



# Governor's Action Team on Energy and Climate Change

## State of Florida

### Early Action Items Proposed by the ADP TWG

Aside from outlining a structure and plan for moving forward with a comprehensive effort to address adaptation in Florida, the Technical Work Group (TWG) was asked to identify 10–20 strategies or actions that merited early implementation. The TWG believes that the items listed below represent a selection of appropriate “no regrets” efforts that should be undertaken promptly. Please note that there are many additional strategies listed in the accompanying Adaptation TWG Policy Options Document (POD), and it is anticipated that the successor Florida Energy and Climate Commission will develop additional strategies to address the goals indicated in the POD in the course of its work.

#### ADP-1. Advancing Science Data and Analysis for Climate Change

**Goal 2:** Foster and support climate science research agenda for Florida with broad priorities. Institute a new scientific advisory council on climate change to advise state government on this research agenda. Identify and establish long-term funding to support research. Funding should be protected from short-term economic or political cycles.

- a. HB 7135 in the 2008 Florida Legislative Session created the Florida Energy Systems Consortium as a “super center of excellence” within the State University System. The center should consider, as a priority order of business, the appointment of a scientific advisory council composed of members from disciplines relevant to adaptation to climate change and representative of each participating institution to better coordinate research in support of Florida’s adaptation and climate change policy objectives.
- b. The Florida Energy and Climate Research Trust Fund should be created by the Legislature, and a dedicated revenue stream should be provided.

**Goal 3:** Conduct research needed to support incorporation of climate change into the protection of Florida’s ecosystems and biodiversity.

- a. Define the likely new “states” of Florida ecological systems to determine state budget and policy requirements. Identify species and habitats that will likely be unable to migrate naturally and craft strategies to assist their relocation or recreate habitat elsewhere to facilitate this shift.
- b. Expand the newly developed Critical Lands & Waters Identification Project (CLIP) v1.0 database to incorporate impacts and adaptation to climate change.

**Goal 4:** Enhance support for mapping, monitoring, and modeling, all of which will be necessary to provide information to support policy making. For example, the state is supporting the use of light detection and ranging (LIDAR) to improve mapping of Florida’s coastlines. Such mapping

should be done for the entire coastline of the state. In addition, effective monitoring programs are needed to detect impacts of climate change; modeling is also needed to better project impacts.

- a. Create a new center to coordinate and align data from proxy data sets to build a more precise picture of climate change in Florida over the last few thousand years and predict the effects of climate change in the future. This data center could also track associated responses in vegetation, sea level, and disturbances such as fire.

### **ADP-2.1. [Comprehensive Planning] Local Government Level**

**Goal 2:** State and regional agencies should provide financial and technical assistance to local governments to ensure timely updates of local plans.

- a. Update the Florida Department of Community Affairs (DCA) planning tools Web site section on climate change with adaptation information from the Action Team and other sources. Tie state and regional agencies into a central state digital database and ensure that all pertinent state records are digitized. This will provide local government planners with instant access to the information they need for considering the impacts of updates to local plans.

**Goal 4:** Local governments should review their coastal management elements to determine necessary amendments to make their coastal areas (especially the coastal high-hazard area) resilient to the future impacts of climate change, including sea level rise (SLR).

- a. Create best practices manual for local governments that identifies coastal lands for state acquisition with new adaptation language incorporated into local, state, and regional government land acquisition processes.
- b. Identify and revise statutory direction for local, state, and regional planning processes to determine the potential within planning areas for SLR, particularly in coastal areas. Provide for an assessment of:
  - The potential movement of the coastal construction control line and related changes,
  - The extent and potential for expansion of floodplains, and
  - Potential habitat and wildlife migration.
- c. The Florida Department of Environmental Protections (DEP), DCA, and the state's Regional Planning Councils should jointly develop, assess, and recommend for local governments a suite of planning tools and climate change adaptation strategies to maximize opportunities to protect the beach/dune system, coastal wetlands, and other coastal resources in an era of rising seas. The tools should include strategies to encourage the landward siting and relocation of structures and public facilities in areas

adjacent to receding shorelines through acquisition, rolling easements, transfer of development rights, stronger setbacks, and tax incentives.

### **ADP-2.3. [Comprehensive Planning] State Government Level**

#### **Goal 3: Balancing Property Rights and Protecting Communities and Natural Resources**

Florida statutes, regulations, policies, and the Florida Administrative Code should be reviewed by the Florida Attorney General to determine potential conflicts between private property rights and the state and local governments' responsibility to protect communities.

- a. The Florida Attorney General should examine Florida statutes, state policies, and agency administrative rules to identify, in advance, any potential conflicts between private property rights and the government's response to potential climate change impacts. State or local governments are responsible for protecting their communities, natural resources, and public usage and access to government-owned lands. That responsibility may come into conflict with the individual rights of private landowners who are affected by SLR, beach erosion, and other impacts of climate change. The Attorney General should issue a report of his findings that includes recommendations.

