

ANOTHER VIEWPOINT

To protect where we live, we need to love where we live

By COLIN POLSKY



Surgeons don't operate without first knowing basic human anatomy. They can only fix our bodies if they first know which organs and bones work together and which are independent.

Similarly, we hear a lot about building "coastal resilience" these days. This term has become quite the buzzword. Following last summer's hurricanes, we saw numerous calls for rebuilding Houston and Puerto Rico to be more "resilient" to hurricanes.

We heard last week from the White House that our energy system needs to become more "resilient." And here in Florida we hear an increasingly loud chorus for "resilience" against sea-level rise.

But, just like surgeons, we should not begin building resilience without first ensuring that we know our patient's general anatomy. Unfortunately, "resilience" is being used inconsistently when talking about sea-level rise.

It's as though we were surgeons unfamiliar with our patient's needs. So we need a simple yet useful description of what resilience looks like. Otherwise, our well-intended efforts may miss the mark.

I find this description resonates well with many people: Resilience is the ability to prosper long-term through adversity. Specifically, we claim a system can prosper long-term through adversity if it does four things:

First, a resilient system strives to reduce its risk exposures. When talking about sea level, this means identifying which neighborhoods and businesses the rising tides are likely to inundate, and tallying the assets in harm's way.

For instance, we can use LiDAR to map our cities' elevations far more precisely than we have in the past, and then overlay the elevations with maps of building footprints, groundwater levels, and proximity

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to waterways. That's a good start.

Second, a resilient system strives to reduce its sensitivities. This means assessing what effects are expected from the rising water. Some buildings will be damaged less than others, under the same level of flooding, given differences in their ages, materials, and other design features. A sensitivity assessment suggests which locations to prioritize for monitoring and potential interventions.

Third, a resilient system strives to enhance its adaptive capacities. When coping with rising seas, this means finding ways for residents and businesses to help themselves reduce not only their exposures but also their sensitivities.

Simple things like elevating an electrical control panel to the second floor might prove a wise investment on the path toward sea-level resilience. As such, connecting people with information on loan programs to finance such retrofits might enable households and businesses to take this step. But without this knowledge, the adaptation might not happen.

All of this may sound a bit technical. It's true that advancing toward sea-level resilience requires technical expertise in a handful of fields — engineering, hydrology, finance, architecture, urban planning, and construction, to name just a few.

But if you're wondering what's needed to launch a successful resilience campaign, then these technical details are secondary. Of primary importance is the fourth characteristic of resilient systems: love.

We can only mobilize if we harness our love for home, livelihoods, and place. Leveraging people's sense of place will naturally activate them to identify what they value, and to protect it — in ways they endorse. With such buy-in, we can then turn to the technical details of reducing

our exposures and sensitivities, and also of enhancing our adaptive capacities.

But if we don't first ground the resilience discussion in people's sense of place, it won't matter how technically sound the sea-level resilience strategy is. We simply can't achieve resilience without first knowing what drives people's passion for living and working in South Florida.

The good news is that a lot of good work to reduce exposures and sensitivities, and to enhance adaptive capacities, has been underway for several years.

Four South Florida counties, under the auspices of the Southeast Florida Regional Climate Change Compact, have been active on these fronts. So too have a growing number of cities, such as Fort Lauderdale and Miami Beach. The Federal Emergency Management Agency (FEMA) also operates the Community Rating System, which helps homeowners and communities earn insurance premium reductions in return for implementing what are often simple flood risk reduction measures. There are other examples.

This extraordinary progress on the technical side of resilience has not been matched on the sense-of-place side. We need an ongoing series of sense-of-place assessments in neighborhoods throughout the region. We need to gauge the factors that might animate people exposed to the increased flooding to support resilience actions.

This approach grounds technical resilience actions in place-based neighborhood norms. The result will be a solid grasp of our local anatomy of desired flooding resilience. At that point, we will be prepared to operate like a surgeon.

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