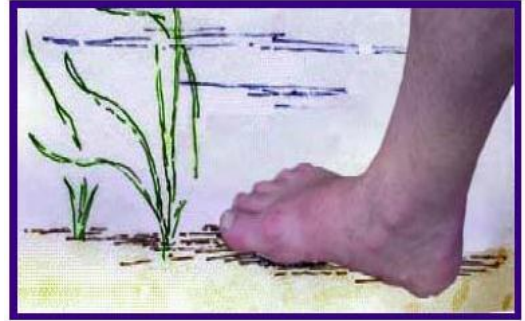


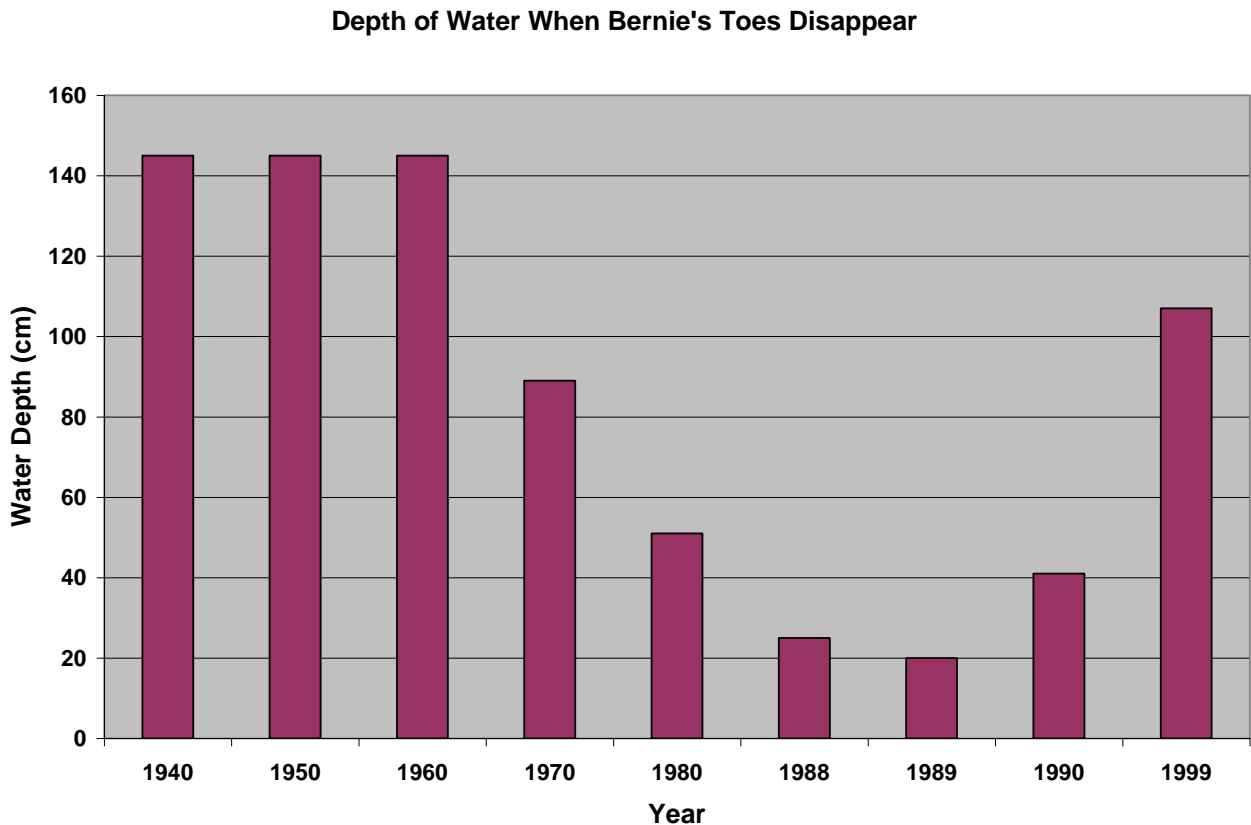
Student Sheet – Bernie's Toes

In the 1940's there was a young boy named Bernie Fowler who lived near the Patuxent River. He liked to swim, crab and fish in the river. He really liked to walk into the water and catch tasty soft-shelled crabs. These crabs hide in the thick grasses that grow under the water. As he got older he saw changes in the river. There weren't as many crabs. Also, it was harder each year to see his toes under the water because it was getting cloudier. Bernie started to write down how far he could go and still see his toes. In 1940 he could see his toes as deep as 145 centimeters (57 inches). By 1999, Bernie could only get to 107 centimeters (42 inches) and still see his toes. When Bernie grew up he became a Maryland State Senator. He still walks out in the water to measure how clear it is every year, and you can read about it in the newspapers.



