



Partners Protecting the Potomac: West Virginia and the Interstate Commission on the Potomac River Basin, 2014

The Interstate Commission on the Potomac River Basin (ICPRB) was created by an Act of Congress and by individual jurisdiction statutes to address pollution and other water problems within the basin. It was directed to conduct studies and issue reports; to assist and provide liaison for other agencies; and to inform the public. The commission is the only entity for coordinating the activities of the signatory bodies and their respective agencies with respect to matters relating to the waters of the Potomac River Basin. West Virginia shares the watershed with the District of Columbia, Maryland, Pennsylvania, and Virginia.

This annual report provides short descriptions of ICPRB's activities in 2014 that benefited West Virginia. ICPRB's efforts focus on four topic areas: Water Resources, Water Quality Improvement, Aquatic Life, and Education. More information about these activities can be obtained by contacting us by phone, e-mail, and by visiting our website.

ICPRB is supported by a base level of funding from its member jurisdictions that is supplemented with project specific grants and contracts that together enable ICPRB to carry out its mission.

WATER RESOURCES

Drought Management and River Flow Protection.

The Potomac River is the primary drinking water source for the Washington metropolitan area. The ICPRB Section for Cooperative Water Supply Operations on the Potomac River (CO-OP), of which the state is a member, conducts long-term planning and coordinates drought operations to ensure adequate water to meet demands and environmental flow guidelines. These activities have a direct bearing on the upper Potomac River and its North Branch, which are either in or serve as a border for West Virginia. Releases of stored water from Jennings Randolph Reservoir (partly in West Virginia) during low flows raises river levels in and along West Virginia, providing ecological and recreational benefits to the state. Several West Virginia communities also use the river as a drinking water source. Membership in CO-OP gives the state a seat at the table for these management and policy efforts.

As part of the Jennings Randolph operations, the ICPRB facilitates the North Branch Potomac River Advisory Committee was formed to allow stakeholders input to management and operations policy for the reservoir. The group includes many boating, fishing, and other recreational groups, parks, government agencies, and water suppliers. The diverse stakeholder representation helps operators maximize the use and quality of downstream resources while maintaining the project purposes of flood control, water quality improvement, and drinking water storage. In 2014, one focus was to better understand the project's ability for temperature abatement for downstream fisheries.

Drinking Water Source Protection. The Potomac Basin Drinking Water Source Protection Partnership, coordinated by ICPRB, includes metropolitan area water suppliers and water supply agencies focused on protecting of the raw sources of drinking water from contamination. The project exemplifies the interstate, collaborative leadership that provides value to Potomac jurisdictions and water

utilities. The group, which includes representation from the West Virginia Department of Health, helps area utilities to address emerging contaminants, agricultural impacts, disinfection by-products precursors, and other challenges that impact both raw water quality and the cost of production. This year, Partnership members worked with Colonial Pipeline Company, discussing integrity management, emergency response, and tactical response plans for pipeline ruptures that could contaminate the river. This improved the working relationship between Colonial and the water utilities. In the event of a hazardous spill, ICPRB maintains a model to estimate the time it would take material to travel from a spill to downstream intakes. Each year, contact information is verified and communication procedures are tested.

ICPRB provides administrative and technical support to partnership efforts, such as compiling results from unregulated contaminant monitoring, evaluating alkalinity and pH trends in Occoquan and Potomac source waters, mapping locations of pharmaceutical and endocrine disrupting compounds in point source discharges, and organizing a workshop on harmful algal blooms. In the initial planning stages are efforts to update the utilities' source water assessments and to evaluate the role of forest cover in improving water quality and lowering treatment costs.

Basinwide Comprehensive Water Resources Plan.

Sustainability of the basin's water resources is crucial to its future. Development of a comprehensive plan can provide a platform for Potomac jurisdictions to look at the region's water future and discuss how their individual resources plans can work cooperatively to protect those resources. The initial stage of the plan, gathering information from MDE and local jurisdictions, began in 2014.

WATER QUALITY IMPROVEMENT

Chesapeake Bay Restoration. The ICPRB is a

contributing partner to the Chesapeake Bay Program, with staff contributing their individual technical expertise in many of the Bay Program's issue areas. In FY 2014, ICPRB staff led efforts to improve measures of American shad restoration in the Bay and of stream health in the bay's watershed. These measures are called for in the 2009 Chesapeake Bay Executive Order and the 2014 Chesapeake Bay Watershed Agreement.

