ICPRB Projects, 2004

Developing River Cleanup Plans

The Federal Clean Water Act requires Total Maximum Daily Load (TMDL) plans for waterways that do not meet water quality standards. The ICPRB's modeling experience and reputation for quality research has involved the agency in a growing number of TMDL projects that assess pollution sources, loadings, and ways that the waterway can achieve quality standards.

C. Dalpra

The Anacostia watershed is an increasing focus of restoration and development.

In 2004, ICPRB assisted with several TMDLs:

- **Tidal Anacostia** in the District of Columbia (toxics);
- **Goose Creek, Little River, Catoctin Creek, and the Rapidan River** in Virginia (sediment);
- **Drinking water reservoir watersheds** important to the operation of the Washington Suburban Sanitary Commission, a major water supplier;
- **Sediment models** with Maryland for nontidal streams to provide a basis for assessments throughout the state.

The ICPRB's expanding modeling expertise in TMDLs make it a valuable basin resource.

Stream Habitat Assessments Provide Management Tools

Water quality is only a part of the equation for a healthy stream. Suitable physical conditions (habitat), including stable streambank structure, channel shape, streambed quality, and protective structures in the stream also are needed. Water and habitat quality are affected by land disturbance (from changes in storm runoff volume and quality).

- ICPRB habitat assessments collect disparate data from many agencies and groups that, after analysis, can be placed in a single database that allows comparison.
- The normalized database provides a clearer picture of the basin's health.

This analysis provides the biological and habitat assessments used in this report.

Protecting and Conserving Potomac Drinking Water

More than 75 percent of the basin's population rely on the Potomac River as a drinking water source. The ICPRB, with metropolitan government agencies and water suppliers, continues to ensure adequate quality and quantity of drinking water supplies and plan for future demand.

During droughts in 1999 and 2002, The ICPRB Section for Cooperative Water Supply Operations on the Potomac (CO-OP) managed Potomac upstream reservoir releases to ensure adequate flow for drinking water withdrawals and minimum flow for ecological needs. In normal or high-flow years, CO-OP and the water suppliers practice operations under a simulated drought. The 2004 Drought Exercise allowed CO-OP and water supplier staffs to manage simulated drought conditions rivaling any in the historical record. The successful exercise resulted in some changes that will improve future operations.

Other efforts during the year included:

- Began work on the latest **20-year demand study** to forecast water supply needs out to the year 2025 for the metropolitan water utilities;
- Periodic **water supply outlooks** were issued from spring to fall;
- USGS **stream gages** used in monitoring the river for water supply purposes were supported by CO-OP water suppliers through ICPRB;
- ICPRB coordinated with several water supply partners and federal, state, and local governments to form the **Drinking Water Source Protection Partnership** to address drinking water source quality issues.

The ICPRB is addressing issues affecting the availability and quality of drinking water and its sources.

American Shad and River Herring Returning

After decades of decline, American shad are making a strong comeback in the Potomac, with the help of ICPRB restoration efforts. Shad reproduction has eclipsed the historical record for six of the last seven years, with 2004 by far the strongest, according to monitoring efforts by ICPRB and other agencies. The restoration program (1995-2002) captured spawning shad in the tidal Potomac and placed fry hatched from the captures in Mather Gorge, upstream of Little Falls Dam, a blockage to migration. The gorge, which runs to Great Falls, was reopened with the construction of a fish passage at Little Falls in 2000. Monitoring shows that fish hatched in the project are now returning to the gorge.

M. Bailey

Mike Odom, U.S. Fish and Wildlife Service, holds a shad taken at the base of Great Falls.

A similar ICPRB-led project has placed about 13-million river herring in tributaries of the Anacostia watershed and in Rock Creek. Systematic removal of stream blockages is reopening miles of historic spawning runs. The program is partially funded by Potomac Crossing Consultants as part of the environmental mitigation of the construction of the Woodrow Wilson Bridge replacement. The popular project is strongly supported by the participation of schools and volunteers.

Key to both efforts are partnerships with other agencies, such as the U.S. Fish and Wildlife Service, Metropolitan Washington Council of Governments, Living Classrooms Foundation, and others.

- About **16-million American shad fry** have been placed in the gorge during the program;
- **Sixteen schools and hundreds of students and volunteers** participated in the project in 2004;
- In 2003 and 2004, **Potomac shad fry were placed in the neighboring Rappahannock River** to assist in restoration of that river.

