UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM

SUBJECT: **The Watershed Approach: Our Framework for Ecosystem Protection**

FROM: Robert Perciasepe
Assistant Administrator

TO: Office of Water Office Directors
Water Management Division Directors
Environmental Services Division Directors
Chesapeake Bay Program Director
Great Lakes National Program Director
Gulf of Mexico Program Director

Ecosystem protection is at the core of Administrator Browner's goals for reorienting EPA towards a more holistic approach to environmental protection. The Administrator has called on us to forge partnerships with States and other public and private parties to achieve place-based environmental protection. We also must build the programmatic framework and the tools that are essential to make place-based protection work. In response, senior EPA managers created a consensus calling for ecosystem protection that is driven by the key environmental problems that occur in particular geographic places. As envisioned, such environmental management would be based on sound scientific information and techniques, and integrate goals for long-term ecosystem health with those for economic stability and involve stakeholders from the places to help define the problems, set priorities, and implement solutions.

Place-based environmental protection is not new to the National Water Program. We are supporting over 130 place-based initiatives. These include nationally known and treasured watersheds like the Chesapeake Bay, the San Francisco Bay Delta, the Everglades, and the Great Lakes. Locally treasured watersheds are included too, like Clear Creek, Colorado; Beaver Lake, Arkansas; and the Chehalis River in Washington. Our experience has taught us that we need to improve our programs to make them work better for States and other partners who are pursuing a place-based approach.

In May, I established the Watershed Management Policy Committee because I believe that, through the watershed approach, we have the opportunity to establish

national leadership in realizing the vision for ecosystem protection supported by Administrator Browner. I know that many of you share my belief. The Watershed Management Policy Committee will serve as a leadership forum for coordinating the water program to support the watershed approach and thus implement ecosystem protection. This memo defines my vision for ecosystem protection through the watershed approach. I am excited about and committed to moving this effort forward.

VISION FOR EPA'S WATERSHED APPROACH

Clean water and healthy, sustainable ecosystems
as a result of comprehensive yet tailored
water resource management everywhere.

We will know we have achieved our vision when our work is driven by environmental objectives rather than programmatic requirements. This means coordinating and tailoring the services we provide to meet the needs of ecosystems. Consistent with the Agency's mission, we view ecosystems as the interactions of complex, dynamic communities that include people with their physical surroundings; thus, healthy ecosystems provide for the health and welfare of humans as well as other living things.

We can achieve our vision over time by working together--increasingly integrating assessments, aligning priorities, and coordinating actions, while maintaining the important environmental improvements we have already made. Programs individually working on a watershed basis will not be sufficient to attain our vision, rather a concerted effort to integrate our programs into a unified, national water program is required.

GUIDING PRINCIPLES FOR EPA'S WATERSHED APPROACH

A few key principles guide EPA's watershed approach.

- **Geographic Focus**--Management activities are directed within specific geographical areas, typically the areas that drain to surface water bodies or that recharge or overlay ground waters or a combination of both.

- **Action Driven by Environmental Objectives and by Strong Science and Data**--Collectively, managers employ sound scientific data, tools, and techniques in an iterative process that includes: characterization of the natural resources and the communities that depend upon them; identification of environmental objectives based on the condition of ecological resources and the needs of people within the community; use of scientifically valid methods to characterize priority problems and solutions; development and implementation of action plans; and evaluation of effectiveness.

- **Partnerships**—Those parties most affected by management decisions are involved throughout and shape key decisions. Management teams include representatives from local, State, and Federal agencies, and appropriate public interest groups, industries, academic institutions, private landowners, and concerned citizens. This involvement ensures that environmental objectives are well integrated with those for economic stability, and that the people who depend upon the water resources within the watersheds are kept well informed of management concerns and actions and are invited to participate in planning and implementation activities.

- **Coordinated Priority Setting and Integrated Solutions**—The ultimate goal of EPA's water program is to facilitate attainment of environmental objectives everywhere in the United States. Because needs vary from place to place, and because there are limited resources, and because there are numerous water-related programs at all levels of government, a comprehensive, multiorganizational approach is required. Through coordinated efforts, appropriate parties can establish priorities and take integrated actions based on consideration of all environmental issues, including threats to public health (including drinking water supply) and surface and ground water, as well as the need to protect critical habitat and biological integrity.

WHAT DOES THIS MEAN FOR WATER PROGRAMS?

EPA will promote and support the watershed approach at local, State, and Federal levels and implement our programs in a manner tailored to meet the specific needs within watersheds. We recognize that successful management of specific watersheds is critically dependent upon State and local governments and citizens who, in many cases, will develop and implement action plans and who have the keenest sense of the problems and opportunities presented within their communities. Because our programs are generally implemented by the States, however, we will look to States to create the frameworks through which we support local efforts.

