In-Progress Policy Recommendation on Water Quality Management in Georgia

Presented to
Water Council
December 7, 2006

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Vision Statement from 2004 Comprehensive Statewide Water Management Planning Act

"Georgia manages water resources in a sustainable manner to support the state's economy, to protect public health and natural systems, and to enhance the quality of life for all citizens."

Draft Policy Recommendation:

Premises

- Water quality challenges vary across the state, so flexibility in management is needed
- “One size fits all” solutions will not work
- Some policies and management tools may apply statewide
- Additional policies and tools will be needed where water quality is already impaired

Why is Water Quality Management Important? Values & Opportunities Offered by Clean Water

Offstream

- protect human health
- provide new opportunities for municipal, industrial & commercial economic development

Instream

- provide waste assimilation
- provide safe water-based recreation
- protect & maintain integrity of aquatic ecosystems

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Importance of Preserving Water Quality

- Values and opportunities important to today's Georgians
- Values and opportunities equally important to preserve and protect for tomorrow's Georgians

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Draft Policy Framework for Water Quality Management

Manage the discharge of pollutants from all sources (point and non-point) to Georgia's waters on a watershed basis to ensure the physical, chemical, and biological integrity of those waters now and in the future.

Definitions

- ***Assimilative Capacity***:

  The capacity of a water body to take in a particular pollutant – over a defined period of time and under defined conditions - without unacceptable alterations to the water's physical, chemical, or biological properties.

Definitions (continued):

- ***Water Quality Criteria***:

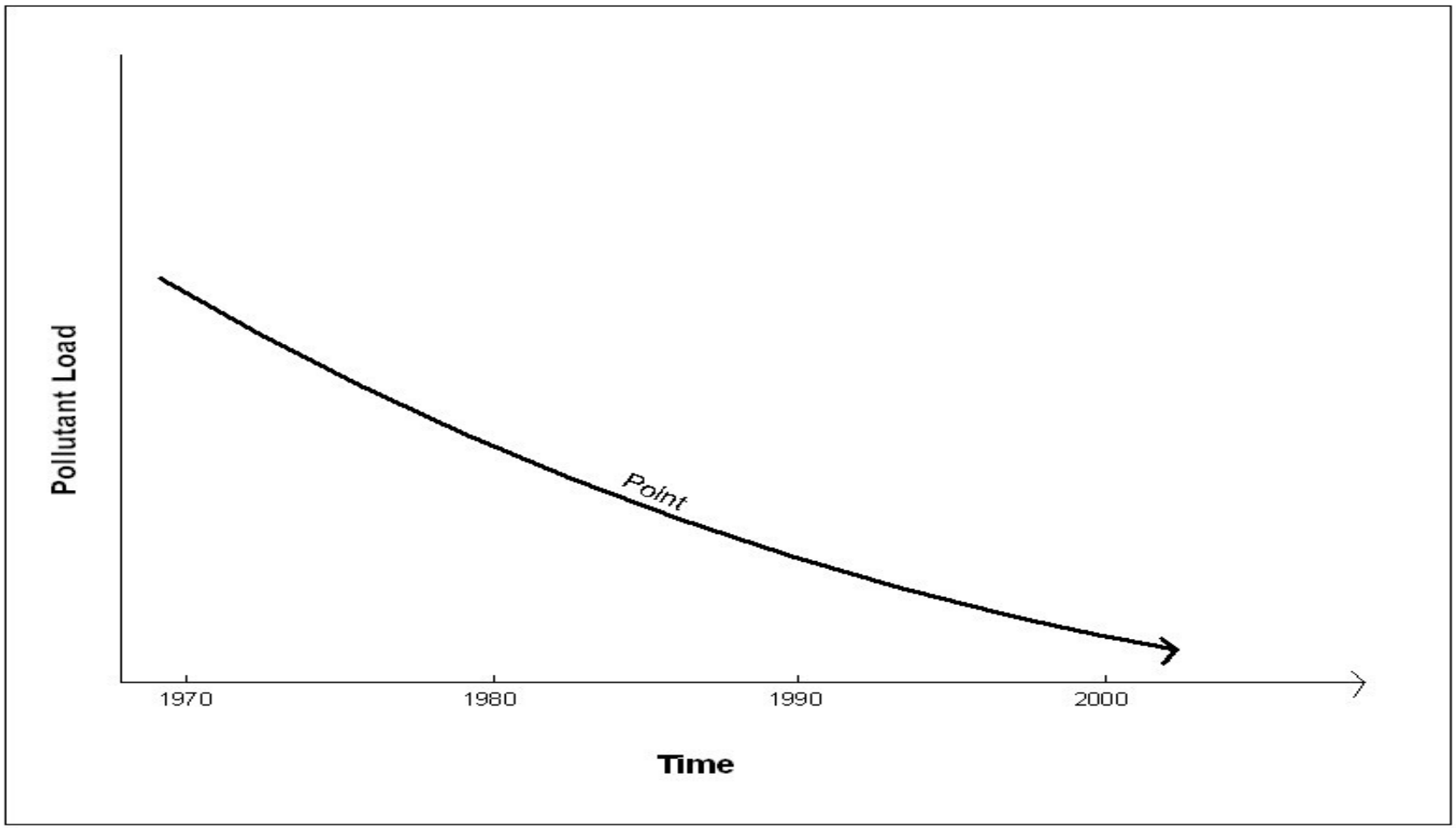
  The array of pollutants - and their concentrations - that may exist in a water body without causing unacceptable alterations to the water's physical, chemical, or biological properties.

