pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0063096**
Facility Type	**Municipal**	APS ID	**1021515**
Major / Minor	**Minor**	Authorization ID	**1444069**

Applicant and Facility Information

Applicant Name	**Schuylkill County Municipal Authority**	Facility Name	**SCMA Seiders Hill WWTP**
Applicant Address	PO Box 960 221 S Centre Street	Facility Address	505 Gordon Nagle Trail SR 901
	Pottsville, PA 17901-0960		Pottsville, PA 17901
Applicant Contact	Patrick Caulfield	Facility Contact	Troy Miller
Applicant Phone	(570) 622-8240	Facility Phone	(570) 622-8240
Client ID	5024	Site ID	258199
Ch 94 Load Status	Not Overloaded	Municipality	North Manheim Township
Connection Status	-	County	Schuylkill
Date Application Received	June 12, 2023	EPA Waived?	Yes
Date Application Accepted	June 23, 2023	If No, Reason	-

Purpose of Application: RENEWAL OF EXISTING NPDES PERMIT.

Summary of Review

This is 0.090 MGD POTW NPDES Permit Renewal Application for a discharge to the West Branch Schuylkill River (CWF). The facility AADF flows were 0.013 MGD (2020), 0.014 MGD (2021), and 0.014 MGD (2022), with highest monthly flow of 0.020 MGD (August 2022). No industrial or commercial users at present.

Background:

- Application:
  - **Public Upload# 266685 (revised application)**
  - Previous On-Base# 112401 (supplemental information included updated NPDES permit form, location map, and DRBC Docket). Missing form signature.
- POTW Status: Permit was transferred to SCMA on 8/25/2020, becoming a POTW (Chapter 92a.2 definitions).
- Partially built STP: The STP was to be built in three (3) stages (0.030 MGD each) to allow for future development. The Application and 2023 Chapter 94 Report indicates only the first stage has been constructed, as confirmed by the most recent DEP Inspection (2024) description of the as-built facility.
  - Seiders Hills is a residential development. The application indicated a 123 EDUs population, which equates to 308 residents at the 2.5 person/capita default, and 30,800 GPD at the 100 GPCD default assumption. However, the 2023 Chapter 94 Report for a total of 123 EDUs.
  - No industrial or commercial users at present per application, but 2023 Chapter 94 Report indicates a Green Valley Nursing Facility (48-bed) facility with 13 EDUs went online in 2020. The original WQM permitting assumed further commercial development.
  - No facility upgrade identified for the next 5 years per the NPDES Permit application.
- DRBC Docket: 4/16/2021 DRBC Docket No. D-93-14 transfer to the SCMA. The Docket was for a 113-lot residential development 0.090 MGD STP that would be constructed in three 30,000-GPD stages (to allow for future development):

Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	October 28, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Acting Engineer Manager	10-28-24

Summary of Review

- One (1) full-sized comminutor, one (1) 10,176-gallon flow EQ tank, chlorine contact tank, and other equipment (sodium hypochlorite and soda ash) sized for 0.090 MGD plant.
- Construction phases would involve three 31,536-gal aeration tanks and one 6,157-gal settling tank per phase.

Sludge use and disposal description and location(s): 1.49 dry tons disposed at Commonwealth Landfill. Sludge was treated at the SCMA Deer Lake WWTP prior to shipment there.

Part C Special Conditions:

- Part C.I.A, B, C: Existing Stormwater prohibition, Necessary property rights, Residuals Management
- **Part C.I.D: New chlorine minimization condition**
- **Part C.I.E: New WQM permit application requirement in event of proposed construction of 2nd or 3rd treatment plant stage (30,000 GPD each)** due to changes in technology standards since original WQM permitting/construction potentially inadequate.
- **Part C.I.F: New condition to address Chapter 94 Reporting requirement for organic overloading with the as-built treatment plant:** The Chapter 94 Annual Municipal Wasteload Reports shall use the as-built 61.3 lbs BOD5/day design capacity in terms of reporting organic overloading, until such time as the plant is upgraded to greater organic design capacity by WQM permitted construction or rerating.
- Part C.II: Existing Solids Management conditions

