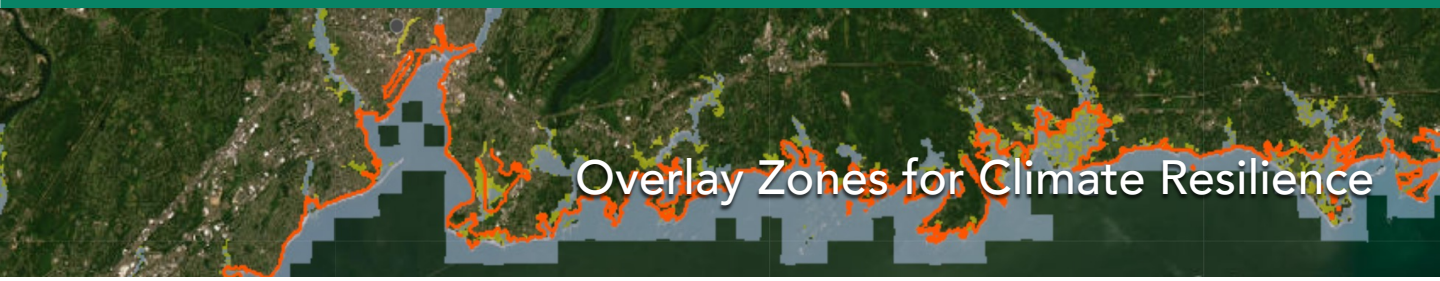
UCONN

Zoning for Municipal Resilience

Connecticut Institute for Resilience and Climate Adaptation
Zoning Fact Sheet Series



Overlay Zones for Climate Resilience

Overlay Zones

- Allow for specific targeted regulation in vulnerable areas
- Flexible to accommodate changing needs

Overlay Zones are established to provide additional regulation in a particular area beyond baseline zoning regulations. Overlay zones can be used in many contexts such as historic preservation, pedestrian friendly zoning, or flood overlay zones. As sea level rise and precipitation patterns change, overlay zones can be an important tool to enhance coastal and floodplain resilience. Overlay zones add an additional layer of protective regulation in areas with specific, elevated hazards to require additional building standards or conservation measures. Overlay zoning can also allow for flexibility of standards for example, to accommodate the elevation of buildings in a flood zone. Local governments can use overlay zones to better regulate characteristics like breakaway walls, setbacks, elevation standards, impervious surface requirements or development densities to manage coastal sprawl or limit development in sensitive areas. Overlay zone standards can be implemented by right or permit to provide a targeted layer of protections for vulnerable areas.

In 2021, PA 21-29 revised the zoning enabling act to specifically authorize municipalities to adopt zoning regulations allowing overlay zones, floating zones, planned development districts, and cluster zones. Previously, Connecticut courts have held municipalities had an implicit right to use overlay zones and other flexible zoning techniques under CGS § 8-2 and towns have used overlay zones to delineate aquifer protection areas, protect historic resources, provide transition zones, or allow for specific uses in parts of zones where they would be otherwise prohibited. Now overlay zones can be used for a wider range of purposes, like fostering climate resilience, without concern of legal challenge.

Overlay Zones as a Tool for Municipal Climate Resilience

Overlay zones can be used to meet federal regulatory requirements for flood hazard protection. The National Flood Insurance Program (NFIP, 44 CFR 59 et seq.) requires minimum flood protection regulation to be enforced by participating municipalities in the 100-year flood zone as delineated on FEMA Flood Maps. However, to address the challenging limitations of FEMA's maps, some municipalities have increased the minimum flood protection requirements above the federal and state level standards to proactively decrease future flood vulnerability or extended flood prevention requirements beyond the FEMA delineated 100-year flood boundary. Using best evidence sea level rise modeling to discern a Flood Overlay Zone boundary (inclusive of FEMA 100-year flood zones) would be best practice for a municipality to provide appropriate flood protection zoning regulations in coastal areas.

CIRCA

CONNECTICUT Department of Housing

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A municipality may choose to divide their 100-year floodplain into defined overlays for more site-specific regulation. A tiered approach can accommodate finer scale hazard risks and fine-tune regulation with greater site specificity. An example of a tiered zoning structure based on sea level rise is described below:

- **Protection Zone**-areas with critical infrastructure and dense development; reliance on hard armored flood protection infrastructure, but green infrastructure could be encouraged.
- **Accommodation Zone**-Non-critical areas, future sea level rise is considered in future development i.e., setback, elevation, stronger building codes; downzoning appropriate for hazard reduction.
- **Conservation Zone**- areas with natural flood protection (marshes) or only non-critical structures at risk; downzoning to discourage development; rebuilding restrictions; overall goal of removing development and replacement with natural protection or open space.

