pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0065188**
Facility Type	**Non-Municipal**	APS ID	**612319**
Major / Minor	**Minor**	Authorization ID	**1445486**

Applicant and Facility Information

Applicant Name	**Wayne Economic Development Corp (WEDCO)**	Facility Name	**Sterling Business Park WWTP**
Applicant Address	32 Commercial Street Suite 1 Honesdale, PA 18431-1897	Facility Address	End of Innovation Drive (no street address) Sterling Twp, PA 18431
Applicant Contact	Mary Beth Wood	Facility Contact	Mary Beth Wood: Alternate contact is Troy Bystrom at 646-236-3400.
Applicant Phone	(570) 253-2537	Facility Phone	(570) 253-2537
Client ID	239971	Site ID	653100
Ch 94 Load Status	-	Municipality	Sterling Township
Connection Status	-	County	Wayne
Date Application Received	June 29, 2023	EPA Waived?	Yes
Date Application Accepted	September 8, 2023	If No, Reason	-
Purpose of Application	Renewal of NPDES Permit.		

Summary of Review

This is a 0.035 MGD nonmunicipal NPDES Permit renewal for a STP. It services the ~252 acre “Sterling Business Park” (a.k.a. “Wayne Business Park”) in Sterling Township, Wayne County. The Sterling Business Park is located around the Intersection of SR 191 & SR 196 in Sterling Township.

- Facility Status:
  - This STP facility has not yet started discharging per 2023 NPDES Permit Renewal Application, but is being used as a collection point for pumping & hauling (using treatment plant aerated influent EQ Tank and aerated swing tank as holding tanks). The 2022 DEP Inspection Report noted that the membrane units remained removed and in storage offsite. The 2007 NPDES Permit Application noted that 167 acres of the 252-acre Business Park is developable. The 4/9/2007 DEP Planning Module Letter noted that the facility had SEJ approval.
  - The WQM Permit has special Supplemental DMR requirements. See Treatment Plant section below for details.
- Service Area:
  - The original DRBC Docket notice indicated the Sterling Business Park would consist of up to 23 commercial building/sites, ranging from 3 to 30 acres. The project includes a 7,000 GPD non-potable water reuse system for restrooms and landscape irrigation.
  - The plant service areas were described as “undeveloped” per the undated Renewal Application cover letter. Several businesses are discharging to the WWTP, which is acting as a pump & haul facility.
    - CNTY WASTE OF PA LLC LAKE ARIEL HAULING - GFL ENVIRO (IW Stormwater NPDES Permit No. PA0276529) is shown on E-maps, near enough to be potentially tied into the Treatment Plant.
    - Wayne County (government) identified in application
    - Sutphen East Corporation (Fire Trucks) identified in application.

Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	October 2, 2023
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Acting Engineer Manager	10-7-24

Summary of Review

- The 8/12/2024 Planning Letter (Sterling Warehouse) approved a new warehouse project within the Sterling Business Park. "The project will include relocating several sewers of the Sterling Park Sewerage System that pass through the project's site. The proposed development will generate 10,000 GPD (285 employees × 35 GPD) of sewage flows and will be served by the Wayne Economic Development Corporation's (WEDCO) Sterling Business Park Sewerage system (NPDES #PA 0065188). An upgrade of the existing wastewater treatment plant (WWTP) has been planned to be completed prior to the occupancy by the proposed development. The upgrade to the WWTP will be specifically designed to include the ability to handle low sewage flows associated with the existing Sterling Business and Technology Park conditions and low flows associated with the initial start-up period of the proposed development".

- Application:
  - Application Cover Letter assurance that WEDCO is the "operator with financial control".
  - **On-Base No. 113048 (original application).**
  - **On-Base No. 118506 (revised application) – response missing certification and compliance history update per cover letter, i.e. incomplete.**
  - **On-Base No. 121314 (revised Application form)**
- The June 7, 2023 DRBC Docket No. D-2007-018-5 is in effect.

Sludge use and disposal description and location(s): None identified for the current pump & haul operation (non-operating treatment system).

Part C Special Conditions: Changes bolded.

