

NOVEMBER 14, 2007
PUBLIC HEARING
ON WATER QUALITY MANAGEMENT PERMIT NO. 4507404

I am Don Baylor, an Aquatic Biologist very familiar with Brodhead & Pocono Creeks. I have been involved in evaluating water quality using benthic macroinvertebrates and surveying fish populations since the 1980's. Incidentally, I have frequented most sections of both streams with a fly rod for decades.

I would like to address possible impacts of this permit to Brodhead & Pocono Creeks and discuss the question of proper classification of the Brodhead at the point of the proposed discharge.

I did invertebrate sampling at three stations last spring that showed no significant difference between one HQ & 2 TS sections below proposed discharge. I used the current DEP protocols for evaluating impacts to water quality – the assumption being that if no impacts were indicated, there is no reason for a difference in classification.

DEP used my data & compared it to EV “reference condition” finding that the stations were far below HQ standards & near threshold for impairment, including one in HQ section.

I stated that all stations were in areas impacted by recent floods & represent recovering communities. It is obvious to anyone who is familiar with the Brodhead that from below Analomink down to mouth, most areas of substrate were totally scoured and mobilized by recent floods. The channel moved 100 yds. laterally in one area. It is a new stream bed. Studies have indicated it takes 4-6 years for invertebrate communities to recover full diversity after such a flood (1955).

I have sampled the Brodhead below proposed discharge point nearly every spring and in July for years – unfortunately no records just for demonstration purposes. I can name several species of mayflies that were abundant – now decimated by recent floods. Caddis were always abundant – natural in lower stream segments – now very sparse.

Good trout habitat has also been severely impacted by the floods so that any data from the Brodhead in its current state is worst case scenario.

Also, any recent biological data from below Stroudsburg is not representative of what water quality should be. County data shows downward trend in scores in recent years – malfunctioning treated wastewater discharges have impaired this segment. The lower Brodhead grows sewage fungus at low flows in the last few years. Data from DEP WQN site near the mouth should not be used to characterize the Brodhead above Stroudsburg nor what it should be near the mouth.

So we have a “Catch 22” there is no way of telling what the segment should be from its current condition and a lack of historical data.

Fish Commission data shows that there are trout in the lower Brodhead, causing DEP to reclassify it as CWF. The prior classification of TSF does not protect for trout after July – the assumption being that only stocked trout are present, and that they don’t survive after July. CWF is defined as “**maintenance or propagation of fish species and additional flora and fauna indigenous to cold water habitat.**” Consultants for Pocono Township have argued against the CWF designation based on the following arguments:

Trout were collected in early July – The trout may have migrated downstream from the hatchery, or upstream clubs. No evidence they are there after July.

My response:

Fishing experience says they are there through summer – where they come from is not relevant –there is maintenance of trout. I have become pretty good at distinguishing wild trout from hatchery trout: there are wild trout there throughout the season.

There are also cool and warmwater fish.

My response:

Certainly there are cool and warmwater fish, especially near the Delaware River. We could argue that they may have migrated there. I’ve surveyed many trout streams that also have dace and even sunfish. Taylor Creek in the headwaters of the Wallenpaupack has an excellent brook trout population with dace. Stoney Run, an EV tributary to the Brodhead, has sunfish in some areas.

There are too few trout – especially small trout– to suggest propagation.

My response:

First – CWF doesn’t require a great deal of propagation – it requires propagation **or** “Maintenance.” The Township’s consultants admit “other, larger brown trout were found” They say this, in a stocked stream does not indicate maintenance. There are wild or naturalized trout there through the summer. Many excellent wild trout fisheries rely on recruitment of trout from upstream or tributaries – U. Delaware rainbows spawn almost exclusively in tributaries. In a study that I was involved in, trout below Analomink in fall the HQ section were ½ wild in origin according to microscopic scale analysis. I have no reason to suspect any difference in the segment immediately below the proposed discharge – after all, we are told by Pocono Township’s consultants that the trout there may have migrated from upstream! Electrofishing is a sampling technique – doesn’t get all fish – especially in the Brodhead where larger, deeper pools hold most of the adult fish and can’t be electro-fished efficiently. The trout collected certainly weren’t the only ones there.

There is no evidence of “Other flora and fauna indigenous to coldwater habitat.”

My response:

My sampling of the severely flood impacted Brodhead included many species of macroinvertebrates indigenous to CW habitat – *Epeorus*, *Drunella Cornuta*, *Ephemerella dorothea* – plus others that were previously abundant but decimated by flood.

PA F&BC continues to stock: therefore, the F&BC doesn't consider it viable cold water fishery.

My response:

This is a most absurd assertion. PA F&BC policy allows stocking of any cold water fishery that is not Class A. In fact, a Class A wild brown trout stream behind my house is stocked in violation of their policy. The Pocono Creek is stocked where some samplings have revealed a Class A wild brown trout population.

Incidentally, we have no way of knowing the potential of the Brodhead to maintain wild trout. It is very heavily stocked, and many studies have documented the fact that such stocking can severely suppress wild trout populations.

There are also probable impacts on Pocono Creek – removal of flow by users of this pipeline who will continue to draw on Pocono Watershed groundwater, plus possible impact of the installation and in- and ex-filtration of the pipeline along the Pocono - together with modeling that shows Pocono flow will be reduced by 1/3 at build-out of the watershed. In 2001-2002 PA F&BC data shows that 6 of 8 stations on the Pocono Creek had Class A wild trout populations. Some stations had 2, 3, & 4 times the minimum trout biomass required.

Finally – although it may be allowable within regulations, it seems to defy common sense to allow another large discharge into a stream that already grows sewage fungus near its mouth at low flows.