pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0021652**
Facility Type	**Municipal**	APS ID	**993911**
Major / Minor	**Minor**	Authorization ID	**1274413**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Kreamer Municipal Authority**	Facility Name	**Kreamer Municipal Authority WWTF**
Applicant Address	P.O. Box 220	Facility Address	5320 SR 522
	Kreamer, PA 17833-0220		Kreamer, PA 17833-0220
Applicant Contact	Patricia George	Facility Contact	Shane Koch
Applicant Phone	570-837-1440	Facility Phone	570-274-4980
Client ID	51644	Site ID	252238
Ch 94 Load Status	Not Overloaded	Municipality	Middlecreek Township
Connection Status	No Limitations	County	Snyder
Date Application Received	May 21, 2019	EPA Waived?	Yes
Date Application Accepted	June 04, 2019	If No, Reason	N/A.
Purpose of Application	Renewal of NPDES Permit		

Summary of Review

INTRODUCTION

Patricia George, Chariman of the Kreamer Municipal Authority, has proposed the renewal of the existing National Pollution Discharge Elimination System (NPDES) permit authorizing the discharge from the municipal wastewater treatment facility (WWTF) serving Kreamer, PA

APPLICATION

George, the client contact for this application, submitted the NPDES Application for Individual Permit to Discharge Sewage Effluent from Minor Sewage Facilities (DEP #3800-PM-BCW0342b). This application was received by the Department on May 21, 2019 and was considered administratively complete on June 04, 2019. Her additional contact information is (email) ludlow@ptd.net. The site contact is Shane Koch, Operator. His additional contact information is (email) pesi.ckock@gmail.com. The application consultant is Barry J. Wohlschegel, CAD Specialist with ATC Group Services of Lewisburg, PA. His contact information is (phone) 570-500-0282 and (email) barry.wohlschlegel@atcgs.com.

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.

The case file, permit application package and the draft permit will be available for public review at the Department's Northcentral Regional Office. The address is 208 West Third Street, Suite 101, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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Approve	Deny	Signatures	Date
		Jeffrey J. Gocek, EIT /s/ *Jeffrey J. Gocek* Project Manager	
		Nicholas W. Hartranft, PE /s/ *Nicholas W. Hartranft* Environmental Engineer Manager	

DISCHARGE, RECEIVING WATERS AND WATER SUPPLY INFORMATION

Outfall No.	001	Design Flow (MGD)	0.165
Latitude	40º 48' 22.61"	Longitude	-76º 57' 58.24"
Quad Name	Freeburg, PA	Quad Code	1230
Wastewater Description:	Treated domestic wastewater		
Receiving Waters	Middle Creek	Stream Code	17701
NHD Com ID	54965391	RMI	7.99
Drainage Area	147.80	Yield (cfs/mi^2)	0.1134
Q_{7-10} Flow (cfs)	16.76	Q_{7-10} Basis	USGS Gage #01565000
Elevation (ft)	472	Slope (ft/ft)	N/A
Watershed No.	6-A	Chapter 93 Class.	TSF
Existing Use	None	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Not Attaining		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Agriculture		
TMDL Status	None	Name	N/A
Nearest Downstream Public Water Supply Intake	United Water Pennsylvania		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	N/A
PWS RMI	77	Distance from Outfall (mi)	50

$Q_{7,10}$ DETERMINATION

The $Q_{7,10}$ is the lowest seven consecutive days of flow in a 10-year period and is used for modeling wastewater treatment plant discharges. 25 PA § 96.1 defines $Q_{7,10}$ as "the actual or the estimated lowest seven consecutive day average flow that occurs once in 10 years for a stream with unregulated flow or the estimated minimum flow for a stream with regulated flow".

Basin characteristics, for a watershed based on the discharge location, were obtained from the USGS StreamStats webpage. Based on those characteristics, an appropriate reference gage was selected utilizing the Draft Pennsylvania Baseline Streamflow Calculator ("Ecoflows"). This reference gage is USGS #01565000 Kishacoquillas Creek at Reedsville, PA. A $Q_{7,10}$ flow for that gage and drainage area was obtained from "Selected Streamflow Statistics for Streamflow Locations in and near Pennsylvania " (USGS Open Files Report 2011-1070). Knowing the drainage area at the discharge (147.80 mi^2) and both the drainage area (164 mi^2) and the $Q_{7,10}$ (18.6 CFS) at the reference gage, the $Q_{7,10}$ at the discharge was calculated to be 16.76 CFS.

