



August 11, 2020

*Submitted Electronically & First-Class Mail*

Secretary Patrick McDonnell  
Pennsylvania Department of Environmental Protection  
Rachel Carson Building  
400 Market Street  
Harrisburg, PA 17101

Re: 2020 Draft Pennsylvania Integrated Water Quality Monitoring and Assessment Report

Dear Secretary McDonnell:

These comments are submitted on behalf of the Lower Susquehanna Riverkeeper and Lower Susquehanna River Association, Inc. regarding DEP's "2020 Draft Pennsylvania Integrated Water Quality Monitoring and Assessment Report: which was published in the PA Bulletin on June 27, 2020.

The Lower Susquehanna Riverkeeper Association, its members, and their representative, Lower Susquehanna Riverkeeper Ted Evgeniadis, work to protect and improve the ecological and aesthetic resources of the 8,550 square miles of the Lower Susquehanna and Juniata Watersheds. Our members and staff are fishermen, boaters, naturalists, business owners, and other citizens who utilize the Susquehanna for recreational purposes, including for its designated use as a Warm Water Fishery, and have an expectation that all water quality standards will be met, both numeric and narrative, for the protection of our resources and to the benefit of our families, communities, and all future generations.

The Lower Susquehanna Riverkeeper Association has submitted comments previously in response to the 2016 Draft Integrated Report. We requested that the Lower Susquehanna River from Sunbury to the Holtwood Dam, a stretch of approximately 98 miles, be listed as "impaired" for Aquatic Life Use, and an impaired Warm Water Fishery in particular, in the Final Listing Document. As we noted before, it is observed that most if not all of this stretch is already impaired for fish consumption, and in some locations for recreational use. A listing for impairment of Aquatic Life Use would ensure that the Susquehanna, and its warm water fishery, will continue to get high priority attention for studies to identify the cause and remedy the problem, which is important because this will likely take many years to accomplish. As I describe below, significant adverse health effects are still being seen in smallmouth bass throughout the Lower Susquehanna River. To provide the necessary regulatory foundation for restoring the health of this important fishery, this entire 98-mile segment must be listed under Clean Water Act Section 303(d) as impaired for aquatic life, and specifically the warm water fishery use.

Since the 2016 Report, the 2020 Report indicates that 5,568 more miles (25,468 miles in total) of Pennsylvania streams have been issued an impairment for a designated use including water supply, aquatic life, recreation and fish consumption including tributaries throughout the Lower Susquehanna River. Agricultural runoff remains to be the number one source for water quality impairment per the report which is also representative of the Lower Susquehanna Watershed's main hurdle being agricultural runoff. In the 2018 Integrated Report, DEP identified the Juniata River from the Raystown Branch to Duncannon as not meeting its designated use for aquatic life and has been listed as impaired for high pH levels. Also, DEP concluded that the Susquehanna River is not meeting its designated use for aquatic life and has been listed as impaired from Duncannon to the 462 Bridge near Columbia/Wrightsville. These waterways have been listed under the Clean Water Act's 303(d) Program. DEP has ranked both Juniata and Susquehanna Rivers' impairment with a medium TMDL priority.

The Lower Susquehanna River is the largest tributary of the Chesapeake and contributes 50% of the freshwater to the Bay. The Susquehanna provides the largest input of nutrients and other pollution to the Upper Chesapeake Bay. The Chesapeake Bay TMDL mandates nutrient reduction for all bay states. Counties in Pennsylvania are tackling Pennsylvania's Phase III Watershed Implementation Plans (WIP), and most of them have adopted or are drafting their own county-specific Plans. The success that will come from implementing Countywide Action Plans to meet these Phase III WIPs will be based mostly on grassroots efforts as funding is limited. Funding continues to be an issue not just for DEP staff and maintaining its resources, but for the successful implementation of these plans which must happen in order to meet the Chesapeake Bay TMDL reduction goals.

Furthermore, there continues to be a detachment for many municipalities, river communities and the public in the way they view their watershed in relation to the Chesapeake Bay. Many Pennsylvanians do not even see the Chesapeake Bay regularly or at all in their lifetimes, so there is a disconnect for many citizens when talking about water quality and the Chesapeake Bay. Many people are concerned about local issues and local water quality. However, if the focus of Pennsylvania water quality is on the Chesapeake Bay, it may leave the general public unconcerned about water quality issues because they cannot make the connection to the Bay. In other words, in order to stir attention and introduce more investment for clean water in Pennsylvania there must be increased local attention to our waterways with appropriate assistance from state and federal government agencies.

