When the order came to evacuate his home near Rancho Santa Fe, Emil Costa already had made up his mind to stay, despite his wife's frantic pleas. Why should he flee, the retired physician reasoned, when he lives in one of the nation's few "shelter in place" communities, an enclave where residents can feel protected in a wildfire?

Costa, who stayed alone, calmly watched from behind closed doors and windows as dense smoke darkened the sky and wind-whipped flames leapt across the hillside less than 20 feet beyond his backyard. Outside, embers rained down, a few igniting wood chips in his garden and melting irrigation tubing. He remained in the home for the entire evacuation period, never panicking.

“I didn't feel like I was being a hero,” Costa said. “I just felt that I was doing the right thing because 'shelter in place' is designed for you to stay and defend your home.”

Not all firefighters support that notion, and none recommends defying evacuation orders, as Costa, 65, did during the October wildfires. Yet no one can argue with the outcome: While homes less than a mile away burned, Costa's 1½-year-old house in the Crosby subdivision survived the onslaught.

None of the 2,460 upscale tract and custom homes in the county's five shelter-in-place communities was destroyed, although a few were touched by flames. Yet all the homes nestle among the brush-covered hills and steep canyons of North County, giving their owners the feel of a remote country retreat.

Despite its success, no formal assessment is under way to gauge how well the shelter-in-place concept performed in The Crosby, Cielo, The Bridges, Santa Fe Valley and 4S Ranch. Officials say the results speak for themselves.

The outcome of the communities' trial by fire has won recognition for San Diego County as the nation's leader in implementing such protection strategies, which are used extensively in Australia. And the potential to market such fire-safe features in new housing hasn't gone unnoticed by San Diego builders.

Some, such as Barratt American, developer of the planned Fanita Ranch project in Santee, are counting on strict construction and landscaping standards to draw buyers to new-home communities located on the fire-prone urban fringe.
“It does save lives and it becomes a benefit to the new-home builder,” said Barratt American President Michael Pattinson. “When you can point to five master-planned communities that had shelter in place that did not lose a home between them, I think it is very significant.”

Located north and south of Del Dios Highway, the five North County developments sit like islands amid the burned landscape. That’s because their required ignition-resistant landscaping and noncombustible building materials deprived the blaze of fuel, Rancho Santa Fe firefighters say. Skeletal trees and blackened hillsides stand in stark contrast to untouched backyards that formed barriers between the homes and the flames.

It’s clear that the defensive design of the shelter-in-place communities worked, said Clay Westling, senior structural engineer with the county Department of Planning and Land Use. He said the county’s post-fire study is focusing on how individual structures in the unincorporated areas of the county fared in the fires.

“If you design a community the way the Rancho Santa Fe fire department has designed their communities, it will dramatically increase the chances of communities surviving a wildfire,” Westling added.

‘On the cutting edge’

As global warming leads to prolonged droughts and longer fire seasons, many firefighters see the use of shelter-in-place development standards as an important new tool against wildfires.

San Diego County communities “are on the cutting edge of that concept,” said Mike Dougherty, the U.S. Fire Administration’s wildfire program manager. Within the five areas of the Rancho Santa Fe Fire Protection District, the strategy calls for construction and landscaping standards so stringent that homeowners can remain sheltered in their houses if they’re unable to evacuate.

Rancho Santa Fe Battalion Chief Mike Gibbs had a close-up view of how well the standards worked on a hellish drive down San Antonio Rose Court on Oct. 22, the day after the recent wildfires broke out. While winds from the Witch Creek inferno rocked his Chevy Suburban, a wall of flames between 100 and 150 feet high suddenly crossed a 100-foot-wide buffer zone and struck two houses in the Crosby development. But the homes didn’t burn because of their fire-resistant construction and the absence of flammable vegetation.

“The fire hit the east side of the homes and then moved down laterally between the homes,” Gibbs said.

The defensive strategy is often misunderstood by fire authorities and the public, said Dave Bacon, a retired Cleveland National Forest fire chief. He heads Firewise 2000 Inc., a fire-protection consulting firm in Escondido.

Shelter in place “doesn’t mean you always stay at home,” Bacon said. “It means you can stay at home because you have done advance preparation. You need to know when to evacuate and when evacuation is too late.”

Opponents fear the strategy will endanger lives by encouraging people to ignore evacuation orders.

That’s precisely why San Diego developer Fred Maas balks at the idea of using shelter-in-place standards to promote newer developments as totally fire-safe.

“Short of completely sealed concrete houses, it’s very hard to absolutely give people a sense of security (that) you can weather any firestorm,” said Maas, president of Black Mountain Ranch LLC, which is developing the 2,600-home Del Sur project in north San Diego.

“To give people a false sense of security is imprudent, and to represent to them that they’d be safe from a natural disaster is something I’m not comfortable with,” Maas said.
Cleared vegetation and irrigated landscaping kept homes near Rancho Santa Fe safe despite flames that went through and around the shelter-in-place communities. Some San Diego builders are counting on strict construction and landscaping standards to draw buyers to new-home communities on the fire-prone urban fringe.

Critics also see defensive fire strategies such as shelter in place as just another way to allow continued sprawl in areas most vulnerable to wildfires.