- **Invest in State Reorientations** --States are pivotal in providing coordination and direction for the watershed approach. EPA will encourage States to merge their planning for all water resources into one truly comprehensive effort. To that end, EPA will promote and support comprehensive State programs through which States:
    - Map the watersheds (this includes making decisions about scale and "nesting" of watersheds as well as providing for addressing surface and ground water issues);
    - Set and/or adopt goals (e.g., water quality standards, drinking water MCLs, overall no net loss of wetlands);

* Throughout this document, the word "States" is meant to include the States, Territories and eligible Tribes.

- Establish priorities (ultimately combining the priorities of specific programs into a comprehensive set of priorities);
- Convene and oversee management teams (commissioning existing teams as appropriate); and
- Implement integrated and effective solutions.

In some cases, for example, in those watersheds that cross State or national boundaries, EPA and other Federal agencies may provide leadership for management efforts.

- **Realign Federal Services to Meet Local Needs as Defined through State Programs**—EPA and other Federal agencies will provide financial and technical support for comprehensive State watershed programs and, through the States, local watershed teams.

  In particular, EPA will continue to provide guidance for establishing criteria and standards on a watershed basis and expand its focus to include: 1) issues facing Native Americans and economically disadvantaged minorities; and 2) physical and biological endpoints, such as habitat and wildlife. To enhance good decision-making, we will continue to support comprehensive ecological risk assessment and to improve modeling tools. We also will improve monitoring capabilities and coordinate monitoring programs to provide sound information; and we will provide guidance to identify appropriate environmental measures of success.

  In addition, as appropriate we will implement programs on a watershed basis (e.g., permit decisions and targeted nonpoint source grants to accelerate watershed-based runoff control) and streamline program requirements, providing for multipurpose planning, funding, and reporting.

  EPA will continue to develop partnerships with other Federal agencies, as well as with States and local governments and nongovernmental organizations, to achieve our vision.

KEY QUESTIONS ABOUT THE WATERSHED APPROACH

How can the watershed approach achieve EPA's vision for ecosystem protection?

The watershed approach is entirely consistent with and can serve as a foundation for place-based ecosystem protection; thus, it can help achieve EPA's vision for ecosystem protection. Indeed, the momentum and success of the watershed approach and its "predecessors," the National Estuary Program, Great Water Bodies programs, and the Clean Lakes Program, strongly influenced the development of EPA's ecosystem protection approach.

How can the watershed approach address both ground water and surface water protection?

To be comprehensive, the approach requires consideration of all environmental concerns, including needs to protect public health (including drinking water), critical habitat such as wetlands, biological integrity, and surface and ground waters. It is critical that all relevant programs coordinate priorities so that all water resources are more effectively and efficiently protected. This requires improved coordination among Federal, State, and local agencies so that all appropriate concerns are represented. Such involvement is especially important to integrate our emerging programs--ground water, wetlands, and drinking water source protection--with older program frameworks. So, for example, the priorities set by Comprehensive State Ground Water Protection Programs (CSGWPP), Wellhead Protection Programs, National Estuary Programs, or State Management Plans for Pesticides would be considered along with those for wetlands protection and our more traditional programs for point and nonpoint source pollution prevention and control.

When delineating geographical areas as management units, boundaries should be constructed to accommodate hydrologic connections and processes and address the problems at hand. So, particular management areas may vary depending on the problems to be addressed. For example, when ground water contributes significantly to surface water flow, the management unit should include the ground water recharge area. When the vulnerability of drinking water to contamination is of primary concern, then the drinking water source (e.g., reservoir or wellhead protection area) should be the area upon which attention is focused. When the protection of an aquifer is of primary concern, the management area should include the overlaying or recharging area and recognize impacts upon surface water.

How do we invest in the watershed approach while maintaining our baseline levels of protection?

We have made great strides in improving water quality through the application of standard, national measures, particularly for point sources (e.g., technology-based controls) and for drinking water at the tap. We have an obligation to continue the statutory mandates and our base programs (i.e., traditional grants and regulatory programs). Our challenge is to reframe our implementation activities through the watershed approach in a manner that will allow us to better fulfill those obligations.

To be most effective, the watershed approach depends upon improved coordination of all programs, so, it will require incremental adjustments to the application of national programs. The NPDES watershed strategy provides a good model. Regional staff are assessing to what extent the States are applying watershed approaches and how the NPDES program may need to change to support each State in its effort. It is likely, for example, that the NPDES program will become more customized, State by State, gradually providing for cooperative monitoring and synchronized permits, and promoting mechanisms to deal with cumulative impacts of

point and nonpoint sources. The realignment will be realized over time as the Regions and States build their capacity and break down barriers to using the watershed approach. Similarly, as our place-based programs, such as National Estuary Program Comprehensive Conservation and Management Plans or State CSGWPPs, are endorsed, the Agency will work to support their goals and objectives. Although this requires an initial investment in coordination and program reorientation, we anticipate that both EPA and the States will ultimately save resources as we reduce duplicative efforts and better target controls in watersheds.

