South Shore Promenade and Coastal Open Space Network Study: Resilience and Connectivity by Design

Result of a two-year, state-funded research, analysis, and proof-of-concept design project, this 450-page report serves as a visionary educational tool aimed at fostering dialogue about future planning along the south shore of the primary urban center of Honolulu.

Visualizing possible long-term level rise adaptation scenarios and speculative, nature-based living shoreline design solutions, the project intends to further the contemporary discourse on climate-resilient urban waterfront development in tropical settings.

By investigating past, present, and planned shoreline conditions in urban Honolulu, this study advocates for the anticipation of climate-crisis challenges through innovative planning and urban ecological design that embraces dynamic conditions, such as coastal flooding, rather than preventing them—all while taking inspiration from traditional native Hawaiian biocultural land-water practices.

The project’s four guiding principles, which carry throughout the multi-scalar planning and urban design proposals, include: climate-change resilience, ecosystem performance, connectivity, and placemaking.

Large-scale planning concepts and urban-scale proof-of-concept designs for three catalytic project sites propose people-centric, connected, and dynamic waterfront conditions that decrease coastal vulnerabilities by responding to shoreline changes and issues related to Honolulu’s aging infrastructure.

The study envisions multi-purpose coastal green infrastructure systems, linked public open spaces, waterfront promenades, and networks of ecological priority zones as essential drivers of urban form.

The speculative site designs exemplify Honolulu-specific living shoreline systems as “soft” defense mechanisms against sea level rise, allowing for indeterminacy, increased biodiversity, improved ecosystem services, and, at the same time, education, cultural restoration, and accessible urban waterfront amenities.