



FONR NEWSLETTER NO. 7

Summer 2008

FRIENDS OF THE NEW RIVER Friends of the New River is a nonprofit organization incorporated in the Commonwealth of Virginia. The nucleus of the organization is the Board of Directors, which currently includes Rick Roth (President), Llyn Sharp (Vice President), Paul Angermeier, Mike Harvey, Than Hitt, Suzie Lesley, and Rick Van Noy. Our mission is to promote the conservation, protection, and enjoyment of the natural, cultural, recreational, scenic, and historical values of the New River from Claytor Dam downstream to the West Virginia state line. We encourage any FONR member interested in serving on the board to attend one of our meetings, which are announced on our listserver, or to just get in touch with us.

NEW RIVER CLEANUPS A number of river groups including FONR are coordinating cleanups up and down the river in August and September. Here are the ones we know about:

JOIN FONR! Membership for both individuals and organizations is \$10/year and runs on a calendar year basis. To join, please send a check for \$10.00 made out to Friends of the New River, along with the following information to FONR, 1000 Highland Circle, Blacksburg, VA 24060: name, address, telephone number, email. Indicate whether you would like to be put on the FONR listserver. If you are already a member, your membership renewal would be appreciated.

Saturday, August 23 -- Come "Fall Into the New" with ReNew the New, meeting at Camp Success on the New in Narrows at 10:00 a.m. There will be a post-cleanup celebration at Glen Lyn Town Park from 3 to 5 p.m. For more information call 540-921-2525.

Saturday, August 30 -- Cleanup on the Bluestone River in Virginia. Contact Andrew Satmary at 304-248-7228 or tsatmary@comcast.net

Saturday, September 6 -- New River Watershed Roundtable's Cleanup will begin at Foster Falls' lower landing at 9:00 a.m. Call Courtney Wait at 866-481-NCNR or courtney@ncnr.org

Saturday, September 13 -- North Carolina cleanup starting at 9:00 a.m. until 4:00 p.m. with a post-cleanup cookout at Riverside Canoe and Tube Rental in Crumpler. Contact Courtney Wait at 866-481-NCNR or courtney@ncnr.org

Saturday, October 4 -- New River cleanup, Fries Junction to Bylesby Dam. Contact courtney@ncnr.org.

CLAYTOR DAM RELICENSING One of the most familiar features of our stretch of the New (Claytor Dam to Glen Lyn) is the frequent up and down cycling of water levels. Most of us have experienced this, either while canoeing or while hanging out on the rocks at McCoy. Sometimes it is barely noticeable, sometimes it is life-threatening. During the cold weather months, it is not unusual for the flow to increase tenfold and then return to a minimum (usually, 750 cfs) over the course of a day. Fortunately, there aren't too many people wading in the river during those months. To see the New's ups and downs graphically, go to <http://waterdata.usgs.gov/va/nwis/current/?type=flow> on the web. Scroll down and click on New River at Radford. You'll get a graph showing the New's flow over the course of a week or a month.

The daily rise and fall of the river is the result of the operation of Claytor Dam by Appalachian Power (AP) Company, which is owned by Ohio-based American Electric Power Company. The Claytor project, which began generating power around 1940, is what is called a peaking facility. Hydroelectric power plants are ideal for utilities to meet transient electricity demand peaks, because they can be turned on and turned off like the spigot on a sink.

Claytor Dam operates under a federal permit issued by the Federal Energy Regulatory Commission (FERC). The current permit, which spells out how the facility is to be operated, in order to best serve the public interest, expires in 2011. AP is applying for a new license.

The relicensing process began in 2006 and will continue through 2010. It is a long and involved process that is spelled out in Federal regulations and presided over by FERC. During the relicensing process, AP, in cooperation with state and federal agencies, has been conducting studies on the environmental, cultural, and recreational impacts of their current and proposed operation of the dam. Such studies are an essential basis for understanding what flows are “best” – best for the critters that live in the river, best for boaters, anglers, and other river users, and best for AP and its customers.

