

The Right Direction: Imagining the Future of the Potomac

J. Glenn Eugster

Introduction

THE ENVIRONMENTAL QUALITY OF THE POTOMAC RIVER HAS IMPROVED DRAMATICALLY over the past four decades, but it still has a long way to go. What further steps can be taken to restore the river and the region to its former grandeur? What are the new threats on the horizon?

Before they became my life-work, rivers and streams were my first love. Many people have had love affairs with the Potomac and its tributaries. In a letter written in 1954 to the *Washington Post*, Supreme Court Justice William O. Douglas said this about the Potomac: “It is a refuge, a place of retreat, a long stretch of quiet and peace at the Capitol’s backdoor. A wilderness area where man can be alone with his thoughts, a sanctuary where he can commune with God and with nature, a place not yet marked by the roar of wheels and sound of horns.” All of us have been shaped by our love affairs with rivers like the Potomac and our feelings motivate us, as they did Justice Douglas, to take action to protect and restore these special places.

The right direction

This topic brings to mind geographer D.W. Meinig’s book *The Interpretation of Ordinary Landscapes*. Meinig said that “even though we gather together and look in the same direc-

tion at the same instant, we will not—we cannot—see the same landscape. We will see many of the same elements, but such facts take on meaning only through association; they must be fitted together according to some coherent body of ideas.” He went further to say, “any landscape is composed not only of what lies before your eyes but what lies within our heads.” Each of us has a perspective, but there are many views of the Potomac (see box). Each of these views is a value that we as individuals, or a community or a region hold special.

The Potomac: What do we mean?

The Potomac has a strong regional and national identity with both residents and visitors. Throughout this article I refer to the idea of a “Potomac Region,” which

Ten views of the Potomac

- | | |
|-------------------------|--------------------------|
| 1. Potomac as nature | 6. Potomac as commerce |
| 2. Potomac as habitat | 7. Potomac as history |
| 3. Potomac as artifact | 8. Potomac as recreation |
| 4. Potomac as ecosystem | 9. Potomac as place |
| 5. Potomac as people | 10. Potomac as aesthetic |

some will interpret to mean a watershed or a river basin. Some will interpret it as a series of landscapes. Some will interpret it to mean a valley. All are correct. Most of all, this idea of the Potomac is that there is a region with recognized qualities that has been claimed by its residents who are working to keep it special.

How is the Potomac doing?

Managing the environmental quality of the landscapes of the Potomac Region is complicated work. In order for us to manage—and achieve—environmental quality we must understand the political, cultural, and economic context of the Potomac. We must incorporate the interaction of living and human-made things, the impacts of humans, and the socioeconomic and cultural influences that humans contribute.

As we look at the Potomac Region, and its future, we need to ask ourselves four questions:

- What is the current situation?
- What alternatives are possible?
- What can cities and other government agencies and private-sector organizations do to protect, manage, and use parks, open space, and recreation areas, and to demonstrate sustainable practices?
- Most importantly, what are we, as individuals, prepared to do about the current situation?

What is the current situation?

Four noteworthy reports, or “scenes of the same view” on the state of the Potomac, can be used to answer this question. First, let’s look at an ecosystem management perspective since the Potomac region is nested in the larger Chesapeake Bay region. In

1983, *Choices for the Chesapeake: An Action Agenda* was published, describing a summary of a Chesapeake Bay Conference held in Fairfax, Virginia. The report recognized the following problems in the Potomac region:

- Increase in the number and diversity of oxygen-robbing algae blooms;
- Decline in the abundance and diversity of submerged aquatic vegetation;
- Increasing levels of nutrients;
- Decrease in landings of shad and rockfish; and
- High levels of metal contamination in the water and sediments.

Second, let’s look at a water quality, quantity, and living resources perspective. In 1994, the Interstate Commission for the Potomac River Basin (ICPRB), along with 25 government and private-sector organizations, published *The Potomac Visions Report to Develop and Implement a Long-Range Strategy to Protect and Enhance the Water Quality and Living Resources of the Potomac River*. This report, prepared at the request of Congress, identified a number of concerns, including:

- Acid mine drainage from abandoned coal mines on the North Branch;
- Runoff from farms that carried nutrients, sediments and pesticides;
- Increasing residential development and accumulated impacts of suburbanization;
- Toxic hot-spots and combined sewer and stormwater flows on the Anacostia River;
- Water quantity concerns related to droughts and withdrawals;
- Fishery declines in the lower Potomac;

- Population increases and a disturbing pattern of land, energy, and water use. public or private green space protection initiative in the region.

