

An aerial photograph of the Chesapeake Bay watershed, showing a complex network of rivers and streams flowing into the bay. The land is a mix of green forest and brownish-yellow agricultural fields. The water in the bay is a dark, muted blue-grey.

# ***Chesapeake Bay Governance***

**Robert M. Summers, Ph.D.**

**Former Maryland Secretary of the Environment**

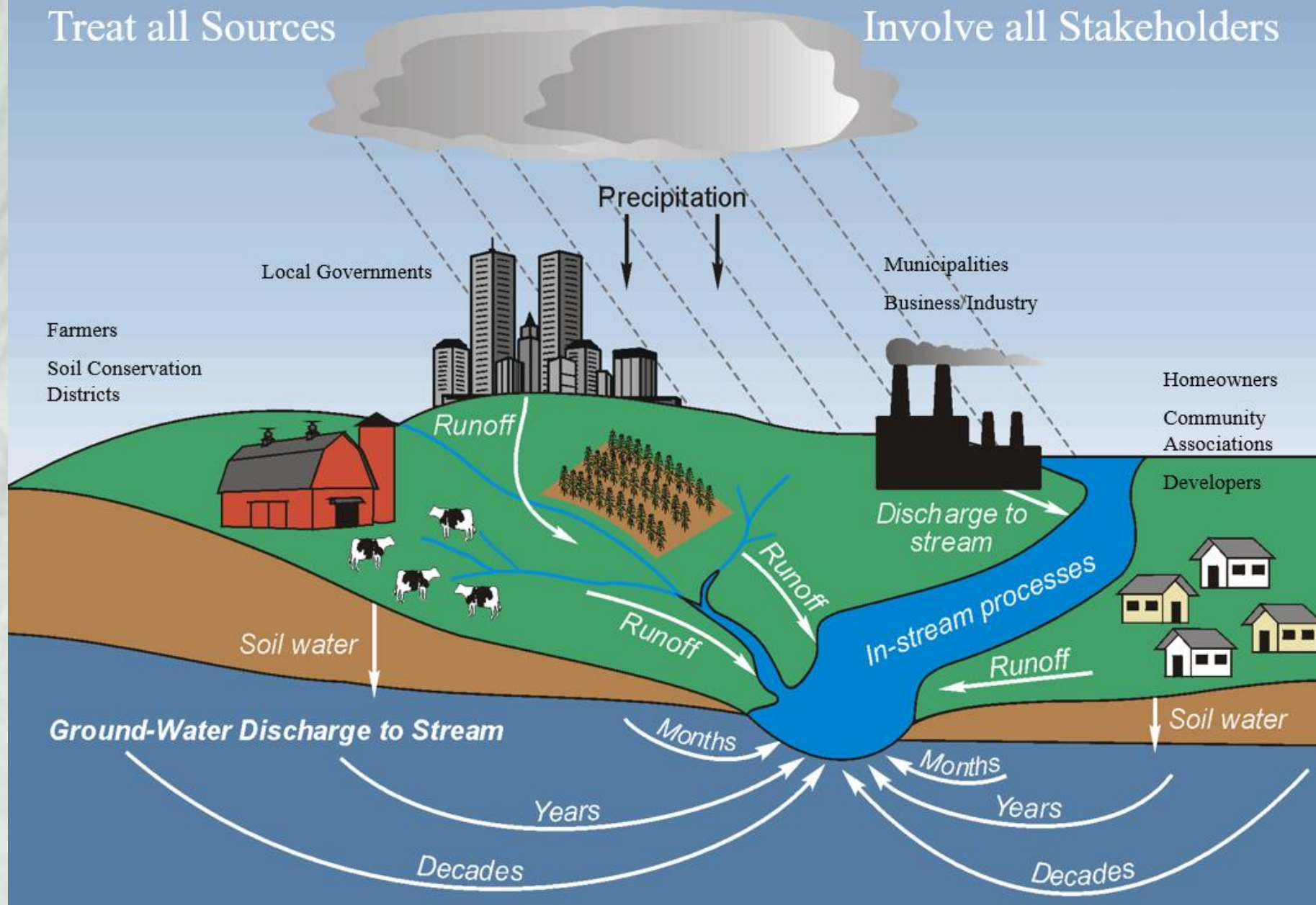
# Good Governance

- Restore and protect air quality
- Restore and protect water quality
- Improve & protect public health
- Ensure **everyone** does their part to preserve environmental quality now and in the future



