project. The Cal Fire funding comes from California Climate Investments.

A crew of four core workers from Mountain F Enterprises are the ones at the wheel of the machines. Their contract is worth \$1.8 million.

Nielson, with Cal Fire, and Cowman, with the RCD, both say they've seen more funding going toward projects like these in the wake of devastating forest fires. Northrop with State Parks said that money put specifically toward wildfire and forest resiliency has helped them put projects like these into action.

"As fires hit more and more close to home, as more lives are lost, homes are lost, properties are lost, more funding is coming towards this type of work," Cowman said.





Forest health project begins at Butano State Park

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