

Poor Water Quality in the North Branch of the Potomac River due to the Upper Potomac River Commission Wastewater Treatment Plant Discharge at Westernport
*Prepared by Don Cosden, MD DNR Fisheries Service, Inland Fisheries Division
Manager (July 15, 2014)*

Discharge from the UPRC Wastewater Treatment Plant (WWTP) has had a profound effect on the North Branch of the Potomac River for many years due to the presence of heavy suspended solid loads from the paper mill at Luke. While the discharge is generally non-toxic and bacterial counts have been within safe limits, turbidity, solids and color change the very character of the river. Prior to the early 1980s the river was largely dead due to acid mine discharges (AMD) and few people were concerned with its condition. AMD mitigation projects in the upstream watershed and the Jennings Randolph dam created conditions for the reestablishment of fishes and benthic fauna. Improved river conditions drew the attention of anglers and DNR Fisheries Service Managers. The WWTP discharge remained an impediment to recovery until improvements in the waste treatment system in 1990 and again 2000 led to significantly improved water quality in the river. This allowed the establishment of quality trout and bass populations through stocking and natural reproduction and a thriving fishery soon developed in the river along with prominent fish guiding services. There are now seven guides who depend on the river's coldwater fishery. Client demand is high and fishing days during spring, summer and fall are limited only by river level which must be high enough to float but low enough to be safe and fish successfully. Trips are run daily and guides must coordinate times so as not to cause crowding on the river at times. When conditions below the discharge preclude fishing, crowding on the upper river is exacerbated. There is also an increasing number of private anglers buying and using their own gear to float and fish river. DNR Fisheries Service has developed three Fishery Management Areas with boat launches and has provided funds or facilitated grants to improve several other launch sites. A recent study of the North Branch Potomac River estimated that water quality improvements have led to fishing and boating industry expenditures of over \$2 million annually and an impact of \$3 million to the economy of Garrett and Allegany Counties. The survey showed a willingness to pay by these users of over \$4 million.

Over the last decade, episodes of high turbidity has shut fishing down and generated complaints but these were of relatively short duration. Impacts to fish or macroinvertebrate populations were not measurable with our current survey methods. River conditions in the spring of 2014 downstream of the discharge have been compared to pre-1990 days. Fishing had been delayed due to cold weather and above average rainfall. By late May anglers were fishing the Westernport reach of the river and numerous complaints were received from guides and private anglers about the its condition. Emails from anglers reached DNR, MDE and the Riverkeeper prompting MDE Enforcement Division to send an inspector to investigate. The attached email string documents conditions prior to and at the time of that inspection. [UPRC mentioned below refers to the Upper Potomac River Commission, operators of the WWTP.] The attached pictures were taken on July 12, at the WWTP diffusers looking upstream. Clearly the turbidity on that date was not coming from upstream sources such as Georges Cr. These

conditions threaten the fishery but more importantly they threaten the living resources which the fishing industry depends on. If the severity and frequency of the observed conditions continue, sight feeding species such as trout and bass could be impacted as may macroinvertebrate populations.

It is contrary to DNRs Mission of a 'sustainable future for our environment, society, and economy by preserving, protecting, restoring, and enhancing the State's natural resources' to allow state waters to be degraded to the degree being observed and it is not consistent with MDEs own regulations. Under COMAR 26.08.02.03 *turbidity* in the surface water resulting from any discharge may not exceed 150 NTUs at any time or 50 NTUs as a monthly average in Class I-P waters. Yet the limits in the current discharge permit (95-DP-0230) allow 800 and 400 NTUs respectively. The Class I-P monthly average limit for *Color* is 75 units. The current permit allows 450. The plant may operate well below these limits however unfishable and degraded conditions are occurring even at those lower values.

Environmental Review and Fisheries Service were coordinating with MDE regarding the pending renewal of this discharge permit in 2005 in an effort to alleviate periodic poor water quality. The permit was not renewed in that time period. According to our staff and environmental review records, since these initial discussions, there has been no further coordination by MDE on the renewal of this permit. We have now learned that MDE has a new draft permit that significantly reduces the limits on some of these pollutants and which has been through the required public review process. This would be a positive step but we are concerned that we have not reviewed those limits and that they may not achieve the desired results of improved water clarity and fishability.

Attachment:

June 6, 2014

Brent,

Charlie Hatfield of our office inspected the UPRC plant yesterday. He will have a report documenting his findings in a few days. He reviewed their discharge monitoring records for the month of May and found that while they did not exceed permit limits, both turbidity and Total Suspended Solids had increased significantly beginning May 25th.

Their daily high for turbidity was 270 NTU. The permit allows 800 NTU. Their monthly average was 83 and the permit allows 400 NTU. The situation for solids was about the same. The highest single day concentration and loading were 104.5 mg/L and 15,705 lbs./day on May 25th. They are allowed 219 mg/L and 34,401 lbs./day. Monthly average for TSS were 33.82 mg/L and 5,122 lbs./day. They are allowed 91 mg/L and 14,218 lbs./day. Charlie saw that these values, while within permit limits, are significantly higher than "normal." The increase is believed to be from increased paper coating solids in the waste stream from New Page. The concentration and loading for solids and the turbidity roughly doubled starting May 25th. The increase was not because of operational problems at UPRC, but because of the higher levels of solids in the waste stream coming in.

Charlie observed the river at several locations from Westernport to Cumberland and saw that the color was evident in the river downstream from UPRC. He also noted significant turbidity and color from Georges Creek entering the river upstream from UPRC, possibly from the acid mine drainage that flows into Georges Creek.

Brad Metzger

District Manager

Water Management Administration

Compliance Program

From: "Kenneth Pavol" <kenpavol@pennswoods.net>

Date: Jun 2, 2014 6:00 PM

Subject: Fwd: UPRC Plant

To: "Brent Walls" <brent@potomacriverkeeper.org>

Cc:

Brent. A further update today. Again the effluent from the UPRC treatment plant was very heavy with TSS. Md MDE has no hotline or number to report pollution that I can find. The plant seems to be outside the permit from what we can tell, but they always deny that and claim they are meeting the average TSS requirement. Its going to ruin a bunch of float trips, for guides and private boaters. Saw several canoes and kayak anglers on Memorial Day weekend and they questioned why the river is so dirty. The paper mill has

*a new owner. Don't know if that's related to the problem we're seeing. Thanks,
Ken*

----- Forwarded message -----

From: "Kenneth Pavol" <kenpavol@pennswoods.net>

Date: Jun 2, 2014 7:18 AM

Subject: UPRC Plant

To: "Brent Walls" <brent@potomacriverkeeper.org>

Hi Brent. Hope you are doing well. Just wanted to mention my experience and those of the other guides lately. The effluent from the Westernport UPRC plant has been pretty nasty at times. The fact that the very heavy TSS discharge has coincided with murky water in the North Branch and Savage releases has folks thinking maybe the plant is taking advantage of that to exceed their permit. The NoBr and Savage reservoirs are clearing now but that heavy rain event about 2 1/2 weeks ago had them discharging turbid water.

On Sunday of Memorial Day weekend I saw TSS levels in the plants discharge that reminded me of the bad old days pre 1990. They had to have been double the permit limit. I know they measure it on 24 hour average and that is always their explanation. "We met the permit limit over 24 hours...."

Their limit should be an hourly average but MDE did not see fit to require that so they have a free pass. Anyway, thought I'd give you a heads up. Thanks,

Ken

