

INLAND WALLEYE MANAGEMENT PLAN UPDATE

By Pennsylvania Fish and Boat Commission, Fisheries Management Division



French Creek Walleye

Whether or not you are familiar with the new Pennsylvania Inland Walleye Management Plan, this update should answer most of the questions you might have about the rivers that were removed from the Walleye stocking program in 2008. In regards to Walleyes, this report provides a summary of what has taken place so far and what is planned for the near future on the rivers in which you are most interested.

History

For 30 plus years, the Pennsylvania Fish and Boat Commission (PFBC) had stocked Walleye fry and fingerlings into Pennsylvania's major river systems in an attempt to create good Walleye fishing for the anglers of Pennsylvania. Managers also stocked Walleyes to supplement riverine fisheries where evidence of Walleye natural reproduction existed but was thought to be insufficient to maintain consistent high quality fishing. These river sections are listed in Table 1. Through the 30 years of stocking and evaluation in Pennsylvania Rivers water quality in some river sections has improved dramatically, most notably in the Three Rivers where Sauger abundance increased significantly since the 1970's.

Table 1. River sections regularly stocked with Walleye prior to 2008.

River	Section	Upper Stocking Limit	Lower Stocking Limit	Years Stocked
Allegheny River*	7	Kinzua Dam	Conf of Conewango Creek	1984 - 2007
Allegheny River*	8	Conf of Conewango Creek	Conf of Brokenstraw Ck	1984 - 2007
Allegheny River*	9	Conf of Brokenstraw Ck	Conf of Tionesta Creek	1984 - 2007
Allegheny River*	10	Conf of Tionesta Creek	Conf of Oil Creek	1984 - 2007
Allegheny River*	11	Conf of Oil Creek	Conf of French Creek	1984 - 2007
Allegheny River*	12	Conf of French Creek	Conf of Richey Run	1984 - 2007
Allegheny River*	13	Conf of Richey Run	Conf of Sugar Creek	1986 - 2007
Allegheny River*	14	Conf of Sugar Creek	Lock & Dam 9	1986 - 2007
Allegheny River*	15	Lock & Dam 9	Lock & Dam 8	1986 - 2007
Allegheny River*	16	Lock & Dam 8	Lock & Dam 7	1986 - 2007
Allegheny River*	17	Lock & Dam 7	Lock & Dam 6	1986 - 2007
French Creek*	3	Union City Dam	Conf of Leboeuf Creek	1984 - 2009
French Creek*	4	Conf of Leboeuf Creek	Conf of Woodcock Creek	1982 - 2009
French Creek*	5	Conf of Woodcock Creek	Conf of Cussewago Creek	1984 - 2009
French Creek*	6	Conf of Cussewago Creek	Mouth	1979 - 2009
Susquehanna River*	1	Fabridam	PPL Dam	1990 - 2007
Susquehanna River*	2	PPL Dam	Conf of Juniata River	1986 - 2007
Susquehanna River*	3	Conf of Juniata River	Confluence of Swatara Ck	1986 - 2007
Susquehanna River*	4	Confluence of Swatara Ck	York Haven Dam	1990 - 2007
Juniata River**	1	Conf of Frankstown Br and Little Juniata River	Warrior Ridge Dam	1986 - 2008
Juniata River**	2	Warrior Ridge Dam	Conf of Raystown Branch	1986 - 2008
Juniata River**	3	Conf of Raystown Branch	Conf of Aughwick Creek	1986 - 2008
Juniata River**	4	Conf of Aughwick Creek	Conf of Kishacoquillas Ck	1986 - 2007
Lehigh River*	7	Conf of Sandy Run	Palmerton Lowhead Dam	2003 - 2007
Lehigh River*	8	Palmerton Lowhead Dam	Northampton Dam	1984 - 2007
Lehigh River*	9	Northampton Dam	Mouth	1977 - 2007
Delaware River**	4	Conf of Lackawaxen River	Conf of Cummins Creek	1986 - 2008
Delaware River**	5	Conf of Cummins Creek	Conf of Slateford Creek	1986 - 2008
Delaware River**	6	Conf of Slateford Creek	Conf of Lehigh River	1986 - 2008