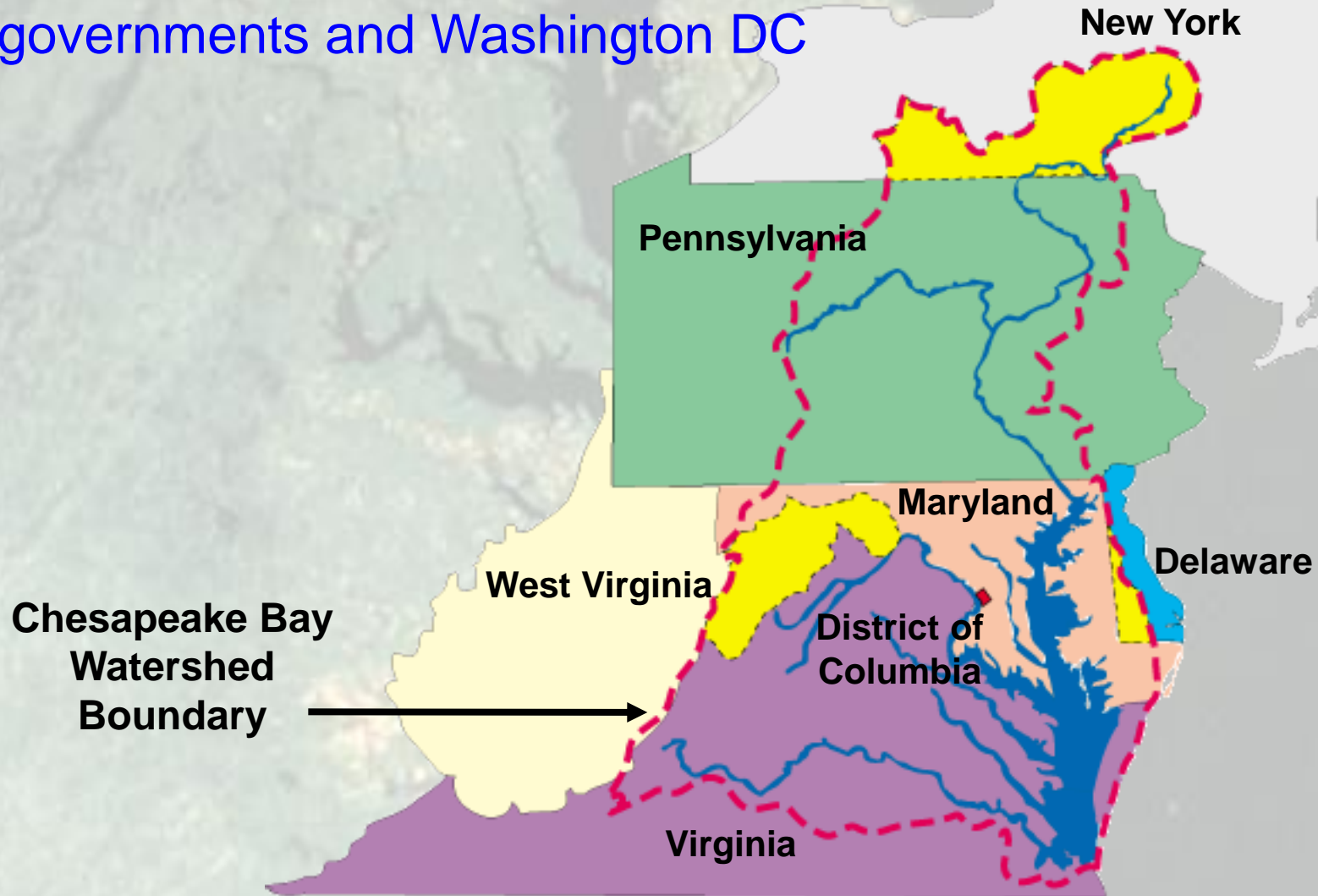
Treat all Sources

Involve all Stakeholders





The Bay drainage area falls under the jurisdiction of the U.S., 6 State governments and Washington DC



# National, State and Local Governance



Source: ChooseCleanWater.org

Each State has many local governments: Counties, Municipalities, Townships

There are over 1,800 local governments in the watershed

Representing 17 million people

It's not just pollution  
from the watershed,  
air pollution affects  
Bay water quality as  
well...

## Chesapeake Bay Airshed





# Federal Clean Air Act

- The Clean Air Act passed in 1970, with major revisions in 1977 and 1990.
  - Requires EPA to establish national ambient air quality standards for pollutants based on the latest science.
  - Air quality standards set using human health-based and/or environmentally-based criteria for six common air pollutants:
    - Particulate matter
    - Photochemical oxidants and ground level ozone
    - Carbon monoxide
    - Sulfur oxides
    - Nitrogen oxides
    - lead



Photo: R. Summers

# Clean Air Act Requirements

- Requires States to adopt enforceable plans to achieve and maintain air quality that meets standards
  - Both in-state and downwind states' air must be protected

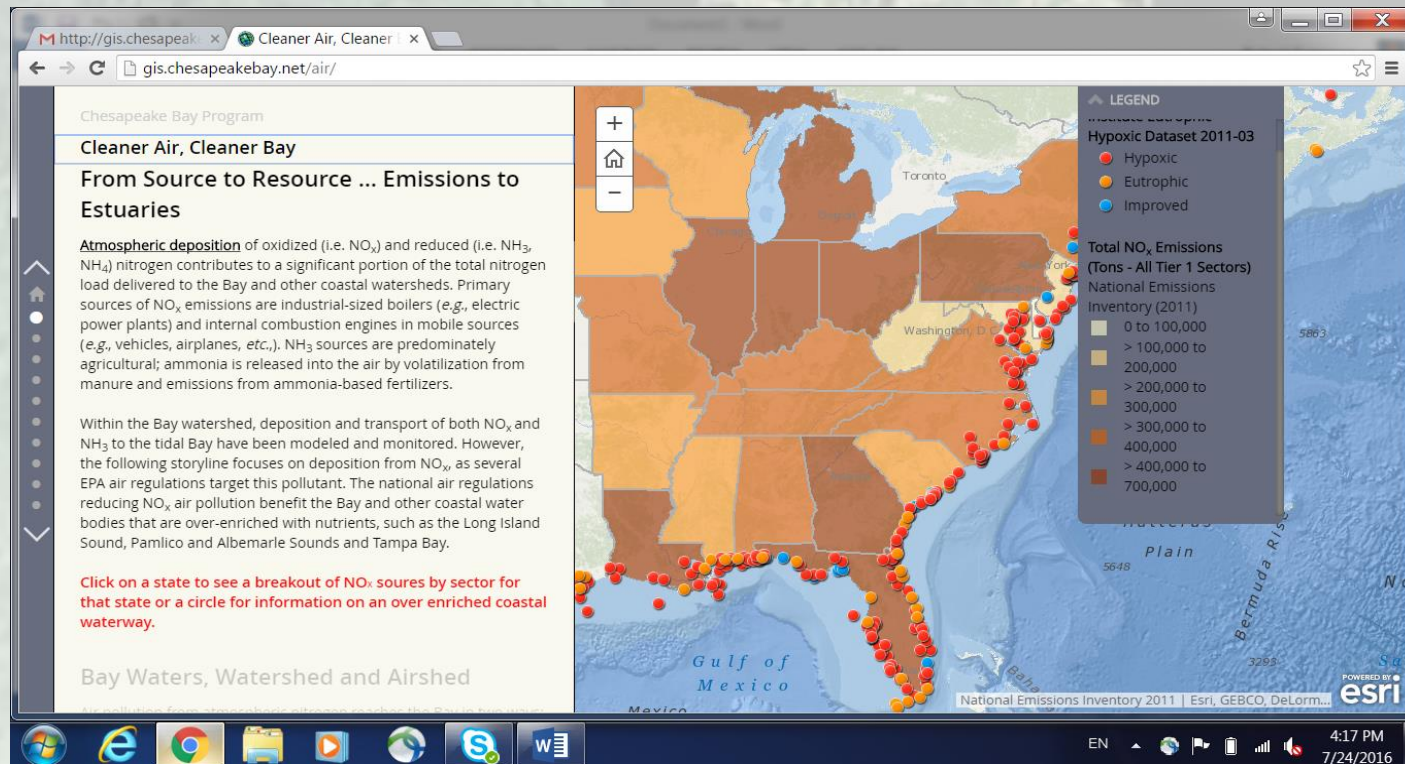


Photo: R. Summers



# Less air pollution means less environmental damage, including:

- Healthier crops and forests
- Reduced mercury in the aquatic food chain
- Reduced nitrogen enrichment of coastal waters



