

# ***POLICY BRIEF***

An electronic publication of  
The Allegheny Institute for Public Policy

---

May 3, 2001

Volume 1, Number 8

---

## **Common Sense: A Truly Endangered Species**

We walk on it, drive on it, and build with it. This versatile material is concrete. It is a staple for road, walkway, and commercial and industrial construction. It is composed in large part by sand and gravel. These are natural resources that are abundant in the area surrounding the Ohio and Allegheny Rivers. However, it is most easily accessible *in* the rivers. It has been extracted from the rivers since the Industrial Revolution of the 1800's. Many of our early streets were/are paved with cobble from these rivers long before concrete and asphalt, which also uses large quantities of the sand and gravel produced locally.

Annually 4.5 million tons of river aggregate are dredged from sections within a 100-mile stretch of the two rivers. The actual size of the area cultivated is about 40 acres (less than one percent of the total) per year. The aggregate is loaded on barges, navigated through the locks, and delivered to concrete and asphalt plants along the river, where it is then turned into the final product. This industry is so quiet and unobtrusive that most area residents are not even aware that it exists. However, recent events have thrust it into the spotlight.

On December 27, 2000, the Pennsylvania Department of Environmental Protection (DEP) reissued permits to the four local dredging companies to continue operations on the rivers. These 5-year permits were then rescinded due to a snafu by the DEP, which had failed to allow for a public comment period before issuing the permits. During this comment period, the main complaint about the dredgers is that they are destroying the habitat of rare freshwater mussels, the clubshell and northern riffleshell. This issue was raised by the environmental group Clean Water Action (CWA). CWA contends that the dredging is clearing the river bottoms of habitat and deepening the rivers to where oxygen is not reaching the mussels.

For 20 years the DEP has had protocols in place to protect the mussels. Mussels are filter feeders that need swift moving water to survive and colonize. Because they are more commonly found in shallow, faster moving water, current restrictions prohibit companies from dredging within 150 feet of the 6-foot depth line. These measures were designed to keep dredgers away from mussel habitats, allowing the species to grow and proliferate. Secondly, DEP requires companies to inspect an area before they start operating. If one of the above mentioned species is identified in the area, the dredgers must move to another locale. This identification takes place via diving crews, which costs an average of \$20,000 per half mile. It would cost roughly \$4 million per year to have divers cover the entire 100-mile stretch of the two rivers.

The rivers are cleaner now than they were before the regulations were enacted, resulting in increased aquatic life including the mussels. However, CWA is calling for tougher restrictions

that would threaten the survival of the dredging industry. It appears that the CWA is looking for a scapegoat for a problem that may not even exist. Evidence has not yet been presented to show that these mussels are in fact endangered due to the actions of dredgers.

Indeed, a 1998 environmental impact study conducted by a reputable national aquatic research consultant (paid for by the industry at a cost of \$1.3 million) has shown that dredging has not hurt the rivers' mussels, fish or water quality. The report finds that the abundance of mussels is similar in areas that have never been dredged, dredged recently or dredged long ago.

Ironically, the environmental groups who would put an end to dredging in order to protect the waterways against a threat that a reputable firm says does not exist would create real damage to air quality in the region. If the sand and gravel used by the construction industry in this area had to be transported over the highways and surface streets, the resulting air pollution would dwarf the towboat related emissions.

First of all, the average distance to transport the materials by truck would be several times the current average river distance since it would come from Lake Erie or west central Pennsylvania. Second, it takes 40 trucks to equal one 850-ton barge. Third, studies by the Maritime Administration show that carbon monoxide emissions per ton-mile of cargo moved by truck are 10 times greater than the ton-mile emissions created by towboat and barges. Nitrous oxide emissions per ton-mile by truck are 20 times those resulting from waterway transport.

In total, taking into account the greater mileage, the number of trucks and the higher emissions levels from trucks, the region's air would have roughly 50 times more carbon monoxide and 100 times more nitrous oxide dumped into it compared to the present levels produced by waterways transport.

In addition, the particulate matter (dust) thrown up by the additional 400,000 truck-trips per year, the enormous additional damage to the roadways caused by the heavily loaded rigs (about 10,000 times that of the same number of automobiles) and the additional congestion on the roadways would be detrimental to the environment as well as economically expensive.

Consider too that about 200 people would face immediate job loss and over \$35 million in economic production would be lost to the region. And, to complete the picture, the cost of construction would rise to reflect the higher transportation cost of the sand and gravel being imported from outside the region.

So, we are facing the prospect of shutting down a legitimate industry that brings many benefits to our region both economically and environmentally in order to stop an activity that is not threatening to aquatic life. A dose of common sense and a little attention to costs and benefits by the public agency decision makers who are involved is called for in this important controversy.

---

**Frank Gamrat, Ph.D. Senior Research Associate**

**Jake Haulk, Ph.D. President**

---

<p>Allegheny Institute for Public Policy 835 Western Avenue* Suite 300* Pittsburgh PA 15233 Phone (412) 231-6020 * Fax (412) 231-6037 E-mail: <a href="mailto:aipp@alleghenyinstitute.org">aipp@alleghenyinstitute.org</a></p>
--