*-Fry Stocked **-Fingerling Stocked



Walleye Fry

Recent questions as to the overall contribution of Walleye fry stockings to the Walleye population grew following PFBC sampling of Pennsylvania's lakes and reservoirs, which revealed stocked Walleye fry were not contributing appreciably and therefore not increasing the overall number of walleye available to anglers in many medium and smaller reservoirs. Walleye fry stockings were successful in only a handful of large reservoirs (>500 acres) and fingerling stocking would be necessary to maintain fishable populations in the majority of our lakes and reservoirs. Given: (1) the results of these evaluations, (2) findings in scientific literature, (3) resurgence of naturally produced Sauger in systems where they exist, and (4) improvement in water quality; we began to suspect that our Walleye fry and fingerling stockings in rivers were not contributing to their fisheries to the extent previously suspected. At the same time, it became more important for the PFBC to scrutinize our finances in an effort to squeeze the best 'bang for the buck' from all species of fish that we stock. If the fish we stocked weren't surviving to adulthood or being targeted, caught and harvested by anglers, then stocking would be suspended.



Typical 35 – 50 day old Walleye fingerlings

Evaluation

Limited detailed evaluation was performed before 2005 to determine precisely how much various stockings contributed to the Walleye populations in the rivers or if these stockings provided more Walleyes for anglers to creel. It was assumed that these stockings made some contribution to their respective fisheries and since the overall cost of stocking Walleyes was low (especially fry) it was enough to justify further stocking to maintain the good quality Walleye fishing that we knew was occurring in some waters.

Beginning in 2005, several Area Fisheries Managers began fall night electrofishing surveys to assess the relative abundance of Walleyes in a few selected river sections stocked with Walleyes. Some of these preliminary surveys reinforced our beliefs that natural reproduction was sustaining Walleye populations in some river sections, while stocking was not adding to Walleye populations in other river sections. The results of these surveys are presented in Table 2 and are compared to the target catch rates for young of the year (YOY) and adult Walleyes subsequently established by the Inland Walleye Management Plan in 2011. Young of the year Walleyes are defined as fish less than 1 year old (normally 5 – 7 months old) captured in the same year as they were born.

Time of year and water temperature are extremely important when evaluating Walleye relative abundance in large river systems. Summer sampling targeted at smallmouth bass rarely captures many Walleyes in proportion to their abundance. Early fall sampling yields YOY Walleyes most representative of their abundance, but not adults. Late fall is a good time to sample all Walleye, since assessment catch rates are most representative of their abundance, but often poor weather can reduce sampling opportunities.



Allegheny River YOY Walleye

Table 2. Summary of fall night electrofishing results for Walleyes, when stocking was still occurring (generally 2005 to 2007 but with some exceptions). These surveys were conducted specifically to capture either YOY Walleyes (September) or all Walleyes (October or November).

Allegheny River – YOY only			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
President	2	1	N/A
Kennerdell	2	1	N/A
East Brady	2	0	N/A
French Creek – YOY only			
Cambridge Springs	1	1	N/A
Susquehanna River			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Rockville Bridge	1	1	1
Turnpike Bridge	1	1	1
Juniata River – Not Sampled			
Lehigh River			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Easton	1	0	0
SR 33	2	0	0
Canal Park	2	0	0
Kimmets Lock	1	0	0
Triboro	2	0	0
East Penn Twn	1	0	0
Bowmanstown	2	0	0
Glen Onoko	2	0	0
Delaware River*			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Legal Adult* Catch Rate (2/hour)
Sandts Eddy	2	0	0
Water Gap	3	0	0
Dingmans Ferry	3	0	0
Lackawaxen	2	0	1

*Legal length to harvest Walleye is 15 inches statewide, except for Delaware River, which is 18 inches.

Beginning in 2008, we suspended Walleye stockings in all of our flowing waters and began an intensive evaluation program to determine the levels of Walleye natural reproduction in those previously stocked rivers. With no hatchery Walleyes being added to the system during this period, all Walleyes born after stocking ceased would obviously be the result of natural reproduction. The Delaware River is the exception to this assumption. This water continues to receive Walleye stockings from the New Jersey Division of Fish and Wildlife (NJDFW).

Evaluation of Natural Reproduction

Area Fisheries Managers responsible for the management of the waters listed in Table 1 began performing annual fall night electrofishing surveys to determine the extent of Walleye natural reproduction in these waters, as guided by the Inland Walleye Management Plan. Using statistics from historic surveys targeting Walleyes in large rivers, the Inland Walleye Management Plan set catch rate targets for adult and young of the year Walleyes that we believed would define a good quality population capable of providing a satisfactory angling experience. Survey results would determine those river sections with natural reproduction sufficient to maintain quality fisheries and those eligible to be returned to the Walleye stocking program.

