

# Aiming High

## Setting Targets for a Restored Anacostia Watershed

December 3, 2001

### Sharing a Common Vision

The Anacostia is a resilient watershed. With continued care and commitment, it once again can provide a unique contribution to the quality of life and economic vitality of the surrounding community. It can also resume its place as a healthy and integral part of the larger Potomac River and Chesapeake Bay ecosystems.

The Anacostia watershed covers 176 square miles of once beautiful land in Maryland and the District of Columbia. For over three hundred years it was extensively farmed and urbanized, resulting in loss of habitat, erosion, flooding, loss of wetlands, toxic pollution and decline of river-based recreation. Beginning in 1984, however, visionaries began to recognize that the quality of the watershed is inextricably linked with the health and well being of the community. Since then, many partners have worked long and hard toward a vision of a restored Anacostia River watershed.

In 1984 Maryland and the District of Columbia officially recognized the value of a restored Anacostia watershed. In 1987, the "Anacostia Watershed Restoration Agreement" brought Montgomery and Prince George's Counties in as equal partners and resulted in the formation of the Anacostia Watershed Restoration Committee. In 1991, this partnership adopted, through its "Six-Point Action Plan," six overarching goals designed to restore the Anacostia River and its tributaries.

Since then, restoration has progressed toward all six goals. The four signatory jurisdictions, the District of Columbia, Montgomery County, Prince George's County and the State of Maryland, together with the DC Water and Sewer Authority, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the National Park Service and the Maryland-National Capital Park and Planning Commission have all made major contributions. The dedication of community-based groups, who have galvanized support and effectively mobilized the watershed's citizenry, as well as numerous local businesses have also been instrumental in the restoration effort.

The restoration partnership was greatly strengthened by the May 10, 1999 Anacostia Summit. The restoration partners reaffirmed their commitment to the six fundamental goals, directed the development of specific restoration indicators to measure progress and the setting of specific targets to be achieved by 2010. They also agreed to meet biennially to assess progress and examine the needs for furthering the goals of the restoration effort.

In June 2000, the Chesapeake Bay Program officially recognized the importance of the restoration of the Anacostia watershed. Chesapeake 2000, the new Bay agreement, called for the Anacostia watershed partners to “eliminate public health concerns and achieve the living resource, water quality and habitat goals of this and past Agreements” by 2010.

## **Building on Underlying Principles**

The Anacostia River watershed is inextricably linked with the health and well being of the community. The quality of its waters has a direct bearing on quality of life and economic vitality and is coupled with the ecological health of the Potomac River and the Chesapeake Bay. Success in restoring and protecting the Anacostia watershed will both complete the vision and commitment first established in the landmark 1987 Anacostia Restoration Agreement and accomplish the goal of restoring the Anacostia River in the Chesapeake Bay Program’s Chesapeake 2000 agreement. Several underlying principles help frame and shape the common vision for a restored Anacostia watershed. These principles can help guide and sustain the programs and projects necessary for the restoration and protection of the Anacostia watershed.

- ✓ The Anacostia River and all of its tributaries are community assets to be restored, protected and preserved for the common good.
- ✓ The Anacostia ecosystem is an integral part of the larger Potomac River and Chesapeake Bay ecosystems and should be managed in concert with the ecosystem goals outlined in the Bay agreement.
- ✓ All citizens are entitled to ready access to waters whose condition supports high quality recreation.
- ✓ All waters of the watershed shall be managed to provide for the designated maximum safe recreational use and shall be protected against unsafe and repellent levels of pathogens, toxics, sediment, trash, debris and odors.
- ✓ The Anacostia watershed shall be managed in a scientific and environmentally sensitive manner to protect the public from potential flood hazards.
- ✓ All waters of the watershed shall be safe and attractive for fishing. They shall be protected against unsafe levels of toxics. Water quality and habitat will be maintained to support a diverse population of native fishes and their supporting food webs.
- ✓ All waters of the watershed shall be attractive for riparian recreation – walking, cycling, viewing wildlife and quiet contemplation. They, along with their riparian areas, shall be maintained so that they are an appealing destination for recreation and home for a diverse community of native plants and animals.
- ✓ All waters of the watershed shall be suitable to encourage education and environmental stewardship.

## Defining Shared Goals

In the 1991 Anacostia Watershed Restoration Agreement, six distinct restoration goals were established. These were reaffirmed in the 1999 Agreement and are equally valid today.

