

APPENDIX B

ARWG POLICY PLANS FOR 2010

Option: ARWG-1

Lead Agency: DNR

Supporting Agencies: MDE, MSDE

Public Awareness, Outreach, Training & Capacity Building (ARWG-1) Utilize new and existing educational, outreach, training and capacity building programs to disseminate information and resources related to climate change and sea level rise.

Future Actions A summary of the state climate change planning, policy approaches, implementation plans, and identified best practices to enhance adaptation at the regional scale will be released in the first half of 2010, and throughout the second half of 2010 DNR will launch Maryland's Coastal Atlas, update the Coastal Atlas training manual, and work with Coastal Atlas users to improve functionality. DNR's Coastal Training Program will continue to provide targeted workshops and technical assistance to local governments and other coastal decision-

Option: ARWG-2

Lead Agency: DNR

Supporting Agencies: MDP

Local Government Planning Guidance (ARWG-2) Develop state-wide sea level rise planning guidance to advise adaptation and response planning at the local level.

Notes DNR, MDP, MDE, and other state agencies, as appropriate, are working together to develop state-wide, local government sea level rise adaptation and response planning guidance. The County sea level rise planning guidance reports (Worcester, Somerset and Dorchester), the Coast Smart Communities Initiative project deliverables, and the materials developed for the "Building Coast-Smart Communities" interactive summit, are being used to frame the state-wide planning guidance.

Future Actions DNR will first utilize the MARCO climate change and sea level rise information exchange to solicit regional feedback on measures to be included in the *Coast-Smart* Communities scorecard (March 2010), provide a draft scorecard to appropriate sources for review and feedback (June 2010), continue drafting and editing scorecard and supplementary materials (June to August 2010), and finally release the *Coast-Smart* Communities scorecard in December 2010.

Option: ARWG-3

Lead Agency: University of Maryland (UMD)

Supporting Agencies: DNR

Future Adaptation Strategy Development (ARWG-3) Pursue the development of adaptation strategies to reduce climate change vulnerability among affected sectors, including agriculture, forestry, water resources, aquatic and terrestrial ecosystems, and human health.

Notes A number of the pending pieces of federal climate change legislation [i.e., American Clean Energy and Security Act of 2009 (H.R. 2454); Climate Change Safeguards for Natural Resources Conservation Act (H.R. 2192)] contain provisions related to climate change adaptation planning and the dedication of cap-and-trade allowance to support implementation. These bills and others sure to come will also address adaptation requirements. DNR and MDE are both working to track pending legislation and to comment on issues relevant to Maryland's climate change planning efforts.

Future Actions The sector-based Adaptation and Response/Scientific and Technical work groups that were formed in December 2009 will continue to meet and deliberate. Each group will produce sector-based adaptation strategies by June 2010 before an integrated report is produced by October 2010.

Option: FBEI-1A

Lead Agency: DNR

Supporting Agencies: MDP

Integrated Planning - State (FBEI-1A) Require the integration of coastal erosion, coastal storm and sea level rise adaptation and response planning strategies into existing state government policies and programs.

Notes The lead agencies and supporting agencies are continuing to work together to identify specific State and plans, programs, and policies where climate change and sea level rise response planning should be integrated.

Future Actions In Spring 2010 the DNR workgroup will finalize the Investment Policy, including the Siting & Design Criteria for New and Retrofitted DNR Facilities and Infrastructure and in September 2010, MDP will ensure that sea-level rise vulnerability, heat island effects, and other climate change impacts are incorporated into the development of State-level departmental strategies to implement the State Development Plan, which will be finalized in April 2011.

Option: FBEI-1B

Lead Agency: DNR

Supporting Agencies: MDP

Integrated Planning - Local (FBEI-1B) *Require the integration of coastal erosion, coastal storm and sea level rise adaptation and response planning strategies into existing local government policies and programs.*

Notes DNR, MDP, MDE, and other state agencies, as appropriate, are working together to develop state-wide, local government sea level rise adaptation and response planning guidance. Details for developing guidance are described in the ARWG-2 implementation plan.