Results

Outlined below in Table 2 are the results of our night electrofishing surveys performed after stocking had ceased. Not surprisingly, sampling in some river sections demonstrated that the Walleye fishery had been largely maintained through natural reproduction and that stocking Walleyes was unnecessary. Other river sections showed substantial declines in Walleye abundance, suggesting that stocked Walleyes had been providing a large part of the Walleye fishery.

Table 3. Summary of fall night electrofishing results for adult and young of the year Walleyes, unstocked years (generally 2008 – Present, but with some exceptions).

Allegheny River			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Kinzua	4	0	4
Starbrick	1	0	1
Tidioute	5	0	4
Tionesta	1	1	1
President	6	1	3
Oil City	6	3	6
East Brady	5	2	2
Templeton	6	6	0
Freeport	6	1	0
French Creek			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Union City Tailrace	1	0	0
Dewey Road	1	0	1
Cambridge Springs	3	1	3

Saegertown	1	0	0
Wilson Chutes	1	0	1
Cochranton	1	0	1
Susquehanna River			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Rockville Bridge	4	0	3
Turnpike Bridge	4	3	1
Juniata River			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Mapleton	5	0	5
Shawmut	1	0	1
Newton Hamilton	5	0	3
Lehigh River			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult Catch Rate (2/hour)
Easton	5	0	0
SR 33	4	0	0
Canal Park	5	0	0
Kimmets Lock	4	0	0
Triboro	5	0	0
East Penn Twn	2	0	0
Bowmanstown	3	0	0
Glen Onoko	5	0	0
Delaware River*			
Sites	Number of Surveys	Surveys Exceeding Minimum YOY Catch Rate (20/hour)	Surveys Exceeding Minimum Adult* Catch Rate (2/hour)
Sandts Eddy	7	0	3
Water Gap	7	0	1
Dingmans Ferry	7	0	1
Lackawaxen	7	0	0

*Legal length to harvest Walleyes is 15 inches statewide, except for Delaware River, which is 18 inches.

To date, management decisions have been made on most of the river sections listed in Table 1.

Allegheny River

The primary result from the survey work on the Allegheny River is that natural reproduction is occurring in the river, but is yielding greater YOY abundance and more consistency in downstream sections compared to upstream sections. Survey results suggest that natural reproduction is sufficient to maintain the current quality of the Walleye fishery in the Allegheny River from Lock and Dam 6 near Ford City upstream to Oil City. These sections of the Allegheny River should not need continued stocking to maintain a high quality Walleye fishery.

The sites sampled in the Allegheny River from Kinzua Dam downstream to President have shown wide fluctuations in Walleye YOY abundance between 2008 and 2013. This includes sites at President, Tidioute and the Kinzua Dam tailwaters area. Two additional sites were sampled in this part of the Allegheny River in 2013 at Tionesta and Starbrick to better examine density of young in this part of the Allegheny River. The site at Tionesta had a very good catch of YOY Walleyes at 28/hour compared to President, which had a YOY Walleye catch of only 3/hour for 2013. While this result was just for one year, it does suggest that the President site may have been underperforming in abundance of YOY Walleyes compared to other locations in this part of the Allegheny River. Tionesta and President are less than 5 river miles apart. Since Section 10, which lies between Tionesta and Oil City has shown excellent Walleye reproduction at both Oil City and Tionesta it is not recommended that fry stocking resume in this section.

The Starbrick site had a low YOY Walleye catch similar to the Kinzua Dam tailwaters site at 4.6/hour and 4.3/hour respectively. The Tidioute and Kinzua Dam tailwaters sites have not met the minimum catch rate of 20 YOY/hour laid out in the Inland Walleye Management Plan during any of the study years. It may be that water level fluctuations and other effects of Kinzua Dam may be lowering the level of natural reproduction of Walleyes in this part of the Allegheny River. Given these results, it is recommended that Walleye fry stocking be resumed in Sections 07, 08 and 09 of the Allegheny River, which lie between Kinzua Dam and Tionesta. Guidelines laid out in the Inland Walleye Management Plan for tracking the contribution of stocked Walleye fry to the recreational fishery of the Allegheny River will be followed to assess the success of this program. Pending final evaluation of these findings, Walleye stocking will likely resume in the spring of 2015 on these sections of the Allegheny River.