Third, let's look at a business perspective. In 2001, "The Potomac Index," a joint project of the Potomac Conference, was prepared by a research team from the Brookings Greater Washington Research Program. The index was designed to help citizens and leaders of the Washington metropolitan area understand how the region is changing and to measure the region's progress on key economic, social, and environmental issues. Several of the concerns identified in the index are:

- The Greater Washington region continues to face challenges in reducing the ozone levels in the air and in improving the water quality of the Anacostia River.
- The region is consuming land at a faster rate than population growth (between 1982 and 1997, the region's population grew by 30% while the land developed to accommodate that growth increased by 47% and density decreased by 12%).
- Metropolitan Washington has one of the worst traffic congestion problems in the country.

Fourth, let's look at a local government and a regional perspective. In 2004, the Metropolitan Washington Council of Governments looked at the issue of land consumption from another view. The results of the Metropolitan Washington Green Infrastructure Demonstration Project revealed that the metropolitan area will lose 28 to 43 acres of open space every day from 1997 to 2020 to various types of development. Although more than 311,000 acres of open space will be developed between 1990 and 2020, there is no major

What are other threats to the future of the Potomac?

Invasive species. Potomacians are now seeing and hearing news about alien species. There are alien plant and animal species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health. News accounts carry stories of zebra mussels, bullhead and blue catfish, carp, hydrilla grass, and snakeheads. In 2000, the U.S. Department of the Interior indicated that invasive species cost the nation's economy approximately \$123 billion annually and are second only to habitat destruction in threatening extinction of native species. At that time, invasive plants and weeds were spreading on federal lands at a rate of 4,600 acres per day.

America's disdain for the old. In the late Laura nce S. Rockefeller's office (at what is now the Marsh-Billings-Rockefeller National Historical Park) in Woodstock, Vermont, there is a small picture with the inscription: "Use it up, wear it out, make it do, or do without." Unfortunately, people who embrace these principles are becoming a minority in America. Despite the significant strides that Americans have made in recycling, adaptive reuse, energy conservation, and sustainable development, we continue to discard the old for the new. Peggy Loar of the Smithsonian Institution has said that "as forward-looking people, we Americans have fervently welcomed technology and invention into every aspect of our lives, disdaining the old."

"Tyranny of small solutions." Most environmental quality efforts are site-specific in focus, opportunity-based, and fre-

quently duplicative or inefficient. All too often government and private-sector programs are not landscape focused or integrated across organizational or jurisdictional boundaries. Although each independent effort is well-intentioned and creates some positive contribution to the Potomac region, the overall net effect is fragmented, disconnected, and does not often address priority needs. Single-purpose approaches often result in a “tyranny of small solutions”—too often creating patchworks of unintegrated planning and case-by-case reactions.

Exclusion. By assuming that planning is the business of professionals, we often leave people out of the process of designing a future for the Potomac region. By leaving “grown-up” decisions to grown-ups, we are leaving our youth out of the process of planning their future. We also tend to exclude recently arrived residents and certain other groups not commonly thought to have a legitimate interest in the future.

Bad water. The water of the Potomac is being robbed by algae of its dissolved oxygen, which fish and crabs need to breathe. Many Potomacians are responsible for these “takings”—animal manure from farms, suburban lawn care products, air pollution from cars and power plants, and treated sewage all contribute. These all act like underwater fertilizers and stimulate algae blooms that choke the very light and air so essential to life for other ecosystem inhabitants.

Land, growth, and stewardship traditions. Traditional approaches to environmental quality in the Potomac have great momentum. It is human nature to apply familiar solutions to problems. Unfortunately, past engineering, land use, growth management, and stewardship approaches

often are unable to meet environmental and economic goals simultaneously. Part of the problem is that the judicial and legislative systems are often “stuck” in accepted methodologies and not adaptable to current practices and new knowledge.

What alternatives are possible?

Ten things individuals, organizations, businesses or governments can do to improve the Potomac Region are as follows.

1. Use heritage as the bridge. A heritage approach can be used as a way to organize a host of formerly unrelated activities as part of a larger integrated whole. It’s not something technical in itself, but rather it is a way of looking at the world and ourselves. What is heritage?

- Something transmitted or acquired from a predecessor.
- Our collective features, traditions, and culture, signifying or illustrating the evolution of human settlement and resource use.
- It’s about “places” and “people.”