Because there are limited resources and a multitude of programs with specific goals and objectives, priorities will need to be cross checked and sorted out among programs. We are not suggesting that States stop all current activities in order to adopt coordinated watershed-based planning and priority setting; rather, we support a phased-in approach whereby those implementation activities that have already been identified as high priority continue to be implemented as States, with EPA support, build comprehensive planning mechanisms. Over the long term, however, we envision that all water resource planning should be carried out in a coordinated fashion and that implementation activities in particular places will correspond to the goals and objectives established jointly by watershed communities, the States, EPA, and other stakeholders. We will work with the States to set the framework necessary to carry out joint planning and priority setting. Fortunately, computer technologies, such as GIS, are available to help us sort out overlaps and conflicts in goals, objectives, and priorities.

We will continue to build on the successes of our place-based programs and increasingly integrate assessments, sort out and establish joint priorities, and coordinate actions among programs in order to realize the transition to the watershed approach. Whether a State starts with its NPDES watershed strategy, its CSGWPP, its Wetlands Conservation Plan, its National Estuary Program, its Great Water Bodies Program, or other water resource, place-based strategy, we will support the State in moving to an even more comprehensive approach to protecting water resources. Ultimately, we hope to see comprehensive State watershed programs that involve all appropriate State agency staff in setting goals, establishing priorities, convening and overseeing watershed teams, and implementing integrated and effective solutions.

How will criteria and standards accommodate the watershed approach?

The existing criteria and standards program provides the statutory basis for delivering the data, information, and tools needed to support and enhance water resources management decisions. To meet watershed needs, the program is moving beyond its traditional focus on toxic chemicals. In addition, the ecological risk assessment framework provides a structured scientific method for identifying and assessing the problems impairing the waters and for assisting local decision makers in determining the ecological potential of watersheds and uses to be included in the applicable water quality standards. Similar work provides the basis for drinking water standards that drive efforts to protect source waters or decisions to treat the water prior to public use. An expanded suite of criteria and implementation guidance will cover

factors affecting the chemical, physical, and biological integrity of waters within watersheds and result in the adoption of new water quality standards. In turn, those new standards will serve as environmental objectives and provide the statutory basis for implementing the pollution prevention and source control measures identified for particular watersheds.

NEXT STEPS

Over the next few months, under the direction of the Watershed Policy Committee, EPA's water program managers will reevaluate and make a commitment to carry out the specific work needed to support the watershed approach. The resultant action plan will include and specifically address these broad directions:

- Enhance Interagency Coordination
  - Obtain Commitment--Take action to reaffirm commitment to and provide direction for coordinating Federal activities.
  - Provide Support--Provide assistance to the States as they assemble State-focused interagency teams and support local watershed ecosystem protection efforts.

- Build State Watershed Programs--Continue to integrate existing program-specific efforts, such as the NPDES watershed strategy, CSGWPP, the emerging drinking water source water protection initiative, State Wetland Conservation Plans, and State Nonpoint Source programs, into comprehensive State watershed programs.

- Expand the Toolbox--Develop tools (methods, models, criteria, indicators, monitoring, etc.) that are necessary for efficient and effective watershed management and facilitate their application. A particular effort is needed to ascertain how to establish joint priorities across different environmental protection objectives and programs.

- Improve IntraEPA Coordination
  - Streamline Program Requirements--For example, provide for multipurpose planning, funding, and reporting for State and local watershed efforts.
  - Network--Building on CSGWPP's success in networking, establish relationships with other EPA offices to garner support for the watershed approach.

- Reach Out to Watershed Stakeholders
  - WATERSHED '95--A national conference to promote the watershed approach among all stakeholders.
  - Publicize Our Effort--Publish a united report on watershed accomplishments.

Most importantly, working with our colleagues in the public and private sector and especially our counterparts in the States, we will continue to build the necessary framework and clarify the work to be done to achieve our vision.

CONCLUSION

Today more than ever there is a critical need for comprehensive environmental protection. The world is not compartmentalized; connections are the rule. We cannot make decisions about ground water without considering surface water and vice versa. We cannot make decisions about environmental impacts without considering economic and social impacts. As John Muir put it, "When we try to pick out anything by itself, we find it hitched to everything else in the universe." To be fiscally responsible, we must work closely together to eliminate duplicative efforts and, even more troubling, conflicting efforts. But most importantly, to be ecologically responsible we must connect our own work in order to reflect, respect, and effectively protect the vital ecosystem connections that are characteristic of our environment. I'm looking forward to working with you to accomplish our vision.