

Regulatory Analysis Form

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(1) Agency

Department of Environmental Protection

2002 SEP 24 PM 12: 04

REVIEW COMPLETED

(2) I.D. Number (Governor's Office Use)

7-379

IRRC Number: 2295

(3) Short Title

Stream Redesignation, East Branch Codorus Creek

(4) PA Code Cite

25 PA Code, Chapter 93

(5) Agency Contacts & Telephone Numbers

Primary Contact: Sharon F. Trostle 783 -1303

Secondary Contact: Edward R. Brezina, 787-9637

(6) Type of Rulemaking (Check One)

- Proposed Rulemaking
 Final Order Adopting Regulation
 Final Order, Proposed Rulemaking Omitted

(7) Is a 120-Day Emergency Certification Attached?

- No
 Yes: By the Attorney General
 Yes: By the Governor

(8) Briefly explain the regulation in clear and nontechnical language.

This rulemaking modifies Chapter 93 to reflect the recommended redesignation of a portion of the East Branch Codorus Creek from Cold Water Fishes (CWF) to Warm Water Fishes (WWF). The change provides the appropriate designated use for this stream.

(9) State the statutory authority for the regulation and any relevant state or federal court decisions.

These proposed amendments are made under authority of the following acts:

The Pennsylvania Clean Streams Law, Act of June 22, 1937 (P.L. 1987, No. 394) as amended, 35 P.S. § 691.1 et seq.

Section 1920-A of The Administrative Code of 1929, as amended, 71 P.S. § 510-20.

40 CFR §131.32.

Regulatory Analysis Form

(10) Is the regulation mandated by any federal or state law or court order, or federal regulation? If yes, cite the specific law, case or regulation, and any deadlines for action.

Although this regulation is not specifically mandated by Federal or state law or regulations, Section 303 (c) of the federal Clean Water Act requires that states review their water quality standards and modify them, as appropriate, at least once every three years. This regulation is undertaken as part of the Department's ongoing review of Pennsylvania's water quality standards. There are no deadlines for action associated with the regulation.

(11) Explain the compelling public interest that justifies the regulation. What is the problem it addresses?

These regulations are needed to provide the appropriate designated use protection for the stream being revised. This amendment will minimize the potential for unwarranted additional treatment costs.

(12) State the public health, safety, environmental or general welfare risks associated with non-regulation.

Retaining the current designation in the stream listings promotes water quality standards that may be over-protective of this aquatic resource. Being over-protective creates the potential for unwarranted higher treatment costs for individuals currently conducting or planning to conduct activities which result in wastewater discharges to this stream.

(13) Describe who will benefit from the regulation. (Quantify the benefits as completely as possible and approximate the number of people who will benefit.)

The citizens of the Commonwealth will benefit from these revisions to the designated use, which will protect in-stream water uses. In addition, The York Water Company will benefit by being able to meet projected future water demands and ensuring an adequate water supply for its customers. The change in designation will allow water withdrawn from the Susquehanna River to be pumped, as needed, into Lake Redman for water supplies.

Regulatory Analysis Form

(14) Describe who will be adversely affected by the regulation. (Quantify the adverse effect as completely as possible and approximate the number of people who will be adversely affected.)

The designated use change will have no impact on existing wastewater discharges. Persons proposing new or expanded activities or projects which result in discharges to these and/or other waters of the Commonwealth are required to provide effluent treatment according to the water quality criteria and designated use. This regulation will be implemented through the National Pollutant Discharge Elimination System (NPDES) since the stream use designation is a major basis for determining allowable stream discharge effluent limitations.

(15) List the persons, groups or entities that will be required to comply with the regulation. (Approximate the number of people who will be required to comply.)

See Question #14. Persons proposing new or expanded activities or projects which result in discharges to these waters of the Commonwealth must comply with this regulation by providing the appropriate level of wastewater treatment for discharges to these waters.

(16) Describe the communications with and inputs from the public in the development and drafting of the regulation. List the persons and/or groups who were involved, if applicable.

Potentially affected municipalities were notified by letter of the stream evaluation and asked to provide any readily available data. In addition, data was requested from the public through a notice in the Pennsylvania Bulletin and newspaper notices. Pennsylvania Fish and Boat Commission (PFBC) and DEP staff reviewed the draft evaluation report and concurred with the recommendations. The affected municipalities were sent a draft evaluation report for review and comment. The draft report was posted on the Division of Water Quality Assessment and Standards web page. There will be a public comment period of at least 45 days to receive comments, suggestions or objections to this proposal. Public meetings and/or hearings will be scheduled if needed to receive additional comments or suggestions on specific recommendations in this proposal.

(17) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures which may be required.

The designated use revision will have no impact on existing waste discharges. Dischargers planning to add new, or expand existing discharges must comply with this regulation by providing the appropriate level of wastewater treatment.

Regulatory Analysis Form

(18) Provide a specific estimate of the costs and/or savings to local governments associated with compliance, including any legal, accounting or consulting procedures which may be required.

See Question 17.

No costs will be imposed directly upon local government by this regulation.

(19) Provide a specific estimate of the costs and/or savings to state government associated with the implementation of the regulation, including any legal, accounting or consulting procedures which may be required.

See Questions 17 and 18.

This proposal is based on and will be implemented through existing Department programs, procedures and policies. There are no additional implementation costs associated with this regulation.

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(20) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY Year	FY +1 Year	FY +2 Year	FY +3 Year	FY +4 Year	FY +5 Year
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community	Not Measurable					
Local Government	“					
State Governments	“					
Total Savings	“					
COSTS:						
Regulated Community	Not Measurable					
Local Government	“					
State Governments	“					
Total Costs	“					
REVENUE LOSSES:						
Regulated Community	Not Measurable					
Local Government	“					
State Governments	“					
Total Revenue Losses	“					

(20a) Explain how the cost estimates listed above were derived.

Not Applicable.

Regulatory Analysis Form

(20b) Provide the past three year expenditure history for programs affected by the regulation.

Program	FY-3	FY-2	FY-1	Current FY
Water Quality Management	\$16,704,886	\$16,605,573	\$18,741,606	\$15,995,084

(21) Using the cost-benefit information provided above, explain how the benefits of the regulation outweigh the adverse effects and costs.

There are no adverse effects or cost from this regulatory change. The regulation will provide the appropriate level of designated use protection to protect in-stream water uses.

(22) Describe the non-regulatory alternatives considered and the costs associated with those alternatives. Provide the reasons for their dismissal.

There were no non-regulatory alternatives available to consider in this case.

(23) Describe alternative regulatory schemes considered and the costs associated with those schemes. Provide the reasons for their dismissal.

There were no alternative regulatory schemes to consider in order to apply the appropriate designated use in 25 Pa.Code, Chapter 93, Water Quality Standards.

Regulatory Analysis Form

(24) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

No. The proposed regulations are not more stringent than the companion federal standards allow.

(25) How does the regulation compare with those of other states? Will the regulation put Pennsylvania at a competitive disadvantage with other states?

Other states are also required to maintain water quality standards with similar requirements.

These regulations will not put Pennsylvania at a competitive disadvantage with other states. This amendment is intended to provide the appropriate level of designated use protection.

(26) Will the regulation affect existing or proposed regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No other regulations or State Agencies are affected by this proposal.

(27) Will any public hearings or informational meetings be scheduled? Please provide the dates, times, and locations, if available.

See Question 16. Public hearings and/or meetings will be scheduled if sufficient interest is generated during the public comment period.

Regulatory Analysis Form

(28) Will the regulation change existing reporting, record keeping, or other paperwork requirements? Describe the changes and attach copies of forms or reports which will be required as a result of implementation, if available.

No additional reporting, record keeping, or other paperwork will be required.

(29) Please list any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, elderly, small businesses, and farmers.

There are no such provisions in this proposed regulation.

(30) What is the anticipated effective date of the regulation; the date by which compliance with the regulation will be required; and the date by which any required permits, licenses or other approvals must be obtained?

The regulation will become final after review and approval by the Environmental Quality Board and publication in the Pennsylvania Bulletin as final-form rulemaking. New or renewed NPDES permits reflecting the regulation changes would be issued according to current timelines that apply to permit applications.

(31) Provide the schedule for continual review of the regulation.

