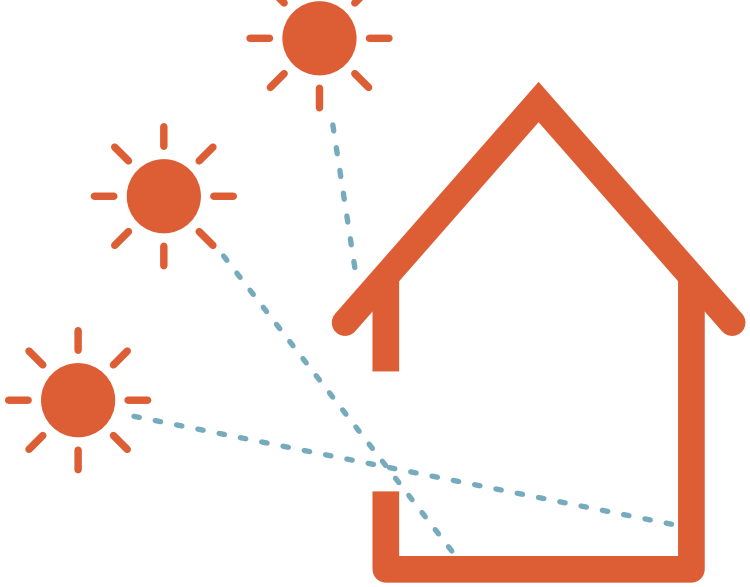

A RESILIENCE CHECKLIST

Most scientists agree that climate change will increase the occurrence, intensity, and duration of extreme weather events, including flooding, hurricanes, droughts, heat waves, and wildfires. Architects and city planners can help increase urban resilience—the ability of urban communities to bounce back from shock. This checklist is framed around three possible scenarios: Too wet, too dry, too warm. If we do it right, we can even think of these as an opportunity to improve our cities and buildings. —STEFAN AL

Illustrations by
KYLE NELSON/Stoltze Design

THE PROCESS

1 **IDENTIFY THE RISK**

A risk analysis consists of three essential parts: i. identifying the threat; ii. identifying the assets under threat; iii. assessing the vulnerability of these assets to the threat.

2 **CREATE A RESILIENCE PLAN**

Once the analysis has been conducted, a resilience plan can address this risk. One strategy is to protect by improving the resilience of critical assets, such as power plants, hospitals, or vulnerable populations. Another is strategic retreat, to move away from the risk by making sure no building occurs in areas subject to threats, such as in floodplains.

3 **REZONE VULNERABLE AREAS**

In areas subject to risk, such as those prone to flooding, updated zoning could permanently curb residential construction or make it easier for property owners to flood-proof their buildings.

TOO WET

- [ ] **USE NATURE-BASED SOLUTIONS**

  Dunes, mangroves, and living shorelines can help protect from flooding while also creating natural amenities and promoting biodiversity.

- [ ] **CREATE AN INTEGRATED DIKE SYSTEM**

  Dikes can protect against floods but could potentially limit access to the waterfront; however, they can be integrated with parks, roadways, and buildings.

- [ ] **USE PERMEABLE PAVING**

  Parking lots, roads, roofs, and sidewalks don't need to be obstacles for stormwater to soak naturally into the earth. Porous pavement surfaces help relieve the stormwater system by absorbing rainwater runoff.

TOO DRY

- [ ] **USE NATIVE OR DROUGHT-TOLERANT PLANTS**

  Drought-tolerant species will save water used for landscaping, while native species give the local ecosystem, such as birds and wildlife, more opportunity to thrive.

- [ ] **WASTEWATER DOES NOT NEED TO BE WASTED**

  Wastewater can be recycled for landscaping, industry, or toilet flushing.

TOO HOT

- [ ] **USE TREES AND VEGETATION**

  Trees and plants can help cool the environment. They reduce urban heat islands through evapotranspiration, provide shading on buildings, and reduce the need for air conditioning.

- [ ] **USE PASSIVE SOLAR-DESIGN STRATEGIES**

  Operable windows, thermal mass such as masonry and water, and thermal chimneys can cool buildings the natural way.