Definitions (continued):

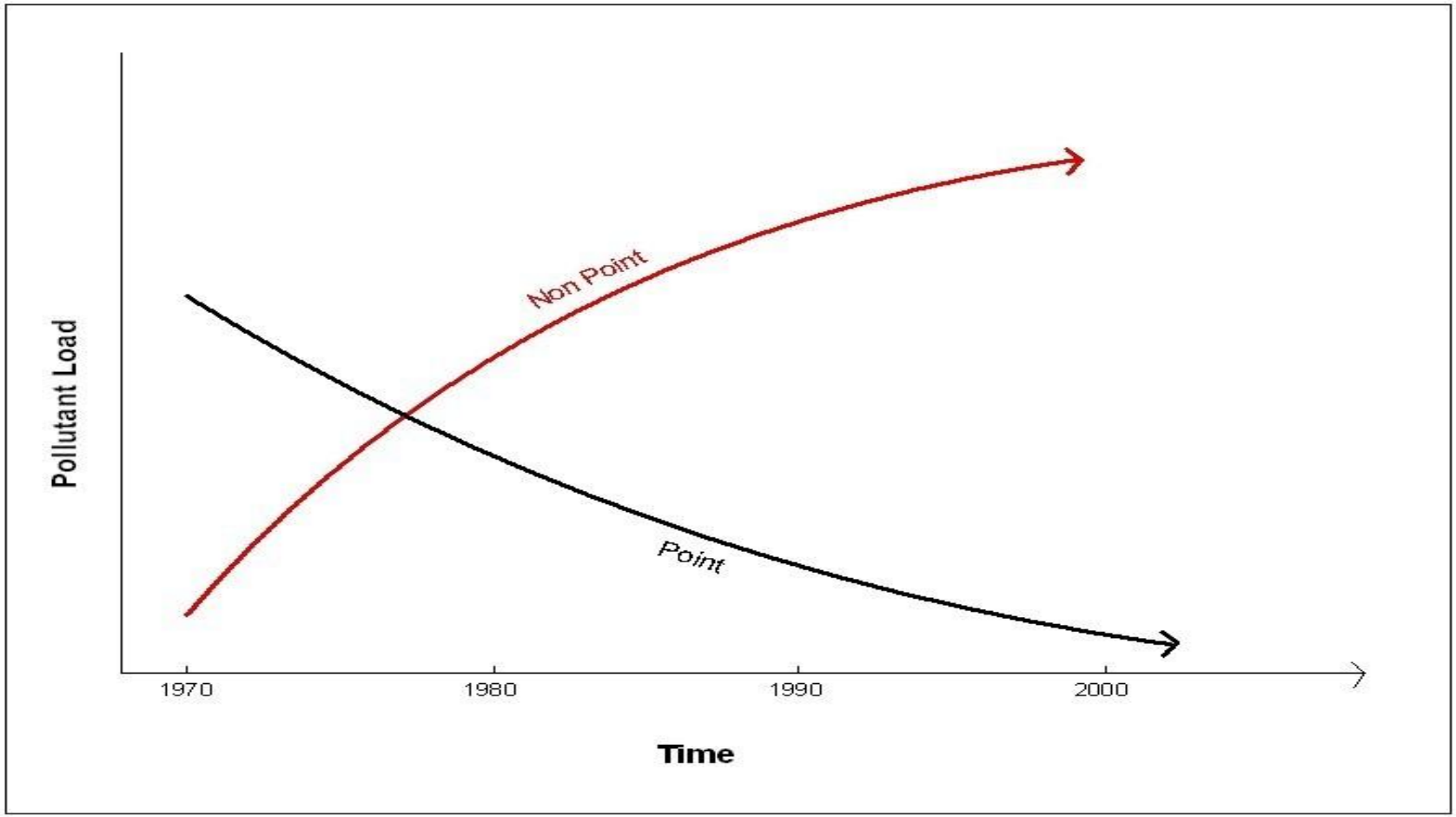
- ***Major Sources of Pollutants***

  Pollutants generally enter our waters via discharge pipes and/or overland runoff
  - after being treated at wastewater treatment facilities;