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE BUREAU
(Pursuant to Commonwealth Documents Law)

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LEGISLATIVE REFERENCE BUREAU

#2295

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Copy below is hereby approved as to
form and legality. Attorney General

Cristina S. Caputo

(DEPUTY ATTORNEY GENERAL)

SEP 19 2002

DATE OF APPROVAL

Check if applicable
copy not approved. Objections
attached.

Copy below is hereby certified to be a true and correct copy
of a document issued, prescribed or promulgated by:

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-379

DATE OF ADOPTION: _____

BY: *David E. Hess*

TITLE: DAVID E. HESS, CHAIRMAN
(EXECUTIVE OFFICER, CHAIRMAN OR SECRETARY)

Copy below is hereby approved as to
form and legality. Executive or Independent
Agencies.

BY: *K. Keith Ray*

DATE OF APPROVAL

(Deputy General Counsel)
(Chief Counsel, Independent Agency)
(Strike inapplicable title)

Check if applicable. No Attorney General
approval or objection within 30
days after submission.

NOTICE OF
PROPOSED RULEMAKING
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

STREAM REDESIGNATION, EAST BRANCH CODORUS CREEK

25 PA CODE, CHAPTER 93

**NOTICE OF PROPOSED RULEMAKING
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD
25 PA. Code, Chapter 93
Stream Redesignation (East Branch Codorus Creek)**

Preamble

The Environmental Quality Board (Board) proposes to amend 25 Pa. Code § 93.90 to read as set forth in Annex A. This amendment would redesignate a portion of the East Branch Codorus Creek from Cold Water Fishes to Warm Water Fishes to reflect the appropriate designated use for this stream.

This proposal was adopted by the Board at its meeting of September 17, 2002.

A. Effective Date

This proposed amendment is effective upon publication in the Pennsylvania Bulletin as final-form rulemaking.

B. Contact Persons

For further information, contact Edward R. Brezina, Chief, Division of Water Quality Assessment and Standards, Bureau of Water Supply and Wastewater Management, 11th Floor, Rachel Carson State Office Building, P.O. Box 8467, 717-787-9637 or Michelle Moses, Assistant Counsel, Bureau of Regulatory Counsel, 9th Floor, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, 717-787-7060. Persons with a disability may use the AT&T Relay Service by calling 800-654-5984 (TDD users) or 800-654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) website (<http://www.dep.state.pa.us>).

C. Statutory and Regulatory Authority

This proposed amendment is made under the authority of sections 5(b)(1) and 402 of The Clean Streams Law (35 P.S. §§691.5(b)(1) and 691.402), which authorize the Environmental Quality Board to develop and adopt rules and regulations to implement the provisions of the Clean Streams Law, and section 1920-A of The Administrative Code of 1929 (71 P.S. §510-20), which grants to the Board power and duty to formulate, adopt and promulgate rules and regulations for the proper performance of the work of the Department. In addition, section 303 of the Federal Clean Water Act (33 U.S.C. § 1313) sets forth requirements for water-quality standards and the Federal regulation at 40 CFR § 131.32 sets forth certain requirements for portions of the Commonwealth's antidegradation program.

D. Background of the Amendment

Pennsylvania's Water Quality Standards, which are set forth, in part, in Chapter 93, implement the provisions of sections 5 and 402 of The Clean Streams Law and Section 303 of the Federal Clean Water Act (33 U.S.C.A. § 1313). Water quality standards are in-stream water quality goals that are implemented by imposing specific regulatory requirements (such as treatment requirements and effluent limits) on individual sources of pollution.

The lower reaches of the East Branch Codorus Creek, including Lakes Redman and Williams, were evaluated in response to a rulemaking petition submitted by The York Water Company. The petition requested redesignation of the main stem of the East Branch Codorus Creek from the inlet of Lake Redman to the mouth from Cold Water Fishes (CWF) to Warm Water Fishes (WWF). The petition contained extensive data on water quality and the fishery in this portion of the basin, including Lakes Redman and Williams.

The Department's evaluation involved review of data in the petition and data obtained from the Pennsylvania Fish and Boat Commission (PFBC). The data shows that Lake Redman, Lake Williams, and the East Branch Codorus Creek downstream from Lake Williams support a warm water fish community. The existence of a warm water fishery in Lake Redman has been documented since 1970. Surveys beginning in 1983 have shown a warm water community. The warm water fishery in the lower main stem was documented in 1996.

Based upon its review of the petition and the Departments' recommendation, the Board proposes to adopt the designations described in this Preamble and set forth in Annex A.

Copies of the Department's stream evaluation report for this waterbody are available from Edward R. Brezina whose address and phone number are listed in Section B.

The information presented in the report clearly indicates that the aquatic life existing use of the petitioned surface waters is WWF. The WWF existing use is less restrictive than its CWF designated use. In addition, the information in the report supports redesignation under 25 Pa. Code § 93.4(b). This information indicates that the petitioned surface waters were designated in error in 1979 when the Board adopted the current regulatory CWF designated use. The Board is proposing that the less restrictive use be adopted based on the data that demonstrates the requirements of § 93.4(b) have been satisfied. Section §93.4(b) states that less restrictive designated uses than those currently designated for particular waters listed in §§ 93.9a – 93.9z may be adopted when it is demonstrated that: 1) the designated use is more restrictive than the existing use; 2) the use cannot be attained by implementing effluent limits required under sections 301(b) and 306 of the Federal Clean Water Act (33 U.S.C. A. §§ 1311(b) and 1316) or implementing cost-effective and reasonable Best Management Practices for nonpoint source control; and 3) dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original

condition or to operate the modification in a way that would result in the attainment of the use.

E. Benefits, Costs and Compliance

Executive Order 1996-1 requires a cost/benefit analysis of the proposed amendment.

1. *Benefits* - Overall, the citizens of this Commonwealth will benefit from this recommended change because it will reflect the appropriate designated use and maintain the most appropriate degree of protection for this stream. In addition, The York Water Company will benefit by being able to meet projected future water demands and ensuring an adequate water supply for its customers. The change in designation would allow water withdrawn from the Susquehanna River to be pumped, as needed, into Lake Redman for water supplies.

2. *Compliance Costs* - Generally, the changes should have no fiscal impact on, or create additional compliance costs for the Commonwealth or its political subdivisions. No costs will be imposed directly upon local governments by this recommendation.

Persons conducting or proposing activities or projects that result in new or expanded discharges to streams must comply with the regulatory requirements relating to the designated use. Treatment costs are site-specific and depend upon the size of the discharge in relation to the size of the stream and many other factors.

3. *Compliance Assistance Plan* - The regulatory revisions have been developed as part of an established program and are consistent with water quality standards requirements established by the Federal Clean Water Act and The Pennsylvania Clean Streams Law. All surface waters in this Commonwealth are afforded a minimum level of protection through compliance with the water quality standards, which prevent pollution and protect designated water uses.

The proposed amendments will be implemented through the National Pollutant Discharge Elimination System (NPDES) permitting program since the stream use designation is a major basis for determining allowable discharge effluent limitations. These permit conditions are established to assure water quality criteria are achieved and designated uses are protected. New and expanded discharges with water quality-based effluent limitations are required to provide effluent treatment according to the water quality criteria associated with designated water uses.

4. *Paperwork Requirements* - The regulatory revision should have no direct paperwork impact on the Commonwealth, local governments and political subdivisions, or the private sector. This regulatory revision is based on existing Department regulations.

F. Pollution Prevention

The water quality standards program is a major pollution prevention tool because the objective is to protect in-stream water uses.

G. Sunset Review

The proposed amendment will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

H. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on September 24, 2002, the Department submitted a copy of the proposed amendments to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees for review and comment. In addition to the proposed amendment, IRRC and the Committees have been provided a detailed regulatory analysis form prepared by the Department, in compliance with Executive Order 1996-1, "Regulatory Review and Promulgation." A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, if IRRC has objections to any portion of the proposed amendments, it will notify the Department within 10 days of the close of the Committees' review period. The notification shall specify the regulatory review criteria that have not been met by that portion of the proposed amendments to which an objection is made. The Regulatory Review Act specifies detailed procedures for review by the Department, the Governor and the General Assembly before publication of the regulation.

I. Public Comments

Written Comments - Interested persons are invited to submit comments, suggestions or objections regarding the proposed amendment to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 15th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. The Board must receive comments by November 19, 2002 (within 45 days of publication in the Pennsylvania Bulletin). Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by November 19, 2002. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the proposed amendment will be considered. If sufficient interest is generated as a result of this publication, a public hearing and/or meeting will be scheduled at an appropriate location to receive additional comments.