Part A. Water Visibility Data

1. Study the graph below. This shows the how deep Bernie could go and still see his toes from 1940-1999.



Continued on next page

Student Sheet - Bernie's Toes, Continued

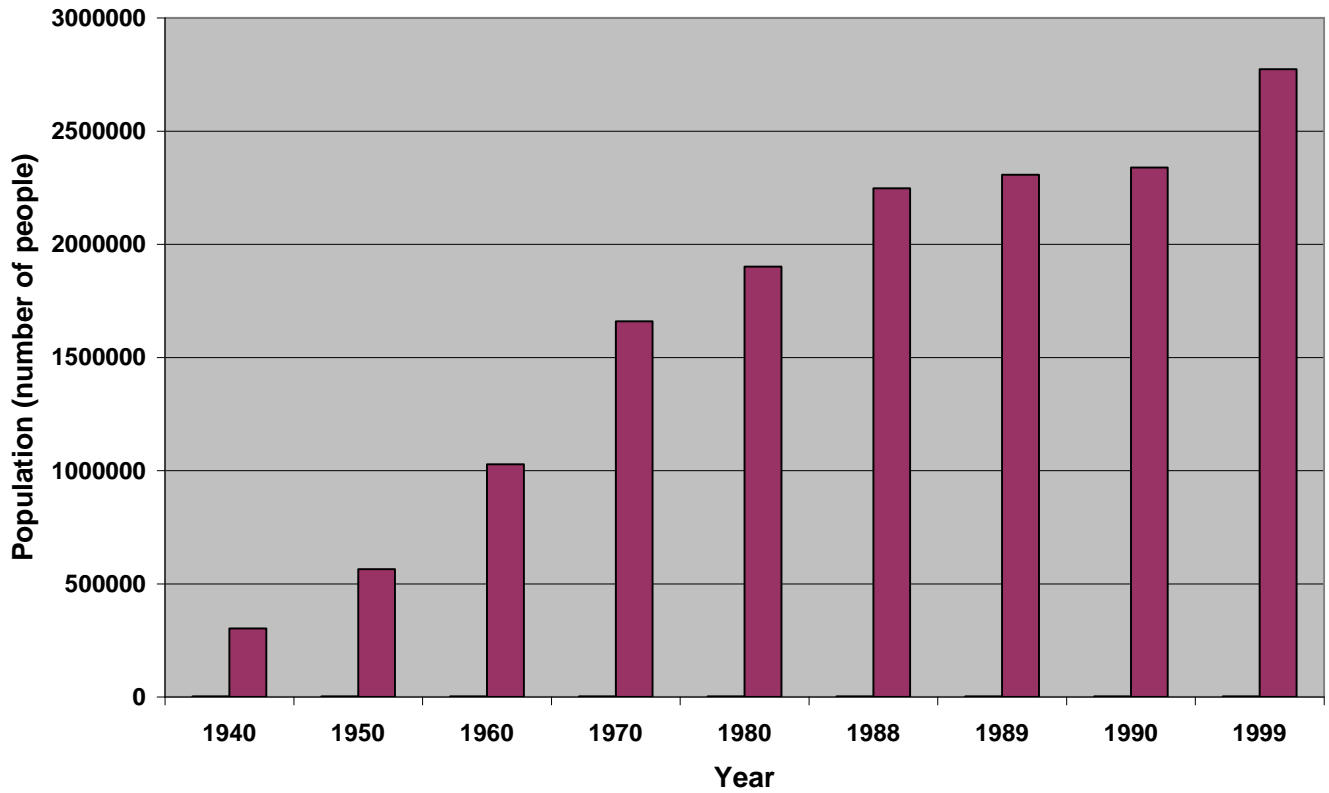


2. Using what you learned from the graph, describe how the water changed from 1940 to 1999.

Part B. Human Population Data

3. Study the graph below. It shows how many people have lived in the Patuxent watershed from 1940 to 1999.

Population of the Patuxent Watershed



4. Describe how the human population changed from 1940 to 1999 in the Patuxent River watershed.

Continued on next page

Student Sheet – Bernie’s Toes , Continued



Part C. Putting It All Together

5. Compare the two graphs. How does the population change relate to the change in the water? Explain why you think this is so.

6. Think about what you have learned so far in this unit. In the space below list two things humans have done that probably caused the water to get cloudier. For each one explain **WHY** you think each cause is likely.

7. Explain why you think it got easier to see in the water after 1980.