

INTRODUCTION

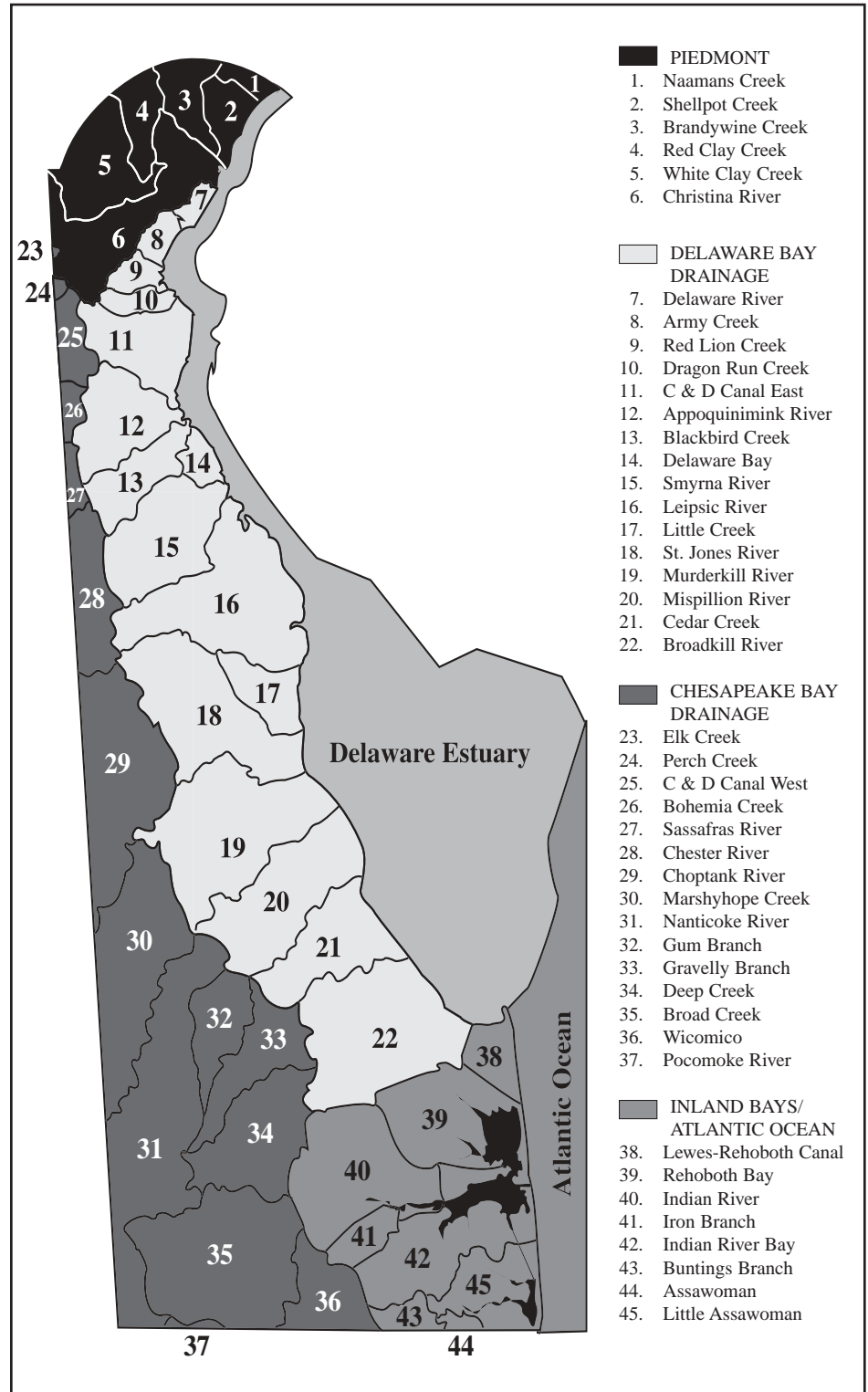
The *Whole Basin Management* approach, developed by the Department of Natural Resources and Environmental Control (the Department), focuses on protecting Delaware's environment by managing it in a comprehensive and coordinated fashion. Using major drainage basins as the chief management units, the Department is bringing together the expertise of all its divisions (Air and Waste Management, Fish and Wildlife, Parks and Recreation, Soil and Water Conservation, Water Resources, and Office of the Secretary), as well as outside agencies such as the Center for the Inland Bays and the University of Delaware College of Marine Studies, to assess, monitor, and protect the health of Delaware's environment.

The basis for developing this report comes from the Department's realization that virtually every activity that takes place in the environment impacts multiple resources or land-use activities. For example, pollutants improperly disposed of on the land surface can leach into groundwater or be transported to streams and other surface waters during storms, thus potentially affecting public drinking-water supplies, habitat, aquatic life, and recreational fishing. Managing the complex and dynamic natural world we call "the environment" requires the Department to examine it from multiple perspectives and by the many resources that it contains.

