

Appendix

Checklist for Coastal Cities



Coastal Ecosystems

PROTECTION

- ❑ Identify and expand the suite of legislative and regulatory options for ecosystem protection, by working with state and federal authorities.
- ❑ Ensure coastal development does not adversely impact coastal ecosystems, by establishing and improving local protection policies, such as no net loss, green permits, and green taxes and fees.
- ❑ Address nutrient pollution, stormwater runoff, and sewer overflows by implementing green infrastructure and water treatment approaches that prevent toxins and contaminants from entering the ocean and Great Lakes.
- ❑ Partner with local conservation organizations.
- ❑ Integrate education, research, and workforce development opportunities into protection initiatives.

RESTORATION

- ❑ Develop appropriate urban coastal ecosystem restoration plans, focused on identifying suitable project locations and partners, via input from coastal communities.
- ❑ Collaborate with state and federal agencies on restoration projects, and encourage the inclusion of coastal restoration in regional management plans.
- ❑ Prioritize coastal resilience projects that use natural infrastructure and incorporate ecosystem-based adaptation approaches, like living shorelines, floodplain restoration, greenways, stormwater parks, and bioswales.
- ❑ Shorten permitting timelines, lower permitting costs for restoration projects, and improve publicly available information on restoration permits.
- ❑ Partner with private developers and landowners to catalyze restoration projects that maintain ecosystem health and community well-being.

EQUITABLE MANAGEMENT AND ACCESS

- ❑ Direct funding and resources towards local coastal ecosystem restoration and protection projects, with a focus on neighborhoods facing higher exposure to flooding, the urban heat island effect, pollution, and other climate impacts.
- ❑ Enhance equitable access to shorelines and coastal and ocean ecosystems, including for provisional, recreational, and cultural activities.
- ❑ Improve equitable management by increasing staff diversity in city conservation and environmental agencies, including in leadership positions.
- ❑ Develop meaningful partnerships with Tribal nations, co-creating (co-) management plans, where applicable.



Offshore Renewable Energy

OFFSHORE WIND ENERGY

- ❑ Facilitate community-based planning for offshore wind projects to be responsibly developed and serve local interests.
- ❑ Host and support workforce development programs to promote community participation and ensure local residents will be eligible for jobs in the sector, including roles in port operations, vessel construction, and related fields.
- ❑ Facilitate multi-stakeholder interactions to identify port-specific needs and other shore-based coordination steps to ensure responsible electrical grid interconnection, operations, and management of wind farm support.
- ❑ Buy energy from private farms through power purchase agreements, and support the development of public power utilities and consider expanding the mandate of existing public utilities to build offshore wind farms when feasible.
- ❑ Ensure community revitalization funds from offshore wind developers are established and properly used to support local residents.

OTHER OFFSHORE RENEWABLES

- ❑ Support and host research programs on offshore renewable energy technologies through partnership programs such as the Offshore Wind Innovation Hub and participation in federal funding programs, like Advanced Research Projects Agency-Energy, and other collaborative opportunities.
- ❑ Designate specific shoreside areas within their jurisdiction to support offshore renewable energy testing and research.
- ❑ Identify economic development opportunities for offshore renewable energy systems within their jurisdiction.

TRANSMISSION AND STORAGE

- ❑ Engage and facilitate community involvement in the public process to identify optimal transmission opportunities.
- ❑ Coordinate with energy utilities and other cities to site transmission connections to the onshore grid in appropriate places.
- ❑ Increase the capacity of battery systems to store energy to help maintain a reliable and functional energy grid.
- ❑ Advocate for research and development to improve battery safety—including fire safety—and performance, and reduce the environmental impacts of producing and decommissioning battery systems.
- ❑ Support and advocate for port development needed for adequate transmission deployment.



SEAPORTS AND AIRPORTS

- ❑ Adopt and enforce planning, zoning codes, and construction standards that account for climate shocks (e.g. cloudbursts and storm surge) and stressors (e.g. increasing heat and sea level rise).
- ❑ Increase funding for port resilience planning.
- ❑ Support decision-making for more climate-ready ports with infrastructure and land use planning tools for city staff and port planners.
- ❑ Invest in protective infrastructure by incorporating natural barriers, like mangroves and wetlands, and engineered defenses, if and when appropriate. Consider elevation of critical infrastructure and relocation of some port facilities to less vulnerable areas.

WORKING WATERFRONTS

- ❑ Use public grants, loans, or tax policies to subsidize industrial waterfronts and related infrastructure.
- ❑ Purchase and acquire coastal property for public use or public-private partnerships.
- ❑ Conduct land use planning and zoning to help secure industry access to the waterfront and necessary infrastructure.
- ❑ Collaborate with state agencies to develop working waterfront plans and programs.