These goals are:

**Goal #1: Dramatically reduce pollutant loads, such as sediment, toxics, CSOs, other nonpoint inputs and trash, delivered to the tidal river and its tributaries to meet water quality standards and goals.**

**Goal #2: Protect and restore the ecological integrity of the Anacostia River and its streams to enhance aquatic diversity, increase recreational use and provide for a quality urban fishery.**

**Goal #3: Restore the natural range of resident and anadromous fish to historical limits.**

**Goal #4: Increase the natural filtering capacity and habitat diversity of the watershed by sharply increasing the acreage and quality of tidal and non-tidal wetlands.**

**Goal #5: Protect and expand forest cover throughout the watershed and create a continuous riparian forest buffer adjacent to its streams, wetlands and river.**

**Goal #6: Increase citizen and private business awareness of their vital role in both the cleanup and economic revitalization of the watershed, and increase volunteer and public-private partnership participation in watershed restoration activities.**

State and federal requirements play a large role in charting progress toward some of these goals. In setting these goals, however, the signatories recognized that the complexities of watershed restoration extend well beyond these requirements and reflect unique environmental and cultural conditions, problems and opportunities. Accordingly, defining indicators of progress and setting restoration targets is a complex process that reflects, in part, regulatory requirements and also the signatories' respective programs and priorities.

## Measuring Progress and Setting Targets

Substantial restoration progress has been made since 1987. More than \$100 million dollars have been spent resulting in: major reductions in storm flows and associated pollutants from nearly 15 square miles of developed area; improved management of the District's combined sewer system that have contributed to improved dissolved oxygen and trash levels in the tidal Anacostia; the restoration of degraded habitat in over ten miles of stream; the restoration of 75 acres of tidal wetland; the creation of approximately 100 acres of non-tidal wetland; acquisition of approximately 400 acres of stream valley parkland for the protection of sensitive aquatic resources; riparian buffer reforestation of nearly 12 linear stream miles; and the support for and participation in the restoration effort on the part of businesses and thousands of the watershed's citizens.

The 1999 Agreement recognized that planning for restoration and communicating progress could be greatly enhanced with distinct measures of progress and specific restoration targets. Thus the signatories agreed to develop "a suite of specific long-term restoration indicators and targets" and pledged to "continue a basin-wide strategy to equitably achieve the six fundamental goals and associated targets by the year 2010." They also agreed to reconvene biennially to "assess progress, provide general direction and examine the needs and means to further the goals of the restoration effort."

This combination of restoration indicators and targets is intended to:

- ✓ Encourage watershed-based planning;
- ✓ Foster regional cooperation;
- ✓ Develop public involvement and support; and
- ✓ Help set program and budget priorities.

Fifty indicators<sup>1</sup> have been prepared to measure progress toward the six restoration goals. Specific targets have also been set for each of these, to be achieved by the year 2010. These indicators and targets address many areas not covered by regulations and generally go well beyond what is currently required. This reflects the signatories' willingness to voluntarily and proactively move forward, thereby contributing substantially to the restoration of the Anacostia watershed. They are presented in the attachment to this agreement. In some cases, ongoing regulatory actions such as Total Maximum Daily Loads (TMDLs) will mandate certain targets that will supersede several provisional targets included in the attachment.

It will be the responsibility of the Anacostia Watershed Restoration Committee to regularly review and assess progress on these and other actions and to make adjustments, where warranted, to the indicators and targets. This effort will involve public participation and will include an annual report.

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<sup>1</sup> Note: Indicator 2i., *Percent Impervious Surface in the Watershed*, is a floating indicator, which, if included, would bring the total number of indicators to 51. Its applicability is pending and is subject to the availability of data.



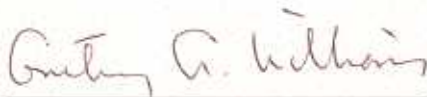
## Making the Commitment

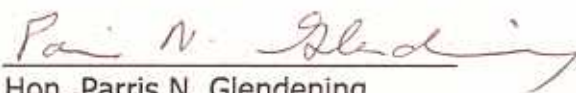
By this agreement, the 2001 Anacostia Watershed Restoration Agreement, we reaffirm our commitment to the six goals of the 1999 Agreement; adopt the restoration principles; approve the restoration indicators for measuring and communicating progress; and set the restoration targets to be attained by 2010.