Funding issues threaten the monitoring phases of both these projects. Monitoring validates the efforts' success, as well as the improved status of the waterways.

Managing The Potomac River and Basin Groundwater as Related Resources

Groundwater resources are a vital, yet poorly understood part of the Potomac basin, leading the ICPRB and the U.S. Geological Survey (USGS) to cooperatively assess groundwater resources in the watershed and provide tools to successfully manage them. The project, funded through congressional support, provides an integrated analysis of the relationships between groundwater and surface water resources. The project is important for areas of the basin experiencing rapid growth and water availability issues.

In 2004, the project:

- Instituted an intensive study focused on the Monocacy watershed in Maryland and Pennsylvania, an area with growth and water availability issues, to provide planning guidance;
- Used results of the work to begin examination of other areas of the watershed;
- Created a network of monitoring wells with real-time data available on the internet to help researchers and managers to understand groundwater use, storage, and recharge rates in the watershed.

ICPRB is protecting watershed surface and groundwater resources by providing management tools to allow safe development and use to maximize resources for a range of needs.

Restoring the Potomac to Restore Chesapeake Bay

The success of the regional Chesapeake Bay restoration effort hinges on improving the health of its tributaries, of which the Potomac is the second-largest. The interests and needs of the Potomac watershed are well-represented in bay efforts by ICPRB staff, who participate in many bay program committees and groups.

In 2004, staff worked closely with bay program partners to:

- Maintain **high quality databases** of water and living resources monitoring data;
- **Evaluate biological and habitat data** and enhance indicators that judge restoration success on tidal waters;
- Develop **tributary strategies** in each of the Potomac basin states.
- Develop **water quality models**, generate and review bay model data.

The ICPRB's participation in the Chesapeake Bay Program ensures that Potomac issues and concerns are represented in bay restoration initiatives.

Growing the Potomac Constituency

The ICPRB Compact directs it to educate and inform the public about Potomac basin issues, recognizing the importance of public support for basin water quality and related resources. Commission projects build relationships among a range of government agencies, private groups, schools, and individuals. The ICPRB works directly with many groups to provide tools needed by citizens to protect and preserve Potomac resources.

Commission staff build and sustain citizens watershed groups, providing organizational assistance and identifying funding for restoration projects, such as tree plantings, raingarden construction, recycling, and river cleanup efforts.

C. Dalpra

The annual Potomac Sojourn is one of many tools ICPRB uses to educate the public.

Outreach provides timely information on the status of Potomac initiatives, involves the public as essential partners in restoration efforts, and provides a range of educational opportunities.

- Newsletter reaches more than 15,000 readers;
- Website receives more than 8,000 visits each month;
- Requests for information/services total about 120 each month;
- Organized construction of a demonstration raingarden;
- Several watershed groups were supported through creation of "watershed toolkits" of resource information;
- Established a tree grow-out facility for use in citizen reforestation/ buffer projects;
- Cosponsored the Potomac River Sojourn.

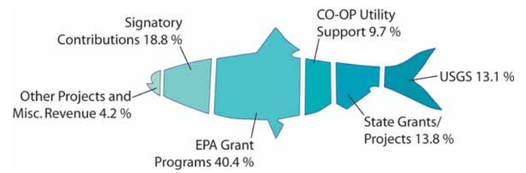
The commission is involved in many other activities around the watershed. For more information, visit our website or contact us.

2004 Financial Statement (unaudited)

REVENUES	
Signatory Contributions	
Maryland	$145,000
Pennsylvania	57,500
Virginia	140,000
West Virginia	51,000
District of Columbia	64,000
Total Contributions	**$457,500**
Grants and Projects	
Maryland	
MDE, Chesapeake Bay Trust	$198,219
Pennsylvania	
DEP	78,652
Virginia	
DEQ, GIF, Ches. Bay Fund	13,051
District of Columbia	
DOH	45,524
U.S. EPA	982,503
USGS	316,995
CO-OP Utilities	236,036
National Fish and Wildlife Foundation	33,424
Potomac Crossing Consultants	30,000
Donated Assets	25,595
Micellaneous	12,687
Total Grants and Projects	**$1,972,686**
TOTAL REVENUES	**$2,430,186**

EXPENSES	
Personnel	$1,469,185
Office Operations/ Equipment	353,098
Contracts/Consultants	459,623
TOTAL OPERATING COSTS	**$2,281,906**

Revenue



Expenses