  - after collection in storm water collection networks constructed to direct rainwater away from developed areas, and
  - as a result of overland runoff of storm flows after rainfall events

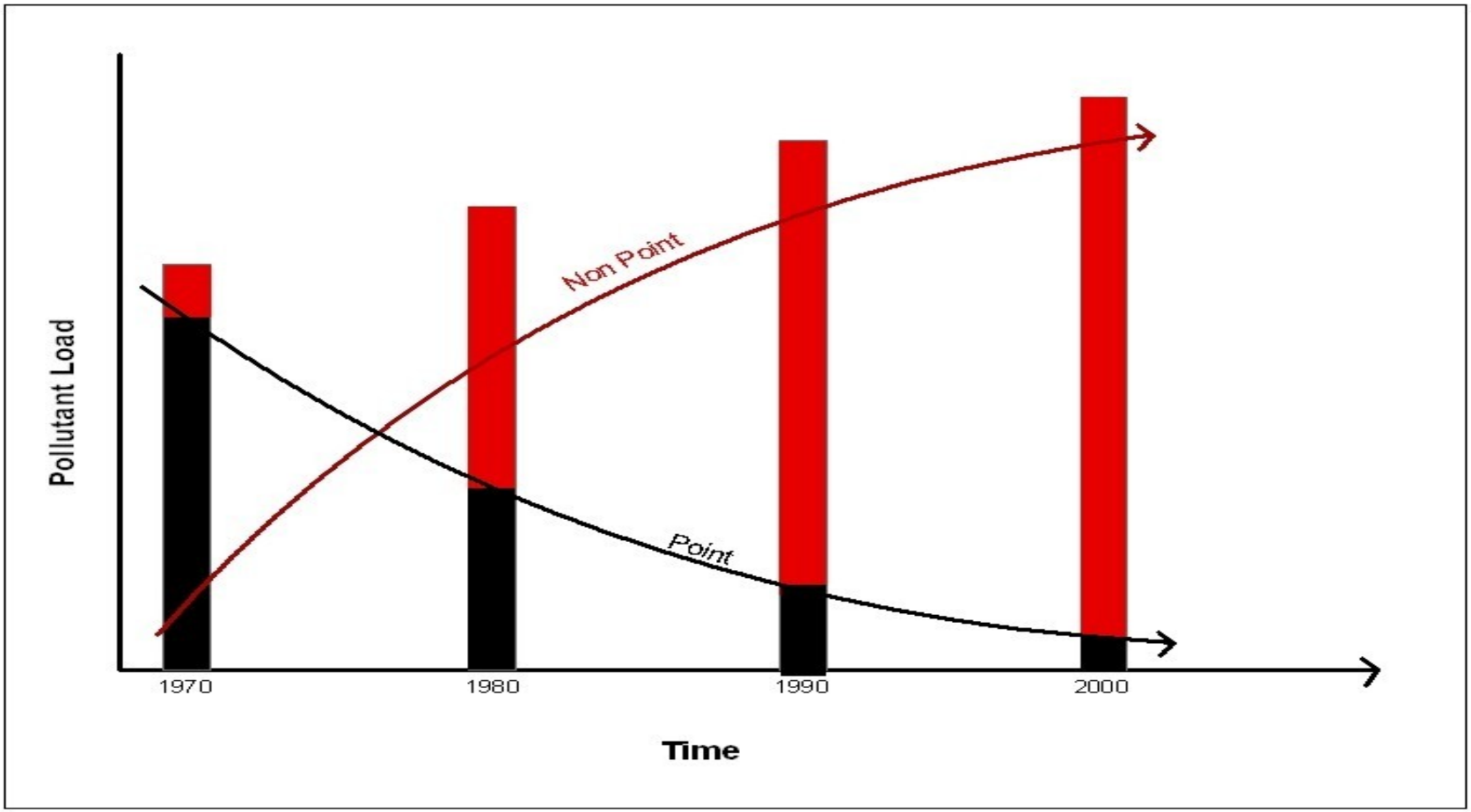
Point Source Pollutant Loadings Declining with Implementation of Management Practices