# Federal Clean Water Act

- The Clean Water Act (CWA) of 1977 sets the basic structure for regulating discharges of pollutants to waters of the United States

The CWA has provisions allowing EPA to delegate permitting, administrative and enforcement of the CWA to state governments





# Implementation of basic pollution control measures

- National Pollution Discharge Elimination System (NPDES) Permits:
  - 1970's: treatment of municipal and industrial wastewater discharges
  - 1980's: pollution control measures for large and medium sized stormwater systems
  - 1990's: pollution control measures for concentrated animal feeding operations (CAFOs)

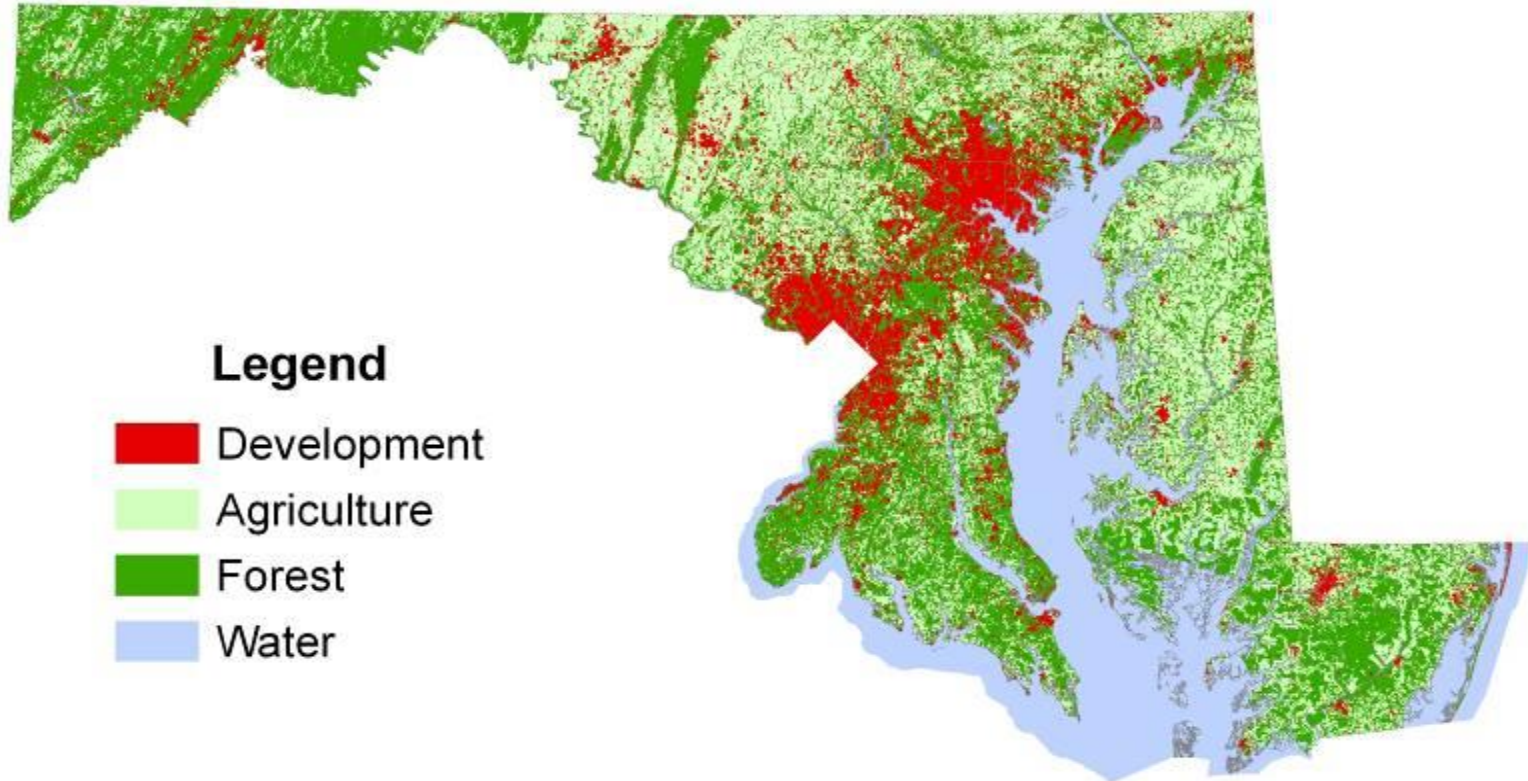


# Funding for public wastewater treatment systems

- Federally-funded construction grants program for public wastewater treatment systems
- State Revolving Loan Fund (SRF)
- Local wastewater utility fees paid by businesses and citizens