Of thirteen studies either underway or completed (see <http://www.claytorhydro.com/relicensing/>), we have focused on three: the recreation study (the part that focuses on downriver recreation, not lake recreation), the water quality study (again, downriver impacts of dam operation on water quality are what we’re interested in), and the instream flow needs study. Other studies were potentially of interest but FONR is limited in what it can reasonably cover.

All three of the studies we are tracking are tied together, and what ties them together is the effects of the dam on flows. Obviously how much water is flowing down the river, and when, will affect recreational opportunities, not to mention the safety of those enjoying the river. Less obviously, flows and water levels and the timing and duration of certain flows affect fish spawning and survival, mussel survival, habitat for aquatic insects, and many other important aspects of what might be called the “biological integrity” of the river. These effects are what AP, its consultants, and the study work group are trying to better understand. Ultimately, a recommended flow regime (how much water, when, and for how long) will come out of the process.

The difficulty is that what is best for anglers is not necessarily best for AP; what is best for boaters on the river is not necessarily best for those living on Claytor Lake; and so on. There are inevitably going to be tradeoffs. How an agreement will be reached regarding a flow regime (a long-term pattern of flows) that satisfies everyone’s needs is an open question. But it would seem that, if a flow regime could be agreed that would protect the biological resources of the New, the recreators would adapt to it.

FONR is participating in the process, attending meetings, reviewing study reports, and speaking up for the mussels, crayfish, blue herons, hellbenders, otters, and the wonderful assortment of minnows, shiners, darters, smallmouth bass, and other fishes – to say nothing of boaters and anglers.

We want to express our gratitude for the efforts of staff members of the Virginia Departments of Game and Inland Fisheries (DGIF), Conservation and Recreation (DCR), and Environmental Quality (DEQ) – they’re really working to “get it right” for the river in this relicensing process.

FISH KILLS CONTINUE IN THE OLD DOMINION The Virginia DEQ reports that in 2008, fish kills on the upper James River and Shenandoah River generally followed a pattern that has become familiar over the past 5-10 years. Mostly in spring, dead fish and fish afflicted with infected lesions (primarily smallmouth bass and sunfish) have been turning up in large numbers. Various agencies are studying the problem but no definitive cause has been identified. Seems most of these river systems are overloaded with nutrients, mainly from poultry farms and livestock. The New is looking pretty murky with algae these days – could our river be next? For more information on Virginia’s fish kills, see <http://www.deq.state.va.us/info/srfishkill.html>.

VIRGINIA DEQ RELEASES DRAFT 2008 WATER QUALITY REPORT The report, which combines two federally-mandated reports – the water quality inventory or 305(b) report and the impaired waters list or 303(d) report – shows that about 2/3 of the state’s rivers and streams that were assessed are impaired, meaning that they do not support one or more of the state’s “designated uses.” The table, from DEQ, shows the state’s designated uses and the water quality parameters that indicate whether the uses are supported or impaired in a particular body of water:

Our section of the New appears once again on the list of polluted (impaired) waters -- not just because of PCBs, but also because of toxics: DDT, DDE, mercury, and heptachlor in fish and sediment. This is not all. The fecal coliform and E. coli standards were also violated, so that at least some sections of the New are impaired for recreation. Moreover, all of the major and most of the minor tributaries of the New upstream and in our area are now listed as impaired.

DESIGNATED USE	SUPPORT OF USE DEMONSTRATED BY
Aquatic Life Use (sub-divided in Chesapeake Bay and Tributaries)	Conventional Pollutants (Dissolved Oxygen, pH, Temp.); Nutrients and toxic contaminants found in sediments, toxics in water column; Biological evaluation
Fish Consumption Use	Advisories, limiting or restricting consumption (VDH); Exceeding state screening values for toxic pollutants found in fish tissue
Shellfish Consumption Use	Restricted harvesting and marketing of shellfish resources by Div of Shellfish Sanitation of VDH
Swimming Use	Conventional Pollutant (Fecal Coliform Bacteria, E. coli, enterococci) and/or beach closures issued by VDH
Public Water Supply Use	Closures or advisories by VDH; comparison of data to applicable public water supply standards
Wildlife Use	Aquatic life toxics criteria in water column

