pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0294390**
Wastewater Type	**Sewage**	APS ID	**1109063**
Facility Type	**SFTF**	Authorization ID	**1476058**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Stellar Homes LLC**	Facility Name	**Savory 2693 W Philadelphia Ave**
Applicant Address	PO Box 553	Facility Address	2693 W Philadelphia Avenue
	Oley, PA 19547-0553		Oley, PA 19547
Applicant Contact	Robert Savory	Facility Contact	Robert Savory
Applicant Phone	(215) 783-6721 / bertskiis@msn.com	Facility Phone	(215) 783-6721
Client ID	384254	Site ID	871177
SIC Code	6519 (NAIC on appl: 531110)	Municipality	Oley Township
SIC Description	Real Property Lessors (Residential Bldg)	County	Berks
Date Application Received	March 4, 2024	WQM Required	Yes
Date Application Accepted	March 8, 2024	WQM App. No.	0624203

Project Description: New discharge to a HQ waterway, replacing a failing onlot

Summary of Review

The NPDES permit application (and WQM permit application) were received by U.S. mail on March 4, 2024. Additional information was requested by DEP on July 3, 2024 via email to the applicant's consultant. The additional information was received by DEP on July 8, 2024 via email from the applicant's consultant, All County Associates. A WQM permit application was submitted with the NPDES application.

The proposed discharge and treatment system is to replace a failing onlot. The proposed system will serve one building with 4 residential apartments and 1 commercial unit, with a design flow of treated domestic wastewater of 2000 gallons per day. The discharge is to a swale along Oysterdale Road (SR 1030) per drawings submitted with the application, with eventual discharge into Oysterville Creek. Oysterville Creek has a designated use of High Quality-Cold Water Fishes (HQ-CWF). Note: eMapPA shows Oysterdale Road as 'Covered Bridge Road' in Oley Township, turning into Oysterdale Road in Pike Township.

The applicant's consultant has represented that there is no salt-based water softener at the facility.

Sewage planning approval was granted by DEP on October 17, 2023: B3-06948-152-3S. (Non-discharge alternatives are evaluated before planning approval is granted. This is a small lot and already has a malfunctioning onlot system. Moreover, there is an exemption in the regulations in the case of sewage facilities in HQ waters correcting existing public health or pollution hazards: Pa Code § 93.4c (c)(2).) No Preliminary Effluent Limitations (PELs) were requested of DEP's Clean Water Permits staff before Planning approval was granted.

Because the discharge is to a HQ waterway, the facility is not eligible for DEP's general permit for SFTFs.

Approve	Deny	Signatures	Date
x		*Bonnie Boylan* Bonnie Boylan / Environmental Engineering Specialist	July 12, 2024
x		*Maria D. Bebenek* for Daniel W. Martin, P.E. / Environmental Engineer Manager	July 17, 2024
x		*Maria D. Bebenek* Maria D. Bebenek, P.E./ Environmental Program Manager	July 17, 2024

Summary of Review

Monthly Discharge Monitoring Reports are being required in addition to Annual Maintenance Reports because the draft permit includes Ammonia limits and because the discharge is to a receiving waterway with a designated use of High Quality.

Delaware River Basin Commission (DRBC)

In accordance with the interagency agreement between DEP and DRBC, a copy of this Fact Sheet and draft permits will be forwarded to DRBC and any comments by them will be considered. Note: a) the discharge is not to a waterway designated as "Special Protection Waters" by DRBC; b) the design flow is under their threshold for project review.

Unresolved Violations for Client

None according to DEP's Power BI Client History Summary Report.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.002
Latitude	40° 23' 4.4" per application (40.384556 per eMapPA)	Longitude	-75° 43' 56.1" per appl (-75.732251 per eMapPA)
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	swale to Oysterville Creek (HQ-CWF, MF)	Stream Code	Swale to 1679
NHD Com ID	25980958	RMI	0.6, approx.*
Drainage Area	9.37 mi^2, approximate	Yield (cfs/mi^2)	0.38
Q_{7-10} Flow (cfs)	3.58, estimated, Oysterville Creek (not swale)	Q_{7-10} Basis	PA Stream Stats
Elevation (ft)	330	Slope (ft/ft)	
Watershed No.	3-D	Chapter 93 Class.	HQ-CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired for Recreational Use		
Cause(s) of Impairment	Pathogens		
Source(s) of Impairment	Unknown		
TMDL Status	None	Name	Not Applicable

Secondary Waters: Manatawny Creek (CWF, also impaired due to pathogens) at RMI 15.8, which flows into the Schuylkill River before Pottstown.

Background/Ambient Data		Data Source –
		WQN 178 on Pine Creek (stream code 1701, EV designated use) which flows into Manatawny Crk at 18.8 RMI, upstream of confluence w/ Oysterville Crk
pH (SU)	7.7 s.u.	WQN 178, sampling data 10/1/2010-9/302023, median values of only the July through September months (matching period of design stream low flow)
Temperature (°F)	13.75°C	WQN 178, sampling data 10/1/2010-9/302023, median values of only the July through September months (matching period of design stream low flow)
Hardness (mg/L)	N/A	(not running TMS model for toxics, don't need Hardness)
Other:	Dissolved Oxygen = 9.0 mg/l	WQN 178, sampling data 10/1/2010-9/302023, median values of only the July through September months (matching period of design stream low flow)

Nearest Downstream Public Water Supply Intake

PWS Waters	Schuylkill River	Pottstown Water Authority	
PWS RMI	54 approx	Flow at Intake (cfs)	
		Distance from Outfall (mi)	More than 15 miles

Development of Effluent Limitations

Technology based effluent limits (TBELs)

DEP's general permit for Small Flow Treatment Facilities (SFTF), PAG-04, which was public noticed and is in effect, includes the following TBELs:

Parameter	Concentration Limitations	
	Monthly Average	IMAX
Flow (GPD)	Report	Report
$CBOD_5$ (mg/l)	10	20
Total Suspended Solids (TSS) (mg/l)	10	20
Total Residual Chlorine (TRC) (mg/l) (2)	Report	Report
pH (S.U.)	Between 6.0 and 9.0 at all times	
Fecal Coliform (No./100 mL)	200 Geo Mean	XXX

(2) TRC must be measured monthly and reported on the AMR if chlorine is used for disinfection and if there is effluent flow. If ultraviolet (UV) disinfection is used, analysis for TRC is not required and the AMR must identify UV maintenance that is performed.