WATER MANAGEMENT

- ❑ Retrofit, elevate, or relocate water facilities at risk from climate impacts.
- ❑ Ensure comprehensive management of the full water cycle through sustainable water use and coordinated management across sectors.
- ❑ Mandate and incentivize the construction and maintenance of green infrastructure—such as rain gardens, permeable pavers, and green roofs—on both public and private land to absorb rain and reduce runoff.
- ❑ Require the development and implementation of plans to mitigate CSOs, focusing on infrastructure separation, increased water storage capacity, and enhanced monitoring systems to manage and prevent overflows.
- ❑ Diversify water sources and adopt water efficiency measures, such as water metering and wastewater reclamation, to reduce stress on groundwater aquifers and mitigate saltwater intrusion.
- ❑ Incorporate green-gray strategies into protective shoreline infrastructure.



Community Resilience

COMMUNITY INVOLVEMENT, POWER SHARING, AND COLLABORATION

- ❑ Build and deepen relationships with community members, key community-based organizations (CBOs), and broader networks or alliances.
- ❑ Collaborate with community members and CBOs on implementing or strengthening disaster preparedness plans via emergency management staff.
- ❑ Provide local funding (or facilitate the use of federal funds) to support leadership and advisory positions for CBO members to participate in neighborhood and citywide climate planning.
- ❑ Improve access to funding by providing CBOs with technical grant writing assistance, simplifying grant applications, and permanently increasing municipal budgets for community programs.

WORKFORCE DEVELOPMENT AND RELATED COMMUNITY PROGRAMS

- ❑ Provide comprehensive support, such as upskilling and reskilling programs, career counseling, and financial assistance for local community members interested in low-carbon careers and workers displaced by a transition to a low-carbon economy.
- ❑ Foster partnerships with private sector companies, trade unions, and educational institutions to align workforce training with the current and future needs of a green economy.
- ❑ Develop a job creation and placement program for climate roles in the public and private sectors.
- ❑ Ensure a diverse and inclusive climate workforce by prioritizing unemployed, underemployed, and other underserved groups in the accessibility and design of programs.
- ❑ Offer tax incentives and grants to businesses that create jobs in the green economy, particularly in areas most affected by the decline of fossil fuel industries.
- ❑ Create economic programs that center the priorities of disaster-affected communities (as opposed to status quo disaster capitalism).

DISASTER PREPAREDNESS AND RECOVERY

- ❑ Hire a full-time emergency manager and chief resilience officer, and increase dedicated and trained emergency management staff.
- ❑ Follow (and iterate on) FEMA's Comprehensive Guides to develop and maintain emergency operations and communications plans.
- ❑ Develop and regularly update hazard mitigation plans and comprehensive emergency response plans with climate-specific scenarios, such as high tide flooding and compound events.
- ❑ Enhance social safety nets, such as emergency relief funds, to expedite financial assistance to affected individuals and communities immediately after disasters.
- ❑ Develop outreach and education programs to boost local awareness of and enrollment in flood and disaster insurance.
- ❑ Leverage federal, state, and local funding to adequately support emergency management.



Climate-Driven Relocation

HOUSING SECURITY AND MOBILITY

- ❑ Prioritize the development of affordable, climate-resilient housing in upland areas in municipal master plans, zoning plans, hazard mitigation plans, and climate action plans.
- ❑ Foster regional partnerships and collaboration among state, county, and local governments to broaden housing choices and resources for relocating residents.
- ❑ Develop inclusive relocation programs that expand socioeconomic opportunities for low-income communities and communities of color who have been historically excluded from homeownership.
- ❑ Provide accessible information, financial assistance, technical guidance, and other social services to residents considering or currently undergoing relocation.
- ❑ Pair relocation efforts with fair housing policies, anti-displacement laws, tenant protections, and shared equity housing models.
- ❑ Increase infrastructure investments (such as transportation, waste and stormwater services, and healthcare) in welcoming communities.

LAND USE AND CONSERVATION

- ❑ Utilize climate projections in land use planning to identify both near- and long-term uses for vacated land.
- ❑ Prevent future development and prioritize ecological protection and restoration and migration, through easements, land swaps, and the transfer of development rights, on high-risk parcels.
- ❑ Prioritize a community-centered approach to land use planning to ensure relocating residents can access, benefit from, and steward new uses on the land they've left behind.
- ❑ Embed relocation of homes, infrastructure, and other non-residential coastal land use into long-term, regularly updated regional and municipal plans (such as comprehensive plans, hazard mitigation plans, climate action plans, capital improvement plans, and watershed plans).
- ❑ Support collaboration and knowledge-sharing across cities, and between land owners, land managers, local communities, and other environmental stewards to coordinate effective management of restored parcels.

INNOVATIVE FINANCE

- ❑ Increase city government staff capacity to apply for and manage multiple and innovative funding streams.
- ❑ Develop a dedicated revenue stream for relocation.
- ❑ Explore collaborative approaches for relocation financing to distribute the costs and enable resource-sharing across neighboring cities, and between public and private entities.
- ❑ Explore public-private partnerships and philanthropic funding to close gaps in public financing for relocation programs.
- ❑ Leverage economic development and conservation finance tools, such as environmental bonds and community block grants, for the remediation, restoration, and maintenance of vacated properties.