Chesapeake Bay Watershed Modeling. ICPRB staff have been (and continuing in 2015) part of a team developing the Phase 6 Chesapeake Bay Model. The model is a key tool that will be used to assign pollutant load allocations to different land types and jurisdictions, and to track progress in meeting pollution reduction goals, for the Chesapeake Bay TMDL. The ICPRB helped to improve the model on a more-local scale, and revised phosphorus TMDLs for 11 small impoundments in Maryland. Land use, baseline loads, and allocations are now expressed in terms consistent with the Chesapeake Bay TMDL. A report was prepared for MDE with draft phosphorus allocations for the impoundments. Work continued on various aspects of the calibration methodology for the model, particularly for processes that control delivery of nutrients and sediments from edge-of-field to the rivers represented in the Phase 6 model. ICPRB will continue to work on the model in 2015. These work benefits the entire bay effort.

Chesapeake Bay Data Management and Analysis. ICPRB continued its multi-year Data Management project for the Chesapeake Bay Program (CBP) which maintains and updates very large databases of monitoring data collected in the Chesapeake Bay and its watershed, including the Potomac River. The data are used by resource managers, analysts, researchers, students, and the general public, to track problems back to their sources and assess progress toward meeting restoration goals.

Leadership for Potomac Basin Water Quality Management. ICPRB staff continued in 2014 to participate in many local, regional, and national organizations that are addressing water quality problems. ICPRB brought technical expertise and an interstate and basinwide perspective to discussions on particular issues at the local level through participation in the Anacostia Watershed Management Committee, Anacostia Watershed Citizens Advisory Committee the Trash Free Potomac group, and support for various local watershed groups. The ICPRB also works at the larger, regional, scale of the Chesapeake Bay Program and the EPA's Region 3; and with national organizations such as the Association of Clean Water Administrators and the Interstate Council on Water Policy. These connections and partnerships can spur new approaches to and ideas about issues in the Potomac basin.

Ambient Water Quality Trend Analysis. The West Virginia Department of Environmental Protection (WVDEP) recently updated a relational database of water quality data collected routinely by the state's monitoring programs, primarily the Ambient Water Quality Monitoring (AWQM) Network. WVDEP approached the Interstate Commission on

the Potomac River Basin (ICPRB) about performing trend analysis on selected parameters at 26 fixed monitoring stations. The stations, now sampled bi-monthly, are located at or near the mouths of the state's larger rivers or situated so as to isolate the impacts of major industrial complexes and other potential sources of impairment. Trends were determined for 24 water quality parameters, which included several metals and nutrients. West Virginia streams and rivers appear to be recovering from the acid rain impacts of the 20th century. Positive trends were identified for pH and hardness. The higher pH and hardness levels are probably facilitating the long-term downward trends in metals. Higher alkalinity concentrations statewide are increasing the buffering capacity of West Virginia waterways. Mining operations continue to impact levels of dissolved solids, metals, and minerals. Urbanization and the growth of the poultry industry in the eastern panhandle of West Virginia appear to be accelerating eutrophication of streams and rivers in that area.

AQUATIC LIFE

Filamentous Algae Study. ICPRB assisted the WVDEP in documenting blooms of filamentous algae in the South Branch Potomac and Cacapon, rivers. These algae can form large mats that interfere with the designated uses of a river, such as water contact recreation, and cause taste and odor problems in drinking water. For the past three summers, ICPRB has routinely visited WVDEP stations in the Potomac drainage to collect water samples and detect and measure blooms. The ICPRB is assisting WVDEP staff in refining and improving the state's methodology.

EDUCATION AND OUTREACH

The ICPRB's education and outreach efforts provide ongoing educational resources for the public through its website, weekly news digest, summertime weekly public service announcements, and other tools. The unit also fields information requests from the public, researchers, and government officials.

Watershed Model Demonstrations. The ICPRB demonstrated its watershed model as a teaching tool in a workshop held at the Mountain Institute Summer Teacher Workshop in Spruce Knob. Workshops use the model to teach students about storm water pollution, and how it can be mitigated. This demonstration reached 10 educators from different parts of the state.

The ICPRB also provided a letter of support for a DEP grant application to produce a Chesapeake Bay themed educational booklet that may be used by ICPRB in its watershed education efforts.

These projects are highlights of some of the many activities at ICPRB.

For more information, contact:

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