DEP's Standard Operating Procedure (SOP) for New and Reissuance SFTF Individual NPDES Permit Applications advises permit writers to impose the same permit limits as above (TBELs) except it omits the reporting requirement for maximum Flow:

Parameter	Avg Mo	IMAX	Sample Type	Frequency: SFTFs
Flow (GPD)	Report	XXX	Estimate / Measured*	1/month
$CBOD_5$ (mg/L)	10	20	Grab	1/month
TSS (mg/L)	10	20	Grab	1/month
TRC (mg/L)	*Report for SRSTPs; Use TRC Spreadsheet to determine WQBELs or 0.02 mg/L AML for SFTFs***		Grab	1/month
Fecal Coliform (No./100 ml)	200 Geometric Mean		Grab	1/month

* Use Estimate for SRSTPs and Measured for SFTFs.

NOTE – For SFTFs / SRSTPs with UV systems, it is not necessary to require UV intensity or transmittance monitoring in the permit.

The same SOP advises permit writers to conduct an anti-degradation analysis for new discharges to HQ waters. In this case, however, the regulations provide an exemption, given below, to maintaining the *existing* water quality such that "non-degrading" limits were not developed. (Note: when there is a conflict or discrepancy between regulations and technical guidance or SOPs, the regulations rule.)

§ 93.4c. Implementation of antidegradation requirements.

(a) Existing use protection.

(1)(iv) The Department will make a final determination of existing use protection for the surface water as part of the final permit or approval action.

(b) Protection of High Quality and Exceptional Value Waters.

(1) *Point source discharges.* The following applies to point source discharges to High Quality or Exceptional Value Waters.

(i) *Nondischarge alternatives/use of best technologies.*

(A) A person proposing a new, additional or increased discharge to High Quality or Exceptional Value Waters shall evaluate nondischarge alternatives to the proposed discharge and use an alternative that is environmentally sound and cost-effective when compared with the cost of the proposed discharge. If a nondischarge alternative is not environmentally sound and cost-effective, a new, additional or increased discharge shall use the best available combination of cost-effective treatment, land disposal, pollution prevention and wastewater reuse technologies.

(B) A person proposing a new, additional or increased discharge to High Quality or Exceptional Value Waters, who has demonstrated that no environmentally sound and cost-effective nondischarge alternative exists under clause (A), **shall demonstrate that the discharge will maintain and protect the existing quality of receiving surface waters, except as provided in subparagraph (iii).**

(iii) *Social or economic justification (SEJ) in High Quality Waters.* **The Department may allow a reduction of water quality in a High Quality Water** if it finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Commonwealth's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. **A reduction in water quality will not be allowed under this subparagraph unless the discharger demonstrates that the High Quality Water will support applicable existing and designated water uses (other than the high quality and exceptional value uses) in § 93.3, Table 1** (relating to protected water uses).

(c) Special provisions for sewage facilities in High Quality or Exceptional Value Waters.

(2) *SEJ for sewage facilities in High Quality Waters correcting existing public health or pollution hazards.* A sewage facility, for which no environmentally sound and cost-effective nondischarge alternative is available under subsection (b)(1)(i)(A), proposed to discharge into High Quality Waters, which is designed for the purpose of correcting existing public health or pollution hazards documented by the Department, and approved as part of an official plan or official plan revision under § 71.32 (relating to Department responsibility to review and act upon official plans), satisfies the SEJ requirements in subsection (b)(1)(iii).

DEP's Water Quality Antidegradation Implementation Guidance, document #391-0300-002, page 3, states

"If a nondischarge alternative is not cost-effective and environmentally sound, a proposed discharger must utilize the best available combination of cost-effective treatment, land disposal, pollution prevention, and wastewater reuse technologies. This process, known as the antidegradation best available combination of technologies (**ABACT) analysis, establishes a minimum level of performance for dischargers in HQ and EV waters based upon the more stringent of water quality-based effluent limits (WQBEL) or ABACT** (see Figure 3)."

(WQBELs were developed as well for this facility, in accordance with Pa Code Chapter 93 for the protection of designated uses of receiving waters and consistent with the SOP for New and Reissuance SFTF Individual NPDES Permit Applications SFTFs which instructs to document in the Fact Sheet that applicable water quality standards will not be violated. See the

WQBEL section of the Fact Sheet. The calculated WQBELs were not more stringent in this case and were not used as permit limits.)

Unlike the PAG-04 and SOP for SFTFs, the ABACT performance levels recommended in document #391-0300-002 include non-detect for **Total Residual Chlorine (TRC)** and encourage disinfection using ultraviolet (UV) light or other non-chlorine based systems. TRC is not included in the draft permit because the proposed disinfection is UV, not chlorine.

Whereas the PAG-04 and SOP for SFTFs do not include limits for **Ammonia,** the ABACT values recommended in document #391-0300-002 "representing the desired long-term performance level of constructed treatment facilities" includes Ammonia "performance expectations". For facilities with design flows of 2000 gpd up to 50,000 gpd, those Ammonia performance levels are 3.0 mg/l as a monthly average during the warmer months of May through October and 9.0 mg/l as a monthly average during the cooler months of November through April.

Note: the ABACT values listed in document #391-0300-002 allow less stringent CBOD5 performance levels in the cooler months. Because the PAG-04 does not, the more stringent CBOD5 limits in the PAG-04 have been included in the draft permit.

Because the discharge is to a swale, DEP's Technical Guidance Document (TGD) "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers" (386-2000-013) is also referenced. This TGD exempts SFTF's from the Advanced Treatment requirements otherwise recommended of treated sewage discharges to dry streams. Nonetheless, human health criteria must be applied at point of discharge for discharges to dry streams. Therefore, the **Fecal Coliform** limit of 200/100 ml as an average must be imposed year-round. **Ammonia** (NH_3) is not a human health criteria, in accordance with 25 Pa Code § 93.7, such that seasonal limits for NH_3 which were included as ABACT are permissible.