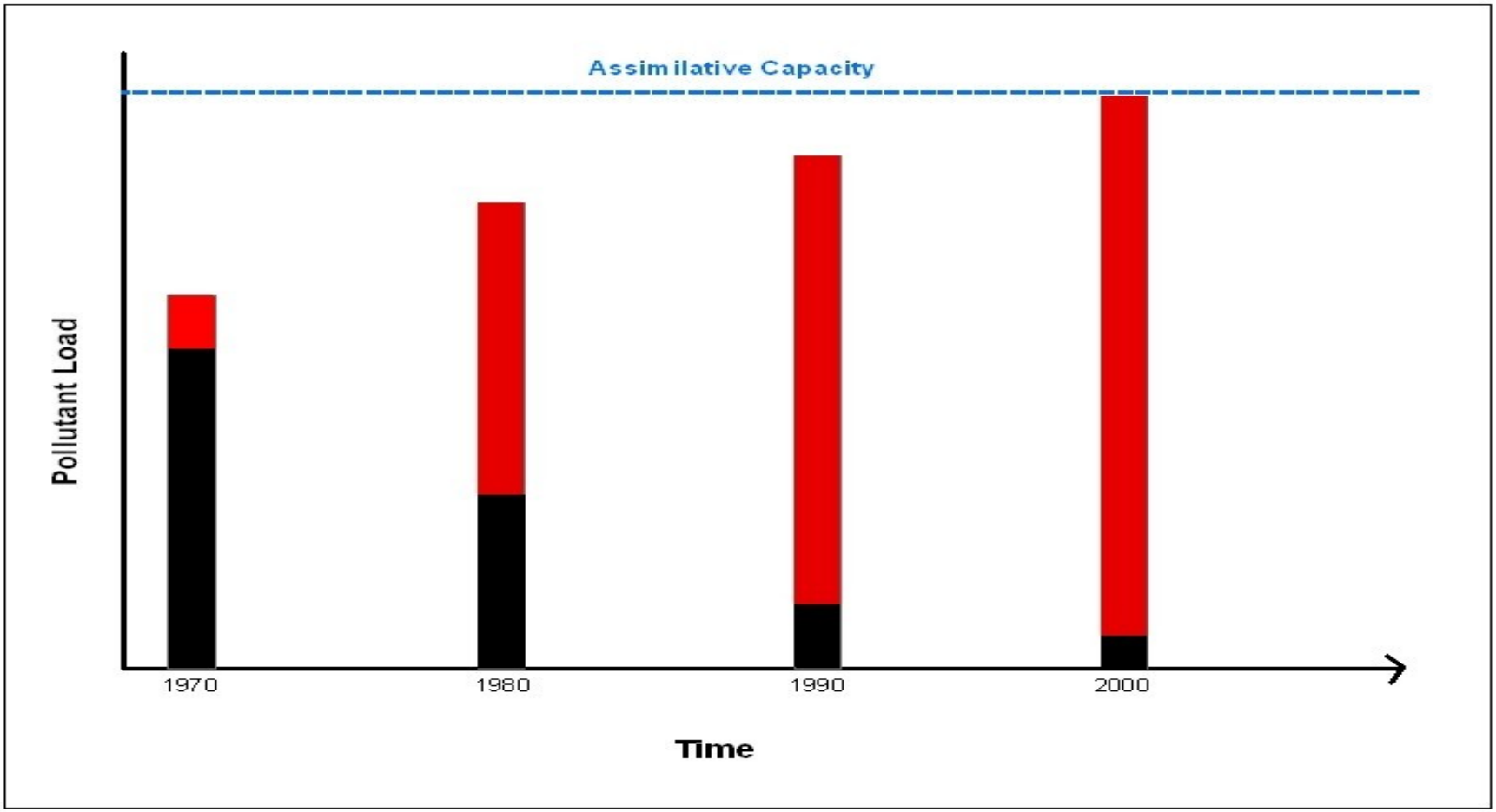
Non-Point Source Pollutant Loadings Increasing in Absence of Comprehensive Management Practices



