

# RESILIENT BMPs: PLANNING TOOLS & RESOURCES

## Resources

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- [Fact Sheet: Legal Tools for Climate Resilient Siting](#) *Environmental Law Institute*  
Suggests legal strategies for implementing climate resilient green infrastructure in Virginia and Maryland.
- [Stormwater Management in Response to Climate Change Impacts: Lessons from the Chesapeake Bay and Great Lakes Regions](#) *Environmental Protection Agency* - A report on strategies and tools to incorporate climate resiliency into community planning.
- [Flood Resilience Guide: A basic guide to water and wastewater utilities](#) *Environmental Protection Agency*  
The guide includes videos and flood maps to help protect small to medium water and wastewater utilities from flooding.
- [DC Climate Projections and Stormwater Applications](#) *DC Department of Energy and Environment*  
A presentation showing how DC heat index, heat wave, and precipitation projections will influence design storm events.
- [Climate Change Preparedness in New Jersey: Best Practices for Watershed Management](#) *NJ Climate Adaptation Alliance*  
A list of techniques and BMPs to help local governments adapt to future changes in climate.
- [Managing Water Quality in the Face of Uncertainty](#) *RAND Corporation*  
A report describing how to use Robust Decision Making (RDM) when managing future uncertainties such as climate change.
- [Building Resilience through Habitat Restoration](#) *MD DNR Chesapeake and Coastal Service*  
Recommendations on how to incorporate climate change consideration into the restoration decision-making process in Maryland.
- [Implementation of BMP Strategies for Adaptation to Climate Change and Land Use in a Pasture-Dominated Watershed](#) *Chiang et al.*  
Paper predicts the impact of climate change on 171 pastoral BMP combinations and recommends those that are the most resilient.
- [Estimation of BMP Impact on Chesapeake Bay Program Management Strategies](#) *Tetra Tech*  
The report scores BMPs based on their ability to positively impact the Chesapeake Bay Program's management strategies.
- [Using Cover Crops to Mitigate and Adapt to Climate Change](#) *Kaye, Jason P. and Miguel Quemada*  
Paper supports the finding that cover crops help mitigate climate change and provides a cover crop case study in Pennsylvania.
- [Robust Stormwater Management in the Pittsburgh Region: a pilot study](#) *Fischbach et al.*  
The report offers an improved decision making framework as a strategy for better stormwater management in Pittsburgh.
- [National Climate Assessment](#) *U.S. Global Change Research Program*  
An interactive, online report reviewing the impact of climate change on the United States, with detailed regional information.
- [Sustaining Forests in a Changing Environment](#) *Forest Service* – Resources on managing forests in the face of climate change.
- [USDA Climate Hubs](#) - A regional collection of resources for farm and forest managers to make climate informed decisions.

## Tools

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- [Storm Water Management Model with Climate Assessment Tool \(SWMM-CAT\)](#)  
SWMM models stormwater runoff and incorporate green infrastructure BMPs. CAT adds future climate scenarios to the model.
- [Better Assessment Science Integrating point & Non-point Sources with Climate Assessment Tool \(BASINS CAT\)](#)  
BASINS CAT combines GIS, national watershed data, and watershed modeling tools to model potential climate change scenarios.
- [Creating Resilient Water Utilities \(CRWU\)](#) - Tools to help make drinking water, wastewater, and stormwater utilities more resilient.
- [Adaption Case Study and Information Exchange](#) - A database of resources on creating a workshop on climate change and extreme events adaptation.
- [Climate Resilience Evaluation and Awareness Tool \(CREAT\)](#) - Current and long-term weather conditions within the risk assessment tool help utilities plan for extreme weather events.
- [National Stormwater Calculator](#)  
The calculator uses a selection of low impact development controls to estimate local area annual rainwater and runoff frequency.
- [Tools for Water Related Climate Change Adaptation](#) *EPA Climate Change Adaptation Resource Center*  
A database of climate change adaptation tools for communities on water utilities, water quality, and ecosystem protection.
- [Assessment of Agricultural BMPs Using Models: Current Issues and Future Perspectives](#) *Hui Xie, Lei Chen and Zhenyao Shen*  
The paper suggests model strategies, such as simplified tools and climate integration, to better represent agricultural BMPs.
- [Assessing the Effects of Climate Change on Water Quantity and Quality in an Urban Watershed](#) *Alamdari et al.*  
A calibrated stormwater model was used to simulate climate change impacts on Difficult Run in Fairfax, Virginia.
- [Agricultural Policy/Environmental eXtender Model \(APEX\)](#) *Texas A&M*  
A watershed simulation model with climate change capabilities, including assessing increased CO<sub>2</sub> impacts on crop yields.
- [Coastal Flood Exposure Mapper](#) *NOAA Office for Coastal Management*  
A collection of visualization tools and maps that can be shared with stakeholders to communicate coastal flood hazards.
- [Climate Resilience Toolkit](#) – A large compilation of tools, resources, data, and case studies to help increase understanding of how to address climate risks across many sectors: agriculture, coastal, health, ecosystems, energy, built-environment, etc.