The draft permit limits are not less stringent than applicable effluent limits required by Delaware River Basin Commission [18 CFR Part 410].

Water Quality Based Effluent Limitations (WQBELs)

There are no applicable Total Maximum Daily Loads (TMDLs) on the receiving waterway or downstream waters.

DEP's WQM 7 model was used to calculate WQBELs for CBOD5 and Ammonia. The model input values and results are attached. The input values for stream pH, stream Temperature, and for stream Dissolved Oxygen concentrations were taken from nearby WQN station 178 records as estimates of the receiving water. (See page 3 of the Fact Sheet for details on this data source.)

The model defaulted to the TBELs for CBOD5 and Ammonia, indicating that no more stringent WQBELs are necessary.

No toxics pollutants are expected in domestic wastewater; therefore DEP's Toxics Management Spreadsheet (TMS) was not run.

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 as needed and BPJ. Instantaneous Maximum (IMAX) limits are generally 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.

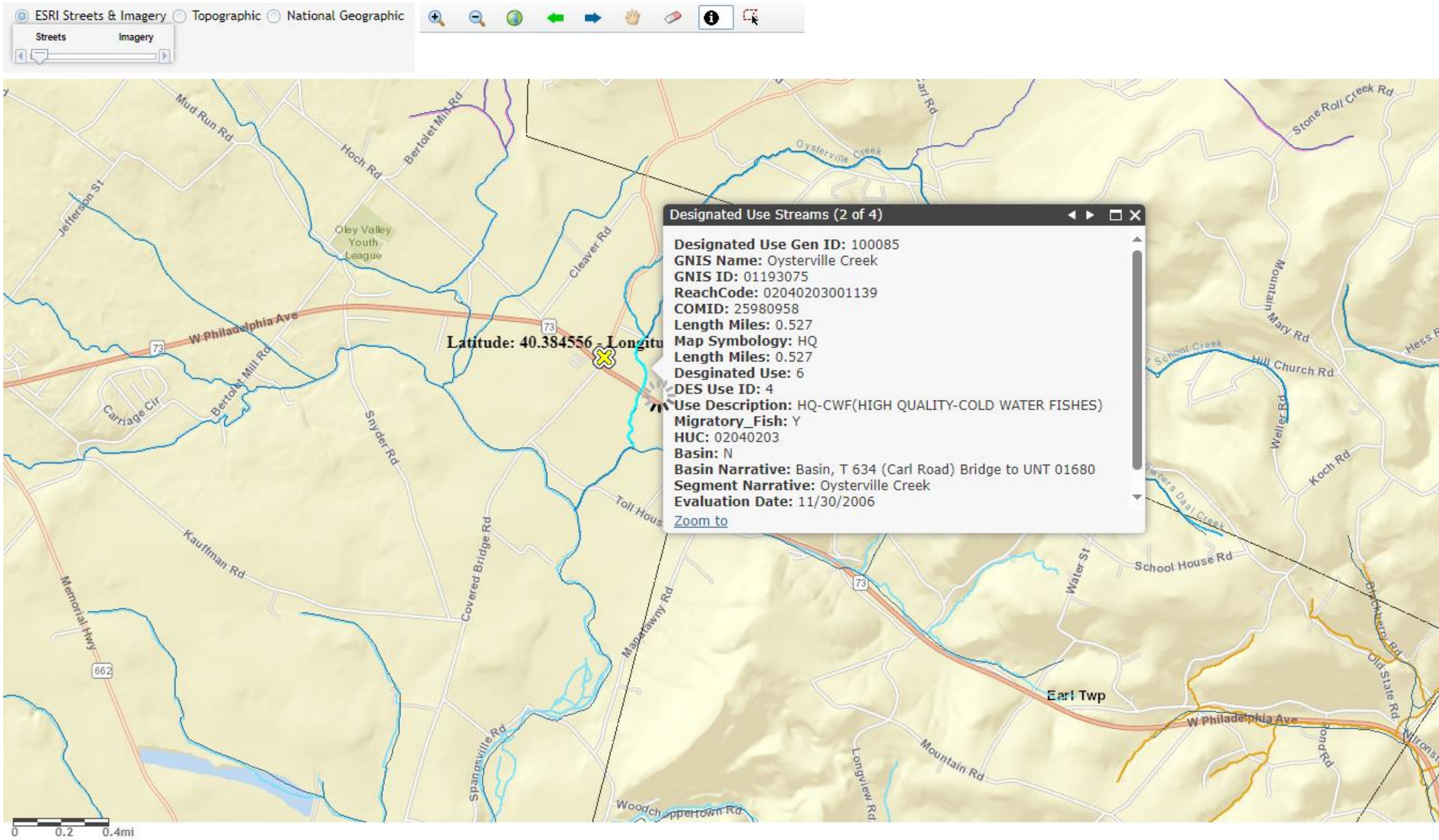
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instant. Minimum	Average Monthly		Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/month	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/month	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	XXX	1/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	1/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	1/month	Grab