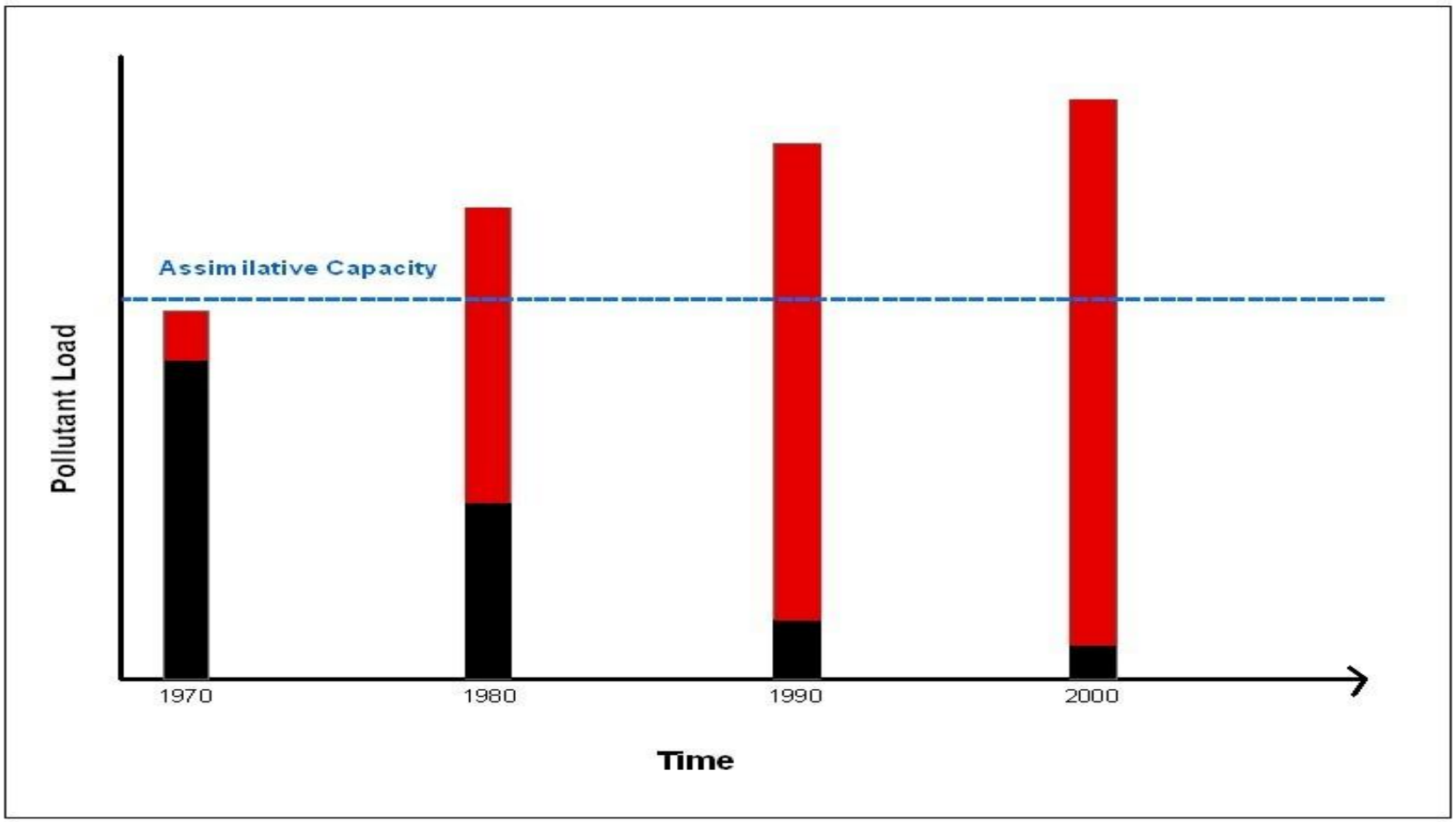
Total Pollutant Loadings Increasing Despite Successes Managing Point Sources