All counties and its citizens should be encouraged to focus on their own local water quality, and on improving it. If each county brings its own water into compliance with applicable water quality standards this will result in the needed improvement to the Bay water quality. Listing the Lower Susquehanna as impaired for the warm water fishery use from Sunbury to the Holtwood Dam would provide needed support to counties to develop their own local TMDLs. These are vital tools in achieving local water quality restoration, and making them more enjoyable and valuable assets to the local communities.

Given that Pennsylvania is far behind on its Chesapeake Bay TMDL reduction goals and is in a budgetary shortfall of hundreds of millions of dollars to meet its Phase III WIP, more attention and investment must be made at the local level. A Lower Susquehanna River TMDL must be implemented sooner rather than later. The discussion and timeline for a TMDL, or several local TMDLs for the Lower Susquehanna, must begin now. The Chesapeake Bay TMDL has a deadline of 2025 and will probably be extended. However, Pennsylvania must do more now

before that time even comes. The clock must start now on the preparation of a TMDL plan that will address the problems we continue to debate.

We commend the DEP for taking the necessary steps to monitor for Aquatic Life as highlighted in the 2018 integrated report. However, DEP only listed a portion of the Lower Susquehanna River impaired as a Warm Water Fishery due to elevated pH levels. The impairment listing should be extended north to Sunbury and further south to the Holtwood Dam to provide adequate protection. There are still areas of the Lower Susquehanna Watershed that need to be assessed for its designated uses including areas of York and Lancaster Counties, which boast prime agricultural land. Given both counties agricultural landscape and the fact that many farms do not have either Erosion & Sediment Control or Conservation Plans in place it may be a fair assumption that many tributaries are not attaining their designated uses. This alone further exemplifies the fact that an impairment designation for aquatic life use must be extended from the Rt. 462 Bridge down to the Holtwood Dam. It would be prudent for the PADEP to prioritize these areas for future assessment. In addition, many waterways north of Duncannon that have a hydrological connection to the Susquehanna River are impaired for recreation, aquatic life and fish consumption. Biological assessments from Sunbury to Duncannon should be prioritized. There are at least 18 counties in the Lower Susquehanna Watershed which have impaired waterways that are ultimately affecting the overall health of the River.

We understand the financial hardships of the DEP given limited staffing and resources. Funding should be restored to PADEP by the Pennsylvania legislature. However, it is still the duty of PADEP to keep collecting data, conduct causal analyses, and investigate further to determine sources of impairments for the Susquehanna and Juniata Rivers. Since it may be rare for a newly listed water to be prioritized for TMDL development, the Susquehanna needs a TMDL as soon as possible given the serious nutrient, bacteria and emerging contaminant overload that continues to occur. Although there are many NGOs and others in the state who are doing great work to protect our waterways, achieving Phase III WIP reduction targets will be hard to come by. Local resources, state and federal support are needed to achieve these goals.

In addition, the priority rating should be changed from Medium to High for TMDL development for the Susquehanna River. It is known that the Susquehanna and Juniata are exceptionally large basins and are complex which will require extensive modeling and many resources. The process for developing a TMDL must begin now, not 10 years from now. Improving water quality in the Susquehanna River should be a main focus for PADEP and the discussion on TMDL implementation should begin immediately. Also, since the listing is for high pH caused by algal blooms, and algal blooms are caused by nutrient runoff from the substantial agricultural runoff along the Susquehanna and its tributaries, the TMDL should be set for Nitrogen and Phosphorus, or combined nutrients if setting for Nitrogen and Phosphorus is not feasible.

This need to start the TMDL process now is further supported by the severely impaired health of our Smallmouth Bass and its population. In the past, our organization along with many others including the Pennsylvania Fish & Boat Commission asked for a TMDL because what of we have been seeing with Smallmouth Bass since 2005. Die offs, intersex characteristics along with grotesque lesions and abnormal pigment alterations in the Smallmouth's skin were alarming and still remain prevalent today. The Lower Susquehanna Riverkeeper Association Smallmouth Bass Monitoring Program has documented that Smallmouth Bass continue to experience a range of diseases and other adverse health effects caused by pollution. See Exhibit A.

In February 2020, our organization hosted a survey for anglers to participate in, see Exhibit B. The survey includes over 380 responses from anglers who fish all around the Lower

Susquehanna. Over 60% of our respondents stated they have caught a bass with a perceived illness whether it was a lesion, fungus or melanistic spot. The most catches of fish with a disease was between Duncannon and Harrisburg reported by 134 people. The 2<sup>nd</sup> most was between Sunbury and Duncannon with 97 people reporting they have caught a diseased Smallmouth Bass. In 2019, anglers reported an even worse year than 2018's season pertaining to catch rates. 47.1% of people said it was "worse" than 2018 while 29.4% said it was "a lot worse." 22.5% of people reported seeing more sick fish in 2019 than in 2018 while over 55% were not sure either way. 65% of our respondents said they would volunteer and help monitor for diseased bass and 94.8% said they would be willing to contact local elected officials to urge more be done about the Smallmouth Bass and water quality. It's obvious citizens of PA and those who travel from out of state to fish our River want something to be done sooner rather than later as diseased bass are still prevalent, and the underlying issues are unresolved.