# 1973 Land Use / Land Cover for Maryland



## Legend

- Development
- Agriculture
- Forest
- Water

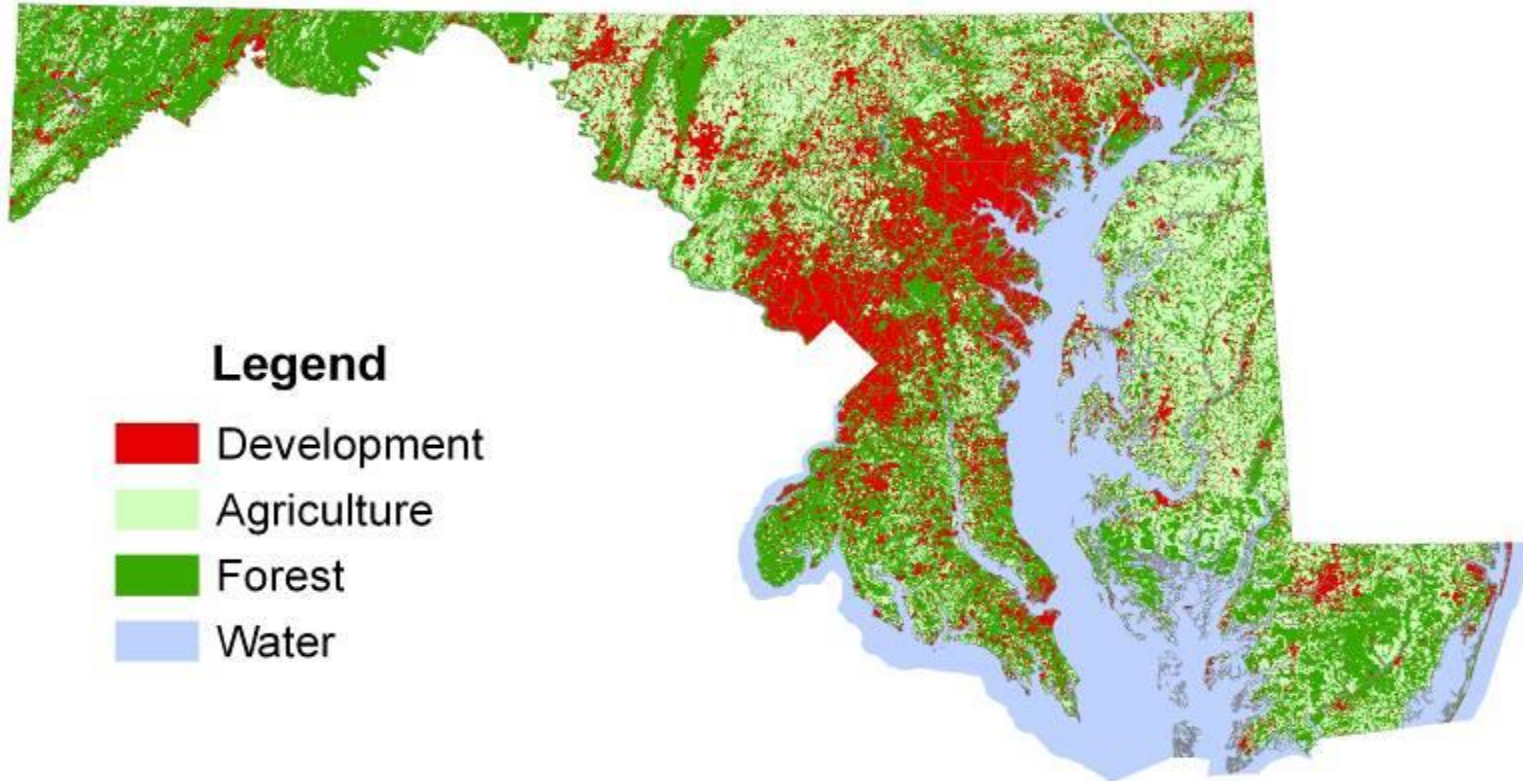
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MDP



# 2002 Land Use / Land Cover for Maryland



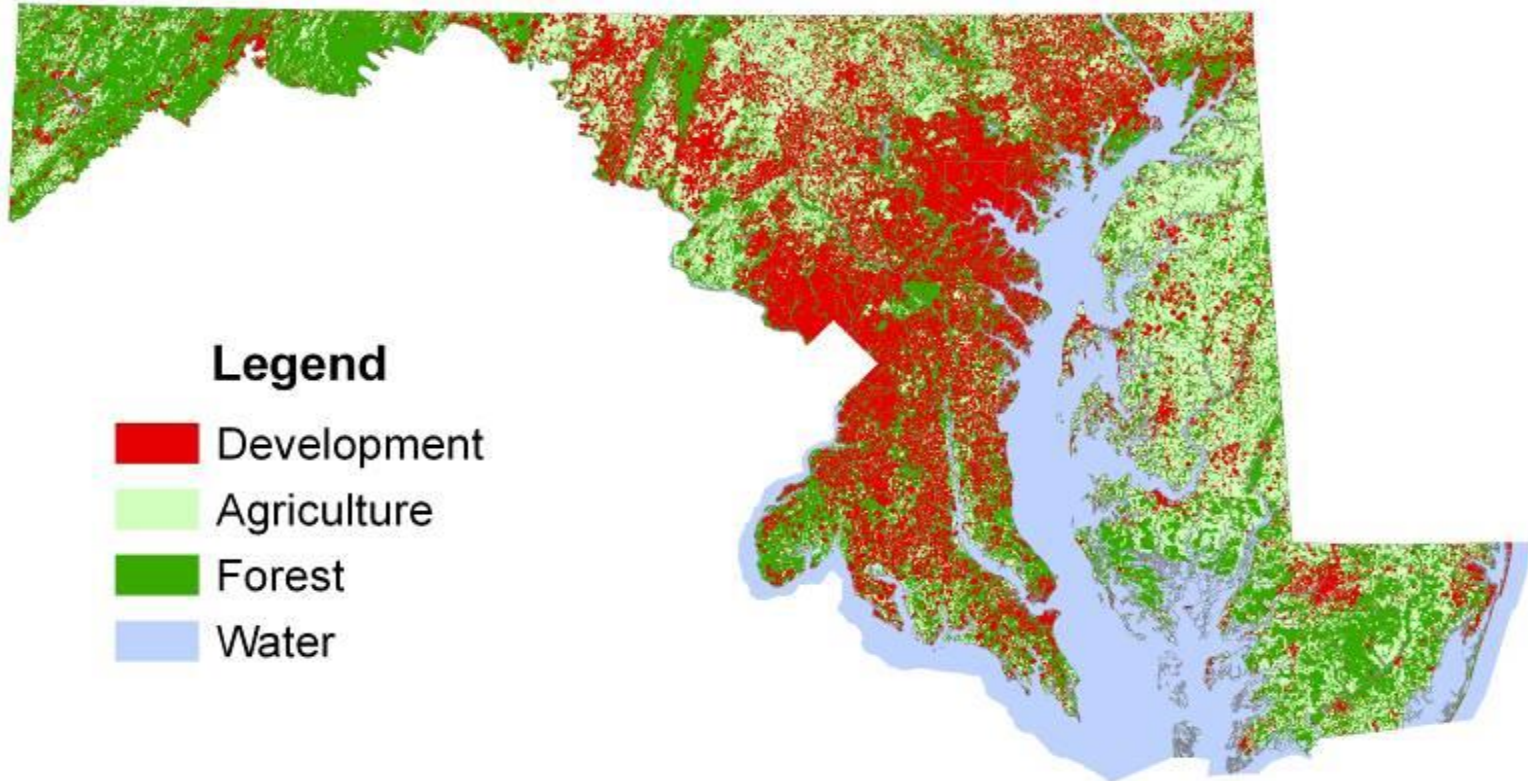
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**MDP**