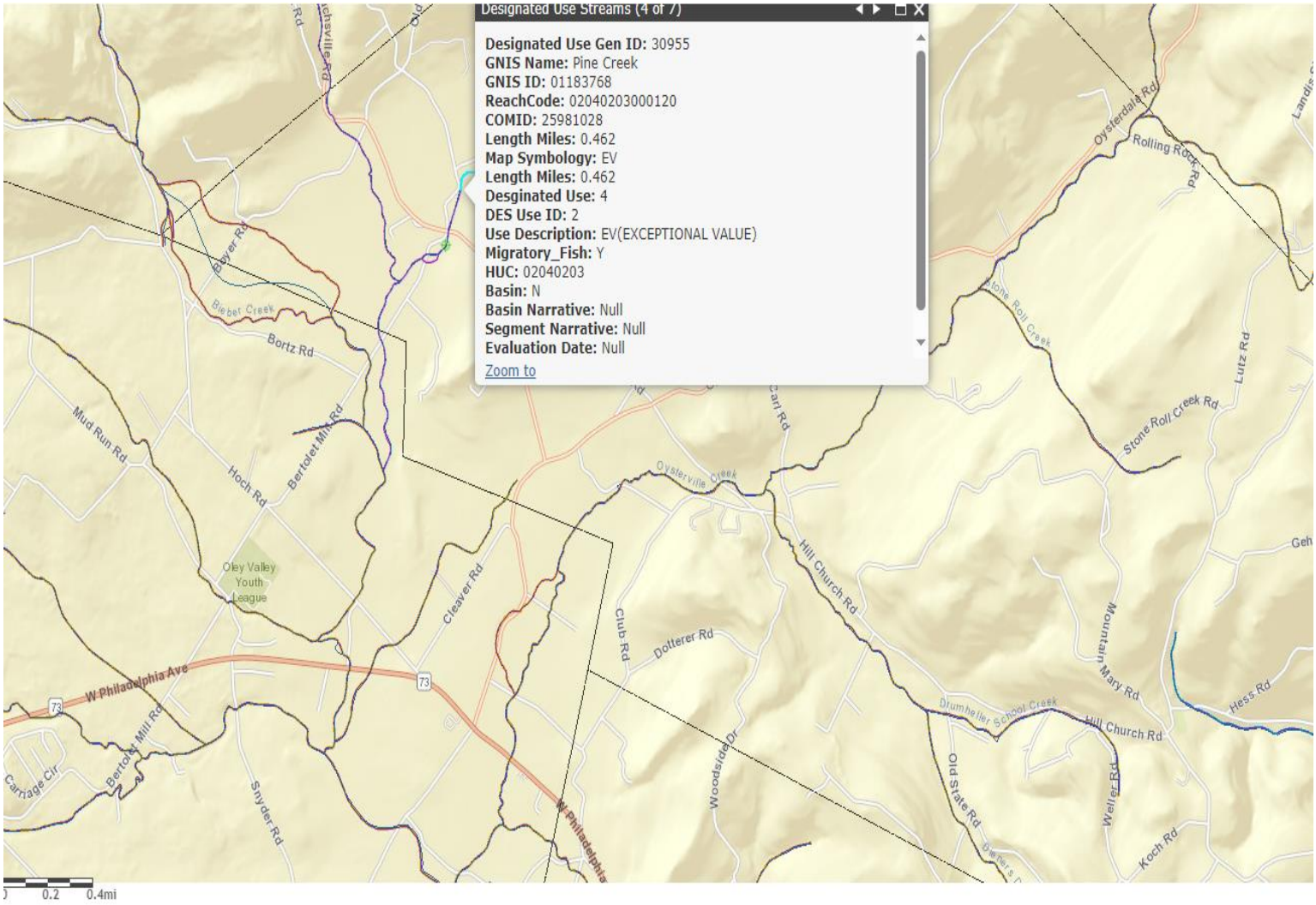
Compliance Sampling Location: after treatment facility

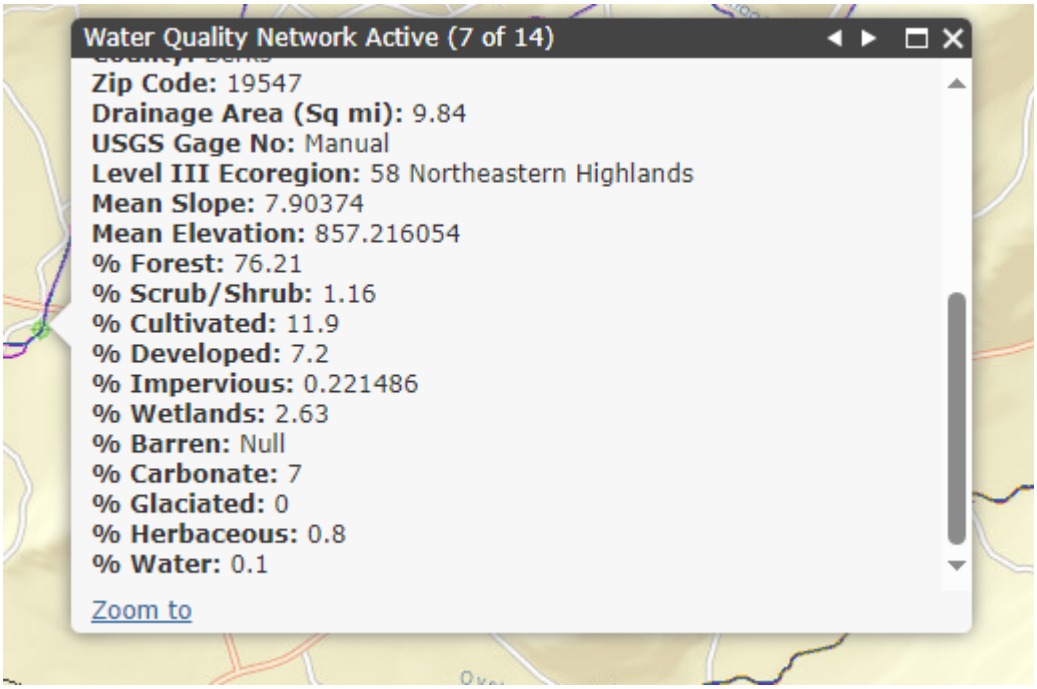
Other Comments: this permit does not authorize the discharge of salt-based water softener backwash.

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☒	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☒	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☒	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☒	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications, BCW-PMT-003, Version 1.8, Nov. 9, 2023
☐	Other:


ESRI Streets & Imagery
Topographic
National Geographic
Streets
Imagery
Designated Use Streams (2 of 4)
Designated Use Gen ID: 100085
GNIS Name: Oysterville Creek
GNIS ID: 01193075
ReachCode: 02040203001139
COMID: 25980958
Length Miles: 0.527
Map Symbology: HQ
Length Miles: 0.527
Desginated Use: 6
DES Use ID: 4
Use Description: HQ-CWF(HIGH QUALITY-COLD WATER FISHES)
Migratory_Fish: Y
HUC: 02040203
Basin: N
Basin Narrative: Basin, T 634 (Carl Road) Bridge to UNT 01680
Segment Narrative: Oysterville Creek
Evaluation Date: 11/30/2006
Zoom to
Latitude: 40.384556
W Philadelphia Ave
Earl Twp
Oley Valley Youth League
Mud Run Rd
Hoch Rd
Bertolet Mill Rd
Jefferson St
Cleaver Rd
Carriage Cir
Snyder Rd
Kauffman Rd
Memorial Hwy
Covered Bridge Rd
Spangsville Rd
Manatawny Rd
Toll House
Woodchoppertown Rd
Longview Rd
Mountain Rd
Water St
School House Rd
Hill Church Rd
Mountain Mary Rd
Weller Rd
Koch Rd
Stone Roll Creek Rd
Oysterville Creek
0 0.2 0.4mi