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)	.090
Latitude	40º 39' 34.75"	Longitude	-76º 12' 41.62"
Quad Name	Pottsville	Quad Code	1336 (6.19.4)
Wastewater Description:	Sewage Effluent		
Receiving Waters	West Branch Schuylkill River (CWF)	Stream Code	2329
NHD Com ID	25991308	RMI	3.6 (DRBC Docket)
Drainage Area	46.6	Yield (cfs/mi^2)	0.2210
Q_{7-10} Flow (cfs)	10.3	Q_{7-10} Basis	PA Streamstats.
Elevation (ft)	~620 (USGS Terrain Mapper)	Slope (ft/ft)	-
Watershed No.	3-A	Chapter 93 Class.	CWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, HABITAT ALTERATIONS, METALS, POLYCHLORINATED BIPHENYLS (PCBS), SILTATION		
Source(s) of Impairment	ACID MINE DRAINAGE, CHANNELIZATION, HIGHWAY/ROAD/BRIDGE RUNOFF (NON-CONSTRUCTION RELATED), SOURCE UNKNOWN, STREAMBANK MODIFICATIONS/DESTABILIZATION, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final, Final, Final	Name	Schuylkill River PCB TMDL, Upper Schuylkill River, West Branch Schuylkill River Watershed

Background/Ambient Data		Data Source
pH (SU)	7.43	Sample ID: 2277548; Sequence Number: 380 Date Collected: 2/4/2019. ~2 miles upstream, but with orphan AMD discharge between sampling point and facility outfall.
Temperature (°C)	3.2	See above
Hardness (mg/L)	99	See above
Total Aluminum (ug/l)	86.400	See above
Total Iron (ug/l)	280.00	See above
Total Manganese (ug/l)	546.00	See above
Total Zinc (ug/l)	41.600	See above

Nearest Downstream Public Water Supply Intake		PA AMER WATER CO GLEN ALSACE DISTRICT, ID# 101174-001, Berks County	
PWS Waters	Schuylkill River, Main Stem	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	~53 miles

Changes Since Last Permit Issuance: Reclassification as a Natural Trout Reproduction Stream

Other Comments:

- There are orphan mine discharges and mining-disturbed areas upstream of the Outfall. The confluence with the main branch of Schuylkill River is ~3.5 miles downstream. The nearest active downstream gage (Gage# 1468500, Schuylkill River at Landingville PA) is ~8.3 miles downstream. ~1:73 dilution factor in receiving stream.
- **Impairments:** Domestic sewage from a residential development (no industrial or commercial sources) is not expected to contribute to any of the existing impairments (AMD metals, PCBs).
- **TMDLs:** The receiving stream is covered by three TMDLs (Schuylkill River PCBs; Upper Schuylkill and West Branch Schuylkill TMDLs for AMD). There are no PCB or AMD WLA(s) for this facility.
- **Low Flow:** The facility (on the West Branch Schuylkill River) is downstream of a series of Abandoned Mine Discharges, which contribute flow during low flow period, with additional AMD discharges contributing to the downstream main branch Schuylkill River. **NOTE:** Original water quality modeling assumed a LFY of 0.170 CFS/square mile from the 1977 PA Bulletin No. 12 Gage #01467950 (Schuylkill at Cressona, PA, Q7-10 of 8.5 CFS from 49.8 square mile area, from 21 1947-1952 discharge measurements) but the USGS now recommends against using the 1977 PA Bulletin No. 12.

Treatment Facility Summary

Treatment Facility Name: SCMA Seiders Hill WWTP

WQM Permit No.	Issuance Date	Scope
5493401-T1	8/25/2020	Transfer to SCMA
5493401	4/15/1993	2024 SCMA Renewal Application indicated: The pump station consists of a wet well with dual 2-HP Barnes OGP-L submersible pumps, valve chamber, auto dialer, and security fencing. The "Seiders Hill" pump station is located at 614 Gordon Nagle Trail, Pottsville PA 17901 (40.66118041958722, -76.22139146256482). The maximum flow rate of pump station is 29 GPM at 125' of head with an average flow of 7 GPM. The WQM permit for the system is 5493401 with an amended date of 4/15/1993. SCMA acquired the system on 7/1/2020 with the pump station already operational. The Service Area Map included with the 2023 Chapter 94 has misidentified a second pump station within the system. The Treatment Plant Schematic does show a pump station prior to the treatment process, this is meant to depict the Seiders Hill pump station in the collection system.
5493401	2/10/1993	STP permitting for a 0.090 MGD treatment plant to be built in three (3) stages, with three (3) process trains, each process train consisting of one (1) EQ tank, one (1) flow splitter box, three (3) aeration tanks, one (1) dual hopper clarifier, one (1) sludge holding tank, and one (1) chlorine contact tank