Electronic Comments - Comments may be submitted electronically to the Board at RegComments@state.pa.us. A subject heading of the proposal and return name and address must be included in each transmission. The Board must also receive comments submitted electronically by November 19, 2002.

David E. Hess
Chairperson
Environmental Quality Board

ANNEX A

TITLE 25. ENVIRONMENTAL PROTECTION
 PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Subpart C. PROTECTION OF NATURAL RESOURCES
 ARTICLE II. WATER RESOURCES

CHAPTER 93. WATER QUALITY STANDARDS

§93.90. Drainage List O

Susquehanna River Basin in Pennsylvania
Susquehanna River

Stream	Zone	County	Water Uses Protected	Exceptions To Specific Criteria
	* * * * *			
4 – East Branch Codorus Creek	Basin, PA 214 To [mouth] <u>Inlet of Lake Redman</u>	York	CWF	None
<u>4 – East Branch Codorus Creek</u>	<u>Main Stem, Inlet of Lake Redman to Mouth</u>	<u>York</u>	<u>WWF</u>	<u>None</u>
<u>5 – Unnamed Tributaries to East Branch Codorus Creek</u>	<u>Inlet of Lake Redman to Mouth</u>	<u>York</u>	<u>CWF</u>	<u>None</u>
<u>5 – Inners Creek</u>	<u>Basin</u>	<u>York</u>	<u>CWF</u>	<u>None</u>
	* * * * *			

EAST BRANCH CODORUS CREEK
(including Lake Redman & Lake Williams)

YORK COUNTY

WATER QUALITY STANDARDS REVIEW
STREAM REDESIGNATION EVALUATION

Segment: Mainstem
Stream Code: 08097
Drainage List O

WATER QUALITY MONITORING AND ASSESSMENT SECTION (TES)
DIVISION OF WATER QUALITY ASSESSMENT AND STANDARDS
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JUNE 2002

INTRODUCTION

The York Water Company ("York Water") submitted a petition to the Environmental Quality Board (EQB) on April 16, 2002 requesting redesignation of a portion of the East Branch Codorus Creek basin from its present Cold Water Fishes (CWF) designation to Warm Water Fishes (WWF). This portion of the basin includes Lakes Williams and Redman—reservoirs owned and maintained by York Water. The stream section proposed for change to WWF is defined in the petition as that portion of the East Branch Codorus Creek mainstem from the inlet ("tail waters") of Lake Redman (the upper lake), downstream to the mouth.

The petitioner believes that the present CWF designated use is in error and contends that the subject portion of the East Branch Codorus supports a warm water fishery. To support their position, York Water submitted substantial documentation and historical data. The present Chapter 93 designations for the East Branch Codorus Creek basin are shown in Figure 1 and the upstream and downstream mainstem limits of the petitioned area are shown in Figure 2.

BACKGROUND

Lake Williams and Lake Redman. Lake Williams was constructed in 1912. The reservoir presently has a surface area of 220 acres and approximate average and maximum depths of 13 and 36 feet, respectively. The lake's retention time is approximately 37 days. Lake Redman's earthen dam was constructed in 1966. Its normal surface area is designed to be 290 acres with an average depth of 17 feet and maximum depth of approximately 40 feet. Lake Redman's retention time is estimated to be 62 days.

Water Quality Criteria. In 1967, a report from the Department of Health's Sanitary Water Board (the former water quality regulatory agency in Pennsylvania) recommending water quality criteria and designated uses specifically included the East Branch Codorus Creek (noted as "East Branch to the South Branch Codorus Creek"). The recommendation for the entire basin was to add the "Cold Water Fishes" protected use (defined as the "maintenance and propagation of the family salmonidae and fish food organisms").

The Sanitary Water Board approved the CWF designation for the East Branch Codorus in January 1968. That designation appears in the Rules and Regulations of the Sanitary Water Board in the Susquehanna River listing noted as "Amended December 20, 1968". A formal rulemaking proposal was published in the PA Bulletin (March 4, 1978) that revised Pennsylvania's water quality standards into the current Chapter 93 format. The proposed changes to the East Branch Codorus Creek basin's designation were eventually adopted as final rulemaking in the September 8, 1979 PA Bulletin.

GENERAL WATERSHED DESCRIPTION

The East Branch Codorus Creek is a tributary to the South Branch Codorus Creek (Codorus Creek/Susquehanna River drainage). The petitioned area of the East Branch Codorus is located in Springfield and York Townships, York County (Figure 2). The watershed surrounding the study area is dominated by gentle, frequent rolling topography of low relief. Open fields zoned for agriculture use or low-to-moderate density residential uses characterize the surrounding landscape. Some nonpoint source impacts from agriculture have been documented on Inner's Creek, which flows into the upper reaches of Lake Redman. Higher density residential uses are concentrated in Leader Heights, the Borough of Jacobus, and several housing developments. Two point source discharges exist in the basin but they do not discharge to the segment of E. Branch Codorus Creek being considered in this report. Windy Brae Mobile Home Park and Exit 2 Land Venture produce low volume, excellent quality treated sewage effluents discharged to the upper reaches of E. Branch Codorus Creek, upstream from both lakes. Forested areas are represented primarily by small, localized wood lots and the conservation-zoned slopes in the county parkland associated with Lakes Redman and Williams.

A significant portion of the land in the petitioned area is licensed by the York County Department of Parks & Recreation from York Water and managed for public recreation. This includes boating and fishing rights to Lake Williams and Lake Redman. The area managed by York County includes William H. Kain and Richard M. Nixon County Parks (1,832 acres), Lake Williams (220 acres), and Lake Redman (290 acres).

WATER QUALITY AND USES

Surface Water

The petitioned area of the East Branch Codorus Creek is currently classified as Cold Water Fishes (CWF). The dominant surface water features associated with the petitioned area are Lake Williams and Lake Redman. York Water manages both impoundments as its primary sources of drinking water. Representative water quality data available for review are presented in Tables 1-4. The data in these tables are from the York Water Company, Pennsylvania Fish & Boat Commission (PFBC), and the Department.

Water Chemistry. Tables 1 & 2 present some water chemistry results from Lake Redman and Lake Williams. No direct comparison to applicable water criteria can be made, however, due to the instantaneous nature of the samples. Despite the limitations of grab samples, observations can be made that are summarized below.

The 2001 concentrations of most metals (Table 1) in Lake Redman with hardness-based criteria (Al, Cu, Ni, Pb, Zn) were very low or below detection limits. Generally, Lake Redman iron and manganese concentrations were also low and well below criteria values.

Limited alkalinity and hardness data indicates that the Lake Redman/Williams system exhibits soft-to-moderate hardness. Water column alkalinity values from Lake Redman in 1970 (Table 2; "MO" = "methyl orange" alkalinity) ranged from 42-64 mg/l. Hardness and alkalinity values in the East Branch Codorus Creek flowing into Lake Redman in 1996 (PFBC 2000) ranged from 46-58 and 19-30 mg/l, respectively. The hardness and alkalinity of Lake Williams' outlet water were 66 and 42 mg/l for the same time period.

Temperature and Dissolved Oxygen. Temperature and dissolved oxygen (DO) are the two most important physical measures of water quality. Tables 1-4 show Lake Redman temperature and DO data ranging from that collected by the PFBC in 1970 to data collected by the Department in 1997. Included in this time frame is a study conducted by York Water (Table 1) that compared temperatures of Lake Redman to Lake Clarke (impounded Susquehanna River). These data points include measurements taken in different seasons of the year.

In temperate climates, lakes with adequate depth will normally stratify into water layers of widely different temperature regimes. A layer of warmer, less dense waters will form on top and is known as the epilimnion. The colder, denser waters settling to the bottom forms the bottom layer called the hypolimnion.

The epilimnion is considered to be the "live zone" because light penetration supports photosynthesis (thus, phytoplankton and macrophyte production). In healthy lakes, the photosynthetic activity also assures the epilimnion is adequately oxygenated to support aquatic biota. The hypolimnion essentially becomes "capped" by the stable, upper epilimnion. It is often too deep for enough light to penetrate for the photosynthetic activity necessary to support the oxygen demands of the resident aquatic organisms. It is common, therefore, for the hypolimnion to become anaerobic (DO = 0 mg/l) and unable to support healthy aquatic communities.