The "Causal Analysis of the Smallmouth Bass Decline in the Susquehanna and Juniata Rivers" (the "CADDIS Report), released by DEP in October 2015 is said to be an ongoing effort. The 2016 Integrated Report relied heavily on that report in discussing the enormous decline in the SMB population in the Susquehanna, and the symptoms of serious illness found in samples of the SMB. That report identified emerging contaminants such as endocrine disrupting compounds and herbicides as likely causes of the decline. These threats must continue to be explored and researched as was originally prescribed to restore the health of the Susquehanna Watershed and the health of this critically important species.

A Chesapeake Bay Region Smallmouth Bass Summit of state biologists and fishing guides from MD, WV, VA and PA held in August 2019, discussed smallmouth bass populations and other issues among each Bay state. The Pennsylvania Fish & Boat Commission noted that the Susquehanna is seeing more mortality in juveniles as opposed to adults in the other rivers. Pennsylvania is attempting to standardize their testing throughout the watershed to get a better understanding of its overall health. They said that during the mid-2000s they saw a lot of mortality due to disease and that from 2005-2012 the Susquehanna experienced high mortality of adult fish along with 7-8 years of low recruitment.

Since 2012 recruitment has improved with more 1-2-year-old fish. However, they have also had the past 3 years of variable flow. The worst time to have a high flow event on the Susquehanna is in June. Late spring flash high flows due to warmer weather and stronger storm events is very worrisome to the health of the smallmouth bass population. PFBC noted that lesions are being seen on adult bass. In October 2018, biologists determined that Middle Susquehanna smallmouth bass were exhibiting lesions on about two percent of the fish while Lower Susquehanna River bass had lesions on about twenty-three percent of the smallmouth bass examined during their research.

In my own experience, I have encountered several outings where eighty percent of the fish caught had either a lesion, fungus or melanistic spot. It is also worth mentioning that we are seeing more diseased fish in the winter than in the summertime. This could be due to decreased activity and laying closer to the bottom and absorbing more of whatever nutrients/toxins that may be dispersed along the bottom of the River. Our Smallmouth Bass Monitoring Program is still new but we are steadily receiving reports of diseased fish.

The expansion of the Clean Water Act 303(d) impairment listing, the upgrading of the priority level, and the prompt development of local TMDLs are essential in order to focus local and county-level attention on this serious and worsening problem. The state of Pennsylvania is falling short on its pollution reductions goals which are directly correlated to the health of the

Susquehanna River. If we plan on getting closer to those goals more local focus must be paid to this River along with financial support from both the state and federal agencies. If the PADEP does not adjust to a high priority level for TMDL implementation on the Lower Susquehanna from Sunbury to Holtwood or as its listed currently, we urge the DEP to address Lower Susquehanna Sub Watersheds and develop TMDLs for those respective watersheds and/or particular tributaries right away. TMDL implementation should be a high priority for the Lower Susquehanna and the PADEP should consider adjusting its status accordingly.

We appreciate this opportunity to comment on PADEP's draft listing document and would be happy to discuss any aspect of it.