See Attachment 1 for the $Q_{7,10}$ determination.

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TREATMENT FACILITY SUMMARY

The Kreamer Municipal Authority operates a packaged wastewater treatment system manufactured by Areo-Mod, Inc. which uses a SEQUOX BNR activated sludge process to provide biological nitrogen removal. This system consists of a comminutor, a manual auger bar screen, a wet well, a helosieve, a fermentation tank, stage 1 aeration (2 tanks), stage 2 aeration (2 tanks), two clarifiers, a UV disinfection unit, a utility water tank, Outfall 001 and an aerobic (sludge) digester.

Preliminary treatment is accomplished by the comminutor followed by pumping to a mechanical auger screen. Secondary treatment consists of an anoxic selector tank which acts as an aerated equalization tank and a flow splitting tank. Nitrification occurs in the two first stage aeration trains. Waste activated sludge is also collected there and pumped to the aerobic digester. The denitrification of the mixed liquor occurs in the two second stage aeration trains. In the two clarifier trains, return activated sludge is collected and returned to the selector tank, where the supernatant is decanted to the UV chamber for disinfection prior to discharge. The waste activated sludge is aerobically digested in the digester.

This WWTF serves a population of approximately 1,100 persons.

See Attachment 02 for a map of the treatment plant location.

The WWTP summary is as follows:

Waste Type	Degree of Treatment	Process Type	Disinfection	Average Annual Flow (MGD)
Sewage	Secondary with Total Nitrogen Reduction	Extended Aeration	Ultraviolet	0.165
Hydraulic Capacity (MGD)	**Organic Capacity (lbs BOD_5/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/ Disposal**
0.198	344	Not Overloaded	Aerobic Digestion	Other WWTP

The wastewater treatment facilities have been approved by the following Water Quality Management (WQM) permits:

WQM Permit #	Date	Description
5571401	June 15, 1971	Extended aeration sewage treatment plant, pumping station and collection sewers
5592401	April 28, 1992	60,000-gallon aerobic digester/sludge storage tank
5501401	June 18, 2001	STP organic rerate (177 lb BOD_5 per day)
5507402	May 7, 2007	STP Replacement
5507402 A-1	December 28, 2007	Cost saving design changes

See Attachment 3 for a WWTP process flow diagram.

Commercial wastewater contributions come from Woodmode, Inc. (0.004 MGD), Kreamer Feed, Inc. (0.0028 MGD), Bingaman & Sons Lumber (0.0003 MGD) and Stanley Wood-Working, Inc. (0.00003 MGD).

COMPLIANCE HISTORY

The WMS Query *Open Violations for Client by Permit Number* revealed no open violations for the Authority.

The most recent Department inspection, a Chesapeake Bay Inspection (CBAY), was conducted November 27, 2019. It was documented on the report that this WWTF did not exceed nutrient caploads limitations for Total Nitrogen (TN) and Total Phosphorus (TP). No violations were noted during the inspection. Another recent Department inspection, a Compliance Evaluation Inspection (CEI) was conducted November 05, 2019. At the time of the inspection, all required treatment units were online and operational. The plant effluent was clear with fine solids and produced a pH of 7.4 and Dissolved Oxygen of 6.4 mg/L. No violations were noted during the inspection.

Recent Discharge Monitoring Report (DMR) data, from February 2019 to January 2020, is presented in the table below.