Table 4. Management Decisions for the Allegheny River.

Water	Section	Resume Stocking?	What will be stocked?
Allegheny River	7	YES	2000 Fry per acre
Allegheny River	8	YES	2000 Fry per acre
Allegheny River	9	YES	2000 Fry per acre
Allegheny River	10	NO	N/A
Allegheny River	11	NO	N/A
Allegheny River	12	NO	N/A
Allegheny River	13	NO	N/A
Allegheny River	14	NO	N/A
Allegheny River	15	NO	N/A
Allegheny River	16	NO	N/A
Allegheny River	17	NO	N/A

French Creek

French Creek was not removed from the stocking program until 2010. A survey was conducted in 2009 at Cambridge Springs in Section 04 during the last year French Creek was stocked with Walleye fry. The catch rate for YOY Walleyes was 27/hour and exceeded the target catch rate from the Inland Walleye Management Plan. After stocking was suspended, surveys conducted from 2010 to 2012 at this site failed to meet the target catch rate for YOY. The YOY Walleye catch rate was 9/hour in 2010 and no YOY

Walleyes were sampled in 2011 or 2012 at the Cambridge Springs site. The adult Walleye minimum catch rate was exceeded in 2011 and 2012. Because French Creek is a relatively small river with few accessible long and deep pools for standard night boat electrofishing, only the Cambridge Springs site was surveyed between 2009 and 2012. We were unable to conduct a survey at this site in the fall of 2013 due to consistent high and turbid flows throughout October. The sharp decline in the YOY Walleye catch rate in Section 04 since stocking stopped indicates stocking may have been supporting a major portion of the population in this part of French Creek.

A more extensive survey of other Sections in French Creek was conducted during the summer of 2013 using day boat electrofishing with a small easily launched mini-boom electrofishing boat. Night electrofishing was not possible due to safety reasons. This evaluation targeted all sizes of Walleyes in order to determine the catch rate of all Walleyes spawned in French Creek following the suspension of Walleye fry stocking. In Section 03, we captured no Walleyes that were spawned after stocking stopped. We were unable to find a suitable survey site in Section 05. In Section 06, the results of this study indicate some modest recruitment of Walleyes in the years following suspension of stocking but overall abundance may have been reduced.

Given these results, it is recommended that Walleye fry stocking be resumed on French Creek, Sections 03, 04, 05 and 06. Due to the modest level of recruitment in Section 06 from natural reproduction or other sources such as immigration from the Allegheny River or Woodcock Creek Lake, it is recommended that Walleye fry be stocked at a rate of 1000 per acre compared to 2000 per acre in upstream Sections. Pending final evaluation of these findings, Walleye stocking will likely resume in the spring of 2015 on these sections of the French Creek.

Table 5. Management Decisions for French Creek.

Water	Section	Resume Stocking?	What will be stocked?
French Creek	3	YES	2000 Fry per acre
French Creek	4	YES	2000 Fry per acre
French Creek	5	YES	2000 Fry per acre
French Creek	6	YES	1000 Fry per acre

Susquehanna River

Directed surveys in Section 03 of the Susquehanna River showed a decline in abundance of YOY Walleyes from 2008 through 2012 after the cessation of stocking. Relative abundance of YOY Walleyes during the evaluation period fell from 97.2 fish/hour in 2007 to 1.7 fish/hour in 2012. We believe this indicates that Walleye fry stockings in this section of the Susquehanna River supported the fishery. In 2013, approximately 25 million Walleye fry were stocked in Sections 03 and 04 (from the confluence of the Juniata River downstream to the York Haven Dam). The effectiveness of these stockings will be evaluated from 2013 through 2017. We will be comparing how hatchery-reared fish contribute to the fishery each year (as YOY) and over the course of the study period (as adults). Additionally, we will evaluate how these stockings affect overall YOY abundance by utilizing an upstream control reach which will remain unstocked (Sections 01 and 02; from the confluence of the West Branch Susquehanna

River downstream to the confluence of the Juniata River). This also provides an opportunity to gather more pre-stocking data in that reach as there were no evaluation sites there prior to 2012. The results of the reinstatement of stocking in Sections 03 and 04 will be used for guidance on future management in this reach as well as inform future actions in Sections 01 and 02.