LOCATION OF WQN 178, PINE CREEK (green dot on map, on Pine Creek which flows into Manatawny Crk upstrm of Oysterville Crk)




Water Quality Network Active (7 of 14)
Zip Code: 19547
Drainage Area (Sq mi): 9.84
USGS Gage No: Manual
Level III Ecoregion: 58 Northeastern Highlands
Mean Slope: 7.90374
Mean Elevation: 857.216054
% Forest: 76.21
% Scrub/Shrub: 1.16
% Cultivated: 11.9
% Developed: 7.2
% Impervious: 0.221486
% Wetlands: 2.63
% Barren: Null
% Carbonate: 7
% Glaciated: 0
% Herbaceous: 0.8
% Water: 0.1
Zoom to

StreamStats Output Report-001-to Oysterville Crk						
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Workspace ID	PA20240611194916409000					
Latitude	40.38482					
Longitude	-75.72979					
Time	6/11/2024	3:49:44 PM				
Basin Characteristics						
Parameter Code	Parameter [	Value	Unit			
BSLOPD	Mean basin	8.3673	degrees			
DRNAREA	Area that dr	9.37	square miles			
ROCKDEP	Depth to ro	5.2	feet			
URBAN	Percentage	0.1901	percent			
Low-Flow Statistics Par	100.0 Percent Low Flow Region 1					
Parameter Code	Parameter I	Value	Units	Min Limit	Max Limit	
DRNAREA	Drainage Ar	9.37	square mi	4.78	1150	
BSLOPD	Mean Basin	8.3673	degrees	1.7	6.4	
ROCKDEP	Depth to Ro	5.2	feet	4.13	5.21	
URBAN	Percent Urb	0.1901	percent	0	89	
Low-Flow Statistics Flo	100.0 Percent Low Flow Region 1					
Statistic	Value	Unit				
7 Day 2 Year Low Flow	5.76	ft^3/s				
30 Day 2 Year Low Flow	6.2	ft^3/s				
7 Day 10 Year Low Flow	3.58	ft^3/s				
30 Day 10 Year Low Flov	3.89	ft^3/s				
90 Day 10 Year Low Flov	4.26	ft^3/s				
USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials						
USGS Software Disclaimer: This software has been approved for release by the U.S. Geo						
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descript						
Application Version: 4.20.1						
StreamStats Services Version: 1.2.22						