We also pledge to use our best efforts to fully support the programs, initiatives and projects necessary for both achieving these targets and for tracking and reporting on restoration progress.

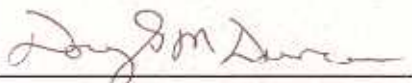
We further resolve to reconvene in fall 2003 and biennially thereafter to celebrate and assess progress, continue to provide general direction and examine the needs and means to further the goals of the restoration effort.


Attest, this third day of December in the year 2001:

By:   
Hon. Anthony A. Williams  
Mayor  
District of Columbia

By:   
Hon. Parris N. Glendening  
Governor  
State of Maryland



By:   
Hon. Douglas M. Duncan  
County Executive  
Montgomery County, Maryland

By:   
Hon. Wayne K. Curry  
County Executive  
Prince George's County, Maryland



## Witnesses

We, the undersigned, support the goal of restoring the Anacostia watershed and bear witness to the signing of the 2001 Anacostia Watershed Restoration Agreement:

Name:

Affiliation:

Mark and Hali Cavin	Cape Leonard Group
Theresa Piers	Chesapeake Bay Foundation
Stacy Ann Blum	DC DOH
Susan Claus	DC DOH
Douglas Siglin	Chesapeake Bay Foundation
Caroline Melirados	D.C. Bureau of Env. Quality
Mary Vogel	P.G. Co. Dept of Environ. Resources
Shirley Meyers	Georgetown Univ.
Neil Ridgely	CITIZENS Advisory Comm.
Clara R. Rapp	Middle Potomac Trib Team Coord.
Gilda M. Allen	Dept. of Health, Watershed Protec
Shirley A. Fry	Metro. Washington COG
James F. Condy	Anacostia Watershed Society
Steven Butler	MDE
Tom P. Schulte	Centr for Watershed Protec
Robert S. Poir	EPA - Chesapeake Bay
Kevin S. Ford	State of MD
Jane Yoshida	MDE

## Witnesses

We, the undersigned, support the goal of restoring the Anacostia watershed and bear witness to the signing of the 2001 Anacostia Watershed Restoration Agreement:

Name:

Affiliation:

Chit J. White

E.P.A.

Ronald B. Hamm

Virginia

Christine Martin

Pennsylvania

Eric Lead

Maryland

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**ATTACHMENT TO THE**

**2001 ANACOSTIA WATERSHED RESTORATION AGREEMENT**

**Restoration Indicators and 2010 Targets**

*Note: 2001 baseline used in development of targets*



### Goal #1 – Dramatically reduce pollutant loads

Note: For Goal 1 Indicators (except 1g, 1h and 1i), final 2010 targets will be determined by a combination of the Chesapeake Bay Program, TMDLs and revised criteria. These requirements are expected to replace the current voluntary targets listed below.

Indicator	2010 target
1a - Total Suspended Solids	Current interim voluntary 2010 target is to reduce annual average concentration to less than 80 mg/l, with a goal of supporting underwater grasses.
1b - Combined Sewer Overflows	Long-term Control Plan will determine ultimate target. Current target is to initiate long-term CSO system improvements before 2010 with an ultimate capture of 95% of the overflows.
1c - Total Phosphorus and Total Nitrogen	Current voluntary target is to achieve the 40% Chesapeake Bay reduction goal.
1d – Fecal Coliform Concentration and Bacterial Contamination	Current voluntary 2010 target is to achieve 85% reduction for tidal river and tributary compliance with water quality standards 75% of the time.
1e – Dissolved Oxygen	Current interim voluntary 2010 target is to maintain DO levels above 2 mg/l at all times. No fish kills.
1f – Biochemical Oxygen Demand	Current voluntary 2010 target is to achieve a 75% reduction.
1g – Secchi Depth	Greater than 1.0 meter average.
1h – Trash Index and Quantity of Trash Removed	Watershed trash levels in the “light” range. Decreasing trend levels in annual tonnages removed.
1i – Toxics and Metals	Elimination of all fish consumption advisories.
1j – Chlorophyll ‘a’	Current voluntary 2010 target is to attain Mesotrophic levels.

