

# **Sediments and the Conowingo Dam**

## **The Biggest Single Threat to the Chesapeake Bay**

### **Threat 1: 30 Million Tons of Mud Gets Washed into the Bay and Smothers Everything**

During 4 days in 1972, the flood waters of Tropical Storm Agnes washed 4 years of sediment and pollutants down the Susquehanna River from New York and Pennsylvania. When the flood waters reached Maryland and the Conowingo Dam, the waters scoured another 10 years of pollutant-bearing sediment that had been trapped in the reservoir behind the dam. This “catastrophic pulse” of 14 years worth, or 30 million tons, of sediments combined with 3 trillion gallons of freshwater to inflict the biggest single damaging event ever recorded in the Chesapeake Bay. Over the past 35 years this sediment has accumulated to a level even greater than 1972 levels. Scientists agree that the question is not if another catastrophic pulse will occur, but when.

### **Threat 2: Conowingo Reservoir Fills In and Sediment and Nutrient Loads Multiply**

Sediments smother life in the Chesapeake and Nutrients cause the giant Dead Zones that suck the oxygen out of the Bay leaving those areas literally DEAD! The paradox of the Conowingo Dam is that while holding the biggest threat, it also provides a huge benefit by collecting and retaining 60-70% of the annual load of sediment being sent down the Susquehanna to the Chesapeake Bay. This essentially makes the Conowingo Dam the biggest single sediment reducing tool in the Chesapeake Bay. But the pollution-control value of the dam is reaching its end as the sediment fills in behind the dam, removing its ability to trap sediment. Once this “steady state” is reached, the load of sediment from the Susquehanna to the Chesapeake Bay will increase by 2 million tons per year. Along with this sediment, we will see an additional 3 million pounds of phosphorus.

Research done by scientists working with the Chesapeake Bay Program has told us what the effects will be. Fish, crabs, oysters, and other animals and plants will have a harder time living and breeding in the Bay. Sediment will fill in the Chesapeake channels and more money will have to be spent on dredging. The Bay could even have its salt water “line” pushed further south, wiping out areas that used to supply us with our crabs and oysters.

So we’ve known there is a problem for over 8 years. The Chesapeake 2000 Agreement emphasized the need to address this problem: **“Water Quality Protection and Restoration: Nutrients and Sediments, Goal 5.** By 2003, work with the Susquehanna River Basin Commission and others to adopt and begin implementing strategies that prevent the loss of the sediment retention capabilities of the lower Susquehanna River dams.” Unfortunately, nothing has been done.

Given the funding, the U.S. Army Corps of Engineers is ready to figure out what we need to do. To fund this work we need commitments from Maryland, Pennsylvania and the U.S. government. Unfortunately, this is what stopped us from fixing the problem in 2001.

So, the scientists all agree that we have an imminent and major threat to the Chesapeake Bay, a threat that could undo the years of efforts that have been made to restore the Bay. One scientist said it’s just like Katrina; everybody knows there’s a problem, but nobody wants to spend the money. Unless we want to lose the Chesapeake, we have to do something now.