The transition between the epilimnion and hypolimnion is usually characterized by a rapid change in temperature and/or DO. The dashed lines in Table 4 indicate probable epilimnion depths of 3-4 m for Lake Redman (August 1997) where lake parameters begin to change abruptly. Lake Williams did not become thermally stratified on the same date. Less than 2 F° separated the surface and bottom temperatures of Lake Williams, thus not allowing a true thermally stratified epilimnion layer to develop. However, the dashed lines in Table 3 and 4 are drawn at a depth where DO begins to decrease rapidly.

Temperature values measured from Lake Redman and Lake Williams that exceed Chapter 93 CWF criteria are bolded and parenthesized in Tables 1-4. It can be seen from these tables that the temperatures necessary for cold-water fish communities are frequently exceeded at various times of the year. Most of these above-criteria days are during the warmer months. In August '97, all depths of Lake Williams and much of the upper depths of Lake Redman had temperatures that were too warm for cold-water

fish survival. Also, lake temperatures measured during abnormally warm spring or fall seasons (Lake Williams - surface waters, April '97; Lake Redman – all depths, late October '97; Tables 3 & 4) were also too warm for cold-water fish. The Temperature Comparison Study data (Table 1) shows excessively warm temperatures in Lake Redman in the middle of November 2001.

The high lake temperatures discussed above are not a recent occurrence. If one compared Lake Redman's 1970 temperatures (Table 2; PFBC 1970) to the current CWF criterion for June 30 (64^o F), the CWF criterion was exceeded to a depth of at least 12 feet. It is very likely that the same temperature response seen in Lake Redman in 1970 has also commonly occurred in Lake Williams for most of its history.

In addition to the excessively warm temperatures that are not conducive for cold water fish, many of the corresponding DO values were lower than desired for cold water fish communities (5 mg/l). DO values were below this criterion in the hypolimnions of Lake Williams (August and October 1997) and Lake Redman (August 1997 only) (Tables 3 & 4).

Thermal stratifications and accompanying DO responses discussed above are naturally occurring phenomena – common to many lakes in temperate climates whether they are cold water or warm water systems. Many true cold water lake systems can experience thermal stratification and still support cold water fish populations because they are deep enough to maintain cooler temperatures and adequate DO concentrations at lower depths. However, Lake Redman and Lake Williams have demonstrated they do not have this capacity. The data presented above indicates these lakes were never capable of long-term maintenance and propagation of cold water fish. Unseasonably warm waters recurring occasionally in the spring and fall are not conducive to the survival of cold water fish species' temperature-critical life stages.

Fish Management. In addition to the management of the reservoirs for water supply and as county parks, Lakes Redman and Williams are also managed by PFBC for public fishing. The PFBC has conducted several fishery management surveys on both lakes since Lake Redman's construction in 1966. These studies include a July 1970 survey of Lake Redman (PFBC 1970) and a series of general inventory (1983-85; PFBC 1997) and conservation regulation evaluation (1986-92; PFBC 1996) surveys of both lakes. Fish species occurrences from these surveys, spanning 22 years, are presented in Table 5. Other PFBC survey efforts in the petitioned area include a summer 1996 survey of the East Branch Codorus downstream of Lake Williams. These results are also presented in Table 5.

Lake Redman was stocked by the PFBC in 1968 shortly after it was constructed. The 1968 stocking consisted of muskellunge and largemouth bass. Since then, other stocked species have included northern pike, tiger muskellunge, walleye, channel catfish, striped bass, and white/striped bass hybrids.

Lake Williams' fish populations initially originated from expansion of fish populations already present in the drainage basin. Lake Williams' limited access has restricted the potential fishing pressure by anglers. However, the PFBC did begin a stocking program in 1978 with tiger muskellunge. Lake Williams has been stocked with muskellunge, walleye, and channel catfish. In recent years, the fingerling stocking program for these two lakes has been reduced to channel catfish and walleye in Lake Redman, and channel catfish only in Lake Williams.

A total of 37 fish species have been captured from either Lake Redman or Lake Williams by the PFBC during various surveys conducted from 1970 to 1992 (Table 5). This species list consists predominantly of warm water fish – with the exception of a single rainbow trout occurrence in Lake Williams. No explanation, discussion, or comment was made in the PFBC report (1996) other than its entry in the species occurrence table. Rainbow trout have been stocked in the basin, so it is very likely their occurrence represents remnant specimens from stocking efforts or transplants by local fishermen.

The data from these multi-year surveys formed the basis of PFBC's lake management report recommendations for these two lakes (PFBC 1996 & 1997). These reports present very detailed population analyses for selected warm water game fish. These include bluegill, yellow perch, white and black crappie, largemouth and smallmouth bass, walleye, channel catfish, and tiger muskellunge. Additional observations of some of the common forage fish populations were also presented and discussed.

In 1996, the PFBC surveyed four sections (01-03 & 05) of the East Branch Codus Creek (PFBC 2000). Sections 01-03 are upstream of Lake Redman. Section 05 is the outlet of Lake Williams. The result of PFBC's survey of Section 05 was the documentation of a warm water fishery. The PFBC report (2000) describes Section 05 "as a moderate size warmwater stream . . ." with "a fish assemblage typically found in warmwater streams". The report states further that the lower East Branch Codus "supported a diverse warmwater fish community" that was affected by migration from Lake Williams upstream and South Branch Codus Creek downstream.

DISCUSSION

Data collected during the Department's 1997 lake surveys indicates that Lake Redman and Lake Williams are eutrophic systems that can frequently experience temperature criteria problems at all depths and low DO concentrations in the hypolimnion. The high temperatures are not restricted to only the typical warmer months. Lake Williams experienced temperatures that were unseasonably high as late as late November. Nor are these elevated temperatures a recent event. Lake Redman began experiencing temperatures that exceeded applicable criteria very soon after it was constructed.

The detailed results, discussion, and recommendations from PFBC's reports (1970, 1996, & 1997) provide documentation of the warm water conditions and the long-term

presence of warm water fish communities in Lake Redman, Lake Williams, and the lower East Branch Codorus Creek. This is emphasized by the lack of any viable cold-water game fish populations in Lake Redman and Lake Williams, their current and historical warmwater species fingerling stocking program, the documented warmwater fish community found in the outlet stream, and PFBC's current and historical management of these water bodies as warm water fisheries.

The predominance of warm water conditions and concurrent warmwater fisheries found in the petitioned area are the consequence of impounding the East Branch Codorus by the construction of Lake Redman and Lake Williams. Such conditions are normal and to be expected whenever flowing waters are impounded in areas with temperate climates. These warm water conditions are irretrievable since it is not feasible to remove the reservoirs. They are essential components of York Water's public water supply system.

PUBLIC RESPONSE AND PARTICIPATION SUMMARY

The Department provided public notice of this redesignation evaluation and requested any technical data from the general public through publication in the Pennsylvania Bulletin on June 8, 2002 (32 Pa.B 2814). A similar notice was also published in The York Daily Record and York Dispatch newspapers (York, PA) on June 7, 2002. In addition, York and Springfield Townships and the York County Planning Commission were notified of the redesignation evaluation in a letter dated June 7, 2002. The Department received only two responses to these public notices. The York Water Company (with minor typographical comments) and Springfield Township provided no new information but concurred with the Department's recommendations.

CONCLUSIONS AND RECOMMENDATIONS

The Department concludes that the existing use of Lake Redman, Lake Williams, and the lower East Branch Codorus Creek is Warm Water Fishes (WWF). The reasons for this conclusion are the presence of established warm water fisheries and the absence of cold water fish communities. It is clear from a review of various data and information sources that the petitioned surface waters—Lake Redman, Lake Williams, and lower East Branch Codorus Creek—are warm water systems. The limited historical data from 1970 indicates that the lakes have supported warm water fish communities since they were constructed. While it is unknown how Lake Williams' fishery developed early after its construction, Lake Redman's warm water fishery developed almost from its beginning. The extensive warmwater fishery data and PFBC's consistent warmwater management strategies all support the petitioner's contention that the petitioned waters are and have been characteristic of WWF waters and should not be designated as CWF.

