pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0205257**
Facility Type	**Municipal**	APS ID	**827945**
Major / Minor	**Minor**	Authorization ID	**1272297**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Greensboro Monongahela Township Joint Sewer Authority**	Facility Name	**Greensboro Monongahela Township Joint Sewer Authority STP**
Applicant Address	PO Box 342	Facility Address	Stony Hill Road
	Greensboro, PA 15338		Greensboro, PA 15338
Applicant Contact	Mr. William Monahan	Facility Contact	Mr. James Vance
Applicant Phone	(724) 943-3000	Facility Phone	(412) 965-4061
Client ID	87536	Site ID	443112
Ch 94 Load Status	Existing Hydraulic and Organic Overload	Municipality	Monongahela Township
Connection Status	Dept. Imposed Connection Prohibitions	County	Greene
Date Application Received	May 6, 2019	EPA Waived?	Yes
Date Application Accepted	May 7, 2019	If No, Reason	

Purpose of Application: Application for a renewal of an existing NPDES permit for the discharge of treated Sewage.

Summary of Review

The applicant has applied for a renewal of an existing NPDES Permit, Permit No. PA0205257, which was previously issued by the Department on May 1, 2014. That permit expired on May 31, 2019.

Latitude and Longitude information for this facility was updated to accurately reflect the location of the STP/Outfall # 001.

WQM Permit No. 3091402 A-2, issued on May 19, 2009, approved construction of a STP with a design flow rate of 0.165 MDG. The existing treatment process consists of a three train activated sludge STP with aerobic digestion and UV disinfection.

The receiving stream, Monongahela River, is classified as a WWF, and is located in State Watershed No. 19-G.

The applicant has complied with Act 14 Notifications and no comments were received.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		William C. Mitchell William C. Mitchell, E.I.T. / Project Manager	April 10, 2020
X		Christopher Kriley Christopher Kriley, P.E. / Program Manager	April 10, 2020

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.165
Latitude	39º 47' 58.00"	Longitude	-79º 54' 39.00"
Quad Name	Masontown	Quad Code	2006
Wastewater Description:	Sewage Effluent		
Receiving Waters	Monongahela River (WWF)	Stream Code	37185
NHD Com ID	99417488	RMI	83.4
Drainage Area	4,447	Yield (cfs/mi^2)	N/A
Q_{7-10} Flow (cfs)	480.0	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	780	Slope (ft/ft)	N/A
Watershed No.	19-G	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	PCB; Chlordane		
Source(s) of Impairment	Source Unknown		
TMDL Status	**Final**	Name	**Monongahela River TMDL**

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake		Dunkard Valley Joint Municipal Authority.	
PWS Waters	Monongahela River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: NONE

Other Comments: The STP discharges indirectly to the Monongahela River which has an EPA Approved TMDL and is impaired by PCBs and Chlordane. No WLAs have been developed for this sewage discharge as neither PCB nor Chlordane is typically found in sewage, but instead found in legacy sediments. This sewage discharge is not expected to add to the impairment of the receiving stream.

Treatment Facility Summary

Treatment Facility Name: Greensboro Monongahela Township Joint Sewer Authority STP

WQM Permit No.	Issuance Date
3091402 A-2	May 19, 2009

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge with Solids Removal	UV Disinfection	0.070 - 2018

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.165	280.0	Existing Hydraulic and Organic Overload	Aerobic Digestion	Hauled to Franklin Twp. WWTF, PA0046426

Changes Since Last Permit Issuance: NONE

Compliance History

Other Comments: An Operations Compliance Check Report for this facility was requested and will be included in the Fact Sheet Addendum.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.165
Latitude 39º 47' 58.00" **Longitude** -79º 54' 39.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

Comments: The discharge was previously modeled using WQAM63 to evaluate the $CBOD_5$, Ammonia Nitrogen and Dissolved Oxygen parameters. Because there have been no changes to the discharge or the receiving stream, the modeling results for those parameters are based on the previously approved pollution report which is attached to this fact sheet. It was unnecessary to remodel those three parameters using the current WQM 7.0 model because the same effluent results are computed for a single discharge scenario. The modeling results show technology based effluent limitations for $CBOD_5$ are appropriate. The modeling results also confirm that Ammonia-Nitrogen and Dissolved Oxygen limitations are not necessary to meet in-stream water quality criterion. The Total Suspended Solids, pH, Fecal Coliform, are not evaluated using WQAM63. The basis for those limitations is listed in the above table.

Best Professional Judgment (BPJ) Limitations

Comments: A Dissolved Oxygen minimum limitation of 4.0 mg/L will be implemented based on the standard in 25 PA Code Chapter 93 and best professional judgment. This is applied for an activated sludge system.

Anti-Backsliding

N/A

Additional Considerations:

Ultraviolet (UV) disinfection is used therefore Total Residual Chlorine (TRC) limits are not applicable. Routine monitoring of UV intensity will be at the same monitoring frequency that is used for TRC.

For pH, Dissolved Oxygen (DO) and UV disinfection, a monitoring frequency 1/day has been imposed. In general, less frequent monitoring may be established only when the permittee demonstrates that there will be no discharge on days where monitoring is not required.

Nutrient monitoring is required to establish the nutrient load from the waste water treatment facility and the impacts that load may have on the quality of the receiving stream(s). A 1/year monitor and report requirement for Total N & Total P has been added to the permit as per Chapter 92.a.61.

For existing discharges, if an average monthly warm period limit of 25 mg/L is acceptable, a year-round monitoring requirement for ammonia-nitrogen, at a minimum should be established. The monitoring requirements for Ammonia Nitrogen are consistent with $CBOD_5$, TSS, and Fecal Coliform and Table 6-3 of the Permits Writers Manual.