1.1 DELAWARE'S DRAINAGE BASINS

The Department's *Whole Basin Management* approach aims at managing all the biological, chemical, and physical environments of geographic areas in Delaware. These geographic areas have been delineated on the basis of drainage

Figure 1.1-1
DELAWARE'S BASINS AND WATERSHEDS



**Table 1.1-1
WHOLE BASIN MANAGEMENT PLAN PROCESS**

<p>PHASE I: Planning (Months 0 – 4)</p> <ul style="list-style-type: none"> ◆ Assemble team. ◆ Select team leader. ◆ Conduct training on consensus and team building. ◆ Develop an outline for the Assessment. ◆ Develop a Stakeholder Involvement Plan.
<p>PHASE II: Assessment (Months 5 – 28)</p> <ul style="list-style-type: none"> ◆ Inventory existing data and information. ◆ Assess status and identify trends. ◆ Identify specific issues of interest/concern. ◆ Make recommendations for focus and integration. ◆ Identify data gaps. ◆ Determine how issues and concerns are related to other media. ◆ Determine targeted indicators and how they should be monitored in the future. ◆ Determine if additional indicators need to be monitored in the future.
<p>PHASE III: Intensive Problem Identification and Prioritization (Months 16 – 20)</p> <ul style="list-style-type: none"> ◆ Incorporate existing white papers on key issues relevant to the Basin into the draft assessment and submit draft to external editor.
<p>PHASE IV: Public Participation (Months 0 – 60)</p> <ul style="list-style-type: none"> ◆ Perform agency and public review of draft assessment. ◆ Address public concerns and incorporate appropriate recommendations into assessment.
<p>PHASE V: Resource Protection Strategies (Months 42 – 60)</p> <ul style="list-style-type: none"> ◆ Develop pollution protection and watershed restoration strategies and management options.
<p>PHASE VI: Strategy Development and Implementation (Months 0 – 60)</p> <ul style="list-style-type: none"> ◆ Monitor, collect, analyze and/or organize (database development) information. ◆ Identify the roles and responsibilities of agencies involved in the priority issues. ◆ Modify Department monitoring programs to meet characterization needs (if necessary). ◆ Solicit public input on what should be done about the issue/problem. ◆ Select appropriate management options. ◆ Update Project Planning Document.

patterns. As shown in *Figure 1.1-1*, four major drainage basins encompass the state: the Piedmont, Chesapeake Bay, Inland Bays/ Atlantic Ocean, and Delaware Bay & Estuary. Each basin consists of smaller management units, or sub-basins, known as watersheds. A watershed represents the area drained by a river, stream, or creek — in simplest terms, the area “shedding the water” to a given water body. There are 45 watersheds in Delaware.

Whole Basin Management utilizes a phased approach to effectively assess the health of a targeted basin and to develop implementation plans to address environmental problems (refer to *Figure 1.1-2* and *Table 1.1-1*). The paramount objectives of the process are to protect the environment, improve relations within and outside the Department, maximize wise resource use, and promote environmental education and stewardship. For more information, see the *Whole Basin Management Framework Document*, available at the Department’s Office of the Secretary.

1.2 THE INLAND BAYS/ATLANTIC OCEAN BASIN ASSESSMENT

The Inland Bays/Atlantic Ocean Basin is the third basin being assessed by the Department under *Whole Basin Management*. The Inland Bays/Atlantic Ocean Basin is located in southeastern Sussex County. The Basin is named for the area into which it drains: the Rehoboth, Indian River, and Little Assawoman bays (referred to as the “Inland Bays”) and a portion of the Atlantic Ocean that tidally interacts with these bays. In Delaware, the Basin drains approximately 200,702 acres, or 313 square miles, and encompasses the following watersheds: Lewes-Rehoboth Canal, Rehoboth Bay, Indian River, Iron Branch, Indian River Bay, Buntings Branch, Assawoman, and Little Assawoman Bay (see *Map 1.2-1 Inland Bays/Atlantic Ocean Basin Watersheds*).

The assessment phase required gathering and assessing existing information for the Inland Bays and Atlantic Ocean from each division within the Department as well as from outside agencies. Specific goals of the assessment phase are contained in *Table 1.1-1*. This assessment report should provide the “state of the environment” for the Inland Bays/Atlantic Ocean Basin. At a minimum, it should answer these basic, but essential questions:

- ◆ *What do we know about the Inland Bays/ Atlantic Ocean Basin?*
- ◆ *What don’t we know?*
- ◆ *What do we need to know?*

In preparing this report, the Inland Bays/Atlantic Ocean Basin Team recognized that a great deal of attention has been given to the Inland Bays over the past several decades by agencies like the University of Delaware,



Delaware Geological Survey, Environmental Protection Agency, Center for the Inland Bays, and the Department. Numerous reports and management plans resulted from these efforts. The intent of the Inland Bays Team has been to utilize this existing data and information in compiling this broad-based, multidisciplinary assessment report.

This report identifies immediate actions that may be taken to improve the Inland Bays/Atlantic Ocean Basin's health and makes recommendations for additional or enhanced monitoring of specific environmental indicators. Additionally, this report identifies data trends and gaps, areas of programmatic overlap, initiatives that may be integrated, areas requiring additional focus, environmental stressors, and other findings germane to promoting management of the ecosystem. This assessment provides recommendations that the Basin team will focus on during the next phases of the Whole Basin process.

Figure 1.1-2
INLAND BAYS/ATLANTIC OCEAN BASIN TIMELINE

	1998	1999	2000	2001	2002
Planning	█				
Assessment	█	█	█	█	
Problem Identification & Prioritization	█	█	█		
Public Participation	█	█	█	█	█
Resource Protection Strategy					█
Strategy Development & Implementation	█	█	█	█	█