Future Actions Draft *Coast-Smart* scorecard will be completed and circulated for review in June 2010. All *Coast-Smart* Communities Initiative project contracts will end and projects in Anne Arundel County, City of Annapolis, Caroline County, and the Town of Queenstown will deliver interim or final project documents and plans in September 2010. The final *Coast-Smart* scorecard will be completed in December 2010.

Option: FBEI-2

Lead Agency: DNR

Supporting Agencies: MDE

Adaptation-Stat (FBEI-2) *Develop and implement a system of performance measures to track Maryland's success at reducing its vulnerability to climate change and sea level rise.*

Notes The MCCC Executive Order calls for annual reporting to the Governor and General Assembly on or before November 1 of each year on the Climate Action Plan, including an update on implementation timetables and benchmarks. Adaptation and response performance measures will be a component of this reporting requirement.

Future Actions Monthly reporting on 7 Adaptation Work Plans to the Governor's Delivery Unit will occur between January and October 2010, and MCCC will submit its annual Status Report to the Governor and General Assembly on the Climate Action Plan, including an update on implementation timetables and benchmarks, in November 2010.

Option: FBEI-5

Lead Agency: MIA

Supporting Agencies: DNR, MDE, MEMA, DHCD

Climate Change Insurance Advisory Committee (FBEI-5) *Establish an independent Blue Ribbon Advisory Committee to advise the State of the risks that climate change poses to the availability and affordability of insurance.*

Notes Final Report of the Advisory Committee, to include the following: 1) review of the adequacy of the data available to insurers to assess the risk posed by climate change; 2) examination of whether adaptive options are available to help mitigate losses and whether rating can be structured to provide an incentive for these options; and 3) a review of ways to promote partnerships with policyholders for loss mitigation.

Future Actions Chapters 4 through 8 of the report will be drafted between January and July 2010 and the entire report will then be revised and circulated for review between August and October 2010.

Option: FBEI-6

Lead Agency: DNR

Supporting Agencies: N/A

GIS Mapping, Modeling and Monitoring (FBEI-6) *Update and maintain state-wide sea level rise mapping, modeling, and monitoring products.*

Notes A number of Federal, State, and local government partners are working together to undertake efforts and/or implementing programs that are consistent with the goals of this policy option.

Future Actions Work will continue on the Shorelines Online mapper and Coastal Atlas web portal until June 2010 when DNR will launch both mappers on the DNR website. Outreach, training, and surveys for the Coastal Atlas will then begin, increasing the user base and identifying new or missing data layers that are needed to conduct sound coastal management.

Option: FBEI-8

Lead Agency: DBED

Supporting Agencies: DNR

Green Economic Development Initiative (FBEI-8) *Recruit, foster, and promote market opportunities related to climate change adaptation and response.*

Notes DBED is implementing this policy recommendation in coordination with implementation of the MCCC's Mitigation Working Group (MWG) policy option CC-9, which is aimed at promoting economic development opportunities associated with reducing greenhouse gas emissions in Maryland.

Future Actions See MWG policy CC-9 - Promote Economic Development Opportunities Associated with Reducing GHG Emissions in Maryland.

Option: EBEI-2

Lead Agency: DNR

Supporting Agencies: N/A

Integrated Observation Systems (EBEI-2) *Strengthen federal, state, local, and regional observation systems to improve the detection of biological, physical, and chemical responses to climate change and sea level rise.*

Notes A number of Federal, State, and local government partners are working to undertake efforts or are implementing programs that are consistent with the goals of this policy recommendation.

Future Actions DNR will continue with ongoing work with NOAA and other federal partners in the Chesapeake Bay to support overall policy recommendation and to further development and implementation of adaptation strategies contained in the Chesapeake Bay Executive Order and the Chesapeake Bay Program Report on Chesapeake Bay Watershed Climate Change Impacts, particularly those recommendations aimed at enhancing existing and/or developing new technical information and decision support tools to better understand, project, and respond to climate change and its impacts.