Connecticut's Coastal Overlay Zones

In Connecticut, the Connecticut Coastal Management Act (P.A. 79-535) authorized creation of Coastal Overlay Zones to regulate coastal development and limit the impact of flooding and erosion. While the Act does not specifically refer to climate resilience, the purpose and criteria are consistent with fostering a climate resilient coastal area. For example, following the Coastal Management Act standards, the town of Greenwich's Coastal Overlay Zone has strict criteria for project approvals, requires site plan review and prioritizes protection of the natural environment and coastal resources. Coastal overlay zones could be adapted to address climate resilience more directly by adding resilient design requirements. The CT DEEP Coastal Management Manual from 2000 could be updated to reflect current best practices for coastal resilience congruent with the most recent seal level rise predictions. Using best evidence sea level rise modeling to discern a Flood Overlay Zone boundary (inclusive of FEMA 100-year flood zones) would be best practice for a municipality to provide appropriate flood protection zoning regulations in coastal areas. CIRCA has developed a Sea Level Rise and Storm Surge visualization tool show at risk areas.

Maryland Case Study

Recognizing a unique need to protect coastal areas, Maryland has adopted a tiered zoning structure within the Chesapeake Bay Critical Area (MD. Code Nat. Res. §8-1807). All land within 1000 ft. of the waterline Critical Area is assigned a classification based on land use and development status at the time it was mapped. Land classifications are then used to achieve the goals within the Critical Area Program to ensure proper land management, use and development. Local base zoning applies, and the Critical Area designation adds an overlay of regulation based on land classification to promote the location of new development, provide infill development of similar intensity, and facilitate utilization activity areas. The land classifications that are in use in Maryland are described below:

Intensely Developed Areas (IDAs):

- Concentrated development with little natural habitat, 20 acres or more of adjacent land
- Main focus of area is improving water quality
- No Clearing or Lot Coverage limits
- Cluster development encouraged to reduce impervious surfaces

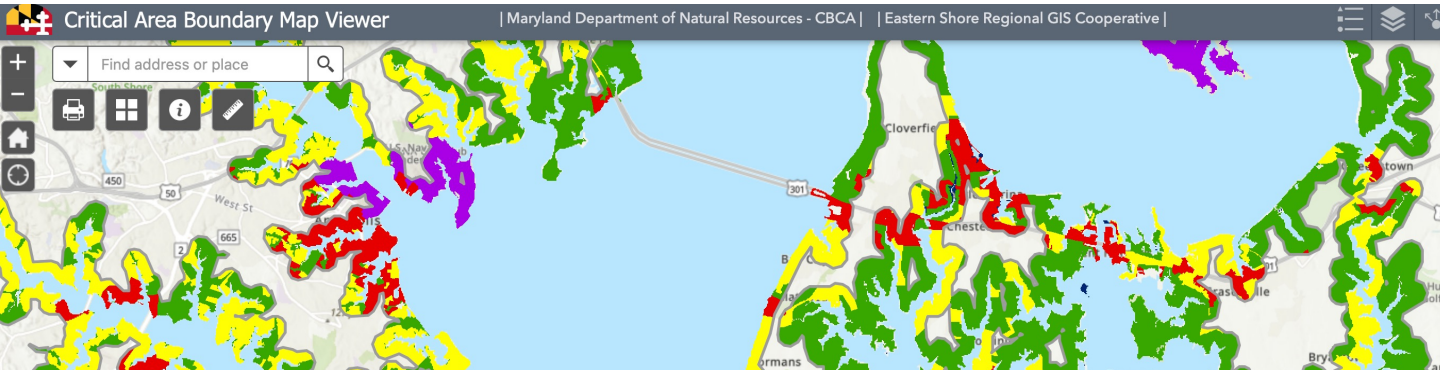
Limited Development Areas (LDAs):

- Low/Moderate development, contains natural habitat/vegetation, fewer than 20-acre areas
- Quality of runoff has not been impaired; must maintain or improve water quality
- Lot Coverage, natural habitat conservation, permitted development enforced