- Part C.I.A, B, C, and D: Existing standard conditions (Stormwater prohibition; Necessary property rights; Residuals management; and Planning)
- **Part C.I.E: New chlorine minimization condition (UV disinfection is the approved method of disinfection) with clarification on reporting requirements.**
- **Part C.I.F: New Responsible Operator Notification (required prior to discharge)**
- **Part C.I.G: New WQM permit condition due to August 12, 2024 DEP Planning Letter requirements. The DEP Planning Letter required: "The upgrade to the WWTP will be specifically designed to include the ability to handle low swage flows associated with the existing Sterling Business and Technology Park conditions and low flows associated with the initial start-up period of the proposed development". The facility is currently receiving low flows which are being stored prior to hauling offsite for disposal, rather than discharging to the HQ watershed. It had installed one process train, but subsequently removed the Membranes for offsite storage.**
- Part C.I.H: Existing Notification of construction condition. This is an existing condition meant to address previously permitted construction phases to bring up the facility to its permitted 0.035 MGD capacity. See Treatment Plant Section below for details.
- **Part C.I.I: Restored** 2012 NPDES Permit Part C.I.C (changes to stream/discharge). This condition was apparently mistakenly omitted in the previous renewal, but needed for a discharge to a HQ watershed.
- **Part C.I.J: New reuse of treated effluent condition requiring non-potable treated wastewater (restroom flushing, landscape irrigation, and fire protection within the Sterling Business Park within the HQ watershed) to meet NPDES/WQM permit requirements and simply reporting requirements. The original Planning approval required reuse of 7000 GPD of the 35,000 GPD NPDES Permit-basis flow, but that is not feasible unless there is actual need for this amount of non-potable water for these approved usages.**
- **Part C.I.K: Restored** 2012 NPDES Permit Part C.I.F condition (TMDL Waste Load Allocation) condition due to existing Lake Wallenpaupack TMDL Waste Load Allocation (33 lb/year) for this facility.
- Part C.II: Existing standards Solids Management conditions
- Part C.III: Existing TRC EFFLUENT LIMITATIONS BELOW QUANTITATION LIMITS conditions (ND for discharge to HQ-CWF stream).

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-

Summary of Review
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)	.035
Latitude	41º 22' 12.85"	Longitude	-75º 22' 37.10"
Quad Name	Sterling	Quad Code	0842
Wastewater Description:	Sewage Effluent		
Receiving Waters	West Branch Wallenpaupack Creek (HQ-CWF, MF)	Stream Code	5572
NHD Com ID	25940856	RMI	5.0 (per DRBC Docket) from Lake Wallenpaupack
Drainage Area	51.9 square miles	Yield (cfs/mi^2)	0.0527
Q_{7-10} Flow (cfs)	2.74	Q_{7-10} Basis	PA Streamstats
Elevation (ft)	~1280 (USGS Terrain Mapper)	Slope (ft/ft)	-
Watershed No.	1-C	Chapter 93 Class.	HQ-CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	**Final**	Name	**Lake Wallenpaupack TMDL (Nutrients)**

Background/Ambient Data: None available		Data Source
pH (SU)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake		Easton	
PWS Waters	Delaware River	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	118

Changes Since Last Permit Issuance: Natural Trout Reproduction stream designation.

Other Comments:

- No current facility stream discharge (pump & haul only at present)
- Q7-10 Low Flow: Previous Fact Sheet used LFY method based on different river watershed, and is considered inaccurate. USGS PA Streamstats used to develop more accurate site-specific Q7-10 low flow value.
- TMDL: The facility was given Waste Load Allocations (WLAs) in the TMDL, which were previously incorporated into this NPDES Permit. The Lake Wallenpaupack TMDL was successful, with TMDL WLA-based effluent limits continuing to protect the downstream lake from nutrient impacts

