REGIONAL WATER QUALITY MANAGEMENT

Water Resource Priorities and Climate/Energy Linkages

Joint Meeting of CBPC & CEEPC
July 24, 2013

METROPOLITAN WASHINGTON
Council of Governments

CBPC - 2013 Priorities List

1. Address water resource-related issues under Region Forward and Economy Forward, including maintaining infrastructure and enhancing connections to CEEPC work program

2. Continue to tracking Chesapeake Bay TMDL/WIP Implementation & provide input/dialogue with EPA and states

3. Advocate for 'right-sizing' Water Quality Permitting (integrated permitting, regulatory flexibility, affordability, MS4 permit enforcement, local TMDLs, etc.) and use of adaptive management

CBPC – Policy Principles

I. **Holistic Requirements** – Programs and policies to restore and protect the Chesapeake Bay and its tributaries, whether regulatory or not, shall reflect a holistic, multi-sector analysis of environmental benefits, technical feasibility and costs before being established.

II. **Equitable Responsibility** – Programs and policies to restore and protect the Chesapeake Bay and its tributaries shall strive for equity and cost-effectiveness in allocating responsibilities among regions, counties and municipalities and among the different sources of pollution.

III. **Sound Science** – Programs and policies to restore and protect the Chesapeake Bay and its tributaries shall rely on a sound scientific foundation and shall be revised as needed, reflecting advances in that foundation.

IV. **Communication and Voice** - Programs and polices to restore and protect the Chesapeake Bay and its tributaries, whether regulatory or not, should be developed through a cooperative process among stakeholders including local governments and wastewater utilities. Given their implementation responsibilities, local governments and wastewater utilities shall be engaged at the earliest stages of these development processes.

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OVERALL GOAL

Continue to protect Water Quality & Public Health in a Sustainable & Affordable manner for the region

DRIVERS

- NPDES & MS-IV Permits
- Bay TMDL & WIPs
- Local TMDLs & Restoration Goals
- Other Environmental Goals

CHALLENGES

- Maintain existing/aging water infrastructure
- Build/implement new technologies & systems
- Meet existing & new/evolving regulatory requirements
- Meet implementation schedules & deadlines
- Address extreme weather/climate change impacts on water infrastructure
- Respond appropriately to emerging issues
- Effectively meet multiple environmental objectives
- Prepare to sustain efforts in face of continued growth
- Address overall funding needs in an affordable & sustainable manner
- Address workforce issues

GUIDING PRINCIPLES*

I. Holistic Requirements

II. Equitable Responsibility

III. Sound Science

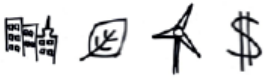
IV. Communication and Voice

*** Adopted by COG Board (4/8/09)**

KEY COG INITIATIVES

- Continue dialogue with EPA/states on Bay Program & water quality initiatives
- Provide local input on NEW Bay agreement
- Communicate impacts/benefits of pollution control efforts made to-date in Potomac & local waters & identify future challenges
- Evaluate status of current water infrastructure, weather/climate vulnerabilities, identify critical needs, & advocate for adequate , affordable, & long-term funding
- Advocate for adaptive management & solutions that are affordable, feasible to implement, sustainable, & holistic

Target: By 2025, achieve 100% of Chesapeake Bay Program's Water Quality Implementation Goals



Improving water quality to protect living resources, including fish and underwater grasses, is the most critical element in the overall protection and restoration of the Chesapeake Bay and its tributaries. Accordingly, it is incumbent on all sources of nutrient and sediment pollution to limit discharges to achieve the Chesapeake Bay Program's water quality goals. This will require substantial reduction in nutrients and sediment that make their way into the Bay from a variety of sources including: wastewater treatment plants; agricultural and urban stormwater runoff; septic systems; and air pollution from vehicles and power plants. Excess nutrients and sediment lead to "dead zones" and low oxygen levels that threaten fish, blue crabs, oysters, and other underwater life and block light necessary for underwater grasses that provide critical habitat.

By the end of 2010, new nutrient and sediment "pollution budgets" will be mandated throughout the Bay watershed. From this a COG-wide goal can be determined. Despite substantial progress in upgrading wastewater treatment plants and controlling stormwater, jurisdictions in the COG region, as elsewhere in the Bay watershed, will face increasingly stringent nutrient and sediment reduction requirements including: enhanced treatment at wastewater treatment plants; retrofitting large areas of roads, parking lots, roofs and other impervious surfaces; ensuring that advanced stormwater controls are applied to new development; and the widespread use of best practices in the agricultural areas of the region. Much of the work being undertaken by COG members to restore local watersheds such as the Anacostia River, will have a dual benefit – improving the condition of the region's local streams and the Potomac River while also helping to meet the larger Chesapeake Bay restoration goals.

16.6 million

Population of the Chesapeake Bay Watershed

Nearly **1/3** live in the COG Region.