StreamStats Output-confl Oysterville & Manatawny					
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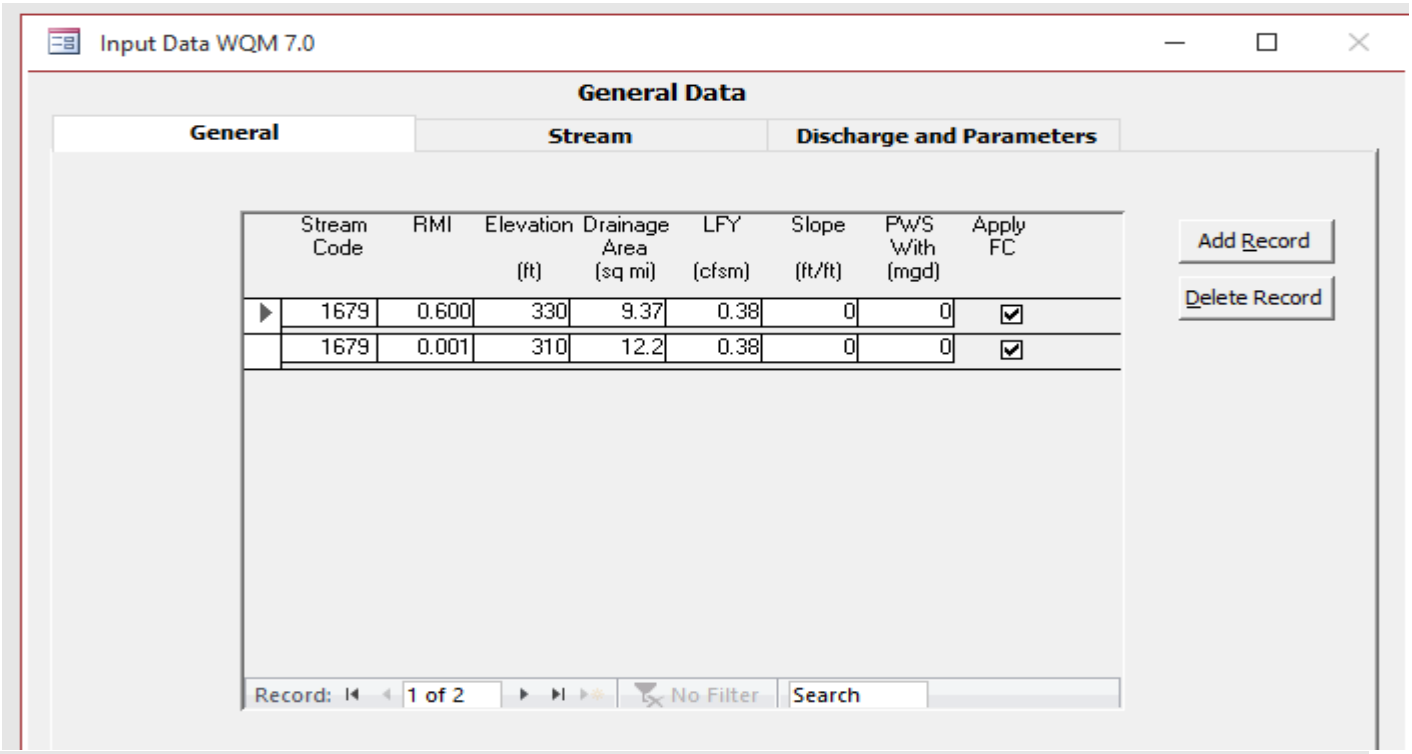
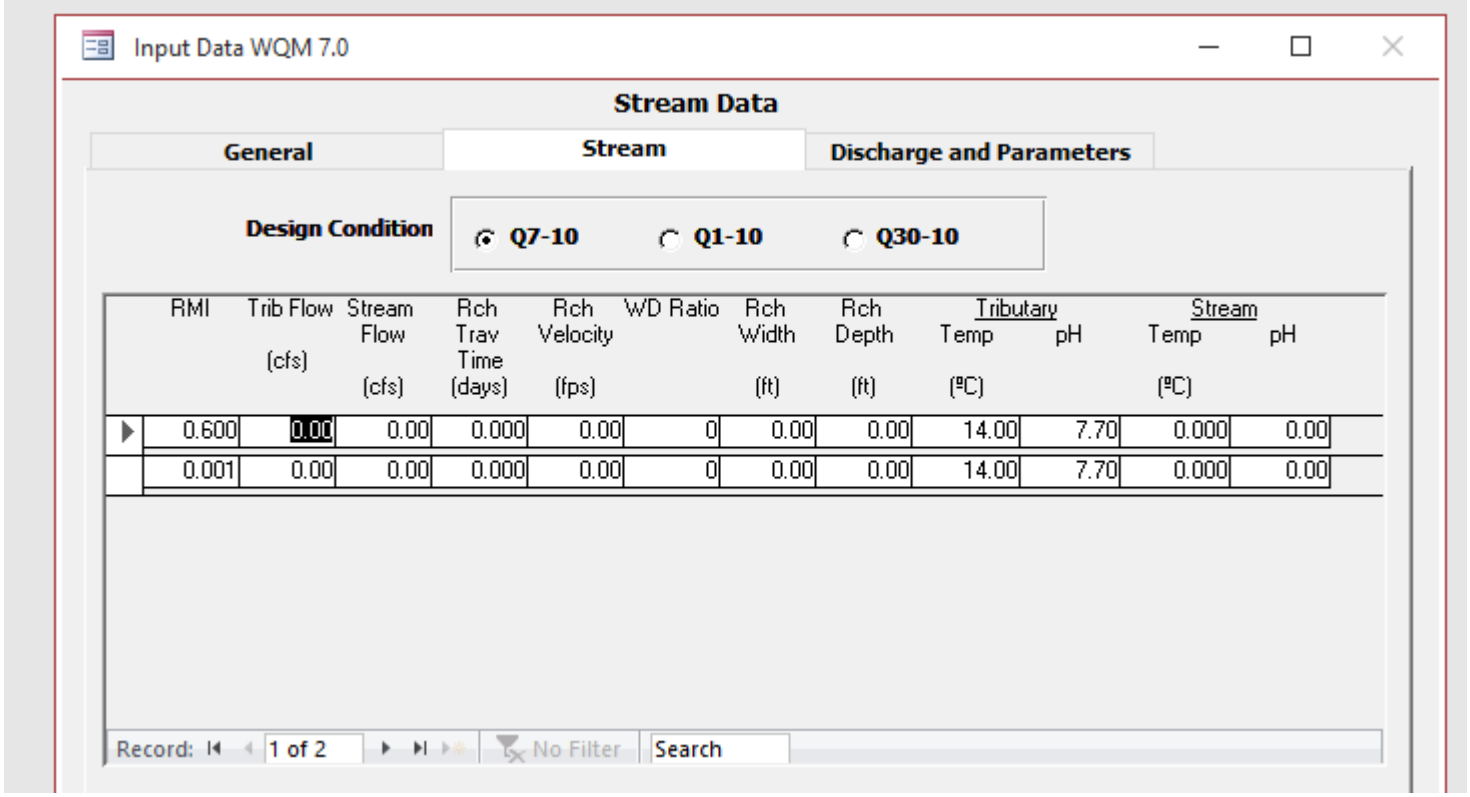
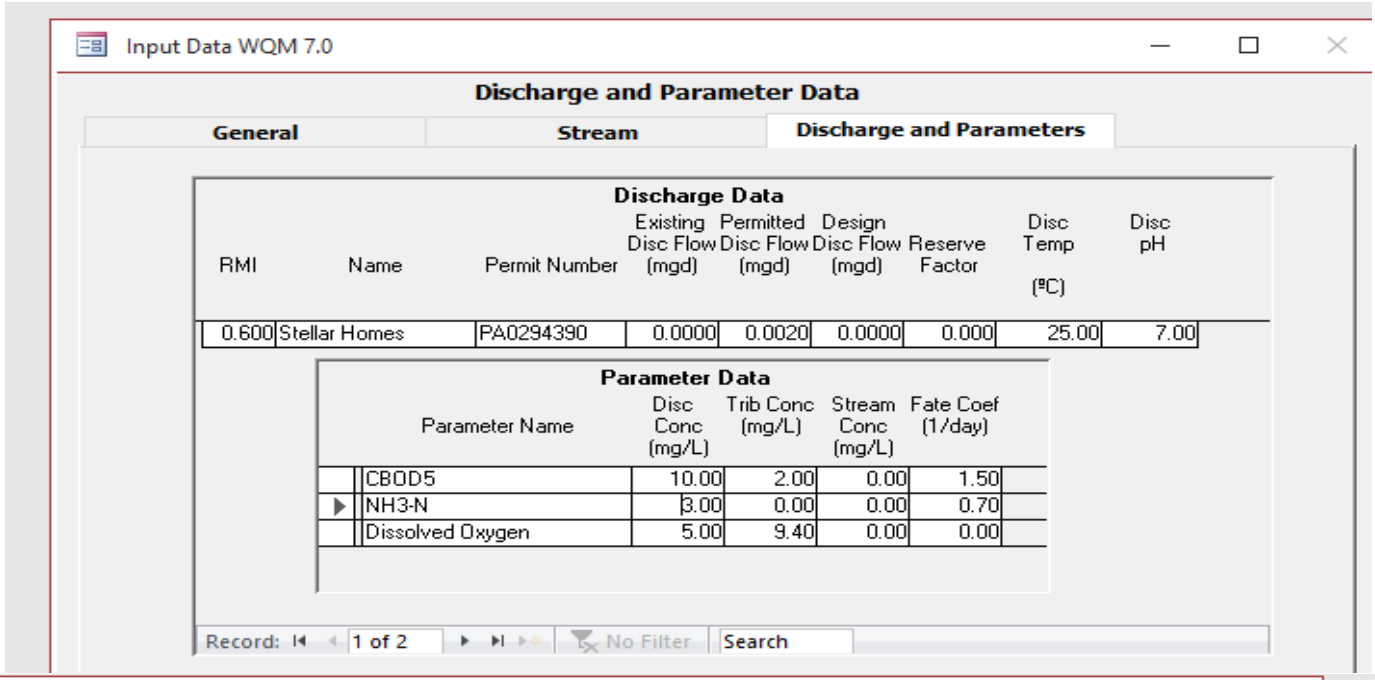
Longitude	-75.73438				
Time	6/12/2024	11:05:22 AM			
Low-Flow Statistics Para	100.0 Percent Low Flow Region 1				
Parameter Code	Parameter Nam	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	12.2	square mi	4.78	1150
BSLOPD	Mean Basin Slop	8.2057	degrees	1.7	6.4
ROCKDEP	Depth to Rock	5.2	feet	4.13	5.21
URBAN	Percent Urban	0.706	percent	0	89
Low-Flow Statistics Flow	100.0 Percent Low Flow Region 1				
Statistic	Value	Unit			
7 Day 2 Year Low Flow	7.41	ft^3/s			
30 Day 2 Year Low Flow	8	ft^3/s			
7 Day 10 Year Low Flow	4.64	ft^3/s			
30 Day 10 Year Low Flow	5.03	ft^3/s			
90 Day 10 Year Low Flow	5.54	ft^3/s			
USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materia					
USGS Software Disclaimer: This software has been approved for release by the U.S. Ge					
USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descri					
Application Version: 4.20.1					
StreamStats Services Version: 1.2.22					
NSS Services Version: 2.2.1					