Mass loading limits are applicable for publicly owned treatment works. Current policy requires average monthly and average weekly mass loading limits be established for CBOD5 and TSS. Average monthly mass loading limits (lbs/day) are based on the formula: design flow (MGD) x concentration limit (mg/L) x conversion factor (8.34).

Please note that changes were made to the Average Monthly & Average Weekly Mass Effluent Limitations for CBOD5 and TSS. These changes were necessary to be consisted with rounding guidelines found in Chapter 5.C.2, Rounding-Off Mathematically Values, of the Department's Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001.

For POTWs with design flows greater than 2,000 GPD influent BOD_5 and TSS monitoring must be established in the permit, and the monitoring should be consistent with the same frequency and sample type as is used for other effluent parameters.

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers, from the Departments Technical Guidance for the Development and Specification of Effluent Limitations.

Total Dissolved Solids (TDS) and its Major Constituents

Monitoring is not required for Chloride, Sulfate, and TDS, because the effluent concentration of TDS, as reported in the NPDES Permit application, does not exceed 1,000 mg/l.

Monitoring is required for Bromide, because the effluent concentration of Bromide, as reported in the NPDES Permit Application, exceeds 1 mg/l and the discharge flow exceeds 0.1 MGD.

Total Dissolved Solids (TDS) and its major constituents including sulfate, chloride, and bromide have emerged as pollutants of concern in several major watersheds in the Commonwealth. The conservative nature of these solids allows them to accumulate in surface waters and they may remain a concern even if the immediate downstream public water supply is not directly impacted. Bromide has been linked to formation of disinfection byproducts at increased levels in public water systems. As a consequence of actions associated with Triennial Review 13, the Environmental Quality Board has directed DEP to collect additional data. Facilities with design flows greater than or equal to 0.1 mgd are required to report at least one sample analyzed for these parameters with the NPDES Permit renewal application.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

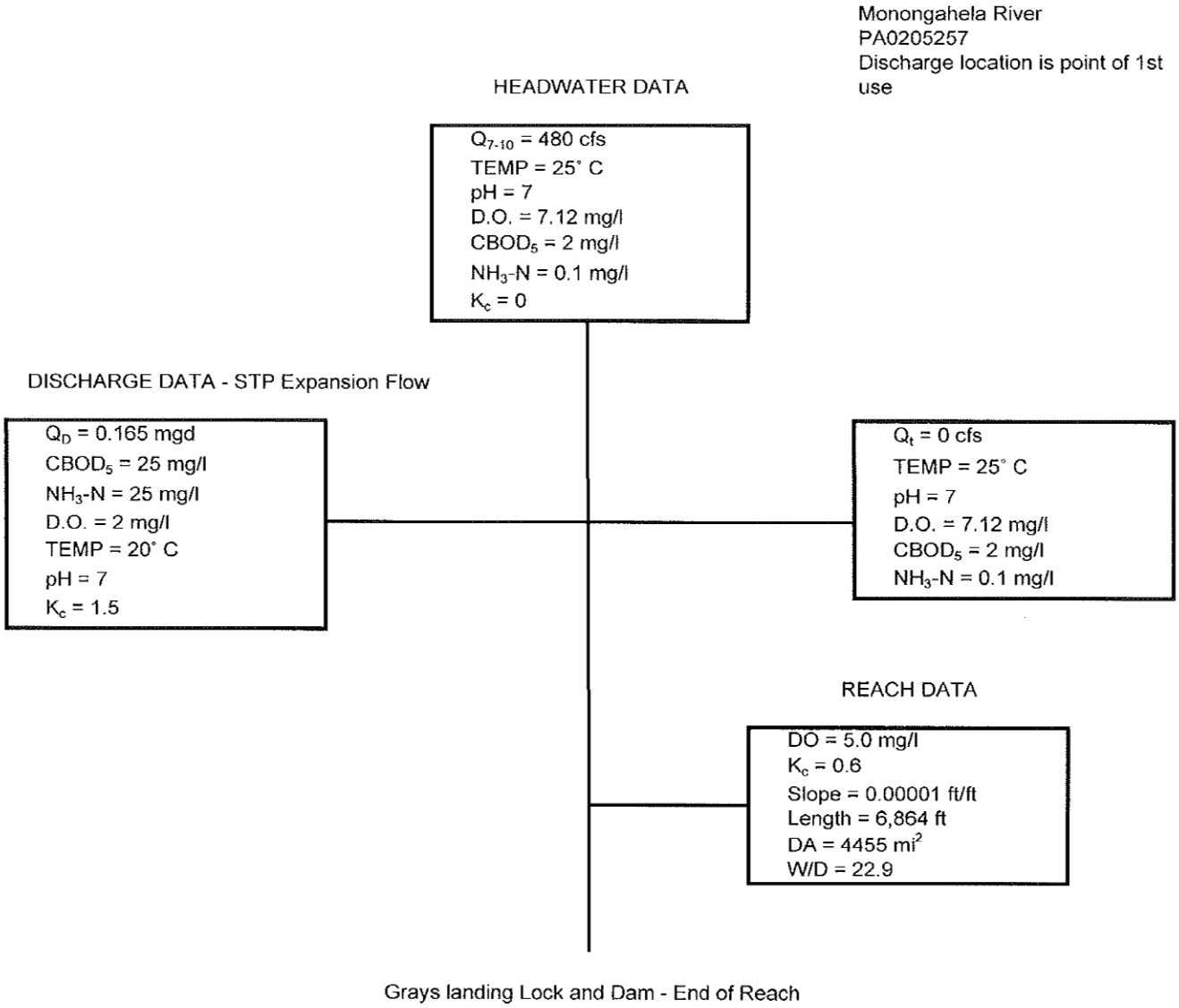
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
CBOD5	34.0	51.0	XXX	25.0	37.5	50	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS	41.0	60.0	XXX	30.0	45.0	60	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
UV Intensity (mW/cm^2)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite
Ammonia	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite

