

Climate change will affect different areas of Maryland differently. Most areas will likely experience heavier rains, stronger storms, more frequent droughts, and more extreme heat waves. Coastal areas will also experience the effects of rising sea levels.

 Choose one or more activities from each applicable category below to reduce your community's risk in your jurisdiction.

## DROUGHTS

*reduce available water supplies and increase the risk of wildfires, especially during summer months*

### Use water efficiently:

- Implement water conservation practices
- Develop water management plans that account for changing environmental flows and population
- Integrate drought impacts in hazard mitigation and comprehensive plans
- Restore and conserve land to protect drinking water supply
- Encourage water suppliers to evaluate and improve their resilience
- Encourage/incentivize the use of water-efficient appliances

### Protect against wildfires:

- Evaluate fire emergency plans to assess capacity for wildfire management

*(In rural communities)*

- Be vigilant to wildlife risk warnings
- Encourage landowners to maintain vegetated stream buffers to keep better stream flows throughout the year
- Encourage the growing of more drought-resistant crop varieties
- Encourage the planting of more cover crops to increase off-season soil moisture
- Improve management of invasive plants that may increase wildfire risks
- Encourage maintaining a clear zone around buildings near grasslands and forests

## INTENSE STORMS

*cause loss of power and water, injure and kill people, and damage infrastructure*

- Assess vulnerable populations and possible barriers to effective emergency responses
- Accelerate use of improved storm water management practices
- Identify areas for investment in better responding to emergencies
- Ensure education and outreach to community about the danger of entering bacteria-infested waters after a storm and the need to avoid collection of standing water around homes
- Provide outreach and education to your community about annual inspections of septic systems and wells, ensuring they know that wells can become contaminated after heavy rainfalls and/or flooding

## HEAVY RAINS

*result in more flooding, and increases in water- and insect-borne illnesses*

### Plan for increased precipitation and flooding:

- Discourage new growth in high flood-risk areas
- Increase the use of low-impact development and soft engineering techniques
- Protect "green infrastructure," such as wetlands, forests, parks, greenways, floodplains and stream corridors
- Implement development and redevelopment requirements for septic systems, building codes and setbacks
- Integrate information about precipitation changes into hazard mitigation and comprehensive plans and designs for public infrastructure, such as roads and buildings
- Improve water management plans to account for changing flows
- Reduce impervious surface cover, such as paving and concrete



*Effective Actions for Local Governments*

# CLIMATE PROTECTION

## HEAVY RAINS, CONTINUED

### Minimize flooding impacts:

- Relocate water supply and treatment infrastructure out of high hazard areas
- Prevent inundation and overflow of on-site disposal systems
- Accelerate use of improved storm water management practices, such as forest buffers, planting trees, and porous paving materials

### Assess and prevent health impacts from increases in insect- and water-borne illnesses<sup>1</sup>:

- Create and monitor risk maps for areas most affected
- Increase public reporting

## EXTREME HIGH HEAT

*and related air pollution are dangerous—especially to young children, the elderly, and people in poor health—increasing the odds of asthma and heart attacks, and heat stroke<sup>2</sup>*

- Increase tree canopy, white roofs, and “green” roofs<sup>3</sup>, especially in urban areas
- Use cooler paving materials
- Communicate to the public during extreme high heat events about the danger and means of health protection (e.g., through heat hotlines, or contacting television and radio meteorologists)
- Encourage the public to check frequently on neighbors, especially those who are elderly or socially isolated
- Assess locations with vulnerable populations, and develop planning and outreach strategies
- Prepare for increased numbers of events, including needs for more emergency medical personnel, cooling centers, and assistance for homeless

## SEA-LEVEL RISE

*will expand tidal ranges and flooding, increase the floodplain “footprint”, and create more erosion, high tides, and storm surge damage, including permanent flooding of some coastal areas*

- Conduct community vulnerability and impact assessments
- Incorporate sea-level rise impacts into comprehensive planning processes
- Discourage new growth, development and redevelopment in sea-level rise inundation zones
- Implement strategies to reduce erosion, specifically the use of living shorelines
- Protect and restore natural storm barriers, such as aquatic vegetation, wetland areas, and beaches
- Increase community resilience through changes to building codes, development standards and regulations
- Engage your community in discussing short- and long-term-planning options

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<sup>1</sup>[http://www.dnr.state.md.us/climatechange/climatechange\\_phase2\\_adaptation\\_strategy.pdf](http://www.dnr.state.md.us/climatechange/climatechange_phase2_adaptation_strategy.pdf)

<sup>2</sup><http://www.epa.gov/heatisland/about/heatguidetobook-brief.html>

<sup>3</sup><http://www.epa.gov/heatisland/mitigation/greeroofs.htm>