Treatment Facility Summary

Treatment Facility Name: Sterling Business Park WWTP

WQM Permit No.	Issuance Date	Scope
6407404	3/14/2008	WWTP including screening, flow equalization, submerged membrane bioreactor filter, UV disinfection, and diversion of a portion (7000 GPD) of the treated effluent to a non-potable waste reuse system (restroom flushing, landscape irrigation, and fire protection within the Sterling Business Park). Phased construction: • One aerated flow equalization tank (16,500-gallons) upfront and second 20,600-gallon tank to be constructed in the future. • One biological treatment process train constructed initially, with two process trains to be constructed in the future. • Sludge will be pumped to 25,000-gal aerated sludge holding tank prior to hauling offsite for disposal. • Chemical phosphorus removal using liquid Alum. • UV disinfection • 1000-gallon treated effluent holding tank and effluent pump. • Effluent will be directed to either stream discharge or to a 490,000-gal non-potable water storage tank. North Ridge Drive Submersible grinder sewage pump station (50 GPM @ 78 Feet TDH) with 3-inch force main. The pump station collects/conveys sewage from an area on the west side of SR 191. Special Condition One: “Within three (3) months of start-up of the new wastewater treatment plant, performance monitoring of the treatment process shall begin and continue for 12 consecutive months. The parameters to be monitored for are listed on the enclosed Performance Monitoring Form and shall be submitted to the Northeast Regional Office along with your monthly Discharge Monitoring Reports for the facility (NPDES Permit No. PA-0065188)”. Parameters included: Flow, CBOD, TSS, NH3, TN,

		TP, pH, MLSS, MLSS Temperature, MBR Tank Alkalinity, and MBR Tank DO) submitted with DMR. The DMR was also to include average monthly flow directed to the non-potable water reuse system and average monthly flow to the stream. Special Condition Two: "At least 7,000 gpd of treated effluent will be diverted to a non-potable water reuse system, to be utilized for restroom flushing, landscape irrigation, and fire protection within the Sterling Business Park. The permittee shall submit, as an attachment to the monthly Discharge Monitoring Reports for the facility, estimates of the average monthly flow directed to the non-potable water reuse system and the average monthly flow discharged to the stream". **NOTE**: This reuse condition only pertains to fully treated effluent.

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Membrane bioreactor system (MBR)	UV	0.035

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.035* (ultimate) 0.014* (as-built)	198.5* (ultimate) 66* (as-built)	Unidentified	None	Offsite disposal

* Application included copy of DRBC Docket Update & Docket Update application indicating only one process train (of three) was constructed, with an as-built design capacity of 0.014 MGD. In practical terms, the organic design capacity is also reduced by a factor of three to ~66 lbs BOD5/day, depending on existing process train sizing.

Changes Since Last Permit Issuance: None known.

Other Comments:

Application Description:

- Current Pump & Haul Set-up: DMRs indicate no discharge as of the August 2024 DMR. The 1/3/2022 DEP Inspection Report indicated: The treatment plant remains run in a pump and haul setup with the aerated influent E.Q. tank and aerated swing tank being used as holding tanks prior to the contents being hauled off for proper disposal. Hauling is done by Environmental Services Corporation, as per Joe Bonamico who is the certified operator for the treatment plant and was present for the inspection. The membrane units remain removed and in storage offsite. One other lot has been developed and is operational since the last inspection making two fully functioning businesses feeding the treatment plant.
- As-built Treatment Plant: See above for original WQM permitting. Screening, aerated flow equalization, submerged membrane bioreactor system, UV disinfection, effluent pump station. The 10/24/2011 Post Construction Certification cover letter noted the following design deviations:

  - The size of the STP building had been reduced.
  - The blowers for the Equalization Tanks and sludge holding tank had been moved outside.
  - The screen building has been eliminated and the screens have been moved to the aeration basin and will be provided with an enclosure and heat source to prevent icing. NOTE: DEP Inspection Reports indicate
  - The sludge holding tank has been reduced to one third of the original volume (25,000-gallons to 10,300 gallons) based on providing only for the first phase of capacity as opposed to full treatment capacity. This will provide a storage time of 14 days at the first phase of design flows.
- Water Reuse System: The 2007 NPDES Permit Application indicated the water re-use system would consist of a storage tank, pump station, and a non-potable pipe distribution system within the business park. Re-use water is intended for only the toilet and urinal uses as well as landscape irrigation of the business park. The WQM Permit application indicated it would be a 490,000-gallon storage tank and approximately 4,500 LF Of 12-inch and 10-inch Ductile Iron distribution system pipe. The application noted the non-potable water system would be used for irrigation and fire protection, with assumed 7,000 GPD for average uses, 350 GPM Peak irrigation usage, and 1,500 GPD for 2 hours for fire flow demand.
- Future Construction: The application indicates remainder of Treatment Plant to be constructed in the next five (5) years.