For the tributaries, the designated use impairments are as follows. The largest number by far was recreation (water contact) use impairment, indicated by fecal coliform or E. coli bacteria standard violations. Forty-two tributary waters were impaired in this way. The most common cause was livestock operations; failed or missing septic systems (straight pipes) were another cause, and wildlife contributed in a few cases. Urban runoff contributed to the problem in streams draining urbanized watersheds. The high levels of these bacteria indicate unsafe amounts of feces in the water, so if your kids like to play in the local stream, chances are they shouldn't, especially just after a rain event.

Other impairments on the New River tributaries in Virginia were aquatic life impairments caused by temperature standard violations (7 tributaries) or diagnosed by biomonitoring of benthic (bottom-dwelling) macroinvertebrates (6 tributaries). Rounding out the list were four tributary streams with fish consumption use impairments, three caused by PCBs (as with the mainstem New) and one by too-high levels of the pesticide chlordane.

The primary cause of impairments in the New River watershed, then, is *nonpoint source pollution*, also known as runoff pollution. A number of agencies and organizations as well as individual landowners are working to improve the situation, but it's an uphill battle. What needs to be done is well-known – it ain't rocket science, folks. It involves the use of *best management practices* – things like erosion and sediment controls; fencing and alternative water sources to keep cattle out of streams; street cleaning and better stormwater management in urban areas; and replacement of failed septic systems. The problem is one of resources: all of these practices take money, and some are quite expensive.

Among the agencies and organizations working to reduce nonpoint source pollution are the Virginia Department of Conservation and Recreation, which has an office in Dublin, and the Soil and Water Conservation Districts. The U.S. Natural Resources Conservation Service also lends a hand. The New River Watershed Roundtable, the National Committee for the New River, and other watershed organizations too numerous to mention help from the private sector side. A few local governments have shown some interest, but for the vast majority, controlling nonpoint source pollution is a pretty low priority. Citizens could help a lot by letting their local government officials know that they want to see more done to control runoff pollution, whether from city streets or farm operations.

NEW RIVER ENDEMIC FISHES POSTER The Virginia Tech chapter of the American Fisheries Society (AFS), with support from FONR and other organizations, is preparing a beautiful poster of the New's endemic fish species. Endemic fish are fish that live in a particular river system and nowhere

else. Endemics in the New and its tributaries include several cyprinids (minnow-like fish) and darters, but no game fish. Contact the Virginia Tech AFS chapter for further information on the poster.

The New is an interesting river system from the point of view of fish species diversity. Some who have studied its fish fauna have pronounced it a “depauperate” system – meaning that it had relatively few species, particularly compared to adjacent systems such as the Roanoke River and the Tennessee River. A mere 46 native species, including eight endemics, inhabit its waters. Experts attribute this low number to the New’s altitude, which made it very cold in the last Ice Age, and the inability of fish to recolonize after the Ice Age because of Kanawha Falls and the big drops in the New River Gorge.

Fisheries managers, anglers, and chance have boosted the number of fish species in the New by another 42. This represents an extraordinarily large proportion of non-native, introduced species. Introduced or likely introduced are 11 species of cyprinids (minnows and carp); 10 species of centrarchids (sunfishes)—including the highly prized gamefishes largemouth and smallmouth bass; the bowfin; a number of prey species such as the alewife apparently introduced to support the introduced predatory game fishes; the golden redhorse, which is native to the Tennessee River tributaries of Virginia; several catfish; striped and white bass; several members of the Perch family including the walleye; and the ubiquitous rainbow and brown trout.

AN OPPORTUNITY TO GET INVOLVED The National Committee for the New River and the New River Watershed Roundtable have begun a citizen water quality program. They are currently looking for volunteers willing to be trained and then take and analyze a water quality sample once a month. They’re also looking for “resource concern” monitors to document water quality problems with digital cameras and GPS units, which will be supplied. Interested? Contact Courtney@ncnr.org or Rick Roth at 951-0403.

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