



Inland Bays Whole Basin Program

Preliminary Assessment Revisited

Summary prepared by the Watershed Assessment and Management Section
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Background and Overview

Between 1997 and 2005, the Delaware Department of Natural Resources and Environmental Control published preliminary assessment reports of each of Delaware’s four major drainage basins: the Piedmont, Chesapeake, Delaware Estuary, and Inland Bays. Each of these assessment reports contained recommendations for steps that should be taken to improve Delaware’s environment and recreational resources and gather critical data and information. This “Whole Basin” approach used drainage basins as the chief management unit and sought to bring together the expertise of all DNREC Divisions to create a comprehensive and coordinated management effort. In 2013, Division of Watershed Stewardship staff met to evaluate progress towards implementing recommendations that had been laid out in the Whole Basin Assessment Reports. The main objective of this task was to determine the status of the recommendations and highlight areas for further evaluation. To accomplish this objective, staff evaluated each recommendation and determined the percentage of recommendations that had been or are being addressed in each of the four reports. The Inland Bays report was analyzed by category (Figure 1). A more in-depth assessment of recommendations can be found in Figure 2.

Category	Score
Contaminants	 85%
Geology, Soils, Sediments	 100%
Land Use	 75%
Living Resources	 67%
Water Resources	 63%
Wetlands	 75%

Figure 1. Percentage of recommendations addressed by category from the Inland Bays Whole Basin Preliminary Assessment Report.

Methodology

Each recommendation was given a status of “complete”, “ongoing”, “partially addressed”, or “not addressed” based on research and correspondence with Department staff. Recommendations were then grouped into categories from the Whole Basin report: Contaminants; Geology, Soils, Sediments; Water Resources; Wetlands; Living Resources; and Land Use. A score was determined for each category by dividing the number of completed and ongoing recommendations by the total number of recommendations. Scores above 75% received a “thumbs up” scoring, scores between 50% and 75% were scored as “thumbs sideways—neutral,” and scores below 50% received a “thumbs down” score.

Category	Implemented/Ongoing	Not Implemented
Contaminants	<ul style="list-style-type: none"> • Nutrient management plans have been developed and implemented on golf courses in accordance with the nutrient management law and regulations. • A program was implemented to replace all non-conforming septic systems. 	<ul style="list-style-type: none"> • Begin a program to sample water quality in ditches and on-site wells in areas with small lots and nonconforming septic systems.
Geology, Soils, Sediments	<ul style="list-style-type: none"> • Depth to groundwater maps developed statewide to highlight areas with extremely shallow water tables. • Recharge potential mapping has been completed to show where water and contaminants can enter groundwater. 	All recommendations from this section were addressed.
Land Use	<ul style="list-style-type: none"> • The Department recommends the use of nonstructural alternatives for erosion control such as vegetation. • Development of lands within State Resource Areas, Natural Heritage Sites, Natural Areas Inventory, and Old Growth Forests is discouraged. 	<ul style="list-style-type: none"> • The Department should encourage counties to have a 2- or 3-year sunset time to rezone land in the nonurban growth areas. Land in urban growth areas should have a longer time span for initiating new construction on rezoned land.
Living Resources	<ul style="list-style-type: none"> • Continued monitoring of existing bald eagle nests and aerial and ground surveys for new nest sites. • Macroalgae harvesting program reports a decrease in nuisance algae and citizen complaints. 	<ul style="list-style-type: none"> • A policy of no additional loss of clam bed area within the Inland Bays should be established as a component of any review for marina and other waterfront development.
Water Resources	<ul style="list-style-type: none"> • Better mapping accuracy for surface water intakes including all irrigational uses has been implemented. • Delaware Code, Chapter 72, updated to address dredging of new dead-end canals. 	<ul style="list-style-type: none"> • Amend subaqueous land statute to go beyond high-water line by 50 feet.
Wetlands	<ul style="list-style-type: none"> • Interdunal swale wetlands are protected by easements. • Statewide Wetland Mapping Project data was compared to the Natural Heritage Inventory to identify vulnerable areas and areas for further research. 	<ul style="list-style-type: none"> • Adopt statewide wetland mitigation policy that includes the concept of “land banking.”

Figure 2. Examples of recommendations from the Inland Bays Whole Basin Preliminary Assessment Report.

Moving Forward

Overall, 76% of the recommendations in the Inland Bays Preliminary Assessment Report were addressed. Additional progress could be achieved by investigating why certain recommendations were not implemented and determining if future action is warranted.