Pursuant to 25 Pa Code §93.4(b), the Department recommends that the Environmental Quality Board adopt a warm water fishes designation for the mainstem East Branch

Codorus Creek from the inlet of Lake Redman to the mouth. It is the Department's opinion that: 1) the designated use of Cold Water Fishes is more restrictive than the existing use; 2) the designated use is minimally affected by point and nonpoint source discharges; and 3) dams, diversions or other types of hydrologic modifications preclude attainment of the cold water fishes use, and it is not feasible to restore the water body to its original condition or to operate the modification in a way that would result in attainment of the designated use.

This recommendation would affect approximately 5.2 miles of the lower East Branch Codorus Creek and includes the approximate 510 surface acres of Lake Redman and Lake Williams.

REFERENCES

Department of Environmental Protection. 1997. Lake Trophic Status Index Survey; Lake Redman & Lake Williams. Central Office File Information.

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Pennsylvania Fish & Boat Commission. 1970. Lake Survey Report – Lake Redman; Bourke, D & D O'Neill, 7-2-70.

_____. 1996. Comments and Recommendations on Lake Williams (607H) - Conservation Lake Study Report. Soldo, J; M Kaufmann; R Wnuk. May 1996.

_____. 1997. Comments and Recommendations on Lake Redman (607H) - Conservation Lake Study Report. Soldo, J; M Kaufmann; R Wnuk. April 1996.

_____. 2000. East Branch Codorus Creek (607H) Fisheries Management Report. Wnuk, R & M Kauffmann. July & August 1996 surveys.

FIGURE 1.

Present Designation for East Branch Codorus Creek

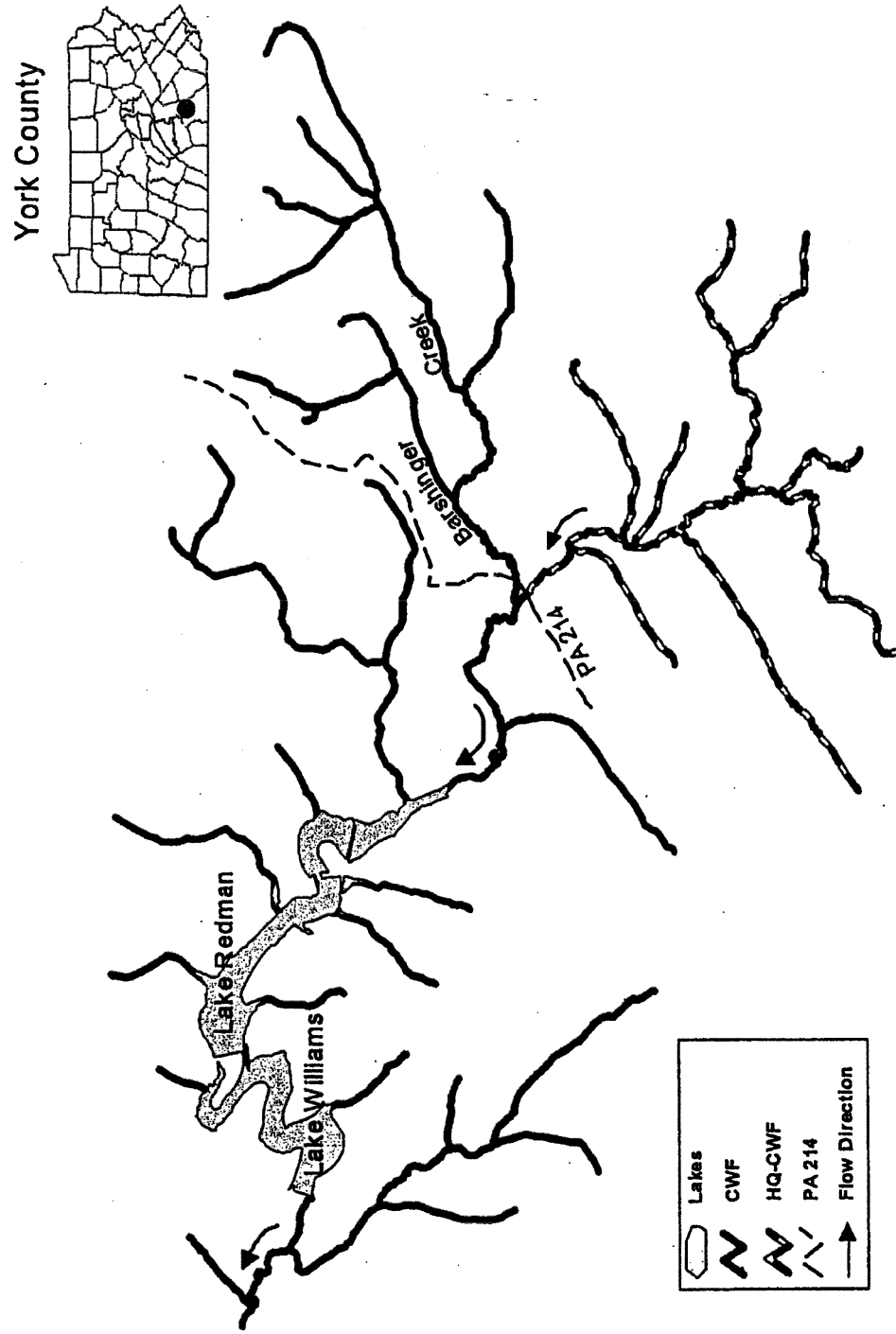
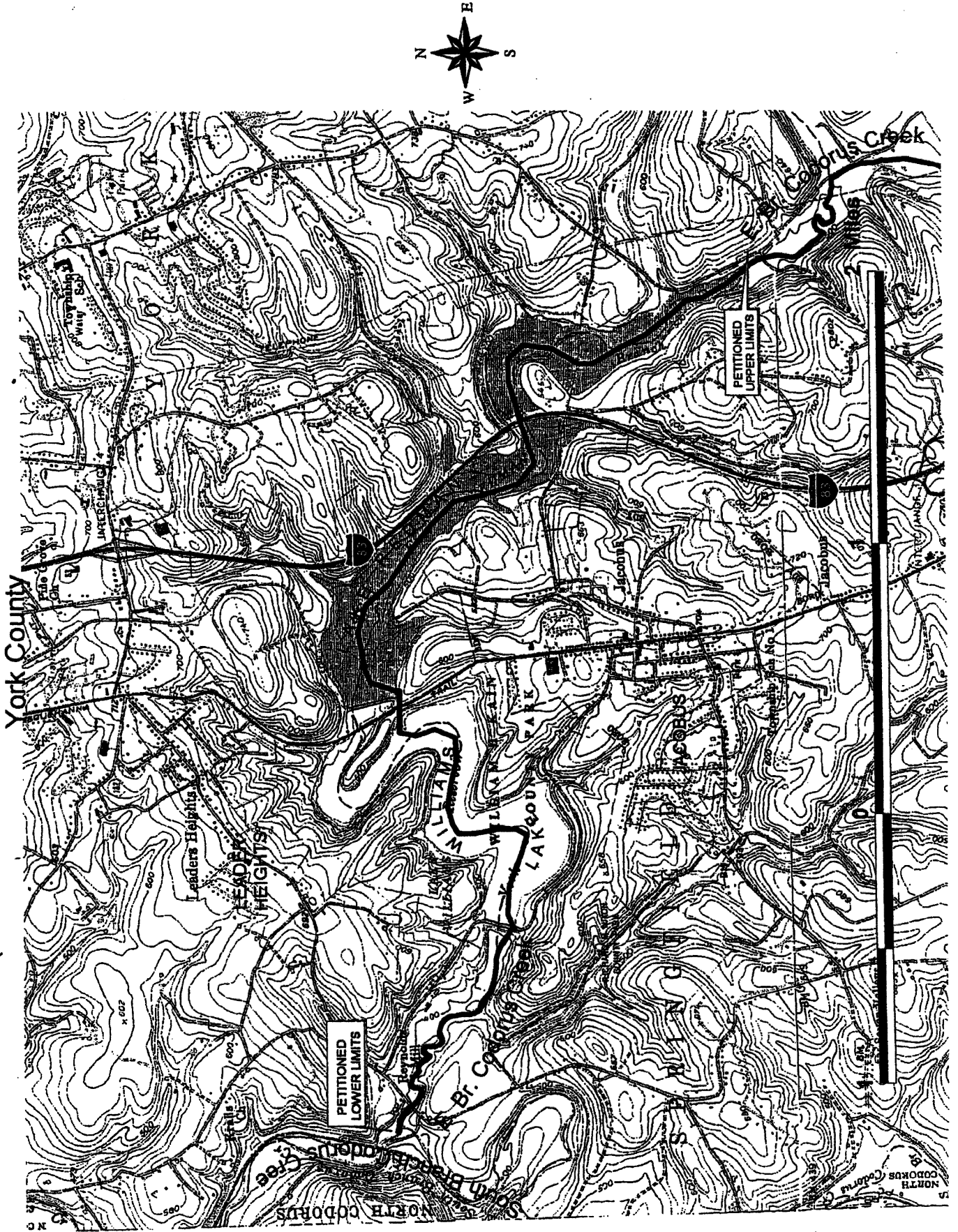