# 2030 Land Use for Maryland Current Trends



## Legend

- Development
- Agriculture
- Forest
- Water

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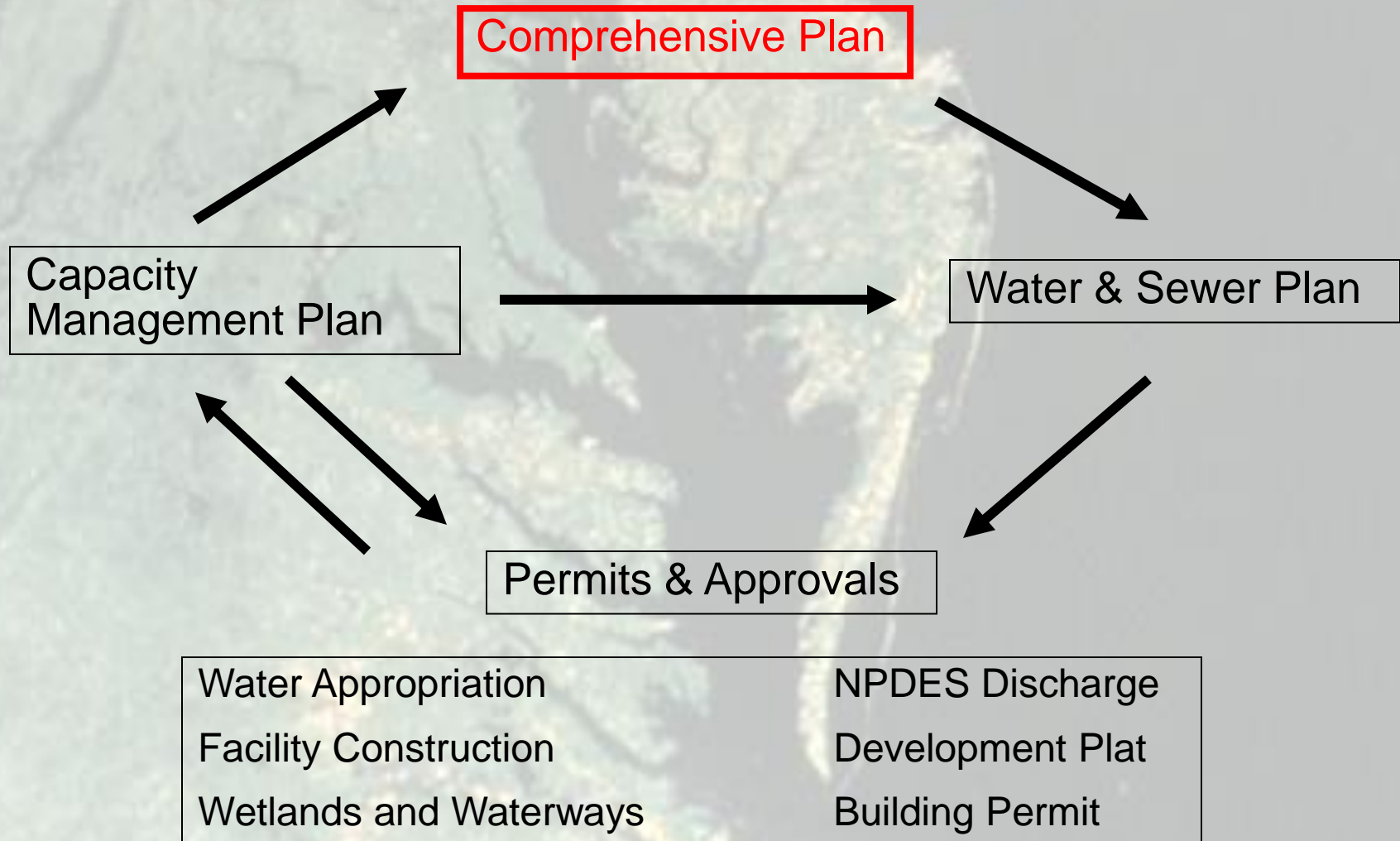
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# Water Resources Planning Cycle

