

Introduction

This report is the Department of Natural Resources and Environmental Control's effort to present a comprehensive assessment of northern Delaware's environment. It provides a synopsis of environmental information and key issues of concern for northern New Castle County. This information will aid the Department and other local, state, and federal agencies in identifying the environmental issues requiring the greatest attention in this region.

The basis for developing this report comes from our realization that virtually every activity that takes place within the environment impacts more than one resource or land use. For example, improper disposal of hazardous substances on land can contaminate more than just surface soils. Contaminants can leach into the groundwater or be transported to streams during storms. Contaminants in streams then may impact public drinking-water supplies, aquatic life, and sport fishing.

Additionally, abandoned contaminated sites challenge state and local governmental agencies to find ways to make these sites safe and attractive to potential buyers such as industry.



The streams and waterways of northern New Castle County make up the Piedmont drainage basin.



Delaware's most urbanized landscape drains into the Brandywine, White Clay, and Red Clay creeks, the Christina River, and other tributaries.

Understanding and respecting the relationships that exist in nature among the air, land, water, and living resources as they constantly interact in a dynamic, ever-changing system has prompted the Department to focus on looking at the environment from multiple perspectives in an integrated fashion. This effort, which we refer to as "Whole Basin Management," involves monitoring, assessing, and managing all of Delaware's biological, chemical, and physical environments on the basis of drainage patterns.

Five major drainage basins encompass Delaware: the Piedmont, Chesapeake Bay, Delaware Bay, Delaware Estuary, and Inland Bays/Atlantic Ocean basins. Each basin consists of smaller management units, or watersheds, which represent the area drained by a river, stream, or creek. Delaware has 45 sub-basins, or watersheds.

For each major basin, a team of scientists, planners, engineers, and managers representing the six different environmental units within the Department is being assembled to carry out a five-year, eight-phase plan. The phases begin with planning and range through preliminary assessment, monitoring, analysis of problems and issues, development of management and resource protection strategies, and, finally, implementation of the plan. Throughout the

process, we will be asking you and your neighbors to express your ideas, concerns, and opinions about the region in which you reside.

This publication is a summary of the Preliminary Assessment report that has been completed for the six watersheds that make up the Piedmont Basin. The pages that follow include information on these topics:

- ◆ Land Use & Comprehensive Planning
- ◆ Watershed Hydrology
- ◆ Air Quality
- ◆ Water Quality & Quantity
- ◆ Recreation & Living Resources
- ◆ Contaminant Sources

As you read the *Piedmont Environmental Profile*, we encourage you to think about the problems or issues of concern that may exist in your region and the actions we all can take to protect and improve Delaware's environment.

Let's all join together and become responsible stewards of our environment, and leave our future generations the pristine natural resources that we and our ancestors have had the privilege to experience and enjoy!

For more information about the Department of Natural Resources and Environmental Control's Whole Basin Management approach, please contact:

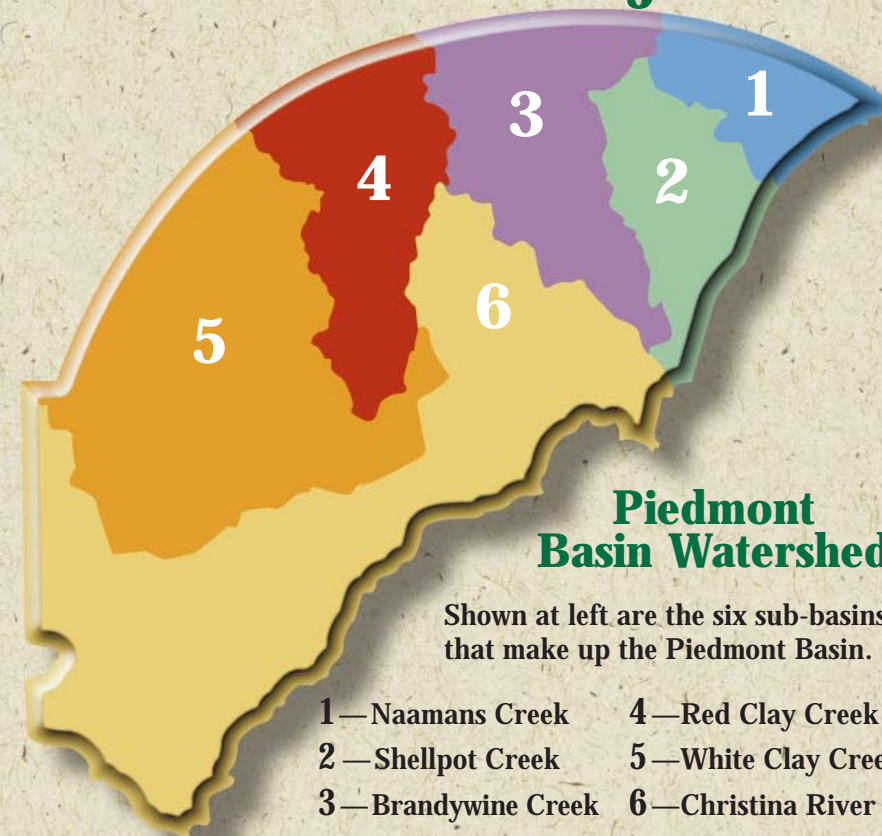
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 Depends on You!**

Delaware's Major Drainage Basins

The five major drainage basins are highlighted below. Each basin consists of smaller management units or sub-basins.

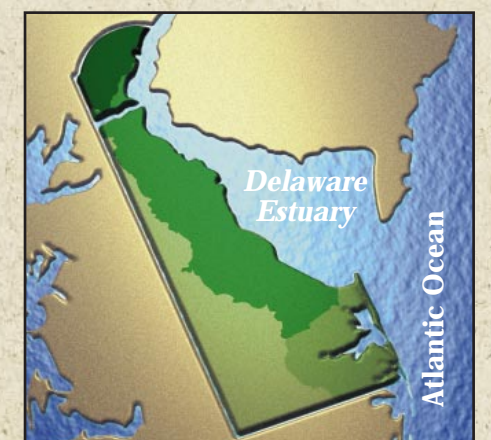
- Piedmont
- Delaware Bay Drainage
- Chesapeake Bay Drainage
- Inland Bays/Atlantic Ocean
- Delaware Estuary



Piedmont Basin Watershed

Shown at left are the six sub-basins that make up the Piedmont Basin.

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|--------------------|--------------------|
| 1—Naamans Creek | 4—Red Clay Creek |
| 2—Shellpot Creek | 5—White Clay Creek |
| 3—Brandywine Creek | 6—Christina River |



Throughout our lives, in whatever we do, we must always remember that . . .

“we are borrowing this land from our children.”