Heritage is a unifying theme! It reveals who we are, were, and will be; where we are and how we got here; why we are who we are; what makes us unique; our identity; and what brings us together and what divides and keeps us apart.

2. Build an integrated database. The leaders of the Potomac are blessed with a vast array of information about the region, its people, and its living resources. Unfortunately there is no coherent and comprehensive summary of data about the Potomac. Modern technologies employing all kinds of multimedia are now available to bring to life formerly flat and technical-looking maps and charts. Using these new

techniques, we can simulate outcomes of potential decisions, and, by accounting for myriad relationships, experience the outcomes of a virtual future. We can have the opportunity to correct a poor decision before we carry it out—or, to the contrary, move forward with new confidence in a new approach because we can see the direct and indirect benefits of it.



Great Falls Park in Virginia provides visitors the chance to learn about the Potomac and the story of water. Photo courtesy of Brent O'Neill, George Washington Memorial Parkway

3. Identify success. Part of our vision of the future is embedded in the question: What does success look like individually and collectively? One way that we can help clarify what we hope to achieve is to agree on and establish locally relevant and people-friendly indicators for the Potomac region to describe and measure environmental quality gains and losses. A good example of this is the “Sneaker Index,” which raises awareness and measures progress. Former Maryland State Senator Bernie Fowler has led people to the Patuxent River since 1988 in an effort to bring attention to water quality. He and others wade into the river, wearing white sneakers, until they lose sight of their sneakers—or

the water gets chest high.

4. Demonstrate success! Presenting problems without solutions creates frustration and confusion. Many leaders have an interest in learning more about conservation approaches being used in the Potomac region. Close-to-home success stories are a way to demonstrate the benefits of protecting and improving the Potomac and highlight the implementation process. The Metropolitan Washington Council of Governments, ICPRB, and Environmental Protection Agency’s Chesapeake Bay Program have published various examples of existing best practices that are being used by local communities, governments, and businesses. These serve as models to help protect and prosper.

5. Eat the view! Our decisions as consumers can have a big influence on the way the Potomac region is managed because the character of the landscape and the quality of the environment are directly linked to the way the land is used to produce food and other goods. Products processed and marketed locally can provide income and improve employment opportunities, help to strengthen the links between land managers and the local community, and reduce the unnecessary transportation of food and other goods. The Local Food Project at Airlie, Virginia—a successful example of this idea—works to link food buyers and producers in the same geographic region.

6. Get involved! Citizens, community and business leaders, corporations, and governments in the region regularly donate their time, in-kind services, and money to support many public and private Potomac

efforts. This type of civic engagement, such as is practiced by the Mount Vernon Ladies' Association, the oldest national historic preservation organization, continues to be an important way to help protect and maintain the environmental quality of the Potomac.

7. Provide quiet, enabling leadership. The future of the landscapes of the Potomac depends on people. Knowing who the key decision-makers, practitioners, community advocates, subject-matter experts, public land managers, and civic association leaders are can help people to protect and prosper. One way to build a network of these practitioners would be to create a Potomac region directory. The directory would list the names, addresses, telephone and fax numbers, and e-mails for the most important contacts in the region.

Another approach would be to create a Potomac-based, public-private "Potomac Region Alliance." The alliance would be formed to link the leaders of groups and agencies who share responsibility for the Potomac region. This action is not to create another organization or agency but rather a federation of groups and governments that would meet periodically, share information, and take appropriate action when it is in the interests of the members.

8. Communicate! Communication is one of the keys to the future. One way to improve communication is to establish a voice for the Potomac. Area writers, as well as artists, painters, storytellers, and performing artists, could use their skills in "evocative communication" to creatively share the values of specific places and encourage people to work to protect them.

Information about the region can also be shared through the Potomac Heritage National Scenic Trail corridor, which runs

from Point Lookout, Maryland, to Pittsburgh. The trail is intended "to connect people with places, providing opportunities to explore connections and contrasts among landscapes, history and communities." The trail corridor offers Potomacians the opportunity to tell their story—past, present, and future—to residents and visitors, and to strengthen regional identity.

Another way to improve communication is to create an open and non-judgmental platform to discuss the existing quality of the region and alternatives for protection and prosperity. Regular and open "Potomac Forums" are an important way for residents and experts to come together to discuss issues, concerns, opportunities, and solutions.