Approaching Assimilative Capacity of Some Waters…



…Exceeding Assimilative Capacity in Other Waters



Summary Points of Policy Framework

- Right Standards; Right Size
- Monitor; Evaluate; Implement; Monitor
- Fix Impaired Waters
- Preserve Waters Not Yet Impaired

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Right Standards; Right Size

- Fecal Coliform Standard
  - Is it the appropriate public health based standard?
  - Is it the appropriate standard upon which to found corrective management practices?

- Dissolved Oxygen Standard
  - Is the D.O. standard a single size for all Georgia waters, or are there circumstances that dictate a need for variability?

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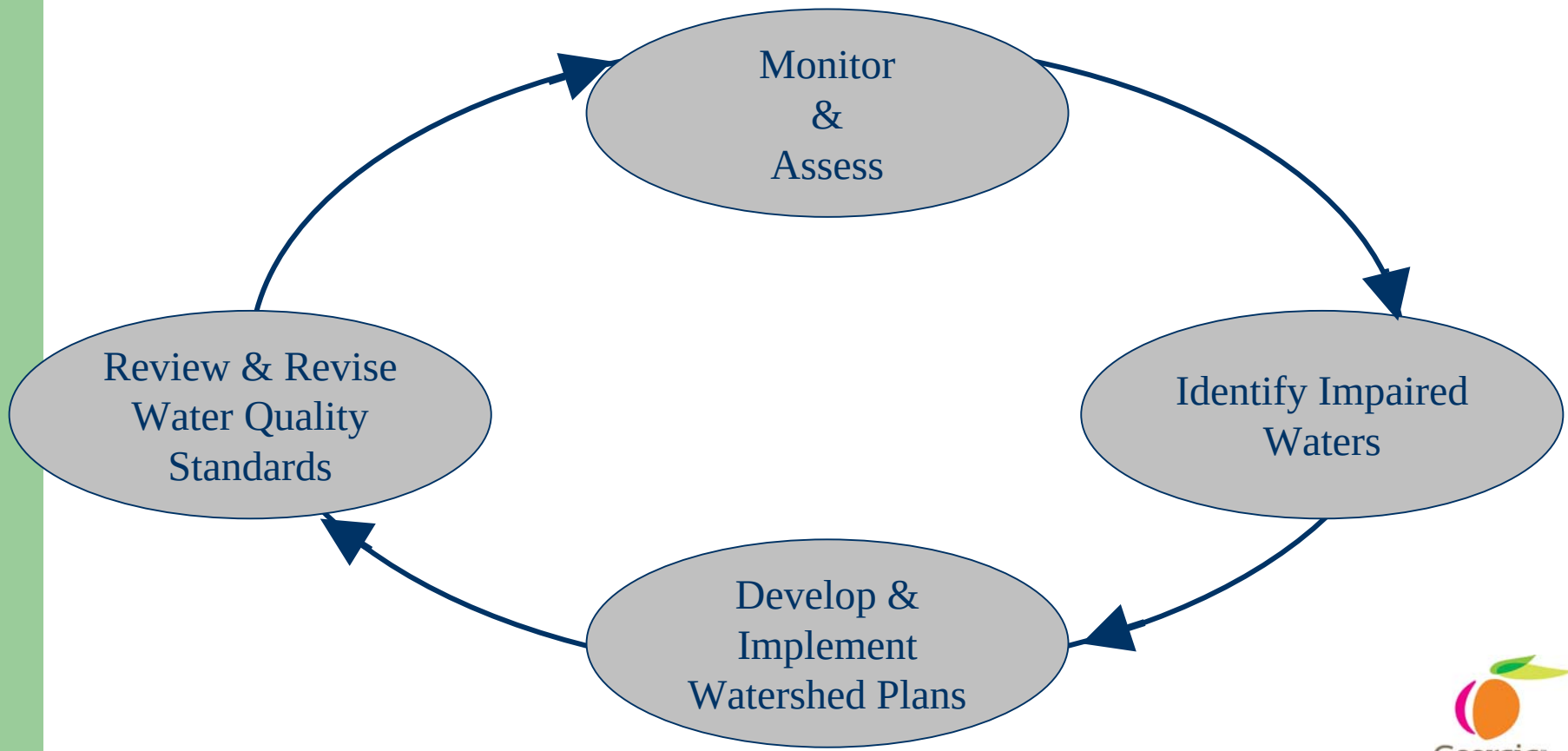
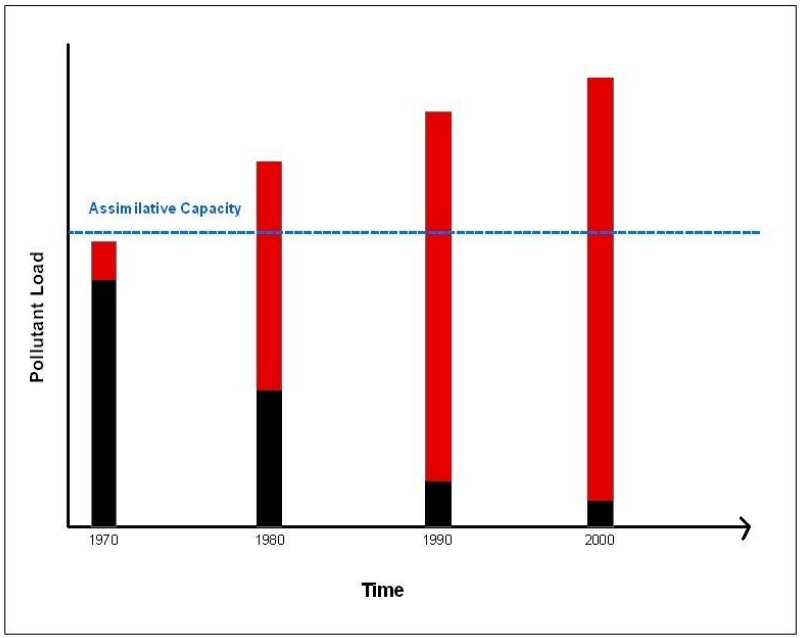
Monitor; Evaluate; Implement; Monitor