Resource Conservation Areas (RCAs):

- 80% of Critical Area-Protected natural landscapes and resource-utilization based activities
- Most restrictive land use regulations
- New residential/commercial development not permitted

Maryland is considering how to use zoning tools like Transferable Development Rights (TDRs) to relocate development within a Critical Area to more appropriate areas by assigning overlay zones as sending and receiving zones. This would preserve the development rights of property owners within the Critical Area while relocating development to higher ground to enhance community resiliency



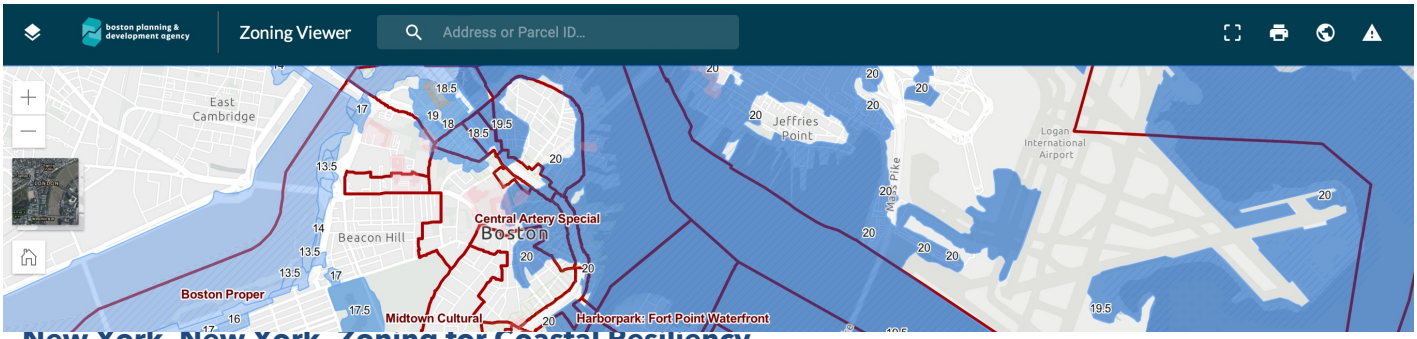
Example Resilience Overlay Districts

South Kingston, Rhode Island – Coastal Resilience Overlay District

South Kingston RI established a coastal resiliency overlay district to specifically address the effects of climate change, to "protect the public health, safety, and general welfare by promoting awareness of future projections of sea level rise and the associated impacts from flooding and storm surge to current and future property owners." This overlay area is susceptible to a one-hundred-year storm surge, in combination with a five-foot sea level rise that lies outside of FEMA Special Flood Hazard Area. Projected sea level rise data from NOAA is recorded by the town planning department and is required to be accessed by future property owners in the overlay area. By educating potential property owners on the risks of climate change to their property, South Kingston hopes to influence property owners to make decisions that are responsive to changing climate and weather patterns.

Boston, Massachusetts–Coastal Flood Resilience Overlay District

In October of 2021, the City of Boston adopted Article 25A to the zoning code creating a Coastal Flood Resilience Overlay District (CFROD) to provide protection from sea level rise and storm surge. The CFROD codifies resilient planning and design guidelines in the district and creates a procedural process for project approval and review. The design principles for the CFROD include resilience measures based on sea level rise projections based on the Boston Harbor Flood Risk Model, but also includes measures with co-benefits like pedestrian friendly and sustainable design practices. The nearby town of Salem, Massachusetts is currently developing a flood hazard overlay district which will incorporate resilient design standards to address projected sea level rise.



New York, New York- Zoning for Coastal Resiliency

In May 2021, New York City Council adopted Zoning for Coastal Flood Resiliency which updated and made permanent emergency rules adopted following Hurricane Sandy that apply in the 1% and 0.2%-annual chance floodplain. After the devastating event, these temporary zoning changes allowed property owners to rebuild and recover more rapidly, incorporating resilient design principles to reduce risk from future flood and storm events. One interesting change is the abandonment of "base flood elevation' in favor of "flood-resistant construction elevation" to remove incentives for construction of basements and retain zoning flexibility is related to height and floor areas are dependent on requiring flood resistant construction standards.

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To learn more about CIRCA visit circa.uconn.edu and the Resilient Connecticut project for more climate resilience planning tools: resilientconnecticut.uconn.edu

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