Table 6. Management Decisions for the Susquehanna River.

Water	Section	Resume Stocking?	What will be stocked?
Susquehanna River	1	NO	N/A
Susquehanna River	2	NO	N/A
Susquehanna River	3	YES	2000 Fry per acre
Susquehanna River	4	YES	2000 Fry per acre

Juniata River

Sections 01 and 02 of the Juniata River extend from the confluence of the Frankstown Branch of the Juniata River and the Little Juniata River downstream to the confluence with the Raystown Branch of the Juniata River. Sections 03 and 04 of the Juniata River extend from the confluence with the Raystown Branch of the Juniata River downstream to the confluence with Kishacoquillas Creek. Stockings of Walleye fingerlings in section 01 through 04 of the Juniata River were discontinued beginning in 2009 with the last plant of Walleyes in 2008. Data collected in this reach of river from 2009 to present following cessation of stocking during surveys targeting Smallmouth Bass, as well as one survey targeting Walleyes demonstrated that natural reproduction of Walleyes was insufficient to sustain a high quality Walleye fishery in this portion of the Juniata River. As such, Walleye fingerling plants will be reinstated beginning 2014 and their contribution to the fishery will be evaluated through 2018.

Additionally, natural reproduction of Walleyes in the portion of the Juniata River from the mouth of Kishacoquillas Creek downstream to its confluence with the Susquehanna River was evaluated from 2009 through 2013. The results of surveys targeting Walleyes during this time period varied among years and among sites. Overall, however, the level of natural reproduction of Walleyes in the downstream portion of the Juniata River was sufficient to sustain a high quality Walleye fishery and this portion of the river will remain managed as a wild Walleye fishery. Monitoring of this river reach will also continue through 2018 to track changes in the wild fishery and determine if Walleyes stocked in the upstream portion of the Juniata River or middle Susquehanna River relocate to this portion of the river.

Table 7. Management Decisions for the Juniata River.

Water	Section	Resume Stocking?	What will be stocked?
Juniata River	1	NO	N/A
Juniata River	2	NO	N/A
Juniata River	3	YES	20 Fingerlings per acre
Juniata River	4	YES	20 Fingerlings per acre

Lehigh River

No Walleye, YOY or age 1+, were caught at survey stations in Sections 07 through 09 of the Lehigh River, suggesting little to no natural reproduction is occurring. Passage of Walleyes through the Easton (RM 0.0) and Chain (RM 3.0) dam fishways were nominal (6.5 fish on average annually, 1995 - 2012). The support for any Walleye fishery would require annual fingerling maintenance stockings. Furthermore, strong angler commentary was received supporting the discontinuation of Walleye stocking in the Lehigh River, principally during the presentation of the Lehigh River Management Plan in 2006. The Lehigh River fish passage improvement feasibility study indicated full dam removal (i.e. Easton and Chain dams) as the only viable option for improving fish passage in the lower Lehigh River. The owners of the dams have not indicated a willingness to proceed with removal. We do not envision managing Sections 07 - 09 for a Walleye fishery via stocking in the future, pending reversal of strong angler support for the discontinuation of the Walleye fingerling stockings.

Table 8. Management Decisions for the Lehigh River.

Water	Section	Resume Stocking?	What will be stocked?
Lehigh River	7	NO	N/A
Lehigh River	8	NO	N/A
Lehigh River	9	NO	N/A

Delaware River

Electrofishing catch rates for YOY Walleyes in the stocked sections of the Delaware River were poor, both while being stocked and after stocking ceased in 2008. Throughout sampling, YOY Walleyes were routinely captured at only one of four sites sampled. At Water Gap, YOY Walleyes were captured in 5 of the 10 surveys (2005, 2007, 2010, 2011, and 2013). Three of those five samples occurred after stocking had ceased. Water Gap YOY catch rates ranged from 0.4 – 7.6 YOY per hour, all of which are below the 20 YOY per hour target catch rate of the Inland Walleye Management Plan. For all other surveys, YOY Walleyes were captured only in a single year at Sandts Eddy in 2012 (1.9 YOY /hour), at Dingmans Ferry in 2010 (0.7 YOY/hour) and at Lackawaxen in 2010 (0.9 YOY/hour), all after stocking had ceased. All other surveys yielded no YOY Walleye.