Option: EBEI-3

Lead Agency: DNR

Supporting Agencies: MDOT

Adaptation of Vulnerable Coastal Infrastructure (EBEI-3) *Develop and implement State and local adaptation policies (i.e., protect, retreat, abandon) for vulnerable public and private sector infrastructure.*

Future Actions DNR will complete the Maryland Coastal Atlas with SLR vulnerability areas mapped and viewable on Shorelines mapper in June 2010. All Coast-Smart Communities Initiative project contracts end in September 2010 when projects in Anne Arundel County, City of Annapolis, Caroline County, and the Town of Queenstown will deliver interim or final project documents and plans. SHA continues to build a new shoreline dataset as a polygon to show sea-level rise and determine which assets are located within the zone of inundation and assist

Option: EBEI-8

Lead Agency: DHCD

Supporting Agencies: MDE

Building Code Revisions & Infrastructure Design Standards (EBEI-8) *Strengthen building codes and construction techniques for new infrastructure and buildings in vulnerable coastal areas.*

Notes There is an ongoing building codes update process, which occurs on a 3-year cycle following the International Codes Council (ICC) consensus process. On January 6, 2010, DHCD announced the adoption of the latest version of the Maryland Building Performance Standards (MBPS) and the Model Performance Code (MPC). These state building codes, which are updated every three years, combine the 2009 versions of the International Building Code (IBC), International Residential Code (IRC), and the International Energy Conservation Code (IECC), along with other related building codes.

MDE is conducting a policy analysis of the Maryland Flood Hazard Management Act of 1976 and will take a lead role in developing any necessary legislation or regulatory amendments to remedy policy deficiencies.

Future Actions Local code jurisdictions will adopt the latest version of these building codes in July 2010. Additional code enhancements are slated to take place in the near future.

Option: EBEI-10

Lead Agency: DHCD

Supporting Agencies: DNR

Disclosure (EBEI-10) *Develop a Maryland Sea Level Rise Disclosure and Advisory Statement to inform prospective coastal property purchasers of the potential impacts that climate change and sea level rise may pose to a particular piece of property.*

Notes The Maryland Sea-level Rise Disclosure and Advisory Statement should contain general information about risks associated with sea-level rise, coastal storms, and/or shore erosion, as well as disclose property owner knowledge of any flooding, avulsion, erosion, or other damage that has occurred to a particular piece of property."

Future Actions Between January and June 2010, lead agencies will provide a preliminary written disclosure plan (Preliminary Plan) to the Commission, which will provide a specific recommended launch date and address fiscal and budgetary issues and concerns. Following submittal of the Plan, DHCD and DNR staff will develop next steps based on acceptance of the Preliminary Plan and future State (or federal) policy directives.

Option: RRI-1

Lead Agency: DNR

Supporting Agencies: MDE

Natural Resource Protection Areas (RRI-1) *Identify high priority protection areas and strategically and cost-effectively direct protection and restoration actions.*

Notes Several State agencies, including DNR and MDE, are undertaking efforts or implementing programs that are consistent with the goals of this policy option. Analysis of natural resources protection and restoration priorities in light of climate change is being initiated by these lead agencies using existing inundation maps and natural resource assessments.

Future Actions DNR will revise the list of adaptive land benefits critical to coastal lands in Maryland (January 2010), compile data and begin model design/testing (February to June 2010), complete a beta version of a coastal land and sea level rise targeting test scenario and work with agency partners and review committees to make adjustments (July to October 2010), complete a draft sea level rise and coastal habitat GIS model overlay and evaluation (November 2010), and complete the final sea level rise/coastal habitat overlay (December 2010).

Option: RRI-2

Lead Agency: DNR

Supporting Agencies: MDE

Forest and Wetland Protection (RRI-2) *Develop and implement a package of appropriate regulations, financial incentives, educational, outreach, and enforcement approaches to retain and expand forests and wetlands in areas suitable for long-term survival.*

Notes Implementation of this policy recommendation is tied to the process of identifying Natural Resource Protection Areas as outlined in the previous recommendation. In the interim period, the lead agencies, DNR and MDE, will work together to review existing programs and funding across all State, federal, and county agencies that can be focused on addressing both adaptation and mitigation options related to sea-level rise and carbon sequestration.