9. Practice stewardship at home and regionally. Residents of the region can do his or her own part to protect the Potomac by planting native species, using "soft surfaces," and managing runoff. However, if the region is more than a collection of unrelated sites, activities, and individuals, then it makes sense to look at our communities, watersheds, and component landscapes as a region and manage the essential values and functions as a system.

In his book *The Potomac*, Fritz Gutheim wrote about the end of the third quarter of the eighteenth century, saying: "After nearly one hundred and fifty years of growth and change, the valley had filled up, equilibrium had been achieved. It was a practical society these Potomac people had created." Although there may have been a stable, balanced, or unchanging system at that time, today the Potomac region is changing. As it changes, residents are increasingly expressing concern about the need to balance the building of housing, roads, and other development to accommo-

date population growth with the desire to protect forest, farmlands, and pastures and preserve the existing character of communities.

In 1970, Eugene Odum, one of the most influential figures in the history of ecology, looked at this concept of equilibrium. Odum attempted to determine the total environmental requirements for an individual as a basis for estimating the optimum population density for humans. Using the state of Georgia as an input-output model for estimating minimum per capita acreage requirements, Odum found that a quality environment required that a certain amount of land be set aside for food, fiber, natural use areas, and urban-industrial systems. The stakeholders of the Potomac region could refine and apply Odum's formula to meet local food, water, and fiber needs using close-to-home resources that support local economies, save energy, and achieve environmental quality.

10. Celebrate the Potomac. Articles, meetings, reports, and resolutions don't mean anything unless they lead to meaningful action. Creating opportunities to celebrate the many varied values of the Potomac region is essential to the environmental quality movement. It creates a connection with the places that need protection and management and the people who care about them.

In summary

Potomacians have made impressive efforts to protect and restore the region. However, it is important to note that we have taken the Potomac from the state of equilibrium that Gutheim spoke of, to a region whose reputation was a "national disgrace," and back again. So our work is never done because this is a dynamic and

changing natural, cultural, and economic place, and values and commitments change.

So let us be clear. We know:

- What the conditions and trends are in the Potomac region;
- The alternatives to improve environmental quality—for landowners, private groups, businesses and governments;
- The tools available to achieve environmental protection and improvement and how to apply them to be successful; and
- How the tools have to be applied to fit our social and political context.

Interestingly, more than 35 years ago the strategy for how action should be taken was clear.

A new generation of social inventions is vital to the people of the Potomac basin and to the people of the nation. Some inventions will be large-scale, requiring inter-basin agreements or Federal laws. Many, however, will be small-scale and neighborly; they will be informal and voluntary agreements growing out of necessities of everyday life. The two must complement each other. Public laws and government agencies must form a framework within which private actions can flourish and bring a better life and environment to the Potomac region and its people.

— Potomac Planning Task Force,
1967 in "The Potomac"

What is unknown about the future of the Potomac region is what we, as individuals, organizations and governments, are prepared to do to improve the environmental quality for future generations. The vision continues and we need only to commit to it. The choice and the future are ours.

References

- Cummins, James D. 1994. *Report on the Potomac River Watershed Visions Project*. Rockville, Md.: Interstate Commission for the Potomac River Basin.
- Eugster, J. Glenn. 2003. Metropolitan Green Infrastructure Demonstration Project status report. In *Washington: City in the Woods*, J. Glenn Eugster, ed. Washington, D.C.: National Park Service.
- Flanagan, Frances H. 1983. *Choices for the Chesapeake: An Action Agenda*. Chesapeake Bay Conference Report. Baltimore: Citizen Program for the Chesapeake Bay.
- Gutheim, Frederick A. 1949. *The Potomac*. New York: Reinhart & Co.
- Meining, D. W. 1979. The beholding eye: ten versions of the same scene. In *The Interpretation of Ordinary Landscapes*, D. W. Meinig, ed. Oxford and New York: Oxford University Press.
- Mote, C.D., Jr., and Michael A. Daniels. 2001. *The Potomac Index: Measuring Progress in the Greater Washington Region*. Washington, D.C.: The Potomac Conference, The Greater Washington Board of Trade,
- Odum, Eugene P. 1970. Optimum population and environment: a Georgian microcosm. *Current History* 58: 355–366.
- Udall, Stewart L. 1967. *The Potomac: A Report on its Imperiled Future and a Guide for its Orderly Development*. Washington, D.C.: Government Printing Office.
-

J. Glenn Eugster, National Park Service, National Capital Region, 1100 Ohio Drive SW, Washington, D.C. 20242; Glenn_Eugster@nps.gov