

## Climate Resilience Checklist for Development Projects

The Climate Resilience Checklist for Development Projects is intended to assist local permit applicants and project reviewers with identifying and mitigating potential project vulnerabilities to climate change and ensuring that projects do not exacerbate climate change impacts.

Climate change is expected to result in increased frequency and intensity of extreme temperatures, periods of drought, severe storms, and precipitation. Increased precipitation intensity may result in increased stormwater and riverine flooding. Climate change is also likely to alter ecological conditions, which could lead to habitat degradation and favorable conditions for invasive species.

Developers are encouraged to use this checklist to produce resilient projects and to facilitate coordination with the local community. Reviewers are encouraged to use this checklist to ask relevant questions about how the project will be more climate resilient.

*Completing this checklist does not take the place of local, state, and federal permitting and review processes and does not, in any way, ensure or imply that a permit has been or will be granted by any entity. Communities are encouraged to consider incorporating this checklist or a similar set of considerations into local regulations governing project permitting and review processes.*

### Understanding Project Vulnerabilities

Evaluate and describe project vulnerabilities related to both current and future:

- Flooding from sea level rise and storm surge
- Flooding from extreme precipitation
- Rising temperatures and heat islands
- Drought
- Other extreme weather

Describe how the identified project vulnerabilities will impact various components of the proposed project.

### Understanding Project Impacts as They Relate to Climate Resilience

Describe:

- How much runoff from the site will enter the municipal separate storm sewer system (MS4) under various design storm recurrences.
- Whether the project will contribute to downstream stormwater-related flooding.
- What the existing and proposed pollutant loading from the site is.

- Whether the project proposing to remove trees on-site, and if so, how many, and what size the trees are.
- Whether the project is proposing to remove any mature trees (greater than 8 inches DBH, or diameter at breast height) on site.
- Whether the project impact any wetlands, streams, or other resource areas protected under the state Wetlands Protection Act or your local wetlands bylaw (if applicable), or any buffer zones to these areas.

## Identifying Climate Adaptation and Resilience Strategies

Describe:

- Whether the project has minimized impervious area (e.g., parking lots, driveways, roofs) on the site to the maximum extent possible, and what measures have been taken to reduce impervious area.
- Plans to manage stormwater on-site.
- Whether stormwater management plans include low impact development and green infrastructure measures, and what those measures are.
- How much stormwater will be infiltrated on-site.
- How much phosphorus/nitrogen reduction will be accomplished on-site (calculated in accordance with the methodology in Appendix F of the MS4 permit).
- Whether the site reducing phosphorus consistent with the required reductions for the site's respective land use type found in the Total Maximum Daily Load (TMDL) and MS4 permit (e.g., if your site is a commercial site, is it reducing phosphorus by 65%)?
- Whether the project has attempted to avoid removing as many trees as possible, especially mature trees, and any measures that have been taken to preserve trees.
- Where tree removal may be unavoidable, any plans to replace trees on-site or otherwise compensate the municipality for the loss of tree canopy.
- For any mature trees planned to be removed, whether they will be replaced on at least a 1:1 basis in terms of tree caliper being lost.
- Whether the project has attempted to avoid impacts to wetlands, streams, other resource areas, and their respective buffer zones.
- Where impacts to wetlands, streams, other resource areas, and their respective buffer zones may be unavoidable, how impacts will be mitigated.
- Whether there is an emergency plan for the proposed project site describing the evacuation routes, emergency procedures, and the availability of power, water, and wastewater.
- Whether the project affect environmental justice communities, and if so, whether there is a plan in place to reach out to and receive feedback from residents in those communities about the project.