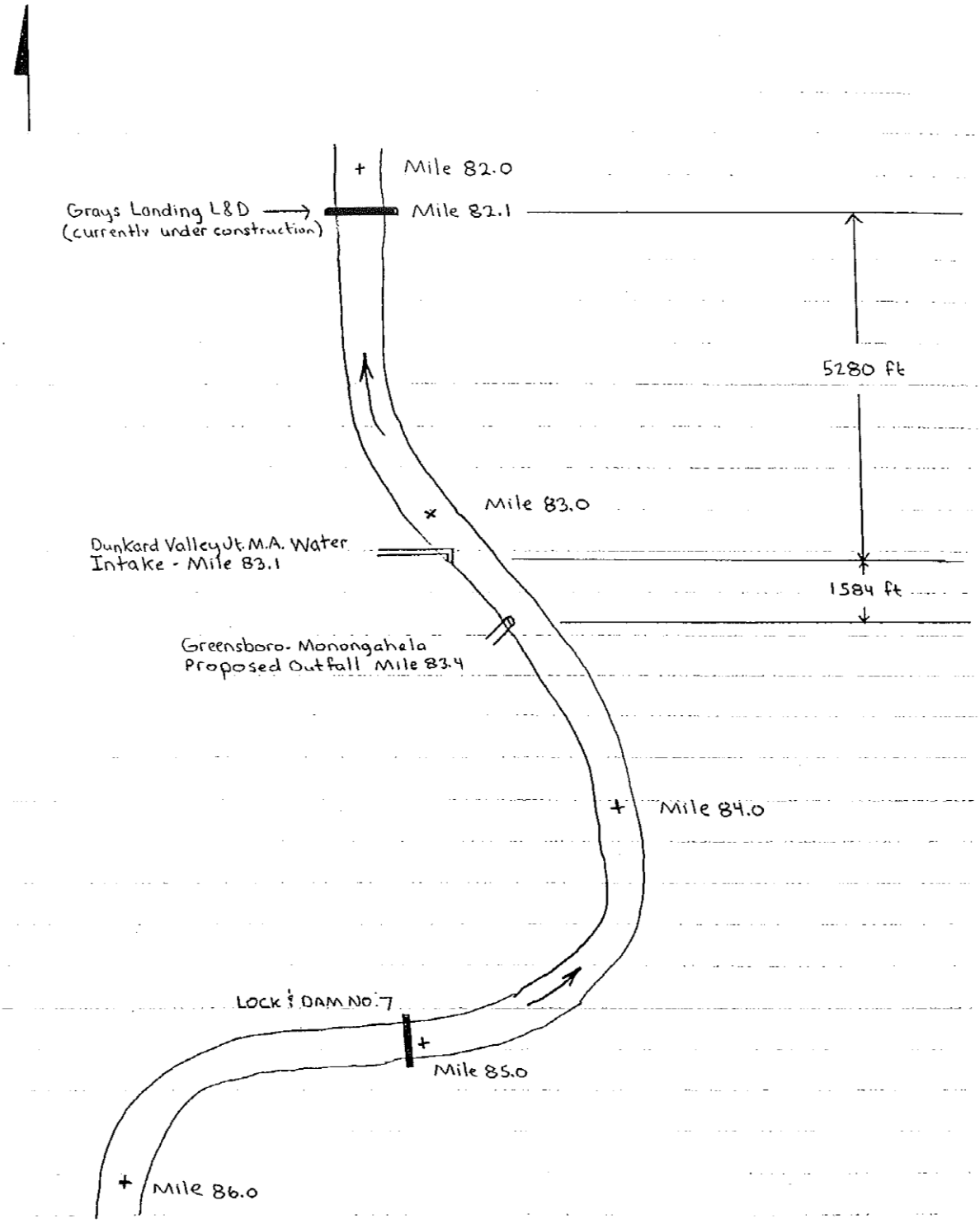
Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Bromide	Report	XXX	XXX	Report	Report Daily Max	XXX	1/week	8-Hr Composite

Compliance Sampling Location: Outfall # 001


Monongahela River
PA0205257
Discharge location is point of 1st use
HEADWATER DATA
Q_{7-10} = 480 cfs
TEMP = 25° C
pH = 7
D.O. = 7.12 mg/l
$CBOD_5$ = 2 mg/l
NH_3-N = 0.1 mg/l
K_c = 0
DISCHARGE DATA - STP Expansion Flow
Q_D = 0.165 mgd
$CBOD_5$ = 25 mg/l
NH_3-N = 25 mg/l
D.O. = 2 mg/l
TEMP = 20° C
pH = 7
K_c = 1.5
Q_t = 0 cfs
TEMP = 25° C
pH = 7
D.O. = 7.12 mg/l
$CBOD_5$ = 2 mg/l
NH_3-N = 0.1 mg/l
REACH DATA
DO = 5.0 mg/l
K_c = 0.6
Slope = 0.00001 ft/ft
Length = 6,864 ft
DA = 4455 mi^2
W/D = 22.9
Grays landing Lock and Dam - End of Reach

Significant RMI's - Monongahela River 2



Note: Jacobs Creek enters the Mon. River at MP 83.16. The DA of Jacobs Creek was subtracted from the DA of the Mon R. at the Dunkard Valley Intake to determine the DA at the proposed outfall.