Respectively Submitted,

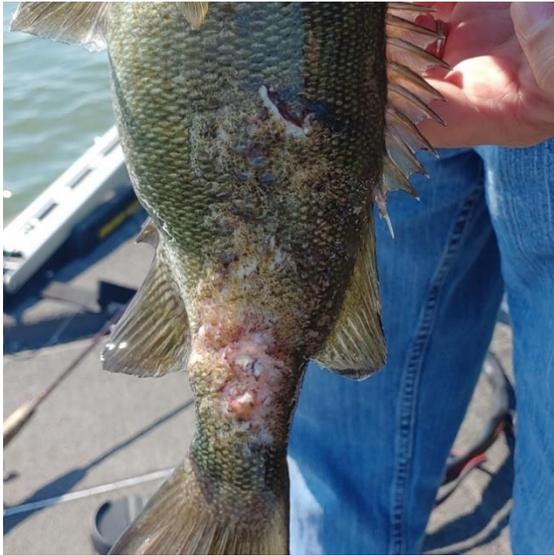


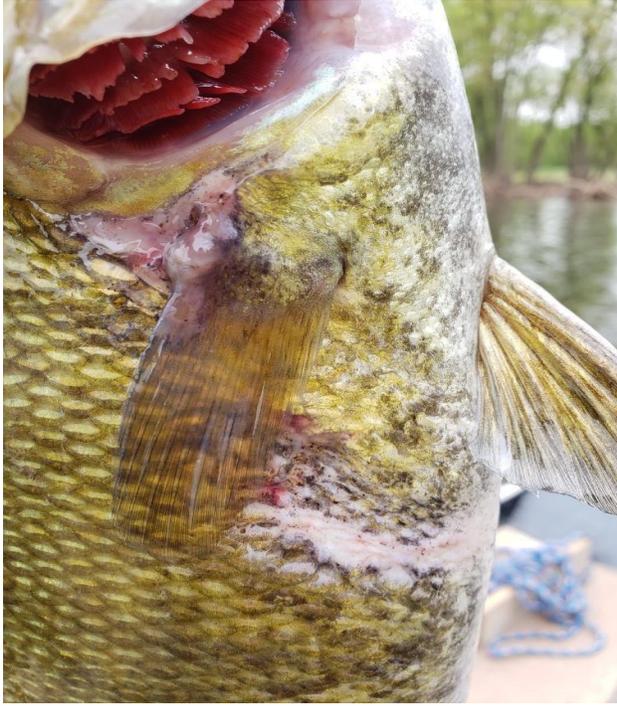
Ted Evgeniadis  
Lower Susquehanna Riverkeeper  
Executive Director – Lower Susquehanna Riverkeeper Association

Cc: PA Governor Tom Wolf  
Director Timothy Schaeffer, Pennsylvania Fish & Boat Commission

## Exhibit A. Lower Susquehanna River Smallmouth Bass

All bass are different and were caught in the Lower Susquehanna Watershed between Jan 1<sup>st</sup> - June 27<sup>th</sup>, 2020.



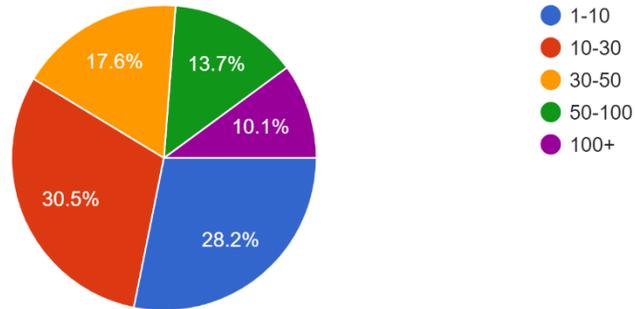




## Exhibit B. Susquehanna River Smallmouth Bass Survey as of 8/6/20

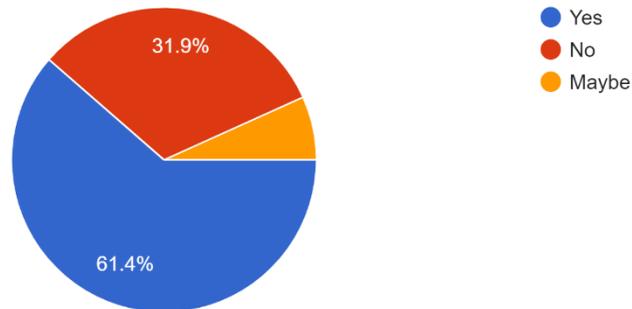
How many times did you Bass fish on the Susquehanna or Juniata in 2019

387 responses



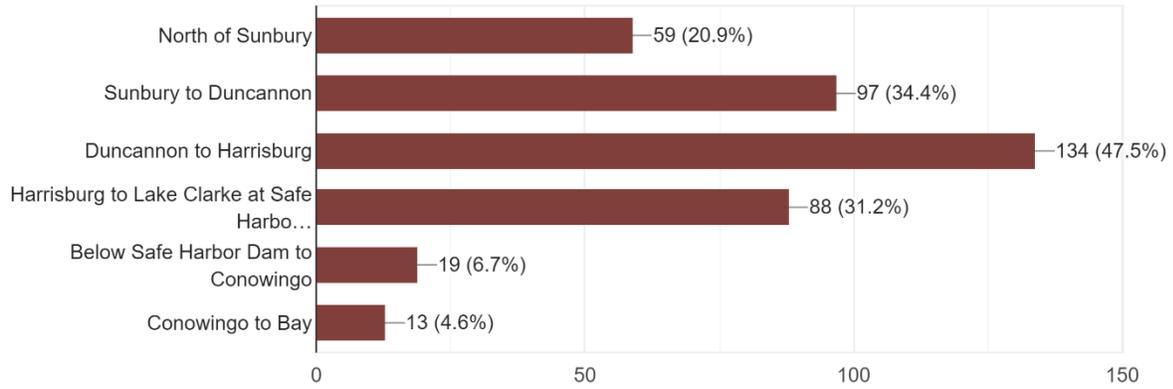
Have you caught any Bass with a perceived illness? (lesions, fungus, melanistic spots)