### **ADP-3.1. [Protection of Ecosystems and Biodiversity] Uplands, Freshwater and Marine Systems**

**Goal 1:** Ensure that a representative portfolio of Florida's terrestrial, freshwater, and marine natural communities with redundant representation of habitats and species and connecting corridors (e.g., Florida's Biodiversity Blueprint) is protected and managed in a manner that maximizes the health and resilience of these communities when facing climate change impacts.

- a. Tie into existing and expanded databases such as the CLIP in order to examine existing local, state, regional, and federal land holdings and categorize these holdings with regard to the representative portfolio.
- b. Provide an accessible, expanded, and updated database to track changes to the natural communities and corridors.
- c. Evaluate the adequacy of upland, freshwater, and marine systems protection status (for example through gap analysis) and, where necessary, increase protection area and/or status in each system to maximize their probability of adapting well to climate change impacts.

### **ADP-3.2. [Protection of Ecosystems and Biodiversity] Beaches and Beach Management**

**Goal 1:** Reduce and discourage future reliance on bulkheading/hardening to stabilize estuarine and beach shorelines. Shoreline hardening should be considered only after a full and cumulative assessment of short- and long-term impacts to coastal resources and coastal

ecosystems. Establish policies and regulations that clearly define when, how, where, and under what circumstances emergency beach stabilization is allowed.

- a. Address local, state, and regional permitting programs and planning elements to fully assess potential impacts and changes to coastal resources and ecosystems from proposed coastal protection measures in light of potential impacts of climate change.
- b. Add an overview element to state and regional planning documents describing statewide strategies and circumstances for coastal and shoreline retreat and erosion.
- c. The state should undertake a comprehensive reevaluation of the Coastal Construction Control Line Program to ensure that it is accomplishing its intended goal of protecting the beach and dune system. The reevaluation should consider, among other things, the adequacy of existing coastal setbacks, building siting and design requirements, and post-storm redevelopment policies in light of SLR scenarios.

### **ADP-3.3. [Protection of Ecosystems and Biodiversity] Species Protection**

**Goal 1:** The vulnerability of Florida’s fish and wildlife to climate change impacts is assessed, the most vulnerable species are identified, and plans are prepared to enhance their chances of persistence where there is a reasonable likelihood that the species will persist over the next 50 years.

- a. Utilize the CLIP and similar expanded and centralized digital databases to determine potential species and habitat vulnerability.
- b. Incorporate species and habitat vulnerability to climate change into state and regional planning and zoning, government land acquisition, and determinations for conservation easements.

### **ADP-4. Water Resource Management**

**Goal 1:** Identify and quantify the vulnerabilities and reliability of existing water supplies to potential effects of differing climate change scenarios with emphasis on source water availability and quality.

- a. Develop inventory of water supply facilities (source, storage, treatment, and distribution) and conduct a study to develop different climate change scenarios and potential impacts and adaptation strategies for high-risk utilities.

### **ADP-5.1. [Built Environment, Infrastructure, and Community Protection] Building Codes and Regulation**

**Goal 1:** Require that the Florida Building Code incorporate building design criteria for resisting future loads that may result from the impact of climate change—exacerbated hazards during a minimum service life of 50 years.

- a. Strengthen Florida Building Code requirements for new structures and appropriate renovation to encourage climate change impact resistance.
- b. Conduct research on how building codes can be routinely updated to account for changes in climate and develop options on how such codes could account for potential future changes in risks from climate change.

**Goal 4:** Develop a required training program to educate professionals in relevant fields (e.g., architecture, engineering, and construction management) on the need to incorporate adaptation to climate change as a basis for establishing design criteria for new infrastructure. Completion of such required training would be a condition for relicensing.

- a. Examine licensing and recertification requirements for building professionals and revise them to include climate change impact design criteria.
- b. Add an adaptation criteria to professional education curricula at state universities and trade schools for building and design degrees.

#### **ADP-15. Public Education and Outreach**

**Goal 1:** Provide immediate training on climate change adaptation.

**Strategy A:** Conduct short (2-day) executive seminars for Chief Executive Officers (CEOs) and state legislators that have been designed for policy makers and that are conducted by scientists trained in public education outreach.

**Strategy B:** Conduct a follow-up series of comprehensive workshops (4–6 days) that mixes business and civic leaders from public and private sectors. Local teachers should be included in all sessions.

**Goal 2:** Educate the public.

**Strategy:** Initiate a major public education campaign.

- Use high-profile media and other appropriate outlets to raise general awareness on climate change in Florida. Make connections between mitigation and adaptation solutions and policy changes. Educate the public about the expected costs of inaction and delayed action compared with the costs of acting proactively. Focal topics may include heat waves and associated health risks; SLR and associated infrastructure and property risks; wildfire risks; species disturbances and habitat loss or change and associated ecosystem services losses (impacts to valuable and highly visible resources such as coral bleaching); and risks to water supplies. Focus groups may include the public; policy makers; media; business leaders; developers; and land owners, buyers, and sellers.