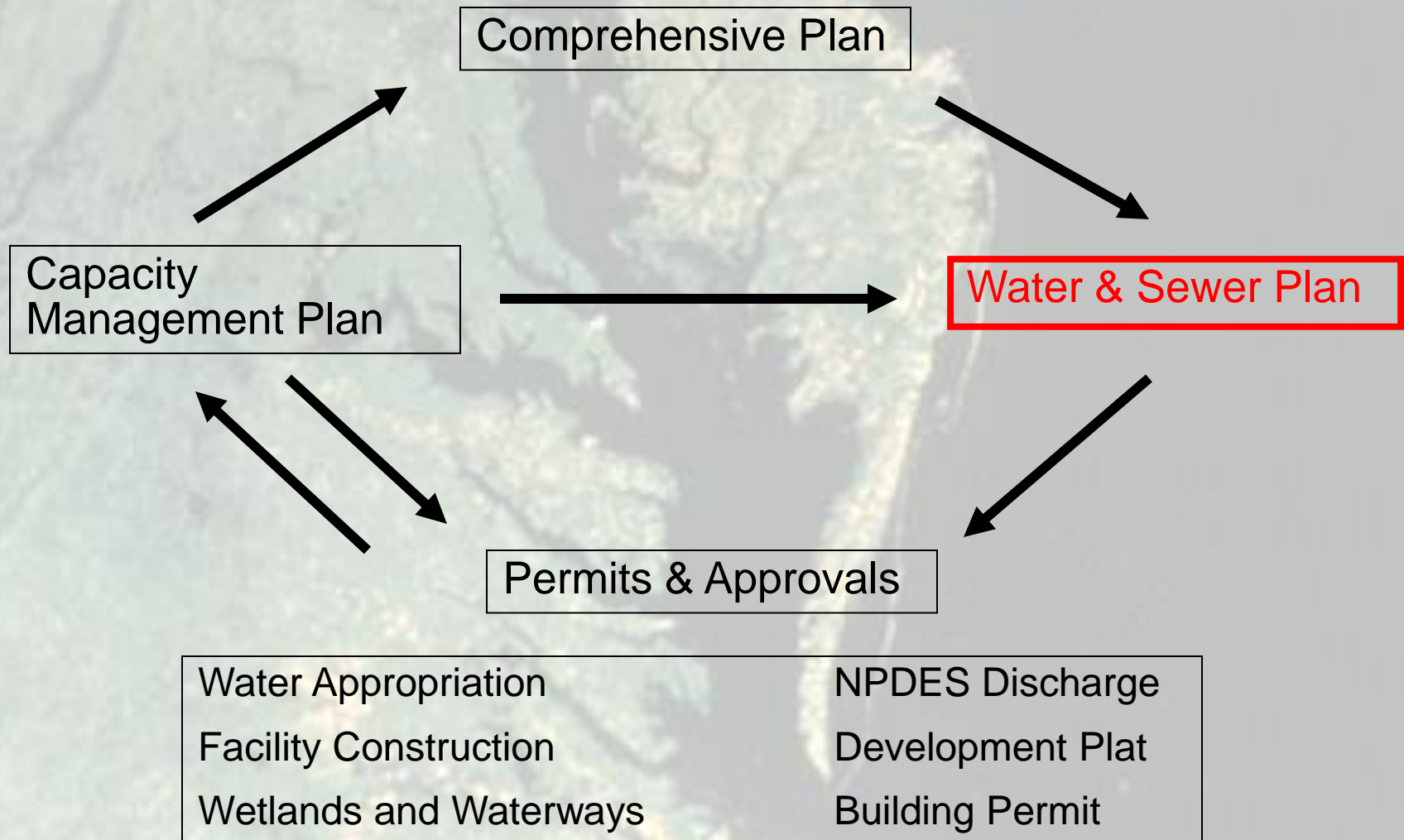
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graph TD; A[Comprehensive Plan] --> B[Water & Sewerage]; B --> C[Permits & Approvals]; C --> D[y ment Plan]; D --> A
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Water Appropriation  
Facility Construction  
Wetlands and Waterways

