MANAGEMENT STRATEGY
CLIMATE RESILIENCY

GOAL: Climate Resiliency

OUTCOMES

Monitoring and Assessment: Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects.

Adaptation: Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise.

CURRENT EFFORTS

Environmental Monitoring

- CBP partners currently monitor 19 physical, chemical and biological characteristics 16 times per year in the Bay's mainstem and tributaries

Scientific Assessments

- Peer-reviewed papers and agency reports related to climate change monitoring and assessment.
- Numerous research institutions have active and on-going research on climate science, including projections for the Chesapeake Bay.
- A growing toolbox of Climate Change Vulnerability Assessments.

Adaptation and Research Planning

- *Federal partners* are taking action to build capacity in climate science and to develop tools to assist in planning.
- *State partners* have developed standalone climate change adaptation plans or a sustainability plan incorporating climate change.
- *Local governments and communities* have started to adapt to the impacts of climate change in new and creative ways (i.e. implementing best management practices, adaptation strategies).

GAPS

Coordination of Modeling

- Missing a coordinated and concerted effort to integrate climate change into Bay assessment and modeling efforts.

Climate Science

- Need continued assessment and analysis, as well as new approaches to fill critical science gaps.
- Need downscaled climate data and future climate projections.
- Technical barriers (data availability, accessibility, formatting and model programming, across appropriate spatial scales).

Adaptation

- Improve institutional capacity to collaborate on data, communications, policy, programs, and implementation.
- Need a framework or process to facilitate cross-cutting programmatic gaps.
- Need a targeted process for developing indicators and metrics.
- Link science to implementation of climate resiliency projects and policy.
- Engage stakeholders earlier to discuss implementation opportunities and planning efforts.

MANAGEMENT APPROACHES

- Develop a framework for engaging one-on-one with CB Partnership Goal Implementation Teams on climate related management needs through:

1. Monitoring & Assessment

- Define goals and establish baselines
- Develop conceptual monitoring, modeling, and assessment model
- Prioritize climate impacts
- Design monitoring and modeling plans for climate adaptation assessments and plans
  - Determine whether available data and tools are sufficient
  - Identify necessary forecast projection models
  - Outline an integrated monitoring and assessment agenda
- Assess trends and conduct assessments
- Develop a research agenda
- Reassess priorities and revise goals
- Undertake public, stakeholder and local engagement

2. Adaptation

- Compile and assess current efforts and lessons-learned
- Assess climate impacts and vulnerabilities
- Review and revise conservation, restoration, and protection goals and objectives
- Establish adaptation outcome priorities
- Increase the institutional capacity of the CBP to prepare for and respond to climate change
- Implement priority adaptation actions
- Track adaptation action effectiveness and ecological response
- Increase local engagement by conducting targeted conversations, increasing regional collaboration, education, and outreach

Chesapeake Bay Program
Science. Restoration. Partnership.

For the full management strategy, visit: www.chesapeakebay.net/managementstrategies