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Parameter	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19
Flow (MGD) Average Monthly	0.091	0.09	0.079	0.069	0.048	0.058	0.05	0.062	0.112	0.104	0.103	0.112
Flow (MGD) Daily Maximum	0.298	0.148	0.169	0.216	0.069	0.165	0.085	0.102	0.285	0.303	0.228	0.195
pH (S.U.) Minimum	7.06	6.95	7.12	7.10	7.07	7.10	7.06	6.98	6.85	6.95	6.97	6.93
pH (S.U.) Maximum	7.49	7.48	7.39	7.36	7.45	7.35	7.35	7.26	7.23	7.34	7.36	7.48
DO (mg/L) Minimum	3.36	3.38	3.67	3.95	4.24	2.88	3.52	4.09	2.9	3.16	3.97	5.0
CBOD5 (lbs/day) Average Monthly	< 3.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	2.0	< 3.0	< 3.0
CBOD5 (lbs/day) Weekly Average	3.0	< 3.0	< 3.0	< 3.0	< 2.0	1.0	< 2.0	2.0	9.0	< 4.0	4.0	5.0
CBOD5 (mg/L) Average Monthly	< 4.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0.	< 4.0	< 3.0.	< 4.0	< 3.0	< 4.0	< 3.0
CBOD5 (mg/L) Weekly Average	5.0	< 3.0	< 3.0.	< 3.0	3.0.	3.0	5.0	4.0	5.0.	4.0	5.0	4.0
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	127	180	180	169	117	108	87	105	75	133	107	117
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	155	452	296	290	262	176	150	134	170	180	139	142
BOD5 (mg/L) Raw Sewage Influent Average Monthly	175	225	251	300	281	249	205	223	69	187	162	137
TSS (lbs/day) Average Monthly	2.0	< 2.0	< 2.0	< 1.0	1.0	< 0.5	< 1.0	< 0.9	< 3.0	4.0	7.0	3.0
TSS (lbs/day) Raw Sewage Influent Average Monthly	111	181	103	205	101	256	135	136	97	182	130	185
TSS (lbs/day) Raw Sewage Influent Daily Maximum	155	327	162	242	185	361	208	170	184	291	170	242
TSS (lbs/day) Weekly Average	2.0	< 1.0	5.0	4.0	2.0.	0.6	2.0	1.0	8.0	10	15	4.0
TSS (mg/L) Average Monthly	2.0	< 2.0	< 2.0	< 2.0	3.0	< 1.0	< 2.0	< 2.0	< 3.0	6.0	9.0	3.0
TSS (mg/L) Raw Sewage Influent Average Monthly	150	234	152	402	240	599	299	286	90	242	189	216
TSS (mg/L) Weekly Average	3.0	< 2.0.	5.0	5.0	5.0	1.0	3.0	2.0	5.0	12	14	5.0
Fecal Coliform (No./100 ml) Geometric Mean	3.0	2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 4.0	20	< 36
Fecal Coliform (No./100 ml) Instantaneous Maximum	6.3	11	2.0	21.1	< 1.0	< 1.0	< 1.0	< 1.0	2.0	29.4	2419.6	2419.6
UV Transmittance (%) Average Monthly	77	63	72	84	84	91	89	85	84	78	74	74
Nitrate-Nitrite (mg/L) Average Monthly	< 1.2	< 2.908	< 2.286	< 1.451	< 1.217	< 1.226	< 1.2	< 1.2	< 1.816	< 1.2	< 1.483	1.344
Nitrate-Nitrite (lbs) Total Monthly	< 26.7	< 74.4	< 40.7	< 25.9	< 15	< 17.6	< 20.5	< 16.2	< 93.3	< 20.7	< 35	34.6
Total Nitrogen (mg/L) Average Monthly	< 9.332	< 3.948	< 3.535	< 2.807	< 2.596	< 7.611	< 3.155	< 4.755	< 7.081	< 10.54	< 7.939	11.01
Total Nitrogen (lbs) Effluent Net Total Monthly	< 208.7	< 101.1	< 61.7	< 53.4	< 33.2	< 109.7	< 58.1	< 64.2	< 334.9	< 166.5	< 194.5	298.2
Total Nitrogen (lbs) Total Monthly	< 208.7	< 101.1	< 61.7	< 53.4	< 33.2	< 109.7	< 58.1	< 64.2	< 334.9	< 166.5	< 194.5	298.2
Total Nitrogen (lbs) Effluent Net Total Annual					< 2010							