NPDES Discharge  
Development Plat  
Building Permit

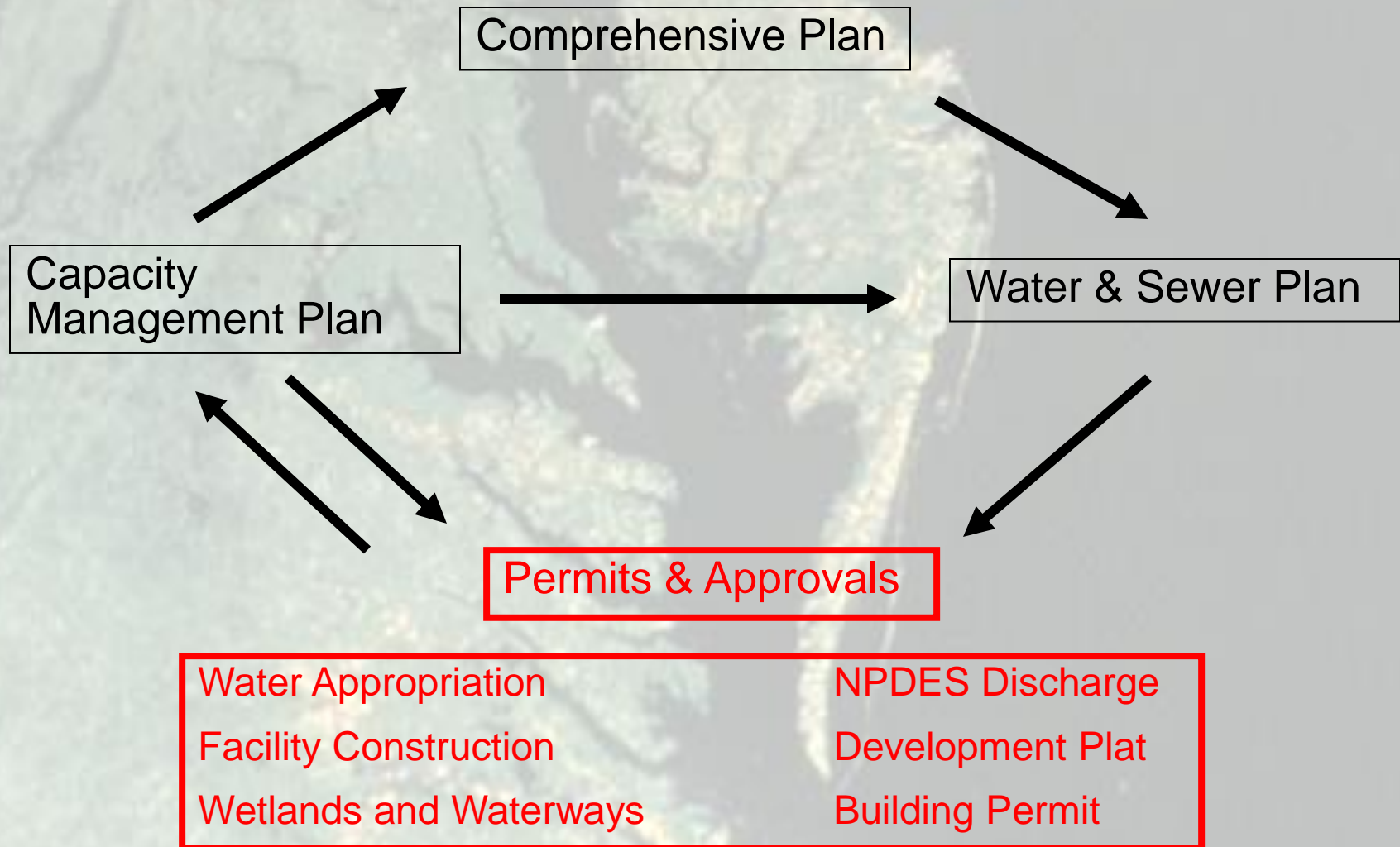


# Water Resources Planning Cycle





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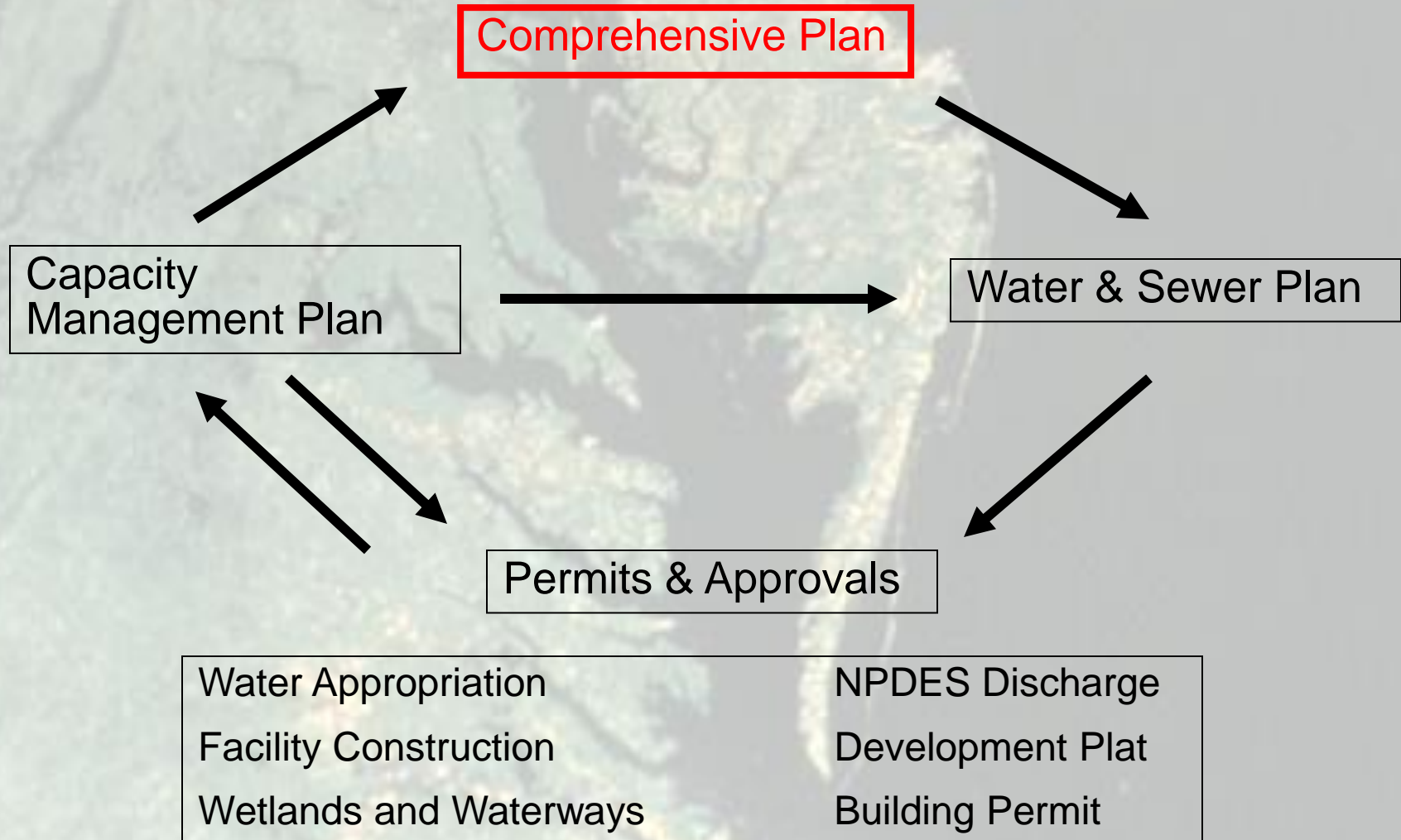
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graph TD; CP[Comprehensive Plan] --> CMP[Capacity Management Plan]; CP --> WSP[Water & Sewer Plan]; CMP --> PA[Permits & Approvals]; WSP --> PA; PA --> CMP; PA --> WSP; PA --- PA_Items[Water Appropriation, Facility Construction, Wetlands and Waterways, NPDES Discharge, Development Plat, Building Permit];
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The diagram illustrates the Water Resources Planning Cycle, which is a continuous process involving several key components:

- Comprehensive Plan** (highlighted in red): The central planning document that initiates the cycle.
- Capacity Management Plan**: A plan developed based on the Comprehensive Plan, which leads to the Permits & Approvals stage.
- Water & Sewer Plan**: A plan developed based on the Comprehensive Plan, which leads to the Permits & Approvals stage.
- Permits & Approvals**: The stage where the Capacity Management Plan and Water & Sewer Plan are reviewed and approved. This stage leads back to both the Capacity Management Plan and the Water & Sewer Plan, completing the cycle.

The Permits & Approvals stage involves the following key activities:

- Water Appropriation
- Facility Construction
- Wetlands and Waterways
- NPDES Discharge
- Development Plat
- Building Permit





# Enforcement of environmental laws is an essential part of governance

- US Environmental Protection Agency
- State agencies
- County and municipal governments
- Non-governmental organizations
- Volunteers
- Residents
- Citizen lawsuit provisions
- Courts



<https://bluewaterbaltimore.org/>

# Evolution of the Chesapeake Bay Program

1978

FEDERALLY FUNDED SCIENTIFIC STUDY TO DETERMINE CAUSES OF CONTINUED BAY DEGRADATION



1983

WATERSHED PARTNERSHIP ESTABLISHED (Section 117 of the CWA)



1987

AGGRESSIVE GOALS SET TO BE ACHIEVED BY 2000



2000

AGREEMENT TO TAKE REGULATORY ACTION IF GOALS NOT MET BY 2010



2009

PARTNERS AGREE TO SET BIANNUAL MILESTONE GOALS



2010

CLEAN WATER ACT TOTAL MAXIMUM DAILY LOAD SET





# 1983 Chesapeake Bay Agreement

- The original **Chesapeake Bay Agreement** was a simple, one-page pledge signed in 1983 to establish the governance structure of the Chesapeake Bay Program.
- The signatories of the Chesapeake Bay Agreement of 1983 became the **Chesapeake Bay Executive Council**





# Bay Program Governance

Bay Program partners: EPA (representing the Federal government), the jurisdictions of MD, PA, VA and DC, and the Chesapeake Bay Commission (representing MD, PA and VA state legislatures).