FIGURE 2. EAST BRANCH CODORUS CREEK PETITIONED AREA
(Lower Mainstem, Lake Williams, & Lake Redman)
York County



**TABLE 1. TEMPERATURE COMPARISON STUDY
Susquehanna River (Lake Clarke) & Lake Redman
(York Water Company, 2001)**

Date: Station	3/1/2001		temperature ²		Parameters *											Coliform			
	time		C	F	pH	DO (mg/l)	Turbidity	N-NH ₃	Phos _{tot}	Fe	Mn	Al	Cu	Ni	Pb	Zn	total	fecal	
1 - L. Clarke	0940		5	41.0	7.8	12.5	3.9	ND	0.05	0.14	0.09	ND	ND	0.11	ND	250	250	40	
2 - L. Clarke	0930		5	41.0	7.8	12.5	10.1	ND	0.04	0.17	0.1	ND	ND	ND	ND	ND	550	20	
3 - EB Codorus Ck.	0750		1	33.8	7.1	12.8	3.6	ND	0.03	0.09	0.03	ND	ND	ND	ND	ND	7,000	250	
4 - L. Redman	0740		3	37.4	7.1	12.2	8.5	ND	0.06	0.27	0.1	ND	ND	ND	ND	ND	950	20	
5 - L. Redman	0730		3	37.4	7.2	12.1	8.2	ND	0.05	0.22	0.08	ND	ND	0.03	ND	ND	350	30	
6 - unnamed trib	0805		2	35.6	7.3	12.1	3.2	ND	0.03	0.05	0.02	ND	ND	0.08	ND	ND	2,800	10	
7 - L. Redman	0645		3	37.4	7.2	12.2	3.4	ND	0.05	0.13	0.07	ND	ND	0.06	ND	ND	<50	<10	
8 - L. Redman	0710		3	37.4	7.3	10.6	3.5	ND	0.04	0.1	0.07	ND	ND	ND	ND	ND	<50	<10	
Date:	5/8/2001																		
Station	time																		
1 - L. Clarke	0815		19	66.2	8.6	7.6	6.9	ND	0.06	0.17	0.09	ND	ND	ND	ND	0.03	50	20	
2 - L. Clarke	0825		19	66.2	8.5	7.8	11.7	ND	0.06	0.21	0.1	ND	ND	ND	ND	0.02	100	20	
3 - EB Codorus Ck.	0720		10	50.0	7.3	7.9	3.2	ND	0.04	0.12	0.04	ND	ND	ND	ND	0.05	1,900	1500	
4 - L. Redman	0700		15	(59.0)	7.5	7.6	7.2	0.12	0.06	0.21	0.09	ND	ND	ND	ND	0.03	200	70	
5 - L. Redman	0855		15	(59.0)	7.8	7.7	5.6	ND	0.03	0.19	0.07	ND	ND	ND	ND	ND	250	50	
6 - unnamed trib	0735		11	(61.8)	7.4	7.8	1.6	ND	ND	0.06	0.01	ND	ND	ND	ND	ND	4,300	60	
7 - L. Redman	0835		16	(60.8)	8.4	7.7	2.8	ND	0.03	0.09	0.04	ND	ND	ND	ND	0.03	100	2	
8 - L. Redman	0820		15	(59.0)	6.9	5.8	4.1	0.16	0.03	0.11	0.37	ND	ND	ND	ND	ND	50	4	
Date:	8/15/2001																		
Station	time																		
1 - L. Clarke	0800		27	80.6	7.5	5.3	5.8	0.18	0.06	0.08	0.17	ND	ND	ND	ND	0.03	600	80	
2 - L. Clarke	0855		25	77.0	7.5	5.3	13.1	0.22	0.13	0.14	0.25	ND	ND	ND	ND	0.03	400	100	
3 - EB Codorus Ck.	0710		20	(68.0)	7.3	8.7	10.1	ND	0.07	0.12	0.06	ND	ND	ND	ND	ND	6,600	5000	
4 - L. Redman	0855		24	(75.2)	7.2	4.7	26.5	0.6	-0.16	0.25	0.23	ND	ND	ND	ND	ND	2,400	1,440	
5 - L. Redman	0850		28	(78.8)	8.8	9.8	1.6	ND	0.05	0.07	0.07	ND	ND	ND	ND	0.03	400	180	
6 - unnamed trib	0730		18	84.4	7.6	8.1	1.8	ND	0.04	0.02	0.01	ND	ND	ND	ND	ND	4,200	3,000	
7 - L. Redman	0830		24	(75.2)	8.6	6.9	3.8	0.21	0.05	0.02	0.08	ND	ND	ND	ND	ND	<50	10	
8 - L. Redman	0815		13	55.4	6.9	4.2	26.3	1.5	0.07	1.88	7.5	ND	ND	ND	ND	ND	<50	10	
Date:	11/8/2001																		
Station	time																		
1 - L. Clarke	0835		12	53.6	7.6	10	2.4	ND	0.04	0.02	0.06	ND	ND	ND	ND	ND	400	20	
2 - L. Clarke	0845		12	53.6	7.6	10.2	2.3	ND	0.04	0.02	0.07	ND	ND	ND	ND	ND	400	30	
3 - EB Codorus Ck.	0705		7	44.6	7.2	10.2	1.3	ND	0.02	0.02	0.02	ND	ND	ND	ND	ND	2,400	100	
4 - L. Redman	0855		9	(48.2)	7.6	10.4	11.2	ND	0.07	0.19	0.08	ND	ND	0.03	ND	ND	1,800	520	
5 - L. Redman	0845		11	(51.8)	8.1	9.8	3.8	ND	0.04	0.08	0.01	ND	ND	ND	ND	ND	100	10	
6 - unnamed trib	0715		7	44.8	7.5	10.3	2	ND	0.02	0.02	0.01	ND	ND	ND	ND	ND	4,400	20	
7 - L. Redman	0830		11	51.8	7.4	9.5	3.2	0.37	0.04	0.05	0.31	ND	ND	ND	ND	ND	100	<5	
8 - L. Redman	0815		11	51.8	7.5	9.3	7.1	0.38	0.05	0.12	0.57	ND	ND	ND	ND	ND	100	5	

1 - #1- Lake Clarke surface sample = 200' offshore
 #2- Lake Clarke bottom sample, 15' deep = 200' offshore
 #3- EB Codorus Creek at entry point to Lake Redman
 #4- Lake Redman bottom sample, 10' deep at Sparton Rd. bridge
 #5- Lake Redman top sampled at Sparton Rd.
 #6- (UNT) creek at Green Valley Rd. at entry point to Lake Redman
 #7- Lake Redman at tower, 30' deep
 #8- Lake Redman at tower, 10' deep
 * - ND = below detection limits. D.O. Ammonia, Phosphate & metals are reported in PPM (mg/L) total & fecal coliforms are reported as colonies per 100ml.
 2 - (##) = Ch 93 temperature CWF criteria violations for the sampled date.

