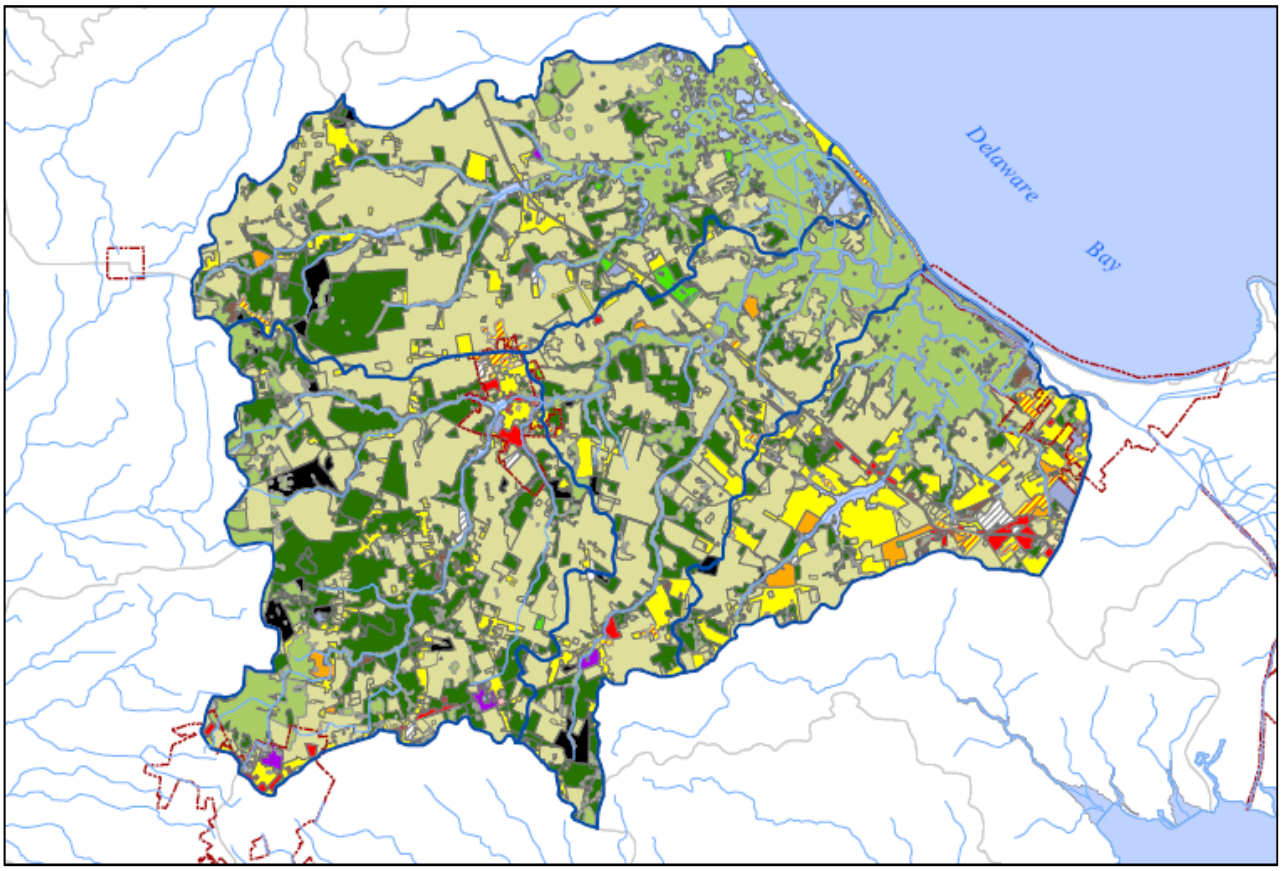
LAND USE TRENDS



2002 Land use in the Broadkill River Watershed

DEFINITION

A watershed is the land area that drains surface and ground water to one point, usually a larger body of water. Activities that occur on the land impact water quality of the surrounding streams, rivers, bays and groundwater.

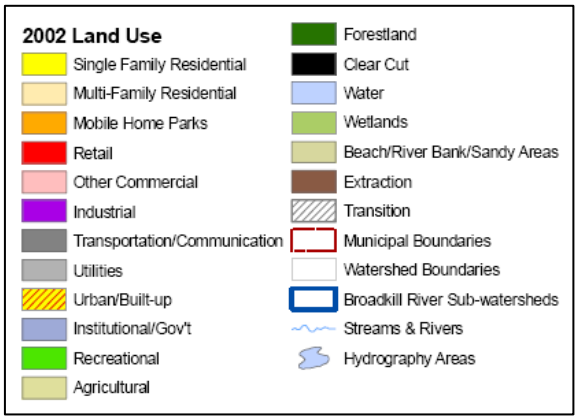
WATER QUALITY IMPACTS

Different land uses have different water quality impacts. Land in agriculture may impact water quality through the use of fertilizers. Residential use adds pollutants through home fertilizer use, on-site wastewater treatment systems and on-site wastewater disposal.

LAND COVER CHANGE

From 1997 to 2002 the watershed land use cover changed as more people moved into the area:

- 18.4% increase in residential area



- 8.5% loss of forested land
- 2.8% loss of agricultural area

Impervious cover, such as blacktop and concrete prevent water from permeating the ground. Many scientists look to impervious cover percentages as an indicator of watershed health. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat

quality irreversibly decline. Presently, the watersheds impervious cover is 6.7%, but it should be noted that surface waters are already impaired within the watershed.

During the ten-year period from 1992 to 2002, there was a 40.2% increase in residential development. Agricultural land area and forest land area each decreased by 7.1% during this period.

CHANGES IN LAND USE ACREAGE IN THE BROADKILL WATERSHED (%)

Land Use	1992-1997	1997-2002
Urban	18.4 increase	18.4 increase
Agricultural	2.3 decrease	2.8 decrease
Forest	2.5 decrease	8.5 decrease
Wetlands	1.10* decrease	1.3 decrease

*Difference in identification map

MANAGEMENT TECHNIQUES

No matter how land is used, actions can be taken to reduce the pollution that is generated from those uses. These actions are called "best management practices" or BMPs. Urban and residential development can use a variety of stormwater management measures. Some farmers will be required to use a nutrient management plan. Homeowners can leave grass clippings on their lawns, reduce the amount of fertilizers used, wash their car on their lawns, and capture stormwater runoff from their roofs to prevent erosion. Developers can install stormwater retention systems with nutrient removal components and use conservation design to reduce the amount of impervious cover.

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BROADKILL WATERSHED

This fact sheet was prepared by the Delaware Department of Natural Resources and Environmental Control for citizens and stakeholders interested in the Broadkill River and its surrounding lands, surface and ground waters.

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