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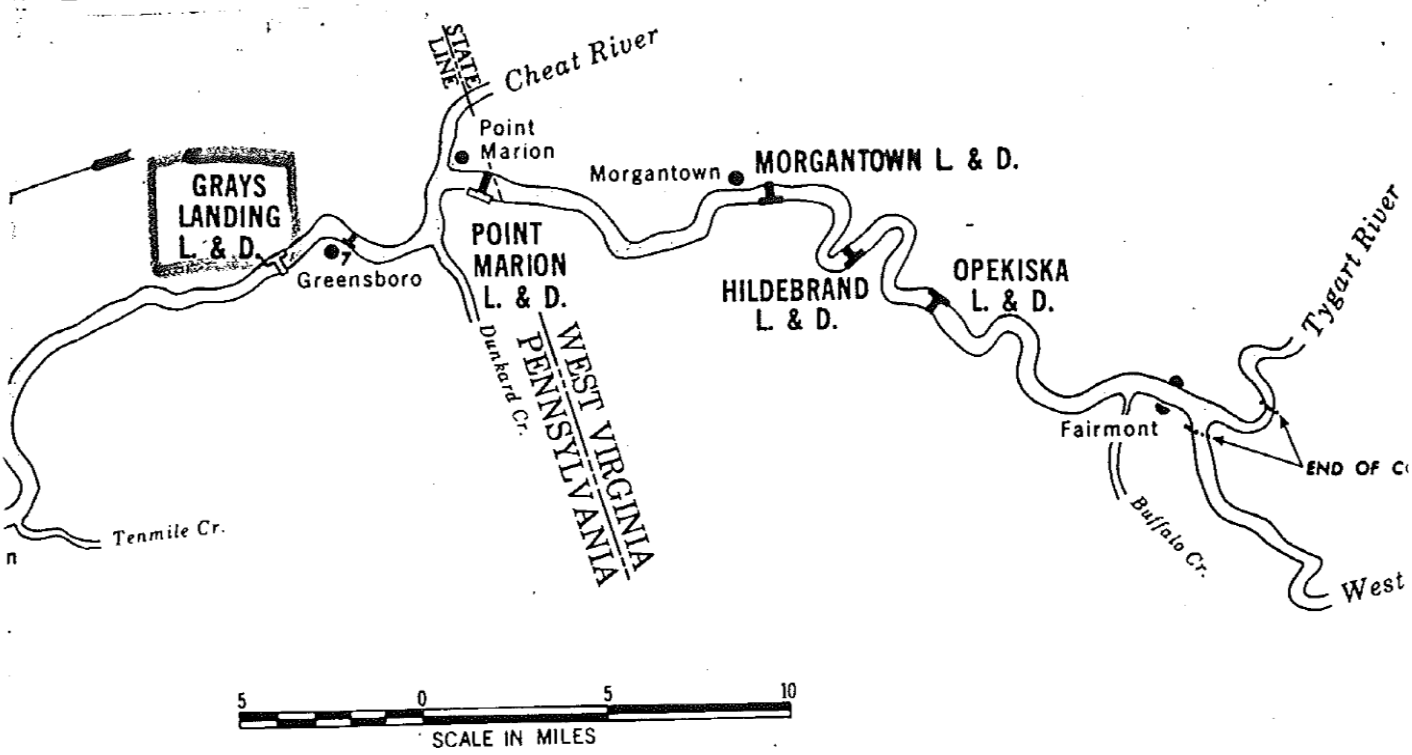
