

## **2011 Alexandria ECCAP Action Items**

### ***Climate Change, General***

#### **Infrastructure**

Connect emergency centers with onsite renewable energy sources to reduce susceptibility to lapses in conventional energy supply (See p. 61)

Identify areas that would allow for burial of existing power lines to avoid interruptions due to increased rain or wind events (See p.59)

#### **Natural Resources (Plants, Streams, etc.)**

Engage citizens to assist in the improvement of riparian buffers through continued efforts toward invasive species eradication and enhanced planting programs (See p.60)

Ensure that all City plantings are non-invasive, flood- and drought-tolerant, 80% perennial plants, and that native plants are used wherever possible (See p. 61)

Preserve, protect, and enhance existing wetlands in the city (See p. 60)

Promote and expand programs where individuals or organizations can purchase trees through the City and have them planted and maintained throughout the city (See p. 61)

Utilize low impact landscape practices where possible, such as perennial and native plant species, rain gardens, and encouraging the removal of invasive species (See p.61)

#### **Public Health, Including Emergency preparedness**

Enhance community emergency planning for disease outbreaks and emerging public health threats (See p. 60)

Enhance monitoring of known diseases and potential diseases moving into the area (See p. 60)

Identify alternative routes and modes for goods transport and evacuation efforts during emergency situations (See p. 61)

Increase public awareness about the public health risks associated with climate change and the need for emergency preparedness (See p. 61)

Maintain a strong Mosquito Control Program and be prepared to develop additional vector control programs as needed (See p. 60)

Support emergency plans that take into account climate change-related emergencies such as water and food supply disruptions caused by severe drought, loss of electricity, damage to or contamination of the water distribution system, climate change-related outbreaks of diseases, and other public health threats (See p. 61)

### ***Heat***

#### **Infrastructure**

Continue to design and develop shaded parking lots through existing Special Use Permit/Development process and the retrofitting of existing parking lots (See p. 60)

Increase maintenance frequency of asphalt roads that may be adversely affected by high temperatures. (See p. 60)

Investigate potential of using other road surfaces on most heavily used roads that are more tolerant to changes in temperature (See p. 60)

#### **Natural Resources (Plants, Streams, etc.)**

Increase use of shade trees to reduce temperatures in urban areas (See p. 60)

#### **Public Health, Including Emergency preparedness**

Expand and enhance outreach on air quality hazards such as ozone pollution associated with high temperature days (See p. 60)

Open additional cooling centers during extreme heat events and extend hours for public wading pools during extreme heat events (See p. 60)

## **2011 Alexandria ECCAP Action Items**

### ***High Wind***

#### **Buildings**

Investigate building design standards for buildings that currently experience high wind events (i.e., Gulf Coast states) similar to events that Alexandria may experience in the future (See p.59)

#### **Infrastructure**

Identify areas that would allow for burial of existing power lines to avoid interruptions due to increased rain or wind events (See p.59)

### ***Precipitation***

#### **Buildings**

Change zoning to discourage development in flood hazard areas (See p. 59)

Move or abandon infrastructure in hazardous areas (See p. 59)

Update building codes to require more flood resistant structures in floodplains (See p. 59)

#### **Channel Maintenance**

Fund and implement the Four Mile Run Master Plan and demonstration project and continue implementation of Cameron Run/Holmes Run feasibility study to maintain flood protection infrastructure (See p.59)

#### **Infrastructure**

Change design requirements for new or refurbished roadways and bridges to include different pitches combined with stormwater design to effectively remove water from roadways and bridges (See p. 60)

Support and provide information regarding mechanisms to finance infrastructure improvements (See p.59)

#### **Natural Resources (Plants, Streams, etc.)**

Restore and stabilize stream banks of all urban streams to minimize erosion (See p. 60)

Restore and stabilize stream banks of all urban streams to promote healthy habitat and biotic integrity (See p. 60)

#### **Sewers**

Consider use of permeable surfaces to reduce stormwater runoff (See p.59)

Establish long-term dedicated funding mechanisms such as storm water utility fees or other taxes to improve and maintain stormwater infrastructure (See p. 59)

Increase capacity of stormwater collection systems to accommodate projected changes in precipitation (See p.59)

Promote best management practices for using stormwater (e.g., rain barrels, rain gardens, —water wise|| gardening and landscaping (See p.59)

Require developers of new buildings to build separate sanitary sewer and stormwater infrastructure as a condition of development approval (See p.59)

## **2011 Alexandria ECCAP Action Items**

### ***Sea Level Rise***

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#### **Coastal Flooding**

Update the flood management program to take into account anticipated rises in Potomac River levels and the increased intensity of storm-related flooding (See p. 59)

#### **Infrastructure**

Conduct vulnerability assessment of major roadways and bridges in the city to projected rises in Potomac River levels (See p.59)

Use optimal waterfront locations and infrastructure to avoid or minimize damage that will result from sea/river level changes or surges (See p.59)

#### **Natural Resources (Plants, Streams, etc.)**

Enhance shoreline protection where retreat and accommodation are not possible (See p. 60)

Preserve ecological buffers to allow for inland beach migration (See p. 60)

Preserve ecological buffers to allow for inland migration of wetlands, salt marshes, and other habitat systems (See p. 60)

### ***Drinking Water/Drought***

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#### **Buildings**

Educate businesses that have intensive water uses about retrofits and upgrades to promote water recycling and conservation (See p. 60)

Facilitate installation of water reclamation techniques as part of development and redevelopment projects (See p. 59)

Modify building codes to require low flow plumbing fixtures or other water conservation measures (See p. 59)

Provide financial incentives for switching to more efficient processes and appliances (See p. 59)

#### **Public Health, Including Emergency preparedness**

Coordinate with regional water authorities on groundwater resources, surface water reservoirs, and water quality (See p. 59)

Increase authority to implement water restrictions and other emergency measures (See p. 60)

Promote individual water conservation opportunities through incentives (i.e., rebates and taxes), and outreach to the general public (e.g., EPA's Water-Sense Program) (See p.59)

#### **Planning**

Update drought management plans to recognize changing conditions (See p. 60)