Total Nitrogen (lbs) Total Annual					< 2010							
Ammonia (lbs/day) Average Monthly	5.0	< 2.0.	< 2.0	0.7	< 0.4	0.6	< 0.7	25.1	< 2.0	3.0	155.2	8.0
Ammonia (mg/L) Average Monthly	6.486	< 2.427	< 1.729	1.004	< 0.747	1.368	< 1.207	1.786	< 1.627	4.581	6.368	7.69
Ammonia (lbs) Total Monthly	148.8	< 69.9	< 45.1	21.9	< 10.7	18.6	52.6	25.1	< 67.5	87.3	155.2	210.3
Ammonia (lbs) Total Annual					< 1006							
TKN (mg/L) Average Monthly	7.635	1.04	< 1.2	< 1.0	< 1.34	6.39	1.96	3.56	< 5.27	9.34	6.46	9.67
TKN (lbs) Total Monthly	171.6	26.6	< 20	< 19.1	< 17.7	92.1	37.6	48	< 241.6	145.8	159.4	263.7
Total Phosphorus (mg/L) Average Monthly	1.61	1.43	2.27	4.43	5.308	1.74	3.245	1.255	0.35	1.475	1.019	0.349
Total Phosphorus (lbs) Effluent Net Total Monthly	36.4	36.6	36.1	79.3	65.7	24.9	52.6	17	16.3	22.3	30.9	9.5
Total Phosphorus (lbs) Total Monthly	36.4	36.6	36.1	79.3	65.7	24.9	52.6	17	16.3	22.3	30.9	9.5
Total Phosphorus (lbs) Effluent Net Total Annual					346							
Total Phosphorus (lbs) Total Annual					346							

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EXISTING PERMIT LIMITATIONS

The following limitations were established at the last renewal issuance which occurred March 11, 2015.

Discharge Parameter	Mass Limits (lb/day)		Concentration Limits (mg/L)				Monitoring Requirements	
	Monthly Average	Weekly Average	Minimum	Monthly Average	Weekly Average	IMAX	Minimum Measurement Frequency	Required Sample Type
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (SU)	XXX	XXX	6.0	XXX	XXX	9.0	1/Day	Grab
Dissolved Oxygen	XXX	XXX	Report	XXX	XXX	XXX	1/Week	Grab
$CBOD_5$	34	55	XXX	25	40	50	1/Week	8 Hour Composite
BOD_5 Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/Month	8 Hour Composite
Total Suspended Solids	41	60	XXX	30	45	60	1/Week	8 Hour Composite
TSS Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/Month	8 Hour Composite
Fecal Coliform (No./100mL) (05/01-09/30)	XXX	XXX	XXX	200 Geometric Mean	XXX	1,000	1/Week	Grab
Fecal Coliform (No./100mL) (10/01-04/30)	XXX	XXX	XXX	2,000 Geometric Mean	XXX	10,000	1/Week	Grab
UV Transmittance (%)	XXX	XXX	XXX	Report	XXX	XXX	1/Day	Grab
Ammonia Nitrogen	Report	XXX	XXX	Report	XXX	XXX	1/Week	8 Hour Composite

Discharge Parameter	Mass Limits (lb/day)		Concentration Limits (mg/L)			Monitoring Requirements	
	Monthly	Annual	Minimum	Monthly Average	Maximum	Minimum Measurement Frequency	Required Sample Type
Ammonia-N	Report	Report	XXX	Report	XXX	1/Week	8 Hour Composite
Kjeldahl-N	Report	XXX	XXX	Report	XXX	2/Month	8 Hour Composite
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX	2/Month	8 Hour Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	1/Month	Calculation
Total Phosphorus	Report	Report	XXX	Report	XXX	2/Month	8 Hour Composite
Net Total Nitrogen	Report	7,306	XXX	XXX	XXX	1/Month	Calculation
Net Total Phosphorus	Report	974	XXX	XXX	XXX	1/Month	Calculation

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DEVELOPMENT OF EFFLUENT LIMITATIONS

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)
	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
Total Suspended Solids	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

$CBOD_5$, NH_3-N and DO

WQM 7.0 for Windows is a DEP computer model used to determine wasteload allocations and effluent limitations for $CBOD_5$, NH_3-N and DO for single and multiple point source discharge scenarios. This model simulates two basic processes. The NH_3-N module simulates the mixing and degradation of NH_3-N in the stream and compares calculated instream NH_3-N concentrations to the water quality criteria. The DO module simulates the mixing and consumption of DO in the stream due to degradation of $CBOD_5$ and NH_3-N and compares the calculated instream DO concentrations to the water quality criteria. The model then determines the highest pollutant loading the stream can assimilate and still meet water quality under design conditions.