**TABLE 2. HISTORICAL PHYSICAL CHEMISTRY
Lake Redman; York County
(PFBC; June 30, 1970)**

depth (ft.)	temp ¹		pH	MO (alk) mg/l	DO mg/l
	C°	F°			
surface	(22.2)	(72.0)	9.1	44	9.2
1	(22.2)	(72.0)	-	-	-
2	(22.2)	(72.0)	-	-	-
3	(22.2)	(72.0)	-	-	-
4	(21.9)	(71.5)	-	-	-
5	(21.7)	(71.0)	7.2	44	8
6	(21.1)	(70.0)	-	-	-
7	(21.1)	(70.0)	-	-	-
8	(21.1)	(70.0)	-	-	-
9	(20.8)	(69.5)	-	-	-
10	(19.4)	(67.0)	8	44	6.6
11	(18.9)	(66.0)	-	-	-
12	(18.3)	(65.0)	-	-	-
13	17.8	64.0	-	-	-
14	17.5	63.5	-	-	-
15	17.2	63.0	6.6	42	3.4
16	16.7	62.0	-	-	-
17	16.4	61.5	-	-	-
18	16.1	61.0	-	-	-
19	15.6	60.0	-	-	-
20	14.7	58.5	6.5	40	3.2
21	13.9	57.0	-	-	-
22	13.3	56.0	-	-	-
23	12.8	55.0	-	-	-
24	12.2	54.0	-	-	-
25	11.7	53.0	6.4	40	3.4
26	11.4	52.5	-	-	-
27	11.1	52.0	-	-	-
28	10.8	51.5	-	-	-
29	10.0	50.0	-	-	-
30	9.7	49.5	6.4	42	2.1
31	9.4	49.0	-	-	-
32	9.4	49.0	-	-	-
33	9.4	49.0	-	-	-
34	9.4	49.0	-	-	-
35	8.9	48.0	6.6	50	1.5
36	8.9	48.0	-	-	-
37	8.9	48.0	-	-	-
38	8.9	48.0	-	-	-
39	8.9	48.0	6.4	64	0.4

1 - (##.#) = exceeded temperatures if Ch 93 CWF criteria were in effect.
 ##.# = additional exceeded temperatures when considering CWF
 criteria in place on the sampled date.

**TABLE 3. DEPTH PROFILE DATA
for Lake Redman, York County
(DEP, 1997)**

Date	Area	Depth (m)	Temperature		DO (ppm)	pH	Conductivity µmhos	
			C°	F°				
4/22/1997 *	DAM	surface	10.6	51.2	12.71	7.88	190	
		Ch 93 criteria	1.0	10.6	51.2	12.45	7.97	190
		*temperature :	2.0	10.6	51.1	12.35	8.00	190
		CWF = 52 F°	3.0	10.6	51.1	12.28	8.02	190
		WWF = 58 F°	4.0	10.5	50.9	12.12	8.00	190
		lake DO criteria:	5.0	10.2	50.4	11.80	7.89	190
		CWF = 5 mg/l (any point)	6.0	10.1	50.2	11.40	7.79	190
		WWF = 4 mg/l (epilimnion)	7.0	10.0	50.0	11.11	7.89	190
		pH criterion:	8.0	10.0	50.0	10.96	7.65	190
		6-9	9.0	10.0	49.9	10.82	7.59	190
		10.0	9.9	49.9	10.41	7.53	190	
	MID	surface	10.5	51.0	13.90	7.85	190	
		1.0	10.5	50.9	12.83	7.98	190	
		2.0	10.5	50.8	12.62	8.04	190	
		3.0	10.4	50.8	12.43	8.04	190	
		4.0	10.2	50.4	12.07	7.99	190	
		5.0	10.1	50.2	11.67	7.89	190	
		6.0	10.0	50.0	11.25	7.79	190	
		7.0	9.8	49.7	10.75	7.70	190	
8/5/1997 *	DAM	surface	(25.0)	(77.0)	11.00	(9.10)	200	
		Ch 93 criteria	1.0	(25.0)	(77.0)	9.70	(9.10)	200
		*temperature :	2.0	(25.0)	(77.0)	9.80	(9.10)	200
		CWF = 66 F°	3.0	(25.0)	(77.0)	9.90	(9.10)	200
		WWF = 87 F°	4.0	(24.5)	(76.1)	7.70	8.70	200
		epilimnion ?	5.0	(23.2)	(73.8)	5.20	8.20	200
			6.0	(20.9)	(69.6)	(1.90)	7.90	200
			7.0	17.2	63.0	(1.00)	7.70	200
			8.0	15.1	59.2	(0.70)	7.60	200
			9.0	14.0	57.2	(0.70)	7.50	200
			10.0	12.6	54.7	(0.60)	7.50	200
	MID	surface	(25.3)	(77.5)	10.40	(9.20)	200	
		1.0	(25.3)	(77.5)	10.40	(9.20)	200	
		2.0	(25.3)	(77.5)	10.30	(9.20)	200	
		3.0	(25.2)	(77.4)	10.20	(9.20)	200	
		epilimnion ?	4.0	(25.1)	(77.2)	9.30	8.40	200
			5.0	(23.3)	(73.9)	(4.10)	8.00	200
			6.0	(21.2)	(70.2)	(1.10)	7.80	200
			7.0	(19.0)	(66.2)	(0.70)	7.60	200
	8.0	15.7	60.3	(0.60)	7.50	200		
10/28/1997 *	DAM	surface	(13.1)	(55.6)	4.98	7.17	223	
		Ch 93 criteria	1.0	(13.1)	(55.6)	4.85	7.17	223
		*temperature :	2.0	(13.1)	(55.6)	4.85	7.16	223
		CWF = 50 F°	3.0	(13.1)	(55.6)	4.80	7.15	223
		WWF = 66 F°	4.0	(13.1)	(55.6)	4.81	7.14	223
			5.0	(13.1)	(55.6)	4.80	7.16	223
			6.0	(13.1)	(55.6)	4.77	7.1	223
			7.0	(13.1)	(55.6)	(3.75)	7.12	226
			8.0	(13.0)	(55.3)	(1.50)	7.07	240
			9.0	(12.6)	(54.7)	(0.40)	6.96	283
			10.0	(11.7)	(53.1)	(0.33)	6.98	415
	MID	surface	(13.1)	(55.5)	6.32	7.31	222	
		1.0	(13.1)	(55.5)	6.03	7.31	222	
		2.0	(13.0)	(55.5)	5.94	7.26	223	
		3.0	(13.0)	(55.5)	5.90	7.25	223	
		4.0	(13.0)	(55.5)	5.85	7.29	222	
		5.0	(13.0)	(55.4)	5.84	7.24	224	
		6.0	(13.0)	(55.4)	5.82	7.28	222	
		7.0	(13.0)	(55.4)	5.70	7.27	223	

1 - (###) parameter values exceeding Chapter 93 criteria shown in left column for date sampled

**TABLE 4. DEPTH PROFILE DATA
for Lake Williams, York County
(DEP, 1997)**

Date	Area	Depth (m)	Temperature ¹		DO (ppm)	pH ¹	Conductivity µmhos	
			C°	F°				
4/22/1997 *	DAM	surface	(11.25)	(52.25)	12.43	8.08	190	
		Ch 93 criteria	1.0	11.01	51.82	12.34	8.17	190
		*temperature:	2.0	10.91	51.64	12.27	8.24	190
		CWF = 52 F°	3.0	10.86	51.55	12.20	8.25	190
		WWF = 58 F°	4.0	10.81	51.46	12.04	8.23	190
		lake DO criteria:	5.0	10.62	51.12	11.60	8.10	190
		CWF = 5 mg/l (any point)	6.0	10.52	50.94	11.20	7.97	190
		WWF = 4 mg/l (epilimnion)	7.0	10.39	50.70	10.69	7.82	190
		pH criterion:	8.0	10.35	50.63	10.51	7.75	190
		6-9	9.0	10.27	50.49	10.26	7.67	190
				10.0	10.24	50.43	10.06	(10.14)
	MID	surface	(11.67)	(53.01)	11.82	8.37	190	
		1.0	11.08	51.94	11.92	8.43	190	
		2.0	10.96	51.73	11.96	8.46	190	
		3.0	10.90	51.62	11.96	8.46	190	
		4.0	10.68	51.22	11.57	8.29	190	
		5.0	10.52	50.94	10.96	8.07	190	
8/5/1997 *	DAM	surface	(26.00)	(78.80)	10.10	(9.20)	200	
		Ch 93 criteria	1.0	(26.00)	(78.80)	9.80	(9.30)	200
		*temperature:	2.0	(26.00)	(78.80)	10.10	(9.30)	200
		CWF = 66 F°	3.0	(25.90)	(78.62)	10.30	(9.30)	200
		WWF = 87 F°	4.0	(25.80)	(78.44)	10.30	(9.30)	200
			5.0	(25.80)	(78.44)	10.20	(9.30)	200
		epilimnion?	6.0	(25.30)	(77.54)	8.20	8.50	200
			7.0	(24.80)	(76.64)	(2.00)	7.90	200
			8.0	(24.50)	(76.10)	(0.90)	7.80	200
			9.0	(24.30)	(75.74)	(0.60)	7.60	200
			10.0	(23.90)	(75.02)	(0.50)	7.60	200
			11.0	(23.70)	(74.66)	(0.40)	7.50	200
	MID	surface	(26.10)	(78.98)	10.50	(9.30)	200	
		1.0	(26.10)	(78.98)	9.80	(9.30)	200	
		2.0	(26.00)	(78.80)	10.40	(9.30)	200	
		3.0	(25.90)	(78.62)	10.60	(9.30)	200	
		4.0	(25.90)	(78.62)	10.50	(9.30)	200	
		5.0	(25.80)	(78.44)	10.30	9.00	200	
		epilimnion?	6.0	(25.30)	(77.54)	6.50	8.40	200
			7.0	(25.10)	(77.18)	(3.00)	8.00	200
10/28/1997 *	DAM	surface	11.06	51.91	8.61	7.52	220	
		Ch 93 criteria	1.0	11.06	51.91	8.49	7.51	219
		*temperature:	2.0	11.04	51.87	8.41	7.50	218
		CWF = 50 F°	3.0	11.04	51.87	8.33	7.49	218
		WWF = 66 F°	4.0	11.10	51.98	8.12	7.48	219
	MID	surface	10.99	51.78	8.99	7.57	219	
		1.0	10.96	51.73	8.94	7.55	218	
		2.0	10.96	51.73	8.93	7.55	218	

