

## RESILIENT DESIGN IDEAS

### What do we mean by “resilience”?

The word has taken on new meanings over the past decade due to our increasing awareness of climate change — its effect on extreme weather events and related disasters such as wildfires. The dictionary defines “resilience” as the ability to recover quickly from difficulties, toughness and the ability to spring back into shape, all of which are necessary qualities after a disaster such as the North Bay wild fires of last Fall.

1. **Surviving the event.** In the case of wild fires, making buildings more fire proof is an obvious place to begin. Start with keeping the fire away from your home – keep vegetation away from the walls and trim back overhanging trees. Use exterior materials that don’t burn, or don’t catch fire easily – stucco, cement fiber or metal siding, clay, concrete tile or metal roofs. If you do use materials that burn like wood siding or shingles, install them over a non-flammable substrate such as gypsum sheathing. Eliminate ways for the fire to get into the structure, as fire can be sucked in through very small openings – foundation, eave and attic vents, even the cracks between lapped siding can draw fire in.
2. **Surviving the aftermath - passive survivability.** Services may be down and resources scarce for a few days or even weeks after a major natural disaster. If your home survives the event, having an on-site, renewable source of power and a minimum of overnight battery storage means you can stay comfortably in place. A well-insulated, passive house with good natural light means you can be pretty comfortable even without power. Earthquake kits with enough water, food and clothing are essential.
3. **Resilience looks different for rural communities.** Long and vulnerable distribution lines for electricity, fuel, and/or water, as well as a longer line to and from emergency resources, means that rural dwellers must focus on items 1 and 2 above all the more.
4. **Resilience requires a multi-pronged approach that includes natural, built, economic, and social systems.** In addition to building up and reinforcing the systems we already have for dealing with extreme events and natural disasters, resilient design adapts to the impacts of a changing climate. Cutting-edge passive and environmental design, as well as strategies that facilitate shared community resources and gathering places, all contribute to a broadly-based enhancement of resilience
5. **Day-to-day well being and resilience are intertwined;** Rural populations often have limited resources to respond and recover from natural disasters such as wildfires or extreme weather events. Improving the day-to-day well-being of the community —from job training, to food banks, to child care, enables a stronger response to acute hazards. Your most important resource is your neighbors.
6. **A community process can build resilience.** Collaborating with everyone involved helps to develop more robust resilience strategies. Deliberately reaching out to underrepresented communities increases connections with a wider range of people, and thereby make everyone safer. Furthermore, through collaborative engagement there is opportunity for community members to learn from and about each other, building social networks that are the foundation of resilience.