WQM 7.0 model, inputs and results:






Input Data WQM 7.0
Discharge and Parameter Data
General
Stream
Discharge and Parameters
Discharge Data
RMI
Name
Permit Number
Existing Disc Flow (mgd)
Permitted Disc Flow (mgd)
Design Disc Flow (mgd)
Reserve Factor
Disc Temp (ºC)
Disc pH
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Stellar Homes
PA0294390
0.0000
0.0020
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0.000
25.00
7.00
Parameter Data
Parameter Name
Disc Conc (mg/L)
Trib Conc (mg/L)
Stream Conc (mg/L)
Fate Coef (1/day)
CBOD5
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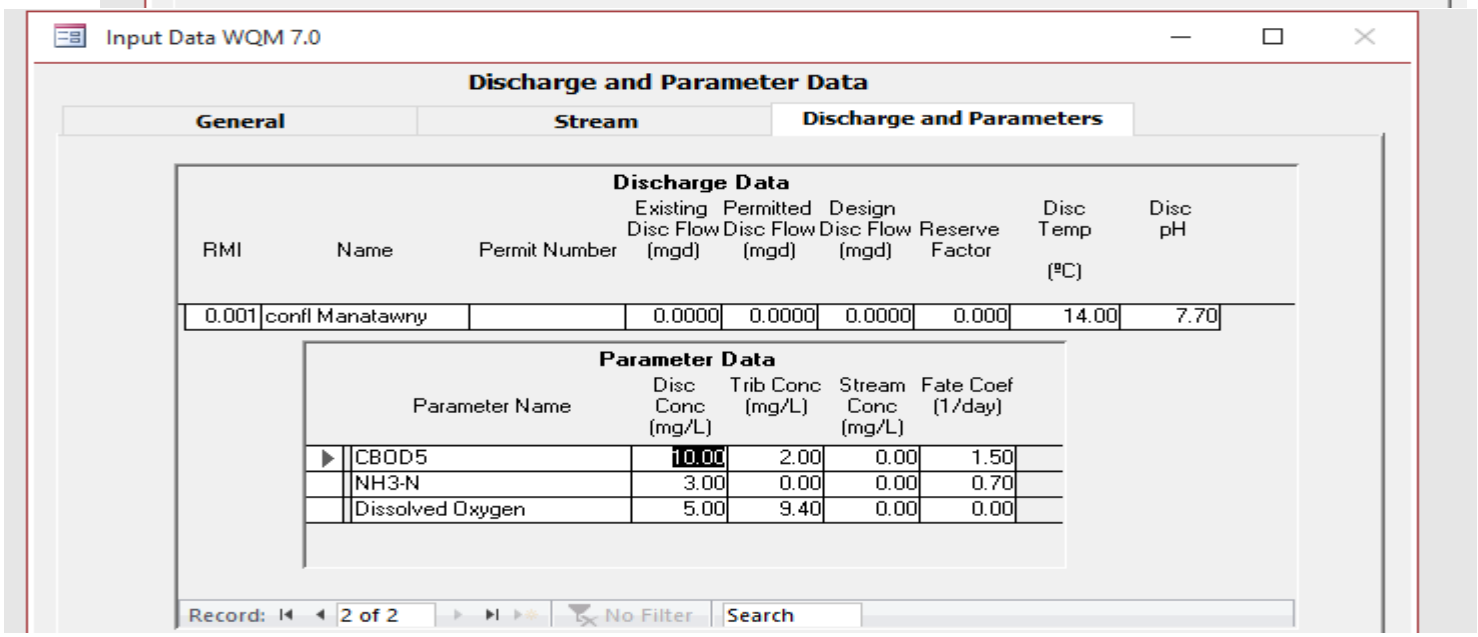
2.00
0.00
1.50
NH3-N
3.00
0.00
0.00
0.70
Dissolved Oxygen
5.00
9.40
0.00
0.00
Record: 1 of 2
No Filter
Search


Input Data WQM 7.0
Discharge and Parameter Data
General
Stream
Discharge and Parameters
Discharge Data
RMI
Name
Permit Number
Existing Disc Flow (mgd)
Permitted Disc Flow (mgd)
Design Disc Flow (mgd)
Reserve Factor
Disc Temp (ºC)
Disc pH
0.001
confl Manatawny
0.0000
0.0000
0.0000
0.000
14.00
7.70
Parameter Data
Parameter Name
Disc Conc (mg/L)
Trib Conc (mg/L)
Stream Conc (mg/L)
Fate Coef (1/day)
CBOD5
10.00
2.00
0.00
1.50
NH3-N
3.00
0.00
0.00
0.70
Dissolved Oxygen
5.00
9.40
0.00
0.00
Record: 2 of 2
No Filter
Search