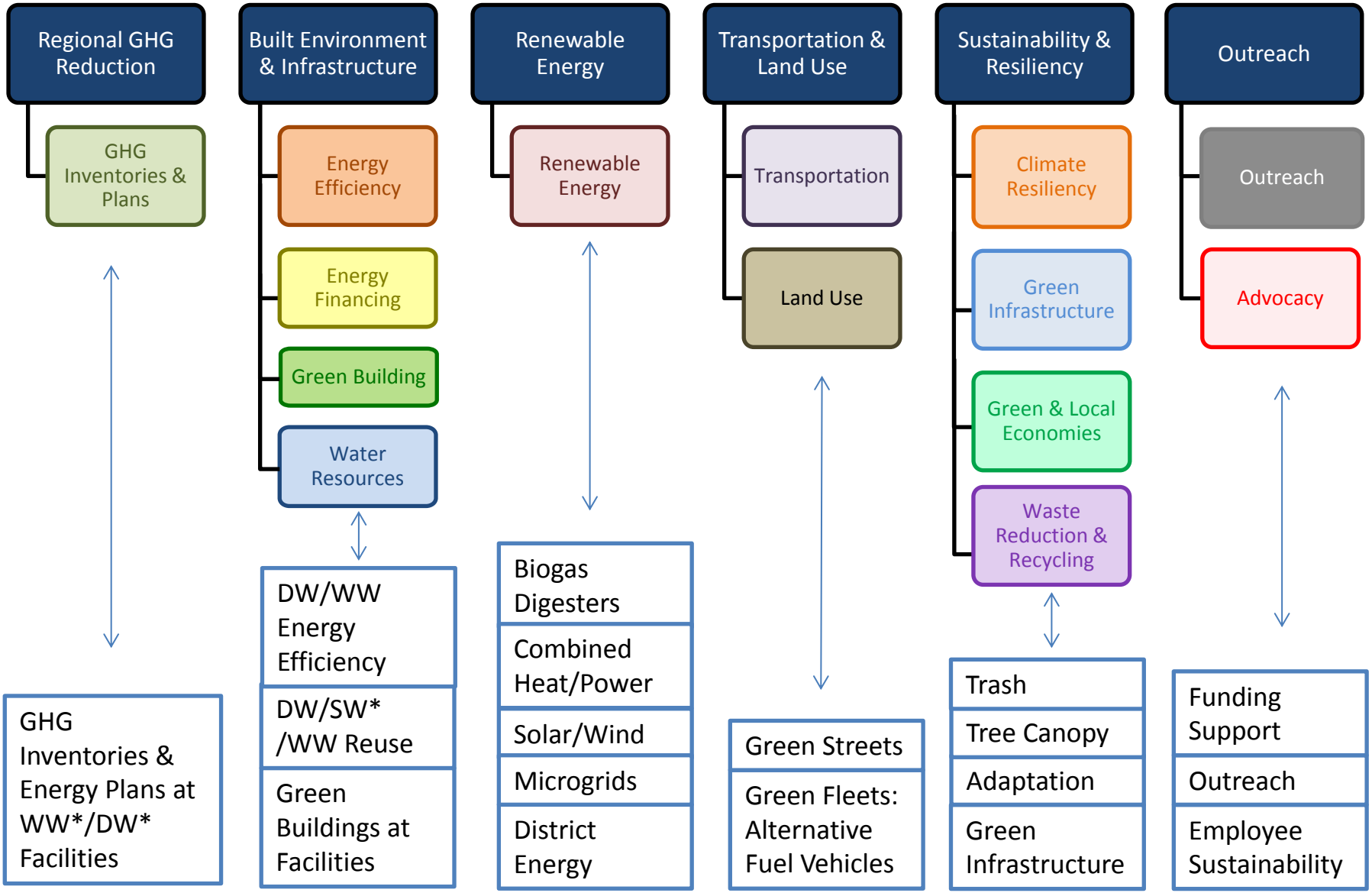
Sustainability: Indicators

In addition to targets, COG will be monitoring the following indicators to ensure that the region is moving in the right direction toward achieving its goals:

- Emissions per vehicle mile
- Energy (Electricity and Natural Gas) use per capita
- Percent of Renewable Energy purchased by local governments
- Solid Waste Generation per capita
- Regional Recycling Rate per capita
- Forest Coverage/Tree Canopy
- Percent of wastewater treatment capacity remaining
- Water usage per capita
- Acres of Impervious Surfaces

Water, Climate, and Energy Nexus

2013–2016 Climate Action Plan Categories



*Wastewater, Drinking Water, Stormwater

Related Water Resources Priorities

RWQM Work Program – FY 2014

Key Initiatives & Deliverables and Examples of Climate/Energy Links

- Input on the Bay Program's current initiatives & proposed new Bay Agreement – WWTP technologies are energy intensive; climate change impacts/implications?
- Continued collaboration with US Conference of Mayors & others to advocate for affordable, feasible, sustainable & holistic solutions to address water quality issues – Affordability across all sectors (capital & O&M concerns), net environmental benefits?
- A Potomac River water quality trends report/factsheet – Will also address potential climate change implications
- Regional wastewater flow projections & implementation status report – On track to meet 2025 Bay goal; how to maintain cap loads into future/energy demands/growth?
- A regional water resource infrastructure forum (in collaboration with COG's members & national organizations) to present challenges & opportunities – including regional infrastructure needs, costs, funding options, & work force issues – Will highlight energy savings/reduction efforts by wastewater/water utilities and note critical nature and dependency on electrical/power grid
- Outreach products (e.g., factsheets, webinars, & other mechanisms) to communicate the benefits & challenges of these water resource issues for COG's members – Will link efforts and goals like CEEPC's & Region Forward and highlight dependencies/cross-over issues.

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Question? Ideas?

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