This model recommended the following limitations. The existing technology-based limitations were used as model inputs and proved to be more stringent than water quality-based limitations calculated by the model.

Parameter	Effluent Limitations (mg/L)		
	30 Day Average	Maximum	Minimum
$CBOD_5$	25		
NH_3-N	25	50	
DO			3.0

See Attachment 04 for the WQM model output.

Best Professional Judgment (BPJ) Limitations

In the absence of applicable effluent guidelines for the discharge or pollutant, permit writers must identify and/or develop needed technology-based effluent limitations (TBELs) TBELs on a case-by-case basis, in accordance with the statutory factors specified in the Clean Water Act. No BPJ limitations have been proposed for this draft.

Anti-Backsliding

In order to comply with 40 CFR § 122.44(l) (anti-backsliding requirements), the Department must issue a renewed permit with limitations as stringent as that the of the previous permit. No less stringent limitations have been proposed for this draft.

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Chesapeake Bay TMDL

According to the Department's *Wastewater Supplement to the Phase III Watershed Implementation Plan* (WIP) (Revised December 17, 2019), this facility is categorized as a Phase 5 sewage discharger. Phase 5 dischargers are considered "non-significant" and are those with flows greater than 0.002 MGD and less than 0.2 MGD. Phase 5 dischargers are normally required to collect a minimum of two years of nutrient data.

In 2008, the Authority voluntarily accepted nutrient caploads in order to construct a new (replacement) WWTP with expanded flows. The previous NPDES permit, issued December 11, 2008, established a Total Nitrogen (TN) capload of 7,894 lb/year and a Total Phosphorus (TP) capload of 974 lb/year. The TN capload consisted of an annual capload of 7,306 lb/year with offsets of 588 lb/year. The offsets resulted from the connection of 23.5 EDUs, each of which is credited with 25 lb/year TN. According to policy at the time, as well as the Department's current *Wastewater Supplement to the Phase III Watershed Implementation Plan* (WIP), any Phase 5 discharger choosing to expand will receive a capload based on the lesser of a) existing TN/TP concentrations at current design average OR b) 7,306 lb/year TN and 974 lb/year TP. In 2006, when the nutrient caploads were being incorporated into the permit, the existing TN load (at the previous flow of 0.09 MGD) was calculated to be 9,879.32 lb/year.

The current guidance requires the permit separate and differentiate between the true cap load and the offsets. Offsets are now listed separately from the cap load because offsets are only to be used for compliance purposes. Offsets are not to be registered as nutrient credits and cannot be used to facilitate nutrient trading activities.

According to the NPDES permit, a *delivery ratio* is a ratio that compensates for the natural attenuation of a pollutant as it travels in water before it reaches a defined compliance point. Nutrient delivery ratios for compliance purposes were obtained from the Department's *Watershed Segment Map* (2011). For nitrogen, a delivery ratio of 0.733 will apply. For phosphorus, a delivery ratio of 0.436 will apply.

DEVELOPMENT OF EFFLUENT MONITORING

Influent Monitoring

In order to adequately characterize the influent wastewater, monitoring of influent Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) will be required at the current frequency of 1/Month.

Dissolved Oxygen

In order to comply with in-stream criteria defined in 25 PA § 93.7, this permit will continue to monitor Dissolved Oxygen (DO (as a minimum). This will allow the Department to monitor if the effluent is well oxygenated at the point of discharge, will not degrade the required in-stream criteria concentration and will protect the aquatic life in a receiving stream designated for Trout Stock Fishes (TSF).

Ammonia-Nitrogen

In accordance with Department policy, a monitoring requirement for NH_3-N will be required (in lieu of an effluent limit) since this WWTP is an existing facility *and* the WQM 7.0 model indicates 25 mg/L is an acceptable summer limitation.

RECEIVING STREAM

Stream Characteristics

The receiving stream is Middle Creek. According to 25 PA § 93.9M, this stream is protected for Trout Stock Fishes (TSF) and Migratory Fishes (MF). These are the streams *Designated Uses*, which is defined in 25 PA § 93.1 as "those uses specified in §§ 93.9a – 93.9z for each waterbody or segment whether or not the use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) throughout the rulemaking process. This stream currently has no *Existing Use*. Existing Use is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards".