Analysis Results WQM 7.0

Hydrodynamics | NH3-N Allocations | D.O. Allocations | D.O. Simulation | Effluent Limitations

RMI	Total Discharge Flow (mgd)	Analysis Temperature (ºC)	Analysis pH
0.600	0.002	14.010	7.698
Reach Width (ft)	**Reach Depth (ft)**	**Reach WD Ratio**	**Reach Velocity (fps)**
21.946	0.609	36.054	0.267
Reach C-BOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.01	0.006	0.00	0.441
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
9.396	13.907	Tsivoglou	6

Reach Travel Time (days): 0.137

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.014	2.01	0.00	9.28
0.027	2.01	0.00	9.28
0.041	2.01	0.00	9.28
0.055	2.01	0.00	9.28
0.069	2.01	0.00	9.28
0.082	2.01	0.00	9.28
0.096	2.01	0.00	9.28
0.110	2.01	0.00	9.28
0.123	2.01	0.00	9.28
0.137	2.01	0.00	9.28

Record: 1 of 1 | No Filter | Search

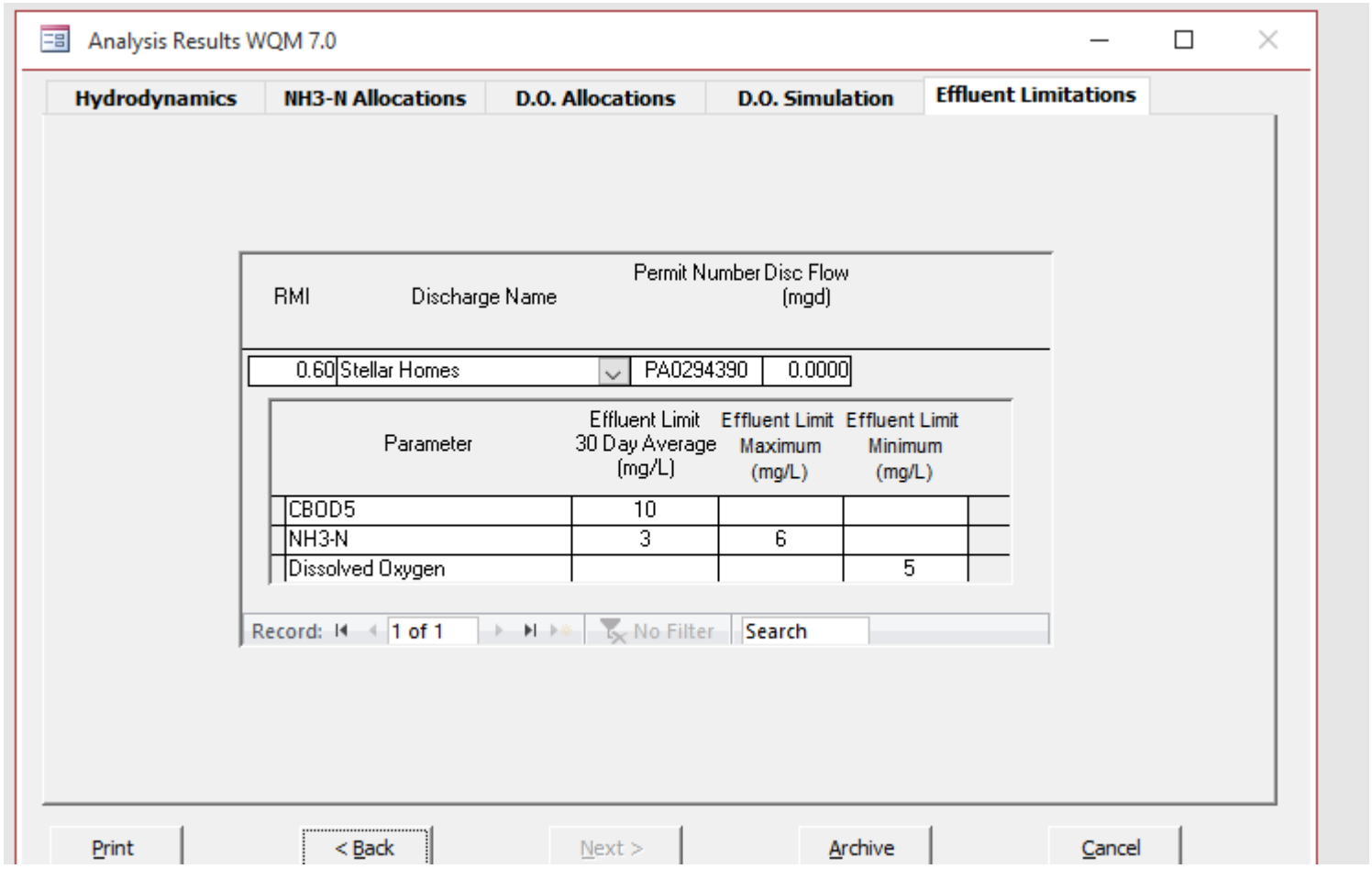
Analysis Results WQM 7.0

Hydrodynamics | NH3-N Allocations | D.O. Allocations | D.O. Simulation | Effluent Limitations

Criterion: (•) Acute ( ) Chronic

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.600	Stellar Homes	9.68	6	9.68	6	0	0

Record: 1 of 1 | No Filter | Search


Analysis Results WQM 7.0
Hydrodynamics
NH3-N Allocations
D.O. Allocations
D.O. Simulation
Effluent Limitations
RMI
Discharge Name
Permit Number
Disc Flow (mgd)
0.60
Stellar Homes
PA0294390
0.0000
Parameter
Effluent Limit 30 Day Average (mg/L)
Effluent Limit Maximum (mg/L)
Effluent Limit Minimum (mg/L)
CBOD5
10
NH3-N
3
6
Dissolved Oxygen
5
Record: 1 of 1
No Filter
Search
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Next >
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Cancel