Longtime Fanita Ranch opponent Van Collinsworth is skeptical of Barratt American's development plans. He contends that the Fanita Ranch area, 2,600 acres of open terrain and hills along the city's northern boundary, is so fire-prone that no amount of preparation can protect residences.

“You are putting people in harm's way,” Collinsworth said.

Joan Van Ingen says shelter-in-place proponents haven’t given enough consideration to the danger of smoke inhalation to those who may remain behind during a fire. She lives in Champagne Village near the Merriam Mountains north of Escondido, where a 2,700-unit development is proposed.

Some supporters think the strategy was misnamed.

Santee Fire Chief Mike Rottenberg's department doesn't use the term “shelter in place” in fire-protection plans. He worries that it may lead some people to remain behind if an evacuation is ordered.

While interpretations of the strategy vary, typical shelter-in-place requirements call for large swaths of irrigated, fire-resistant plantings; homes built of noncombustible materials; interior sprinklers; and wide roadways to provide easy access for firefighters.

Experts say that with the exception of interior fire sprinklers, construction costs aren’t significantly higher than those for new housing in other communities.

For the Rancho Santa Fe Fire Protection District, it also means regular enforcement of its fire-safe standards. That's crucial in distinguishing newer planned communities from developments elsewhere that market themselves as shelter in place, said Cliff Hunter, the district's fire marshal.

Hunter said his department has hired an urban forester to routinely inspect homes and properties to ensure that they remain fire-safe.

“Say the homeowner sells his house, a new person goes in and plants six new pine trees where the limbs are starting to touch the house,” he said. “In a non-shelter-in-place community, that wouldn't be monitored. In our case, we'd say, ’Take it out.’ ”

Tougher requirements

Increasingly, developments in outlying areas will look more like shelter-in-place communities simply because fire and building codes are becoming much tougher.

Bacon's consulting firm worked on fire-protection plans for Cielo, Fanita Ranch and Merriam Mountains. While Merriam Mountains and Fanita Ranch aren't formally designated as shelter-in-place developments, Bacon says both meet or exceed the same stringent requirements.

In Escondido, fire-code provisions have been toughened to protect rural developments from wildfires, especially those more than five minutes from the nearest fire station. But the Escondido Fire Department doesn't have the staff, as Rancho Santa Fe does, to continually monitor homes and landscaping, Division Chief Mike Lowry said.

The 44-home Ranchos at Vistamonte development in the city, near the Wild Animal Park, is designed to be so resistant to fire that “if a brush fire started and the residents didn't have time to safely evacuate, these homes are much safer than those built prior to 2003,” Lowry said.

The county recently included shelter-in-place strategies in its new guidelines for determining
significant environmental impacts for wild-land fire protection. The key word is “guideline.”

“In the development process it is one of the considerations that may be applied to a project. It is certainly not a requirement,” said Ralph Steinhoff, fire service coordinator for the Department of Planning and Land Use.

Sen. Dianne Feinstein, D-Calif., who was in San Diego last week to conduct a public hearing in the wake of the wildfires, has called for more stringent fire-and building-code provisions governing new development.

The county's unincorporated areas, including 17 independent fire districts, already boast some of the toughest regulations in the state, Hunter said.

After Jan. 1, when new state regulations go into effect guiding development in the wild-land/urban interface, local fire districts will start implementing even tougher code provisions, Hunter said. Included in the state code are requirements for fire-resistant decking and roofs.

But will those provisions make new subdivisions safe enough that homeowners can remain inside their houses when an order to evacuate comes?

Erwin Willis, the retired Rancho Santa Fe fire chief who's credited with helping devise the district's shelter-in-place regulations, believes they will. If there's plenty of time to evacuate, though, residents should still leave, he said.

“We're never going to change California as a fire-prone area, so the structures we build must be safe for these areas,” Willis said. “We have the technology to build structures that are safe in wild-land areas and to keep those structures safe. I think it's safe enough that I would stay.”

He concedes that the district's defensive strategy can be a lightning rod for critics who oppose growth in rural areas.

One of those critics is Hidden Meadows resident Madelyn Buchalter. To air her concerns that shelter in place doesn't work, she helped create a Web site called “Liar! Liar! County's on Fire!” at www.llcfire.com.

Buchalter says evacuation is always a safer alternative than sheltering in place, which is “a very perilous, risky strategy.”

Shelter Down Under

Locally, shelter-in-place strategies target new subdivisions. But Australia, which is widely credited with developing the fire-prevention technique, uses it more broadly.

Residents there are encouraged to evacuate their homes early or remain in place to help extinguish the flames. Virtually no neighborhood – no matter how old or densely built – is considered indefensible, said Keith Harrap, an assistant commissioner with the New South Wales Rural Fire Service in Sydney.

The strategy was widely adopted in Australia after major wildfires in 1994, he said. Since then, property losses have been much smaller.

Stephen J. Pyne, author of “Fire in America,” a history of wild-land fires, favors Australia's more aggressive approach to shelter in place. He also questions whether it was necessary to evacuate more than a half-million people during San Diego County's recent wildfires.

There will always be residents who ignore evacuation orders and stay to defend their homes from wildfires, Pyne said, adding: “Instead of having people on their roofs in Bermuda shorts with hoses, maybe we should train them how to do it. I think it is an option we have missed.”

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'Shelter in place' kept fla...