PRO Watershed Plan

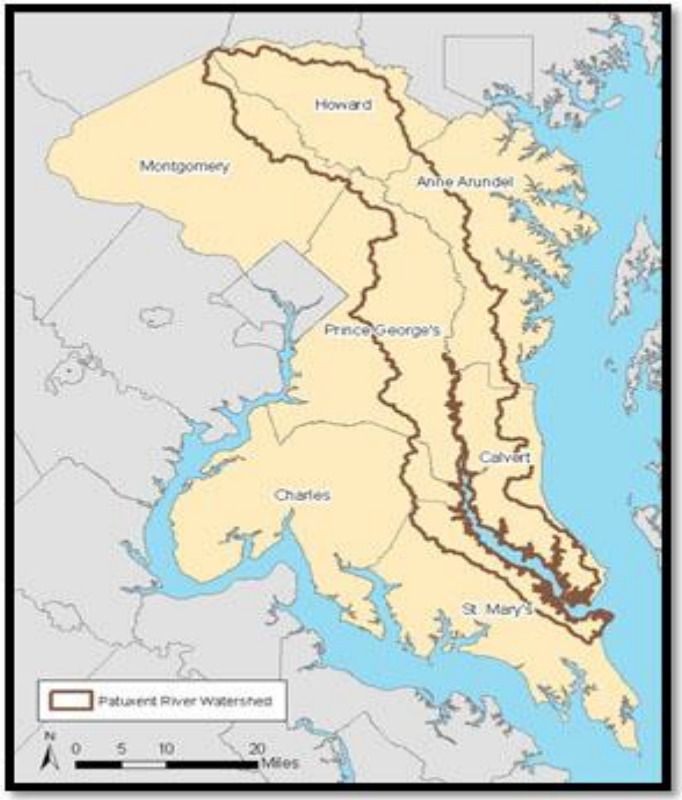
Patuxent River Organizational Watershed Plan

Mission Statement

Our goal is to continue the efforts of the 1984 Policy Plan, and improve upon them as new problems arise in the present day. By 2030, we contrive to decrease the amount of pollutant runoff into the Patuxent River, to increase its ability to support local biodiversity, and to protect the natural habitats, while educating the local community about its role in this PRO Watershed plan.

Location

- Watershed located within state lines of Maryland
- River is a tributary of the Chesapeake Bay in Maryland



History

- The Patuxent River Watershed is the largest watershed completely within the state of Maryland
- Patuxent River is the longest river running entirely through Maryland
- The watershed covers over 937 square miles, and the river flows approximately 110 miles through Maryland

History (cont.)

- The Patuxent River has been key in assessing the water quality health of the Chesapeake Bay
- It provides drinking water approximately 650,000 people living in Montgomery, Prince George's, and Howard Counties
- The river provides numerous recreational activities such as hiking, fishing, and kayaking

PRO Watershed Plan Goals

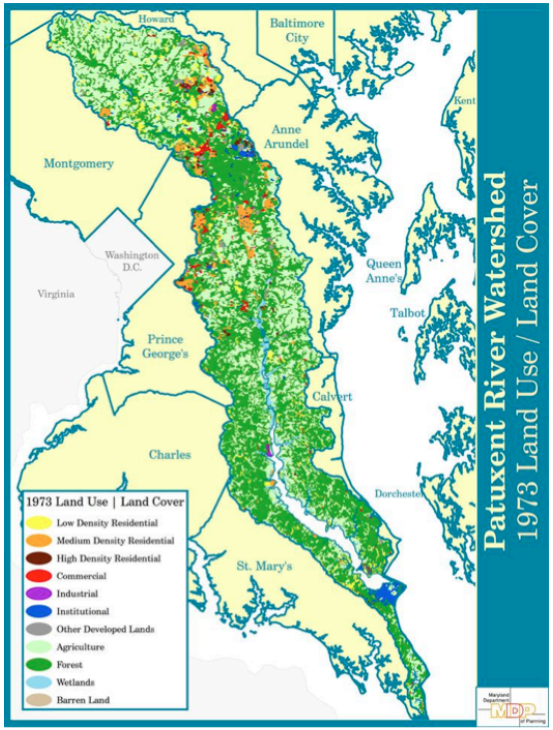
(BY 2030)

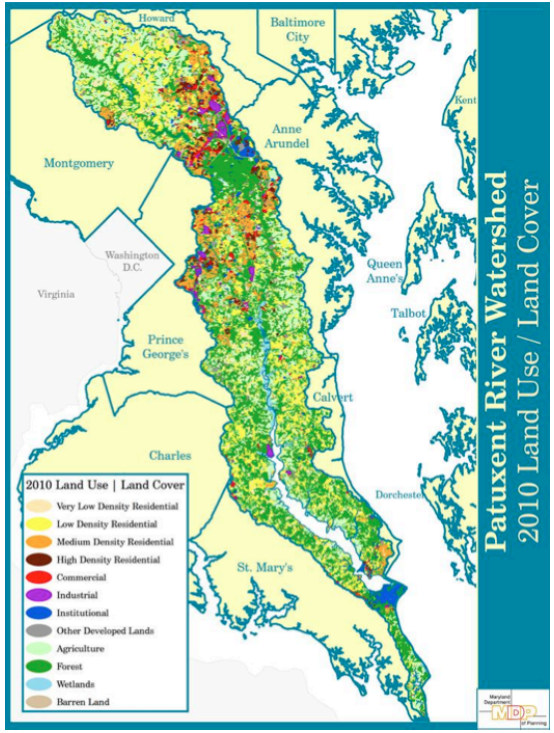
- ❏ Decrease the amount of pollutant runoff into the Patuxent River
- ❏ Protect the natural habitat in the area
- ❏ Increase the amount of fishable waters and its ability to support local biodiversity
- ❏ Educate the local community about its role in this PRO plan

Patuxent Watershed Problems

- Water quality and conditions have worsened in the watershed
- From 2006-2010 the river received an average grade of D
- 1973-2010, development increased from 68,000 acres to 230,000 acres within the watershed
- Majority of pollution caused by runoff due to increased land use

Land Use Problems





Watershed Problems (cont.)