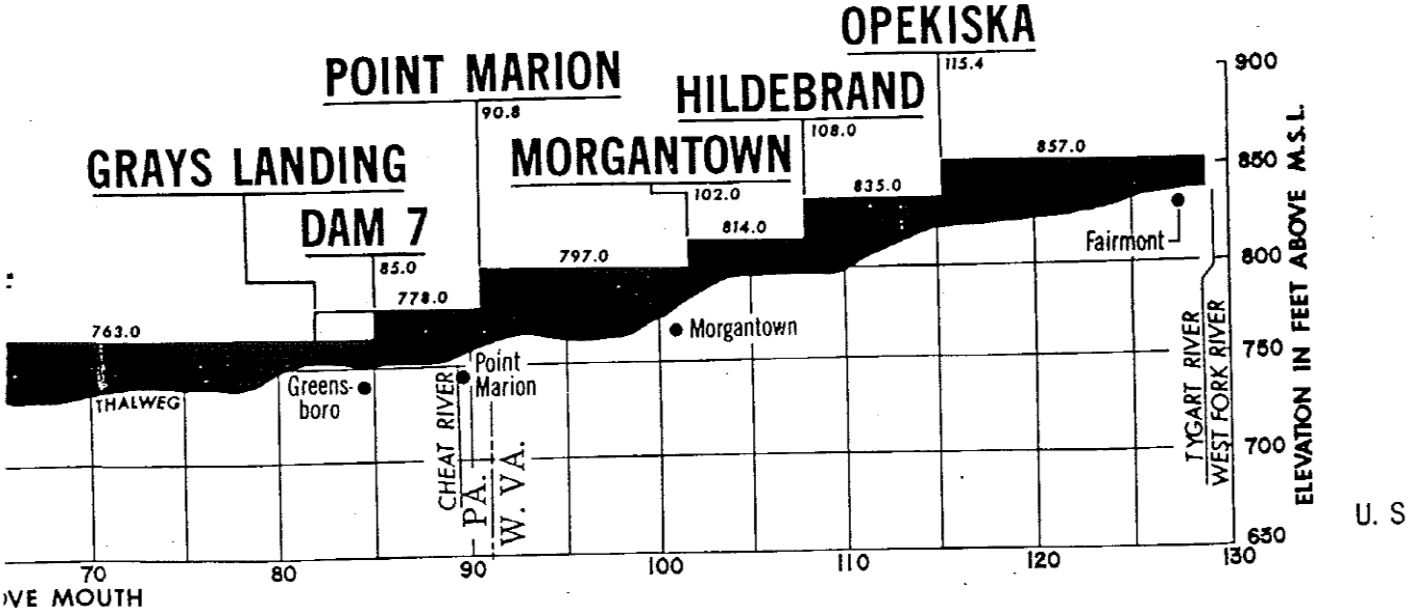
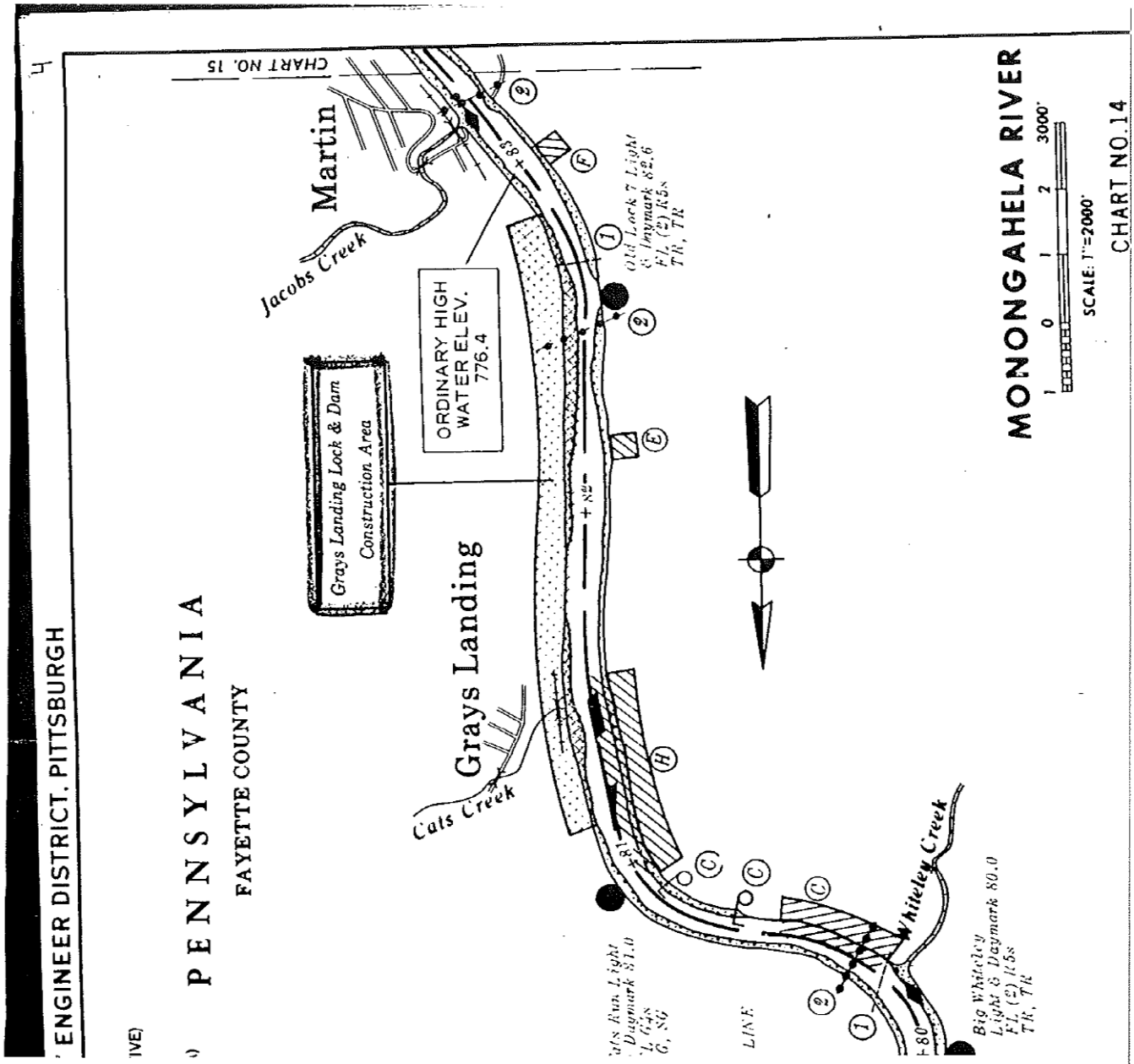




