Whole Basin Program
Preliminary Assessments Revisited

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

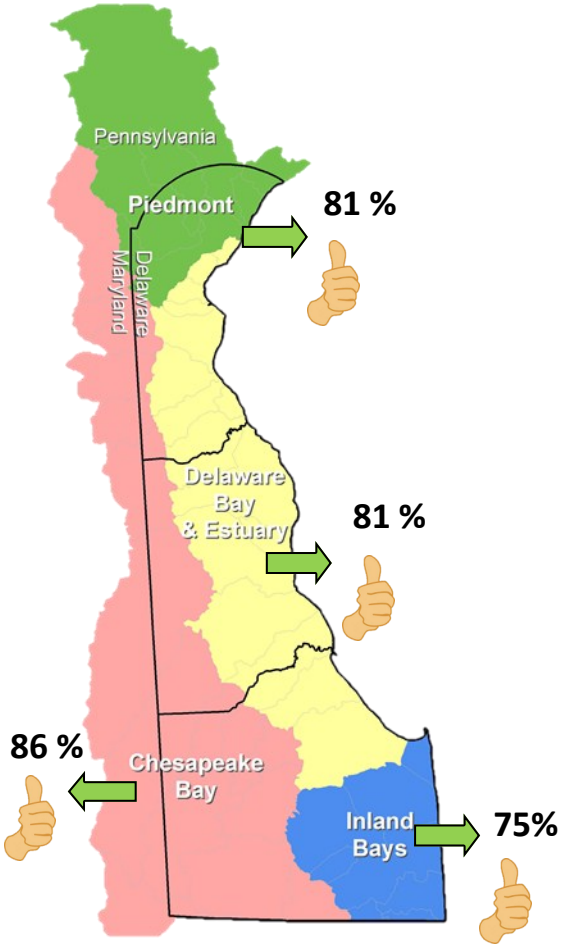

Figure 1. Percentage of recommendations addressed from each basin report.

Between 1997 and 2005, the Delaware Department of Natural Resources and Environmental Control (DNREC) published preliminary assessment reports for 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 to 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 potential areas for further progress or 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. Staff calculated the percentage of recommendations addressed in each basin report (Figure 1) and also by category within the different basins (Figure 2).

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 reports: Contaminants; Geology, Soils, Sediments; Air Quality; Water Resources; Wetlands; Living Resources; Recreation; 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 and multiplying by 100 to obtain a percentage. 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.

Basin Breakdown

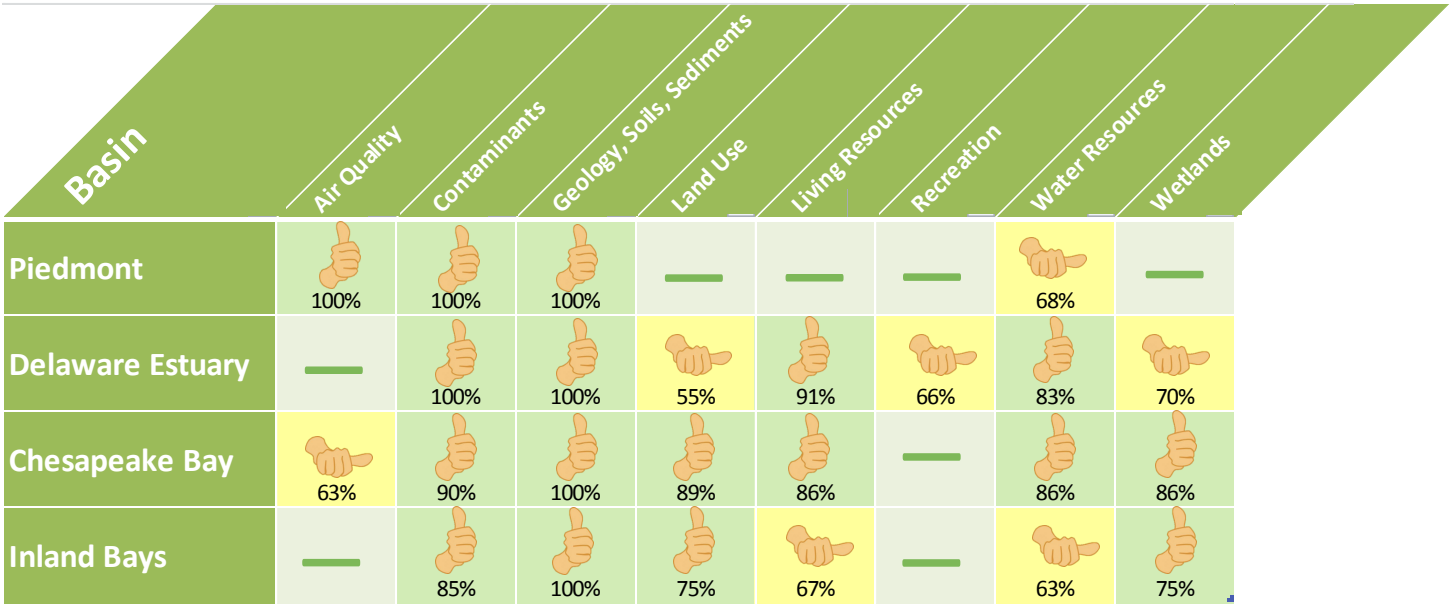

Figure 2. Percentage of implemented recommendations by category within basins.
— means this category was not specifically included in the basin report.

Examples of Recommendations in Each Basin

Basin	Implemented/Ongoing	Not Implemented
Piedmont	• Continued coordination with Pennsylvania to control nutrients throughout the basin. • Continued monitoring, identification and remediation of sources of heavy metals.	• Areas with high concentrations of drinking water wells identified to evaluate regularly for quality and vulnerability to contaminants.
Delaware Estuary	• Monitored biota for mercury and other organic toxics. • Water sampling sites added in lower Delaware Estuary.	• Adopt a statewide wetland mitigation policy, which includes the concept of "land banking."
Chesapeake Bay	• Studies currently underway to assess interactions between ditches and phosphorus transport. • Brochures developed on invasive zebra mussels.	• Development of a program to require offsets for economic development programs that have adverse environmental impacts.
Inland Bays	• Nutrient management plans have been developed and implemented on golf courses in accordance with the nutrient management law and regulation. • Implemented program with the goal to replace all non-conforming septic systems.	• Begin a program to sample water quality in ditches and on-site wells in areas with small lots and nonconforming septic systems.

Moving Forward

The analysis demonstrated that there have been high rates of recommendation implementation in all four basins. Recommendations that were not implemented could be considered for future attention.