1 - (##.#) parameter values exceeding Chapter 93 criteria shown in left column.

TABLE 5. FISH OCCURRENCE ¹
East Branch Codorus Creek; Lake Redman;
& Lake Williams, York County
(PFBC Surveys)

	Waterbody Year/s	EB Codorus Creek	L. Williams	L. Redman	
		July & August '96	1983-92	1970	1983-92
<i>Oncorhynchus mykiss</i>	rainbow trout		X		
<i>Esox lucius</i>	northern pike		X		X
<i>E. masquinongy</i>	muskellunge		X		
<i>E. lucius</i> X <i>E. masquinongy</i>	tiger muskellunge		X		X
<i>Ictalurus punctatus</i>	channel catfish		X	1	X
<i>Ameiurus catus</i>	white catfish		X		X
<i>A. natalis</i>	yellow bullhead	R	X	1	X
<i>A. nebulosus</i>	brown bullhead		X	6	X
<i>Rhinichthys atratulus</i>	blacknose dace		X		X
<i>R. cataractae</i>	longnose dace	R			
<i>Stizostedion vitreum</i>	walleye		X		X
<i>Perca flavescens</i>	yellow perch		X	5	X
<i>Etheostoma olmstedii</i>	tessellated darter	P	X		X
<i>Morone americana</i>	white perch				X
<i>Micropterus dolomieu</i>	smallmouth bass	P	X		X
<i>M. salmoides</i>	largemouth bass	R	X	3	X
<i>Pomoxis annularis</i>	white crappie		X	587	X
<i>P. nigromaculatus</i>	black crappie		X		X
<i>Ambloplites rupestris</i>	rock bass	P			X
<i>Lepomis auritus</i>	redbreast sunfish	C	X		X
<i>L. cyanellus</i>	green sunfish	P	X		X
<i>L. gibbosus</i>	pumpkinseed	P	X	2	X
<i>L. hybrids</i>	hybrid sunfish	R	X		X
<i>L. macrochirus</i>	bluegill	R	X	116	X
<i>Campostoma anomalum</i>	Central Stoneroller	R	X		X
<i>Cyprinella analostana</i>	satinfish shiner	P	X		X
<i>C. spiloptera</i>	spottfin shiner	C	X		X
<i>Nocomis micropogon</i>	river chubb	P			
<i>Notemigonus crysoleucas</i>	golden shiner		X	250	X
<i>Notropis. Hudsonius</i>	spottail shiner	P	X		X
<i>N. photogenis</i>	silver shiner?			75	
<i>Pimephales notatus</i>	Bluntnose minnow		X		X
<i>Semotilus atromaculatus</i>	creek chub		X		X
<i>Carassius auratus</i>	goldfish		X		X
<i>Cyprinus carpio</i>	common carp	R	X	209	X
<i>Catostomus commersoni</i>	white sucker	C	X		X
<i>Hypentelium nigricans</i>	Northern hogsucker	X			
<i>Anguilla rostrata</i>	American eel				X
<i>Fundulus diaphanus</i>	banded killifish		X		X
<i>Dorosoma cepedianum</i>	gizzard shad		X		X
TOTAL TAXA		19	33	11	34

1 - A - abundant; >100
C - common, 26-100
P - present, 4-25
R - rare, 1-3
X - occurrence



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063
September 24, 2002

The Secretary

Phone: 717-787-2814
E-Mail: DavidHess@state.pa.us

Mr. Robert E. Nyce, Executive Director
Independent Regulatory Review Commission
14th Floor, Harristown #2
333 Market Street
Harrisburg, PA 17120

RE: Proposed Rulemaking: Stream Redesignation – East Branch Codorus Creek (#7-379)

Dear Bob:

Enclosed is a copy of a proposed regulation for review and comment by the Commission pursuant to Section 5(a) of the Regulatory Review Act. This proposal is scheduled for publication as a proposed rulemaking in the *Pennsylvania Bulletin* on October 5, 2002 with a 45-day public comment period. This proposal was approved by the Environmental Quality Board (EQB) on September 17, 2002.

This proposal will amend § 93.9o to redesignate the lower reaches of the East Branch Codorus Creek, including Lake Redman and Lake Williams in York County, from Cold Water Fishes (CWF) to Warm Water Fishes (WWF) to reflect the appropriate designated use for these waters. DEP evaluated these surface waters in response to a petition submitted by The York Water Company (York Water). York Water asserts that the surface waters in question were erroneously designated as CWF in 1979 and have never attained a cold-water fish use. York Water's purpose for petitioning the Board is to be able to pump warm water from the Susquehanna River into Lake Redman to ensure an adequate future water supply for the company's growing customer base.

DEP's evaluation included a review of the data submitted with the petition as well as data obtained from the Pennsylvania Fish and Boat Commission, all of which indicate that these waters support a warm water fish community. As a result, the proposed rulemaking adopts the WWF designation based on data that demonstrates the conditions of § 93.4(b) (relating to less restrictive uses) have been met.

The Department will provide the Commission with any assistance required to facilitate a thorough review of this proposal. Section 5(g) of the Act provides that the Commission may,

Mr. Robert E. Nyce

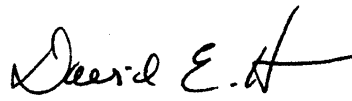
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September 24, 2002

within ten days after the expiration of the Committee review period, notify the agency of any objections to the proposed regulation. The Department will consider any comments or suggestions received by the Commission, together with Committee and other public comments prior to final adoption.

For additional information, please contact Sharon Trostle, Regulatory Coordinator, at 787-4526.

Sincerely,

A handwritten signature in black ink, appearing to read "David E. Hess", with a long horizontal flourish extending to the right.

David E. Hess
Secretary

Enclosures

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE
REGULATORY REVIEW ACT**

I.D. NUMBER: 7-379
 SUBJECT: Stream Redesignation , East Branch Codorus Creek
 AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

TYPE OF REGULATION

- X Proposed Regulation
- Final Regulation
- Final Regulation with Notice of Proposed Rulemaking Omitted
- 120-day Emergency Certification of the Attorney General
- 120-day Emergency Certification of the Governor
- Delivery of Tolled Regulation
 - a. With Revisions
 - b. Without Revisions

FILING OF REGULATION

DATE	SIGNATURE	DESIGNATION
9-24-02	<i>Cindy Zinn</i>	HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
9-24-02	<i>Dani Castell</i>	SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
9-24-02	<i>Olean Pagan</i>	INDEPENDENT REGULATORY REVIEW COMMISSION
		ATTORNEY GENERAL
09/24/02	<i>William J. Biemer</i>	LEGISLATIVE REFERENCE BUREAU

September 19, 2002