386 responses



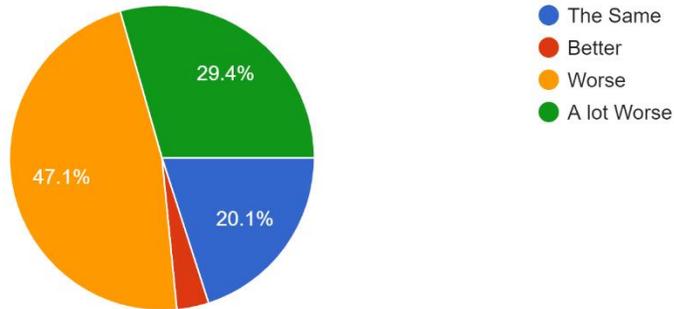
### If so, where at?

282 responses



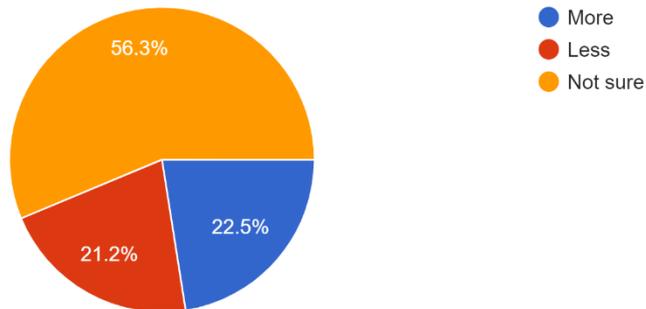
### Were your catch rates better or worse in 2019 than 2018?

384 responses



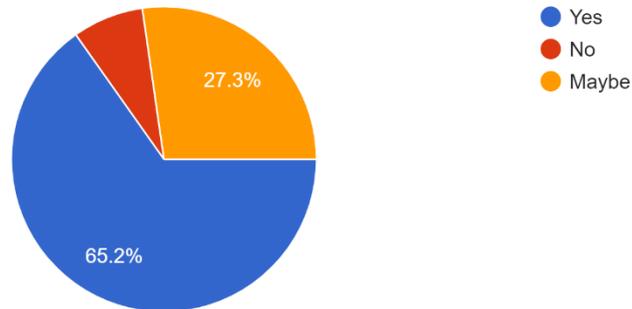
### Did you see more or less sick fish in 2019 compared to 2018?

382 responses



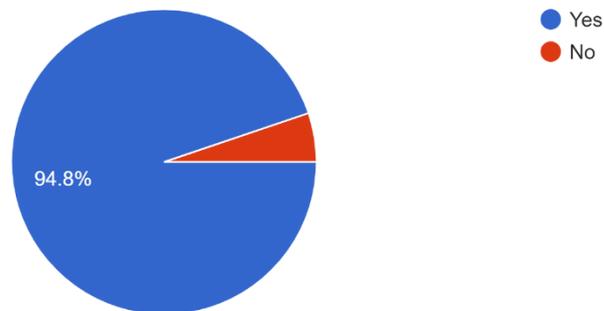
Are you willing to help monitor for Smallmouth Bass using a phone App?

385 responses



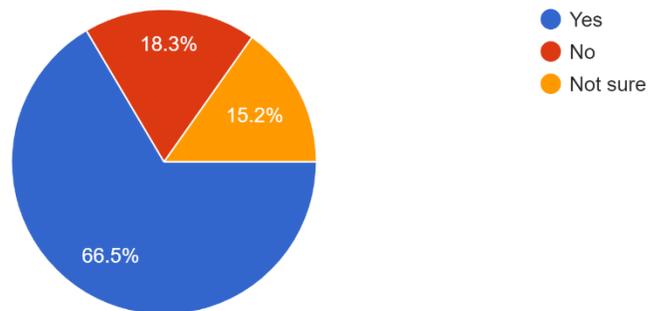
Are you willing to sign petitions and contact your local officials to demand that more be done in addressing Smallmouth Bass concerns and local water quality?

386 responses



Do you support a 6 week closure of Smallmouth Bass Fishing during the spawn?

388 responses



May we give your survey results to the PA Fish & Boat Commission?

388 responses