### Goal #2 – Protect and restore ecological integrity

Indicator	2010 target
2a – Temperature	Meet water quality standards 100% of the time.
2b – Turbidity	Less than 50 NTU average.
2c – Fish Deformities, Erosions, Lesions and Tumors (DELTs)	DELTs found on less than 3% of the fish community.
2d – pH	Meet water quality standards 100% of the time.
2e – Macroinvertebrate Community Health	Better than “fair” for all subwatersheds. Decrease in percent dominant taxon for tidal river.
2f – Resident Fish Community Health	Increasing numerical IBI scores throughout watershed.
2g – Stream Miles Restored	Twenty additional miles.
2h – Submerged Aquatic Vegetation	Twenty acres total.
2i – Percent Impervious Surface in the Watershed <i>(Note: Floating Indicator-applicability pending)</i>	<i>Increase in watershed acreage featuring Low Impact Development (LID) techniques.</i>
2j – Percent of Developed Land with Stormwater Management Controls	Approximately double the amount of older watershed areas controlled.
2k – Recreational Usage	Increase in multiple categories.

<b>Goal #3 – Increase natural range of fish</b>	
<b>Indicator</b>	<b>2010 target</b>
3a – Percent Anadromous Fish Range Open	Twenty additional stream miles.
3b – Percent Anadromous Fish Habitat Utilization	100% utilization of available habitat.
3c – Percent Tributary Mainstems and Major Feeder Streams Open to Resident Fishes	100% of all mainstem areas. 100% of all 'priority' tributaries.

<b>Goal #4 – Increase wetland acreage</b>	
<b>Indicator</b>	<b>2010 target</b>
4a – Created/Restored Tidal Wetland Acreage	Sixty additional acres of emergent wetland.
4b – Created/Restored Non-Tidal Wetlands	Twenty new projects. Approximately fifteen additional acres.
4c – Wildlife Utilization of Wetlands	Develop Anacostia-specific IBI by end of 2002.

<b>Goal #5 – Protect and expand forest cover</b>	
<b>Indicator</b>	<b>2010 target</b>
5a – Miles of Created Riparian Forest Buffer	Twelve additional miles. Approximately forty-five additional acres.
5b – Percent Adequate Riparian Forest Buffer	Develop watershed-wide buffer criteria by 2002.
5c – Acres of Mature Hardwood Forest	Develop watershed forest management protection strategy by 2002.
5d – Acres of Created Upland Forest	Prepare inventory by 2002. Develop watershed forest management protection strategy by 2002.
5e – Upland, Riparian and Total Forest Acreage as Percent of Watershed Area	Address under targets for 5a through 5d.

<b>Goal #6 Increase Public Usage, Stewardship and Advocacy</b>	
<b>Indicator</b>	<b>2010 target</b>
<b>6-1 – Usage Indicators</b>	<b>Usage Targets</b>
6-1a – Number of Anglers	Watershed wide increase.
6-1b – Number of Fishing Piers and Usage	Construct three new piers.
6-1c – DC Anacostia Hiker-Biker Trail and Usage	Complete linkage with Maryland system.
6-1d – Colmar Manor to Bladensburg Footbridge	Construct footbridge.
6-1e – Number of Public Boat Ramps	Four additional small boat ramps.
6-1f – Number of Boathouses	Four additional boathouses.
6-1g – Number of Annual Regattas	Three additional per year.
6-1h – Annual Park Visitation	Increase throughout.
<b>6-2 – Stewardship Indicators</b>	<b>Stewardship Targets</b>
6-2a – School Activities	Increase in all watersheds emphasizing meaningful local stream, river or Bay experiences.
6-2b – Anacostia River Business Coalition Membership	Expand into Montgomery and Prince George's Counties.
6-2c – AWRC-University Partnerships	Expand opportunities in all jurisdictions.
6-2d – Anacostia School Web Linkages	Link all public schools. Create 'partner' school program.
6-2e – Stewardship Events	Increase throughout watershed.
6-2f – Revitalization Expenditures	Increase throughout watershed.

<b>6-3 - Advocacy Indicators</b>	<b>Advocacy Targets</b>
6-3a – Active “Friends of” Groups	Establish active advocacy group in every major subwatershed.
6-3b – Media Coverage	Increase overall coverage and promote greater public awareness and a more positive image.
6-3c – Herring Festival	Establish as an annual event.
6-3d – Government by Example	Expand current efforts.
6-3e – Restoration Expenditures	Increase in all three jurisdictions.