LA RIVER

MONONGAHELA RIVER MAIN STEM
NAVIGATION SYSTEM
GENERAL PLAN AND PROFILE

U. S


ENGINEER DISTRICT, PITTSBURGH
PENNSYLVANIA
FAYETTE COUNTY
CHART NO. 15
Martin
Jacobs Creek
Grays Landing Lock & Dam
Construction Area
ORDINARY HIGH
WATER ELEV.
776.4
Grays Landing
Cats Creek
Old Lock 7 Light
& Daymark 82.6
Fl. (2) R5s
TR, TR
Whiteley Creek
Big Whiteley
Light & Daymark 80.0
Fl. (2) R5s
TR, TR
MONONGAHELA RIVER
SCALE: 1"=2000'
CHART NO. 14

Velocity Calculations

From the Monongahela River Main Stem Navigation System General Plan and Profile (enclosed), the depth of the river from the proposed outfall to the Grays landing Lock and Dam, once constructed is approximately 24 feet. According to the Masontown, PA topographic map, the average width of the river is approximately 550 feet.

Data from the Army Corp of Engineers indicates the Q_{7-10} flow at L&D No. 7 is 480 cfs.

The equation Q=AV will determine the velocity at Q_{7-10} conditions:

For existing plant:

Total Q = Stream Flow + Waste Flow = 480 cfs + 0.170 cfs = 480.17 cfs

480.17 cfs = (24 ft x 550 ft)V

V = 0.036 fps

For proposed plant expansion:

Total Q = Stream Flow + Waste Flow = 480 cfs + 0.256 cfs = 480.26 cfs

480.26 cfs = (24 ft x 550 ft) x V

V = 0.036 fps

Compute Travel Time From Point of Discharge to End of Reach

Travel time = distance/velocity

Travel time = 6864 ft / 0.036 ft per sec = 190,667 seconds = 2.21 days

Width to Depth Ratio Calculation:

Width ~ 550 feet

Depth ~ 24 feet

Width / Depth = 550 / 24 = 22.9

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Greensboro-Monongahela STP Warm Period STP Expansion

              Default Data
 a. Stream Values
    1  Q1-10/Q7-10 ratio.....................: .64
    2  Q30-10/Q7-10 ratio....................: 1.36
    3  Temperature...........................: 25
    4  pH....................................: 7
    5  C-BOD5................................: 2
    6  NH3-N.................................: .1
    7  D.O. Saturation (%)...................: .85
    8  D.O. Goal.............................: 5
    9  Width/Depth ratio.....................: 22.9
   10  KC...(Headwaters only!)...............: 0
   11  KN....................................: .6
 b. Discharge Values (30-day avgs.)
   12  C-BOD5................................: 25
   13  NH3-N.................................: 25
   14  Effluent D.O..........................: 3
   15  Effluent Temp.........................: 20
   16  KC....................................: 1.5
   17  Balanced Technology(1=y 0=no).........: 0


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 Greensboro-Monongahela STP Warm Period STP Expansion

              REACH #  1
      Headwaters and Tributary data

 No. of Reaches :  1

 Rh    Q7-10      T        pH       DO     CBOD5   NH3-N
       (cfs)     (c)      (su)    (mg/l)  (mg/l)  (mg/l)
 --  --------  ------   -----   -------  ------  ------
 HW  480.0000    25      7        7.12     2       .1
  1    0.0000


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Greensboro-Monongahela STP Warm Period STP Expansion

Stream Characteristics

Rh	Q7-10 (cfs)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)
1	480	25	7	7.12	2	.1

Q 1-10/Q 7-10 = .64
Q 30-10/Q 7-10 = 1.36

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Greensboro-Monongahela STP Warm Period STP Expansion

DISCHARGE # 1
Discharger Data
Q7-10 Design Conditions

Rh	FLOW (MGD)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)	KC (1/days)
1	0.1650	20	7	3	25	25	1.5

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Greensboro-Monongahela STP Warm Period STP Expansion

REACH # 1
Reach Characteristics

Rh	D.O. GOAL	KN (/D)	RCH. SL. (FT/FT)	RCH. LEN. (FT.)	DRAIN AREA (MI^2)	W/D
1	5	.6	0.00001	6864	4455	22.9

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Greensboro-Monongahela STP Warm Period STP Expansion

REACH # 1
Reach Characteristics

Rh	KR (/D)	TT (Days)
1	0	2.21

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Greensboro-Monongahela STP Warm Period STP Expansion

NH3-N Discharge Allocations at Q30-10 (Uniform)

DIS	Q (mgd)	BASE. CONC. (mg/l)	MULT. CONC. (mg/l)	CRIT. RCH.	PCT. RED. (%)	NH3-N CRIT. (mg/l)
1	0.1650	25.00	25.00	0	0	1.34

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Greensboro-Monongahela STP Warm Period STP Expansion

NH3-N Discharge Allocations at Q1-10 (Uniform)

DIS	Q (mgd)	BASE. CONC. (mg/l)	MULT. CONC. (mg/l)	CRIT. RCH.	PCT. RED. (%)	NH3-N CRIT. (mg/l)
1	0.1650	50.00	50.00	0	0	6.77

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Greensboro-Monongahela STP Warm Period STP Expansion

D.O. Allocations (Uniform)

DIS #	Q	---NH3-N--- IND. Conc. (mg/l)	CUM. Conc. (mg/l)	---CBOD5---- IND. Conc. (mg/l)	CUM. Conc. (mg/l)	CRIT. RCH.	PCT. REM. (%)
1	0.1650	25	25	25	25	0	0

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Greensboro-Monongahela STP Warm Period STP Expansion

(Total) Discharge = .165 MGD

Temp	= 25	pH	= 7	Width	=	553.12
CBOD-5	= 2.01	NH3-N	= .11	Depth	=	24.15
D.O.	= 7.12	D.O. Goal	= 5	Velocity	=	0.036
KC'	= .002	KN	= .6	W/D RATIO	=	22.9
KR	= .021	(O'CONNOR)				

Dis. 1 Rch. 1 Trvl Time: 2.21

Tr.Tm. (Days)	CBOD-5 (mg/l)	NH3-N (mg/l)	D.O. (mg/l)
0.221	2.01	0.10	7.03
0.442	2.01	0.10	6.95
0.663	2.01	0.10	6.88
0.884	2.01	0.10	6.80
1.105	2.01	0.10	6.73
1.326	2.00	0.10	6.65
1.547	2.00	0.10	6.58
1.768	2.00	0.10	6.50
1.989	2.00	0.10	6.43
2.210	2.00	0.10	6.35

Turbulent mixing at Grays Landing Lock & Dam (end of reach) will ensure D.O. recovers.