Fix Impaired Waters



- 41% of the 11,900 river miles assessed in ’04 fully supported their designated uses
- 74% of the 425,400 acres of lake waters assessed in ‘04 fully supported their designated use

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Management Practices

- Point Sources
  - Determine Watershed Pollutant Allocations
  - Watershed permits
  - Pollutant Allocation Trading

- Non-Point Sources
  - Develop Watershed Plans (e.g., source water, TMDLs, etc)
  - Implement Watershed Plans
  - Fully implement and enforce existing laws *(need new laws?)*
  - Increase voluntary actions to restore water
  - Monitor & Evaluate
  - Re-Develop/Implement Watershed Plans

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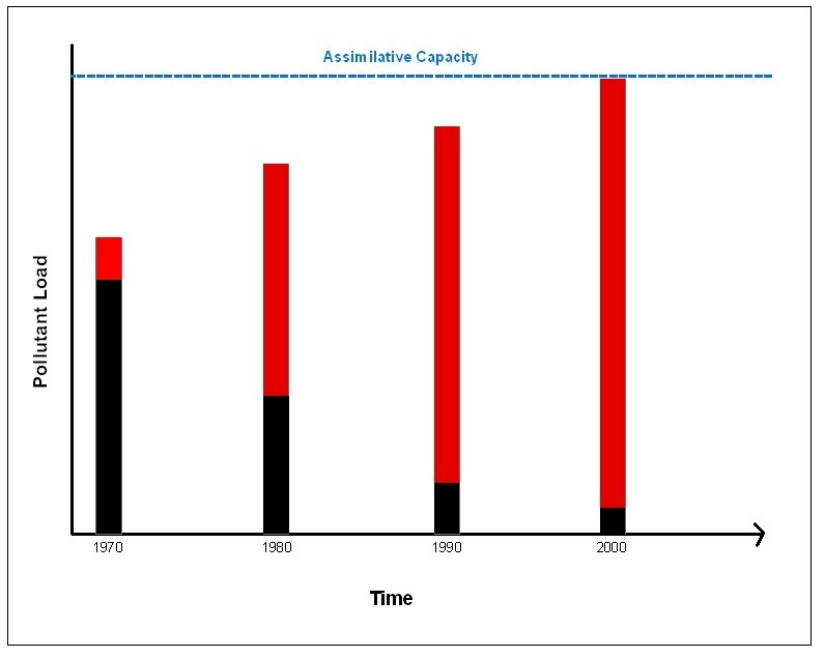
Preserve Waters Not Yet Impaired

- Impervious surfaces increased from 468K acres in ’91 to 847K acres in ’05. This 81% increase occurred largely in high population growth urban areas and other rapidly urbanizing areas.
- In ’91 there was one small watershed with impervious surface greater than 30%; in ’05 there were 9 small watersheds with greater than 30% impervious surface; 2 had exceeded 40%.
- In ’91 26 of our 1814 small watersheds had impervious cover >10%; by ’02 this number had increased to 75.



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Management Practices

- Point Sources
  - Continue Regulatory Programs from Past 30 years (w/tweaks)
  - Determine Watershed Pollutant Allocations
  - Watershed permits
  - Pollutant Allocation Trading

- Non-Point Sources
  - Understand Water Quality Implications/Impacts of Various Land Uses
  - Identify Full Array of Land-Use Specific Control Strategies
  - Develop Unity of Effort by State/Local Government Entities in Implementation of Control Strategies (Regulatory and Non-Regulatory)
  - Monitor, Evaluate, ….

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Draft Policy Framework for Water Quality Management

Manage the discharge of pollutants from all sources (point and non-point) to Georgia's waters on a watershed basis to ensure the physical, chemical, and biological integrity of those waters now and in the future.

"We have been quick to assume rights to use water, but slow to recognize obligations to preserve and protect it."

-Sandra Postel

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