Middle Creek is identified by Department stream code 17701. The stream is located in (Chapter 93) drainage list M and State Water Plan 6A (Middle and Penns Creeks). Middle Creek is tributary to Penns Creek and the Susquehanna River.

Impairment

Department data indicates that Middle Creek is attaining its designated uses for fish consumption but not for aquatic life.

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ADDITIONAL CONSIDERATIONS

Hauled-In Wastes

According to the application materials, the Kreamer Municipal Authority WWTF has not received hauled-in wastes during the past three years and does not anticipate receiving hauled-in wastes in the next five years.

Whole Effluent Toxicity (WET) Testing

According to the application materials, the Kreamer Municipal Authority WWTF does not accept wastewater from industrial users. Because of this, a WET test evaluation is not required.

Mass Limitations

Existing mass limitations for $CBOD_5$ and TSS are calculated by multiplying the concentration (mg/L) by the flow (MGD) by the conversion (8.34).

Rounding of Limitations

Limitations have been rounded in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Limit Multipliers

The instantaneous maximum limitations have been calculated using multipliers of 2.0 (for conventional pollutants) and 2.5 (for toxic pollutants) for determining the monthly average. This practice is in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Sample Frequencies and Types

The sample type and minimum measurement frequencies are in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Standard Operating Procedures (SOPs)

The review of this permit application was performed in accordance with the Department's *SOP for New and Reissuance Sewage Individual NPDES Permit Applications* and *SOP for Establishing Effluent Limitations for Individual Sewage Permits* (SOP #BPNPSM-PMT-033).

Special Permit Conditions

Chesapeake Bay Nutrient Requirements
Solids Management (Non-Lagoon Systems) (PC110A)
Stormwater Prohibition
Approval Contingencies
Proper Waste Disposal

Supplemental Discharge Monitoring Reports

Daily Effluent Monitoring
Non-Compliance Reporting
Biosolids Production and Disposal
Hauled-in Municipal Waste
Influent and Process Control
Lab Accreditation

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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.

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

Discharge Parameter	Mass Limits (lb/day)		Concentration Limits (mg/L)				Monitoring Requirements	
	Monthly Average	Weekly Average	Minimum	Monthly Average	Weekly Average	IMAX	Minimum Measurement Frequency	Required Sample Type
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (SU)	XXX	XXX	6.0	XXX	XXX	9.0	1/Day	Grab
Dissolved Oxygen	XXX	XXX	Report	XXX	XXX	XXX	1/Day	Grab
$CBOD_5$	34	55	XXX	25	40	50	1/Week	8 Hour Composite
BOD_5 Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/Month	8 Hour Composite
Total Suspended Solids	41	60	XXX	30	45	60	1/Week	8 Hour Composite
TSS Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/Month	8 Hour Composite
Fecal Coliform (No./100mL) (05/01-09/30)	XXX	XXX	XXX	200 Geometric Mean	XXX	1,000	1/Week	Grab
Fecal Coliform (No./100mL) (10/01-04/30)	XXX	XXX	XXX	2,000 Geometric Mean	XXX	10,000	1/Week	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/Day	Grab
Ammonia Nitrogen	Report	XXX	XXX	Report	XXX	XXX	1/Week	8 Hour Composite

The limitations and monitoring requirements specified below are proposed for the draft permit, to comply with Pennsylvania's Chesapeake Bay Tributary Strategy.

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

Discharge Parameter	Mass Limits (lb/day)		Concentration Limits (mg/L)			Monitoring Requirements	
	Monthly	Annual	Minimum	Monthly Average	Maximum	Minimum Measurement Frequency	Required Sample Type
Ammonia-N	Report	Report	XXX	Report	XXX	1/Week	8 Hour Composite
Kjeldahl-N	Report	XXX	XXX	Report	XXX	2/Month	8 Hour Composite
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX	2/Month	8 Hour Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	1/Month	Calculation
Total Phosphorus	Report	Report	XXX	Report	XXX	2/Month	8 Hour Composite
Net Total Nitrogen	Report	7,306	XXX	XXX	XXX	1/Month	Calculation
Net Total Phosphorus	Report	974	XXX	XXX	XXX	1/Month	Calculation

END of Fact Sheet.