Compliance History

Inspection History:

CLIENT	FACILITY NAME	INSP PROGRAM	INSP ID	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	# OF VIOLATIONS
WAYNE ECONOMIC DEV CORP	STERLING BUSINESS PARK WWTP	WPCNP	3302518	01/03/2022	Compliance Evaluation*	No Violations Noted	0

* Broken pipes were noted to need repair and existing Outfall No. 001 could not be located during the 2022 inspection. The DEP Inspection report noted that trying to operate at current low flows would be “very challenging”. As per Mr. Bonamico, they have done smoke testing and camera work and believe now that the issues with I&I are likely with the laterals to the lots or manholes but not the main sewer lines. Mr. Bonamico went onto to say that they have not done any further work checking and/orrepairing the laterals or manholes. The Department requested that this work continue to reduce the I&I flow to the treatment plant.

Other Comments:

- No discharge as of August 2024 DMR submittal.
- Operating a WQM permitted treatment plant as a “pump & haul” facility is reasonable at very low flows, but technically not operating as WQM permitted.
- Open Violations by Client Number: The 9/30/2024 WMS query (Open Violations by Client No.) indicated two open Safe Drinking Water program open violations:

FACILITY	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	VIOLATION DATE	VIOLATION CODE	VIOLATION
STERLING BUSINESS PARK	Safe Drinking Water	2641033	3341003	950101	03/31/2022	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
STERLING BUSINESS PARK	Safe Drinking Water	2641033	3341003	950102	03/31/2022	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS

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Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .035
Latitude 41º 22' 12.90" **Longitude** -75º 22' 38.40"
Wastewater Description: Sewage Effluent

Permit Limits & Monitoring: **Changes bolded**

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
CBOD5 (May 1 – Oct 31)	**Report Lbs/d** 10.0 **20.0** 20.0	**Monthly Average** Monthly Average **Daily Max** IMAX	Existing WQBEL supported by water quality modeling. Application data: None
CBOD5 (Nov 1 – April 30)	**Report Lbs/d** 20.0 **40.0** 40.0	**Monthly Average** Monthly Average **Daily Max** IMAX	See above
TSS	**Report Lbs/d** 10.0 **20.0** 20.0	**Monthly Average** Monthly Average **Daily Max** IMAX	Existing WQBEL limit Application data: None
pH	6.0 – 9.0 SU	**Inst.** Min - IMAX	Existing Technology limit (Chapter 92a.47) Application data was 7.13 – 7.67 SU (24 samples).
Dissolved Oxygen (DO)	3.0	**Inst.** Minimum	Existing limit supported by water quality modeling. Application data: None
Fecal Coliform (5/1 – 9/30)	200/100 ml 1,000/100 ml	Geo Mean IMAX	Existing Technology limit (Chapter 92a.47) Application data: None
Fecal Coliform (10/1 – 4/30)	2,000/100 ml 10,000 ml/100 ml	Geo Mean IMAX	See above.
Total Residual Chlorine (TRC)	ND	IMAX	Existing WQBEL. TQL at <0.02 mg/l. See existing NPDES Permit Part C.III TRC condition. See also new chlorine minimization condition. Application data: None
UV Intensity	**Report (µw/cm²)**	**Inst. Min**	**New monitoring & reporting requirement for facilities using UV disinfection.** Application data: None
Ammonia-Nitrogen (May 1 – Oct 31)	**Report Lbs/d** 1.0 **3.0** 3.0	**Monthly Average** Monthly Average **Daily Max** IMAX	Existing WQBEL for NH3 limits were established by the planning approval letter dated 4/9/05, per previous Fact Sheet. See Antideg section for further details. Application data: None**.**
Ammonia-Nitrogen (Nov 1 - Apr 30)	**Report Lbs/d** 3.0 **9.0** 9.0	**Monthly Average** Monthly Average **Daily Max** IMAX	See above.
Total Phosphorus	**33 lb** **Report Lbs/d** 0.3	**Total Annual** **Monthly Average** Monthly Average	**Existing Lake Wallenpaupack 33 lb/year TMDL Waste Load Allocation WQBEL** (based on 0.3 mg/l monthly average limit