JPP 7-9-08

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Greensboro-Monongahela STP Warm Period STP Expansion

DISCHARGE CHARACTERISTICS

END OF REACH 1

(TOTAL) FLOW-MGD.....: .165
TEMPERATURE.....: 20
pH.....: 7
DISSOLVED OXYGEN (mg/l)....:-1432.2 ?
C-BOD5 (mg/l).....: 2
NH3-N (mg/l).....: .1
KC (1/Day).....: .9

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Greensboro-Monongahela STP Warm Period STP Expansion

D.O. Allocations (Uniform)

DIS #	Q (MGD)	---NH3-N--- IND. Conc. (mg/l)	CUM. Conc. (mg/l)	---CBOD5---- IND. Conc. (mg/l)	CUM. Conc. (mg/l)	CRIT. RCH.	PCT. REM. (%)
1	0.1650	25	25	25	25	0	0

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Greensboro-Monongahela STP Warm Period STP Expansion

Effluent Limitations Display

DIS #	Q MGD	NH3-N TOX. 1 DAY	30 DAY	DISS. OXYGEN C-BOD5 30-DAY	NH3-N 30-DAY	EFF. D.O.
1	.165	50	25	25	25	3

(WQAM63.EXE) Release 1.2 07-09-2008 12:57:03

STORET RETRIEVAL DATE 91/03/21 PGM=INVENT PAGE: 8

WQN0703 ABMS0703 03072550
39 47 15.0 079 55 15.0 1
LOCK-DAM #7 AT GREENSBORO
42059 PENNSYLVANIA GREENE
OHIO RIVER 050200
MONONGAHELA RIVER
21PA 770419 HQ 05020005038 0000.100 OFF.
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

PARAMETER				MEDIUM	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT	WATER		24	15.39200	69.61500	8.343500	28.5	1.5	86/03/26	88/06/14
00011	WATER	TEMP	FAHN	WATER	$	24	59.70500	225.5500	15.01800	83.3	34.7	86/03/26	88/06/14
00060	STREAM	FLOW	CFS	WATER		9	8583.300	1690E+05	13000.00	42400	1610	86/01/07	86/09/10
00061	STREAM	FLOW,	INST-CFS	WATER		12	7284.200	34748000	5894.700	18800	300	86/10/07	87/09/28
00065	STREAM	STAGE	FEET	WATER		21	12.07100	2.624400	1.620000	15.60	9.40	86/01/07	87/09/28
00095	CNDUCTVY	AT 25C	MICROMHO	WATER		25	292.2400	10869.00	104.2600	520	120	86/01/07	88/06/14
00300	DO		MG/L	WATER		20	9.575000	3.735700	1.932800	12.7	6.5	86/04/30	88/06/14
00301	DO	SATUR	PERCENT	WATER	$	20	92.75500	27.40800	5.235300	103.1	82.3	86/04/30	88/06/14
00400	PH		SU	WATER		24	7.010400	.1686700	.4106900	7.80	6.30	86/03/26	88/06/14
00403	PH	LAB	SU	WATER		27	6.303700	.1027200	.3205000	7.2	5.8	86/01/07	88/06/14
00410	T ALK	CACO3	MG/L	WATER		27	18.92600	43.61000	6.603800	40	8	86/01/07	88/06/14
00515	RESIDUE	DISS-105 C	MG/L	WATER		24	213.8300	7282.800	85.34000	368	92	86/01/07	87/12/03
00530	RESIDUE	TOT NFLT	MG/L	WATER		2	8.000000	.0000000	.0000000	8	8	88/01/19	88/02/10
					K	1	2.000000			2	2	88/06/14	88/06/14
					TOT	3	6.000000	12.00000	3.464100	8	2	88/01/19	88/06/14
00610	NH3+NH4-	N TOTAL	MG/L	WATER		27	.1122200	.0024334	.0493300	.230	.040	86/01/07	88/06/14
00612	UN-IONZD	NH3-N	MG/L	WATER	$	24	.0005491	.0000003	.0006317	.002	.00004	86/03/26	88/06/14
00615	NO2-N	TOTAL	MG/L	WATER		26	.0083846	.0000182	.0042716	.024	.004	86/01/07	88/06/14
					K	1	.0040000			.004	.004	87/08/17	87/08/17
					TOT	27	.0082222	.0000182	.0042728	.024	.004	86/01/07	88/06/14
00619	UN-IONZD	NH3-NH3	MG/L	WATER	$	24	.0006676	.0000005	.0007680	.003	.00004	86/03/26	88/06/14
00620	NO3-N	TOTAL	MG/L	WATER		27	.5896300	.0155190	.1245800	.950	.350	86/01/07	88/06/14
00665	PHOS-TOT		MG/L P	WATER		27	.0522220	.0006256	.0250130	.120	.020	86/01/07	88/06/14
00680	T ORG C	C	MG/L	WATER		3	1.600000	.0100010	.1000100	1.7	1.5	88/01/19	88/06/14
00719	CN FREE	HBG METH	UG/L	WATER		2	1.000000	.0000000	.0000000	1.000	1.000	86/07/10	86/11/04
					K	23	1.000000	.0000000	.0000000	1.000	1.000	86/01/07	88/01/19
					TOT	25	1.000000	.0000000	.0000000	1.000	1.000	86/01/07	88/01/19
00720	CYANIDE	CN-TOT	MG/L	WATER		4	.0010000	.0000000	.0000000	.001	.001	86/03/26	86/11/04
					K	21	.0010000	.0000000	.0000000	.001	.001	86/01/07	88/01/19
					TOT	25	.0010000	.0000000	.0000000	.001	.001	86/01/07	88/01/19
00900	TOT HARD	CACO3	MG/L	WATER		27	99.74100	1248.700	35.33800	175	38	86/01/07	88/06/14
00916	CALCIUM	CA-TOT	MG/L	WATER		24	28.78200	106.9100	10.34000	48.1	12.0	86/01/07	87/12/03
00927	MGNSIUM	MG,TOT	MG/L	WATER		24	7.355000	8.092900	2.844800	13.8	2.7	86/01/07	87/12/03
00940	CHLORIDE	TOTAL	MG/L	WATER		24	7.845800	6.709500	2.590300	16	4	86/01/07	87/12/03
00945	SULFATE	SO4-TOT	MG/L	WATER		27	106.6300	2286.900	47.82200	224	39	86/01/07	88/06/14
00951	FLUORIDE	F,TOTAL	MG/L	WATER		9	.1922200	.0037195	.0609880	.28	.10	86/04/30	87/09/28
					K	14	.1000000	.0000000	.0000000	.10	.10	86/01/07	88/01/19
					TOT	23	.1360900	.0034704	.0589100	.28	.10	86/01/07	88/01/19
01002	ARSENIC	AS,TOT	UG/L	WATER	K	1	4.000000			4	4	86/08/05	86/08/05