- ❏ Increase of impervious cover has not been properly handled
- ❏ Increase of sediment load on the watershed has decreased the water quality
- ❏ Ability of the watershed to support biodiversity
- ❏ Lack of public involvement affects watershed

Solution Matrices

Problem	Cause	Result
P1. Excessive Sediments	Accelerated Erosion from Human Land Use	Degraded quality of water for marine species and destruction of small stream organism habitat
P2. Excessive Nutrients(Nitrogen and Phosphorous)	Stormwater runoff from agricultural areas, increased impervious land and municipal wastewater treatment plants	Increased amounts of dense algae blooms that are harmful for fish species
P3. Pollutants	Stormwater runoff from urban and agricultural areas and releases from new industries	Degradation overall water quality of watershed

Solution Matrices

P4. Increased Impervious Cover	Increase in Development of Residential and Commercial Areas to support growing population	Increase in amount of runoff and less open green spaces for public excitement regarding 7 environment/watershed with help of Maryland Department of Planning
P5. Public Involvement	Lack of education and excitement regarding the watershed	Less than maximum possible interest and actions taken towards the preservation of watershed

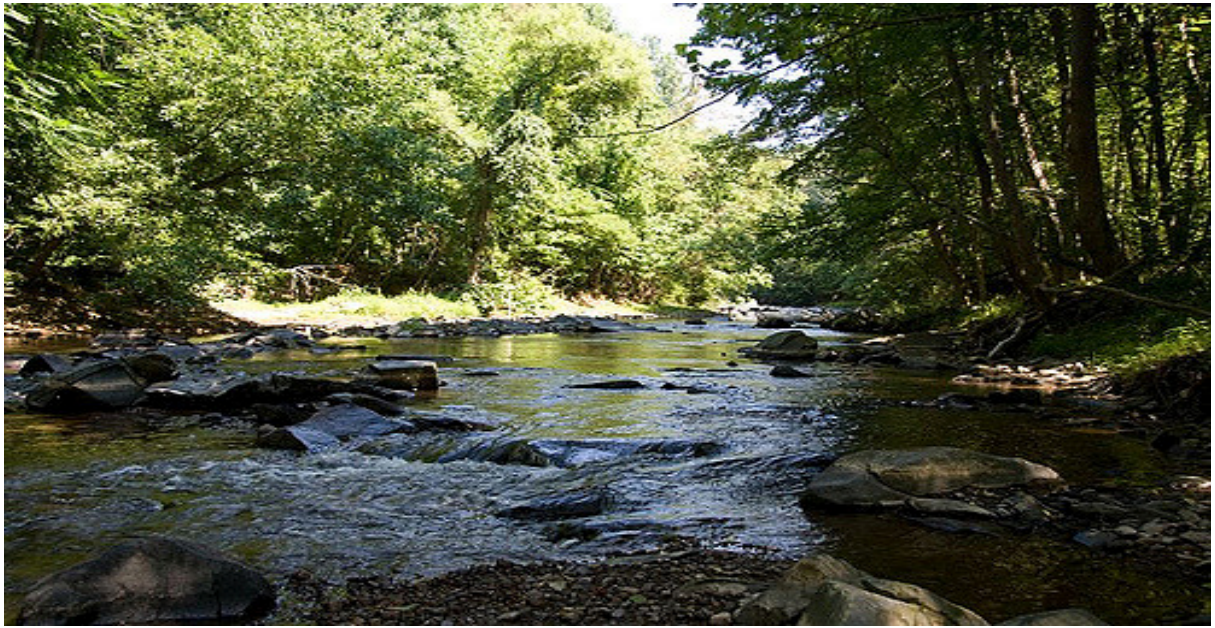
Solution Matrices

Problem	Solution	Goal
P1. Excessive Sediment	S1. Encourage Residents to Use Compost or Weed-Free Mulch on lawns and gardens and avoid mowing near streams	G1. Decrease the amount of sediment entering watershed using an awareness program of best practices that reaches at least 80% of the residents
P2. Excessive Nutrients(Nitrogen and Phosphorous)	S2. Keeping farm animals in barns and increase efficiency of wastewater treatment plant furthermore	G2. Assess and Achieve that over 90% of farmers participate in this practice and reduce nutrient outflows from wastewater plants by 50% of current levels with the Maryland Department of the Environment
P3. Pollutants	S3. Expand on the current Total Daily Maximum Loads(TMDLs) and make the standards more coherent and accessible throughout the watershed	G3. Create a new database/resource as an avenue for clearly communicating TMDLs to be enforced with Chesapeake Research Consortium

Solution Matrices

P4. Increase in Impervious Cover	S4. Increase Vegetative Buffers and Rain Gardens to increase infiltration and add greenery to local spaces	G4. Establish a new law mandating a certain increase in vegetative cover/rain gardens that is proportional to increase in impervious cover
P5. Public Involvement	S5. Develop new education and awareness programs tailored to various audiences ranging from school children to working adults such as farmers and construction workers	G5. Assess that at least 75% of the inhabitants of the watershed have attended or been informed about the various Watershed Awareness programs created and run Patuxent River Commision and Chesapeake Bay Foundation

Thank You! Questions?



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