The partnership was expanded in 2000 through a Memorandum of Understanding to include the jurisdictions of DE, NY and WV.





# Chesapeake Bay Program Governance

- **Executive Council** – Governors, Mayor, Chair of the Bay Commission and Administrator of U.S. EPA
- **Principal's Staff Committee** – Cabinet Secretaries, Director of DC Health Dept., Directors of the Bay Commission and EPA Bay Program
- **Advisory Committees** – Scientific/Technical, Local Government and Citizen Advisory Committees
- **Management Board** – Gov. agencies, NGOs, academic institutions
- **Goal Implementation Teams** – Gov. agencies, NGOs, academic institutions



# Stakeholder Engagement

Representatives appointed by the members of the Bay Program Executive Council:

- Citizens' Advisory Committee
  - Citizens representing businesses, environmental groups and agricultural interests
- Local Government Advisory Committee
  - Local political leaders
- Scientific and Technical Advisory Committee
  - Scientific and technical experts



# VISION

*The Chesapeake Bay Program partners envision an environmentally and economically sustainable Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage and a diversity of engaged stakeholders.*

## Goals set for:

1. Sustainable Fisheries
2. Vital Habitats
3. Water Quality
4. Toxic Contaminants
5. Healthy Watersheds
6. Land Conservation
7. Stewardship
8. Public access
9. Environmental Literacy
10. Climate Resiliency



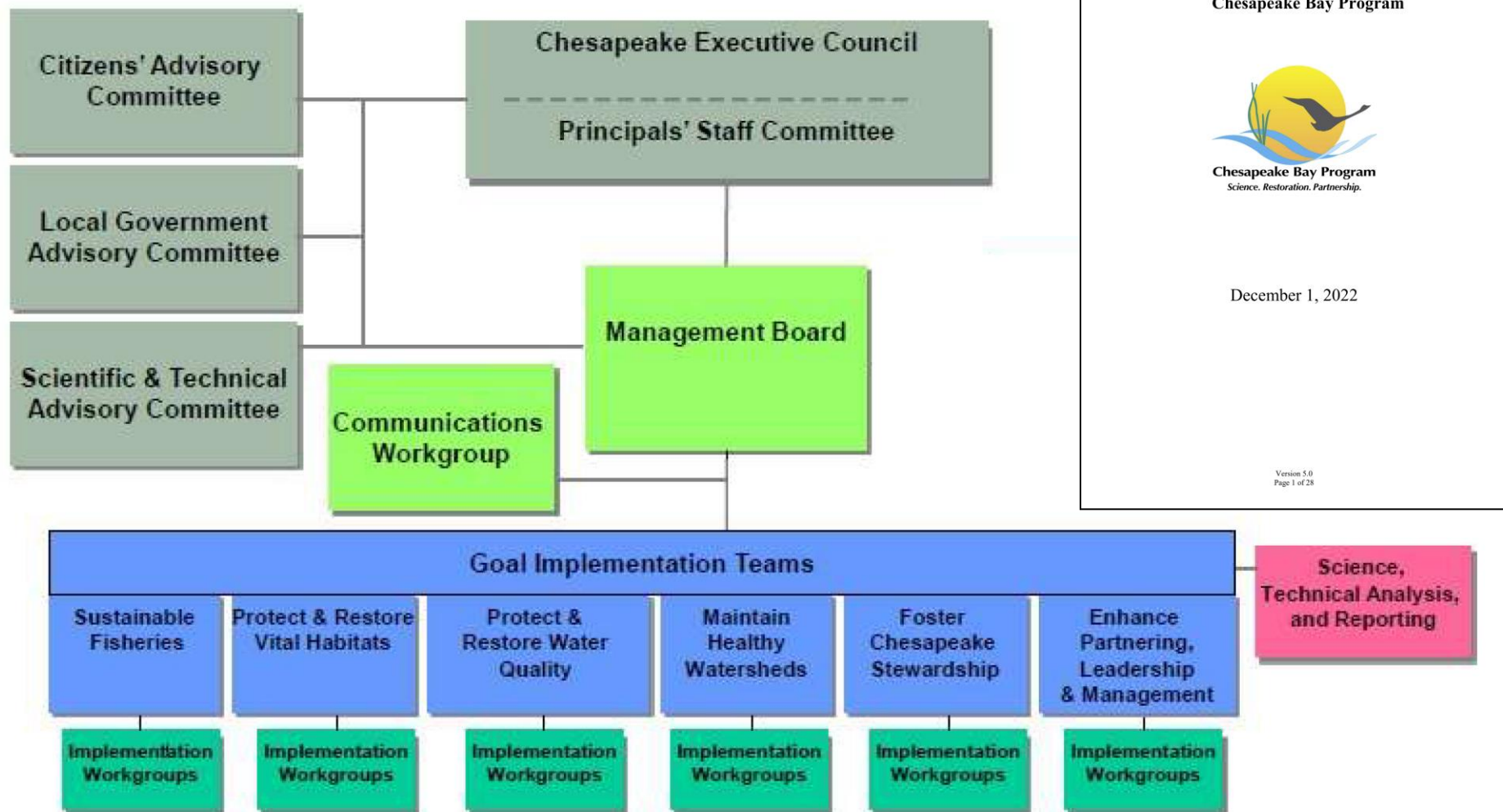
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As amended, October 5, 2022

<https://www.chesapeakebay.net/what/what-guides-us/watershed-agreement>

# Bay Program Organization

**Figure 1.** Organizational Structure of the Chesapeake Bay Program



Chesapeake Decisions is a structured process the Bay Program uses to ensure the goals of the *Chesapeake Bay Watershed Agreement* are achieved.



<https://www.chesapeakebay.net/what/what-guides-us/decisions>

- Status of management actions are reviewed on a 2-year cycle (“2-year milestones”) applying the principles of adaptive management
- Publicly transparent reporting:
  - status of actions being taken
  - those responsible for taking actions can be held accountable