STORET RETRIEVAL DATE 91/03/21 PGM=INVENT PAGE: 9

WQNO703 ABMSO703 03072550
39 47 15.0 079 55 15.0 1
LOCK-DAM #7 AT GREENSBORO
42059 PENNSYLVANIA GREENE
OHIO RIVER 050200
MONONGAHELA RIVER
21PA 770419 HQ 05020005038 0000.100 OFF
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

	PARAMETER			MEDIUM	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01027	CADMIUM	CD,TOT	UG/L	WATER		1	.3200000			.3	.3	87/08/17	87/08/17
					K	1	.2000000			.2	.2	86/08/05	86/08/05
					TOT	2	.2600000	.0072000	.0848530	.3	.2	86/08/05	87/08/17
01034	CHROMIUM	CR,TOT	UG/L	WATER	K	2	4.000000	.0000000	.0000000	4	4	86/08/05	87/08/17
01042	COPPER	CU,TOT	UG/L	WATER		1	14.00000			14	14	88/06/14	88/06/14
					K	4	30.00000	533.3300	23.09400	50	10	86/08/05	88/02/10
01045	IRON	FE,TOT	UG/L	WATER	TOT	5	26.80000	451.2000	21.24200	50	10	86/08/05	88/06/14
01051	LEAD	PB,TOT	UG/L	WATER		28	1004.700	512170.0	715.6600	4080	290	86/01/07	88/06/14
01055	MANGNESE	MN	UG/L	WATER	K	5	4.020000	.0020332	.0450910	4	4	86/08/05	88/06/14
01067	NICKEL	NI,TOTAL	UG/L	WATER		5	239.6000	9828.800	99.14100	318.0	90.0	86/08/05	88/06/14
						2	59.50000	840.5000	28.99100	80	39	86/08/05	88/06/14
01092	ZINC	ZN,TOT	UG/L	WATER	K	3	33.33300	208.3300	14.43400	50	25	87/08/17	88/02/10
					TOT	5	43.80000	519.7000	22.79700	80	25	86/08/05	88/06/14
						3	32.00000	372.0000	19.28700	46	10	86/08/05	88/02/10
01105	ALUMINUM	AL,TOT	UG/L	WATER	K	2	10.00000	.0000000	.0000000	10	10	88/01/19	88/06/14
31616	FEC COLI	MFM-FCBR	/100ML	WATER	TOT	5	23.20000	331.2000	18.19900	46	10	86/08/05	88/06/14
						5	580.8000	180600.0	424.9700	1310	200	86/08/05	88/06/14
32730	PHENOLS	TOTAL	UG/L	WATER		17	365.8800	262740.0	512.5800	1700	20	86/02/20	88/01/19
46014	HIRUD	LEECH	NO/FT2	WATER	K	8	30.00000	800.0000	28.28400	100	20	86/01/07	87/11/19
46018	GAMMAR	SCUD	NO/FT2	WATER	TOT	25	258.4000	200970.0	448.2900	1700	20	86/01/07	88/01/19
46037	COENAG	DAMSEL	NO/FT2	WATER		24	.0000000	.0000000	.0000000	0	0	86/01/07	88/01/19
46087	TENDIPED	FLY	NO/FT2	WATER		3	1.333300	.3333400	.5773500	2	1	86/11/21	87/11/03
46095	PHYSID	SNAIL	NO/FT2	WATER		3	3.333300	4.333400	2.081700	5	1	86/11/21	87/11/03
46106	OLIGOCHT	AQ E WRM	NO/FT2	WATER		3	2.000000	1.000000	1.000000	3	1	86/11/21	87/11/03
						3	504.3300	71525.00	267.4400	710	202	86/11/21	87/11/03
46142	POLYCENT	CADDIS	NO/FT2	WATER		3	5.333300	26.33300	5.131600	11	1	86/11/21	87/11/03
46570	CAL HARD	CA MG	MG/L	WATER		2	640.0000	55778.00	236.1700	807	473	87/11/03	87/11/03
70508	T ACDITY	HOT-MG/L	CACO3	WATER	K	1	1000.000			1000	1000	86/11/21	86/11/21
71900	MERCURY	HG,TOTAL	UG/L	WATER	TOT	3	760.0000	71089.00	266.6300	1000	473	86/11/21	87/11/03
74041	WOF	SAMPLE	UPDATED	WATER		3	6.333300	9.333400	3.055100	9	3	86/11/21	87/11/03
82079	TURBIDTY	LAB	NTU	WATER	$	24	102.1600	1385.000	37.21500	173	41	86/01/07	87/12/03
						24	10.08300	617.2100	24.84400	118	0	86/01/07	87/12/03
					K	1	1.000000			1.0	1.0	86/08/05	86/08/05
						33	883410.0	35127000	5926.800	890103	870721	86/01/07	88/06/14
						23	13.32600	380.8300	19.51500	94.0	1.2	86/01/07	87/12/03
					K	1	1.000000			1.0	1.0	87/02/11	87/02/11
					TOT	24	12.81300	370.6100	19.25100	94.0	1.0	86/01/07	87/12/03