The Delaware River fisheries, including Walleye, are managed cooperatively among the basin states: New Jersey, New York, Delaware, and the Commonwealth of Pennsylvania. Collectively, the basin states agreed to maintain an 18 inch minimum length for Walleyes, which is higher than for the remainder of the Commonwealth (i.e. ≥ 15 inches).

Catch rates of legal length (≥ 18 inches) adults in the previously stocked sections of the Delaware River were annually variable (0.0 – 4.8 adults/hour). Legal length adults were captured in most years, excepting half of the surveys at Sandts Eddy (0/hour in 2007-2010) and Lackawaxen (0/hour in 2008-2010, 2013); but catch rates generally did not exceed the minimum (2/hour). Following the cessation of Walleye stocking, the minimum electrofishing catch rate for legal length Walleyes was exceeded at Sandts Eddy (2011: 2.6/hour; 2012: 2.9/hour; 2013: 4.8/hour), Water Gap (2011: 3.1/hour), Dingmans Ferry (2011: 3.4/hour), and Lackawaxen (2006: 4.5/hour).

To compare Walleye abundance in the Delaware to the other waters in the Commonwealth, and to PA Walleye Plan bench marks, 15 inch or greater Walleyes in the Delaware River were captured in all sites surveyed except six (2009 – 2010 at Sandts Eddy, 2007 at Water Gap, 2010 and 2013 at Lackawaxen). Using the 2/hour benchmark at 15 inches criteria, catches exceeded the benchmark in some years: Sandts Eddy: 3.1/hour in 2011, 4.9/hour in 2012, 6.7/hour in 2013; Water Gap: 3.1/hour in 2011; Dingmans Ferry: 2.7/hour in 2006, 4.2/hour in 2010, 6.8/hour in 2011, 9.5/hour in 2012, 3.9/hour in 2013; Lackawaxen 6.8/hour in 2006, 2.1/hour in 2007.

Our conclusion is that the Delaware River maintains a self-sustaining Walleye population for Sections 05 and 06; however, our results may have been confounded by the annual stocking of Walleyes by the NJDFW into main stem waters. Specifically for Section 04, which is upriver of New Jersey’s state line, annual catch rates were also suggestive of a self-sustaining population. Incidental angler reports have indicated high satisfaction with the Walleye fishery in the Delaware River main stem. The future stocking of PFBC Walleye fingerlings is provisional, based on NJDFW continuance of maintenance Walleye stockings. Currently, PFBC Walleye fingerling stockings will remain discontinued in the Delaware River.

Table 9. Management Decisions for the Delaware River.

Water	Section	Resume Stocking?	What will be stocked?
Delaware River	4	NO	N/A
Delaware River	5	NO	N/A
Delaware River	6	NO	N/A

Ongoing Evaluations

A major part of the new Inland Walleye Management Plan is that all flowing waters that are returned or added to the Walleye stocking program will be thoroughly evaluated to verify that stocking is adding to the population and that any fishery created is worth the expense of continued stocking. This will be accomplished using the tactics outlined in the Inland Walleye Management Plan. Per the Plan, all stocked Walleyes will receive an otolith mark (internal mark) at the hatchery prior to stocking. Subsequently, fall night electrofishing surveys will be performed to recapture these fish as 6-10 inch YOY in the fall. Adult Walleyes will also be collected. Some captured Walleyes will be sacrificed. They will have their otoliths (ear stones) removed and analyzed for the hatchery mark. Following guidelines in the Inland Walleye Management Plan, stocking will only continue if we can prove that the stocked fish are surviving to adulthood and contributing to the Walleye fishery.

Other Rivers

Other than those river sections listed in Table 1, many of Pennsylvania’s major river sections are still managed for naturally reproducing, self-sustaining Walleye fisheries (Table 10). If you read the original Inland Walleye Management Plan, you will find a list of many smaller rivers and large warmwater streams that contain low to moderate density self-sustaining Walleye populations. Area Managers will

evaluate means to improve abundance in each of these systems were limitations can be identified and feasibly addressed through individual water specific management plans.

Table 10. Major River Sections managed for self-sustaining Walleye populations.

River	Sections
Monongahela River	1 - 6
North Branch Susquehanna River	1 - 10
Youghiogheny River	6
Ohio River	1 - 4
West Branch Susquehanna River	6

In addition, water quality improvements in the West Branch Susquehanna River now allow the Area Fisheries Manager to initiate stocking in Section 7 with Walleye fingerlings beginning in 2014.