

It's The Environment!

River Tales- the Yadkin River in North Carolina

The Yadkin River flows 215 miles from the northwest corner of North Carolina southwest to join the Pee Dee River before winding another 220 miles, into South Carolina's Winyah Bay. The Yadkin flows through the ancient Uwharrie mountains, at 500 million years, the oldest in the US, claiming human habitation more than 10,000 years ago. From its origins in the mountains, through the piedmont, and on to the coastal plain before emptying into the ocean, the Yadkin/Pee Dee presents wild and beautiful landscape. The Yadkin Riverkeeper is on his annual Tour de Yadkin now, paddling and blogging his way along the entire length of the Yadkin.

And yet.. the Yadkin is another of our waterways plagued by human intervention and pollution. In no small part because the Yadkin flows down though the higher elevations toward the sea, the once pristine waters of the Yadkin were dammed to produce hydropower. Ahh dams, once claimed as the bane of conservationists existence, now an energy source free from the air pollution emitted by power plants, now so much in the news. This country's penchant for damming water is longstanding and spans the continent, mostly to provide electricity, but in not a few cases, to create recreational opportunities and seemingly create an economic boost to local weak economies.

The waters behind and flowing through the dams created for hydropower present two pollution problems- each most serious and yet quite different in nature. the one problem is more obvious to citizens because the still waters often receive more runoff with fertilizers and nutrients. These waters are not well mixed, creating conditions that are perfect for excess algae to fill the waters, die and rob the reservoirs and lakes of the oxygen that all animals need. After all, the native animals once lived in a fast-flowing cold water river that was well mixed with air. But the reservoirs are slow moving waters often stripped of oxygen, threatening fish, clams and most other animals that live in the waters. This situation is a problem.

The other problem, insidious and not visible, is the chemical pollution from the electrical generating equipment- the transformers, turbines, generators. At one time, such equipment used Polychlorinated Biphenyls, PCBs , to insulate and lubricate the equipment. In fact, other rivers (such as the Housatonic that was a topic of an earlier piece) are badly polluted with PCBs from transformer reconditioning plants. Transformers are not the only equipment using PCBs, or the only source. PCBs are oily liquids once used to lubricate heavy equipment such as pumps and turbines. PCBs were also created in some industrial processes, were used in paints and caulking. As a result, the operations of the hydroelectric facilities and the now-closed Alcoa aluminum plant on Badin Lake, part of the Yadkin released PCBs into the Yadkin River.

PCBs now contaminate the waters, the mud, the fish and the clams of the waters of the Yadkin River, above and below Badin Lake. The fish from the Yadkin are not safe to eat because of PCB contamination that can cause a wide range of health problems, from cancer to abnormal brain development to immune system disorders. These health effects are delayed and come about usually after exposures of years, maybe decades.

What's to be done? The Yadkin River is not the Lower Duwamish or Housatonic river both of which were the subject of an earlier piece here. These two other rivers are recognized as Superfund or similar sites in terms of contamination. Many rivers around the country are contaminated with PCBs as a result of various activities on the river or the nearby watershed, prompting state and federal officials to take official actions to clean up the PCB problem under Superfund, RCRA, the Clean Water Act or state law. The contamination sources need to be identified and controlled and then the deposits of PCBs treated.

The Yadkin River, sadly, is not the subject of any official clean up effort despite elevated levels of PCBs in fish, clams and mud. Where is the state of North Carolina in safeguarding the natural resources and health of the communities? Where is the EPA in ensuring safe and clean waters? One of the intents of the federal clean water act was to make sure that protection is equivalent from state to state- well, it is not happening in the case of the Yadkin.

Clean up of PCBs in the Yadkin is needed, requiring action by the state of North Carolina and EPA. Now is a good time to get that process started.

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