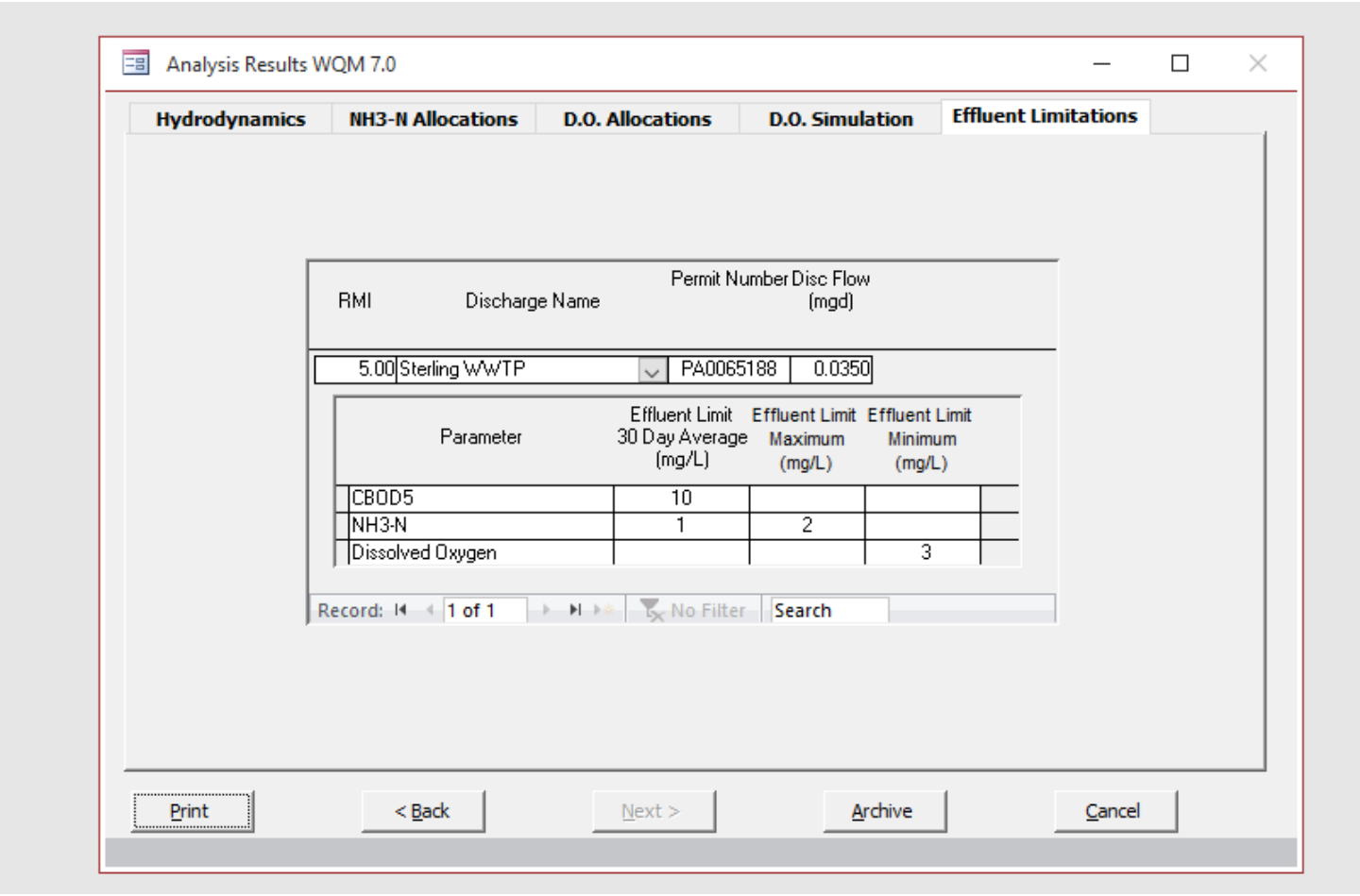
Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	October 2, 2023
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Acting Engineer Manager	10-7-24