Phase 1 of the implementation plan will be to use the initial results of the Natural Resource Protection Area assessment to target existing programs to high priority areas. Phase 2 will entail the identification of new policies, programs, regulations, and financial incentives that are needed to advance forest and wetland protection efforts. Phase 2 will be completed within a two-year time frame and be followed by the development of new/revised state and local policy and regulation, as necessary.

Future Actions DNR and MDE will continue to work together through December 2010 to review existing programs and funding across all State, federal, and county agencies that can be focused on addressing both adaptation and mitigation options related to sea-level rise and carbon sequestration.

Option: RRI-3

Lead Agency: DNR

Supporting Agencies: MDE

Shoreline and Buffer Area Management (RRI-3) *Promote and support sustainable shoreline and buffer area management practices.*

Notes Implementation will include appropriate training, capacity building and outreach to individuals and organizations involved with shoreline management (including living shorelines and shoreline restoration) on best management practices and applicable tools and resources that currently exist, or are under development to assist in the decision-making process. These currently include the Living Shorelines Workshop series hosted by DNR and MDE, Maryland Shorelines Online, Erosion Vulnerability Assessment (EVA), and the Living Shoreline Suitability Model (for Somerset, Calvert and Worcester County).

Future Actions By Spring 2010, the Living Shorelines web page content will be drafted and developed in a format that would be readily loadable on to DNR website, and DNR will evaluate the potential incorporation of the Living Shoreline Suitability Tool and EVA into current trainings offered, or the need to develop new trainings courses for these tools.

Option: RRI-4

Lead Agency: DBED

Supporting Agencies: MDA, UMD

Resource-Based Industry Economic Initiative (RRI-4) *Develop and implement long-range plans to minimize the economic impacts of sea level rise to natural resource-based industries.*

Notes Implementation of this policy is dependent on staff and funding availability. Once funding is allocated or staff is identified, implementation will occur over several phases. Phase 1 will focus on research and data collection, followed by Phase 2, which will be a strategic planning exercise. The first step in this process will be the development of several research teams, each comprised of individuals with expertise in sector-based issue areas. These teams will be coordinated by the lead agencies and will work over a two-year time frame to evaluate key vulnerabilities and potential economic impacts of climate change on resource-based industries (fisheries, forestry, aquatic, and agriculture) and to develop appropriate adaptation and response strategies.

Future Actions DNR will continue with ongoing work to identify and secure appropriate funding or staff for project implementation.

Option: HHSW-1

Lead Agency: DHMH

Supporting Agencies: MEMA

Health Impact Assessments (HHSW-1) *Conduct Health Impact Assessments to evaluate the public health consequences of climate change and sea level rise-related projects and/or policies.*

Notes The lead agencies, DHMH and MEMA, will work to implement this policy recommendation in coordination with MWG policy option CC-11, which recommends the evaluation of climate change policy options to determine projected public health risks, costs, and/or benefits. DHMH and MEMA will work together to coordinate and participate in the efforts of the MD Climate Change Environmental Health and Protection Advisory Council.

Future Actions DHMH will continue to investigate the impact of climate change and sea level rise-related projects/policies.

Option: HHSW-2

Lead Agency: DHMH

Supporting Agencies: MEMA

Inter-Agency Coordination (HHSW-2) *Strengthen coordination and management across Agencies responsible for human health and safety.*

Future Actions DHMH will continue with ongoing work to implement the policy.

Option: HHSW-9

Lead Agency: DHMH

Supporting Agencies: MDA

Vector-borne Surveillance and Control (HHSW-9) *Develop a coordinated plan to assure adequacy of Vector-borne Surveillance and Control Programs.*

Future Actions In January 2010, DHMH, MDA and DNR will convene a multi-agency meeting to discuss gaps in current vector-borne surveillance efforts, and the the arbovirus surveillance committee will perform a gap analysis of current vector-borne surveillance efforts and needs related to climate change in February and March 2010.