	0.6 0.6	**Daily Max** IMAX	used in the TMDL). The EPA determined that Lake Wallenpaupack's water quality has improved in terms of nutrient levels, but Antibacksliding prohibition applies. 2012 NPDES Permit had Part C TMDL condition. Application data: None**.**
Total Nitrogen (Nitrate-Nitrite-N + TKN measured in same sample)	**Report Lbs/d** Report **Report**	**Annual Average** Annual Average **Daily Max**	**Annual nutrient monitoring (Chapter 92a.61).** Application data: None**.**
Total Dissolved Solids (TDS)	**Report Lbs/d** 1000.0 **2000.0** 2000.0	**Monthly Average** Monthly Average **Daily Max** IMAX	**Existing DRBC limit (Chapter 92a.12)** Application data: None
CBOD5 Raw Sewage Influent	**Report Lbs/d** Report **Report**	**Monthly Average** Monthly Average **Daily Max**	Existing DRBC requirement (Chapter 92a.12) paired with CBOD5 effluent sampling.
Total Copper	**Report Lbs/d** **Report Lbs/d** **Report** **Report**	**Annual Average** **Daily Max** **Annual Average** **Daily Max**	**Annual monitoring due to discharge to HQ watershed, in the absence of any available effluent data. (Chapter 92a.61) for a business park for commercial/light industrial customers.** Application data: None
Total Lead	**Report Lbs/d** **Report Lbs/d** **Report** **Report**	**Annual Average** **Daily Max** **Annual Average** **Daily Max**	**See above** Application data: None
Total Zinc	**Report Lbs/d** **Report Lbs/d** **Report** **Report**	**Annual Average** **Daily Max** **Annual Average** **Daily Max**	**See above** Application data: None
Total Aluminum	**Report Lbs/d** **Report Lbs/d** **Report** **Report**	**Monthly Average** **Daily Max** **Monthly Average** **Daily Max**	**See above. The facility uses alum for TP reduction.** Application data: None

Comments:

- Monitoring Requirements Update:
  - Changed daily discharging to "daily when discharging" frequency for grab sampling.
  - Added mass load reporting and daily max limits based on existing IMAX limits.
  - Monthly monitoring for TDS due to DRBC monthly average limit.
  - 24-hour composite sampling to eliminating biasing because Business park flows will vary during a 24-hour operating day (one to three operating shifts at customers) and anti-deg considerations.
- Reasonable Potential Analysis: No effluent metals data to conduct Reasonable Potential Analysis due to lack of stream discharge at present. Annual monitoring of Copper, Lead, and Zinc will establish future baseline for Anti-deg considerations. Aluminum will be monitored monthly as expected constituent due to use of aluminum-based chemicals for phosphorus treatment.
- Anti-degradation Analysis: No additional degradation expected in the absence of any new, increased or additional loadings. Monitoring and existing NPDES/WQM permit conditions will act to protect the receiving HQ stream.
  - Existing Part A.III.C.2 (Changes in Waste Stream) notification condition will address any other constituents from potential business park customers. IW waste streams would potentially be subject to Chapter 93 Antideg requirements.
  - Metals monitoring in this NPDES permit term to establish baseline for anti-deg purposes.

WQM Model 7.1.1 output: The 3.0 mg/l IMAX/daily max retained in this permit term due to likely variability of daily/IMAX flows when plant is potentially underloaded.



WEDCOSterlingWQ Model.pdf