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Aeration	Hypochlorite	0.090 (NPDES permit basis flow)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.090* **(only 0.030 as-built)**	183.9* **(only ~61.3 as-built)**	Not Overloaded	Aerobic sludge holding tank	Landfilled

* Only part (0.030 MGD process train) of the 0.090 MGD STP has been constructed per the 2023 Chapter 94 Report, which reduces the as-built hydraulic and organic capacities to one-third of the original permitted design capacities. The 10/21/1992 Planning Letter (ID# 254942-015-3, Section 3-A area, North Manheim Township) indicates that the STP would be constructed in 3 phases (0.030 MGD capacity each), with 2nd and 3rd phases to be completed with future sewerage needs (to reach 0.090 MGD capacity). The Planning letter noted that the ultimate build-out would be for 236 EDUs on 147 acres of land.

Changes Since Last Permit Issuance: The 2023 Chapter 94 Report indicates new screening equipment (Duperon-Dual Auger system) has been installed.

Other Comments:

Facility Description:

- Per application: Screening, equalization, aeration, clarification, aerobic digestion, (flow-paced sodium hypochlorite) disinfection and de-chlorination (sodium bisulfite). No planned expansion or upgrade proposed in next 5 years.
- 2023 Chapter 94 Report figure showed comminutor, EQ Tank, three aeration tanks, clarifier, chlorin contact tank and effluent flow meter plus aerobic digester.

- **2018 Fact Sheet Existing STP:** Site plan sketch shows one (1) grinder, one (1) EQ Tank, three (3) aeration tanks, one (1) final clarifier, one (1) chlorine contact tank (with sodium hypochlorite pump room) plus one (1) sludge holding tank.
- **2018 FS Constructed Versus Permitted Capacity**: Only one (1) of three (3) treatment trains constructed.
- **Minimum Monthly Average Reduction**: They have been achieving >85% reduction on an annual basis.
    - **BOD5**:
        - Influent Average: 315 mg/l
        - Effluent CBOD5 average: 6.1 mg/l (equating to 7.32 mg/l at default 1.2 BOD5/1 CBOD5 ratio)
    - **TSS**:
        - Influent Average: 237 mg/l
        - Effluent TSS average: 11.6 mg/l

2023 Chapter 94 Report: Highlights:

- General:
    - They completed the DEP Chapter 94 Form but not the DEP Chapter 94 Spreadsheet.
    - Existing sewer system includes 9,000 LF of 8-inch PVC gravity sewers and 55 manholes plus 865 LF 2-inch PVC low pressure sewers & one (1) identified pump station. The service area now includes a 48-bed Green Valley Nursing Facility.
    - The wastewater treatment process is comprised of sewage screening, equalization, aeration, clarification, aerobic digestion, and disinfection. The Seiders Hill WWTP consists of one equalization tank with dimensions of 16'4" x 8'4" x 12'. Influent flow now passes through new screening equipment that consists of the Duperon-Dual Auger System, wipes machine, ½-hp motor, VFD drive, discharge chute, 304 SS construction, and freeze protection kit. The equipment was purchased through the CoStars program from Kappe Associates, Inc. who also conducted the on-site installation. Following equalization, flow is treated through a series of three aeration tanks with dimensions of 16'4" x 8'4" x 12' deep. Sludge is pumped from the clarifier to the aerobic digesters while clarified effluent is chlorinated using a flow paced liquid sodium hypochlorite feed and then dechlorinated using sodium bisulfite tablets. Effluent from the clarifier is aerated and chlorinated before passing through an effluent flow meter and ultimately discharged to the West Branch of the Schuylkill River, a tributary to the Delaware River. **NOTE**: The provided STP schematic mislabeled the existing aerated sludge holding tank as an aerobic digester, and shows an pre-headworks pump station that was not listed in the 1993 WQM Permit IRR description.
- Form Items 1, 2, 3, and 9: No existing hydraulic overloading, but facility's as-built capacity limitations are only 1/3rd of the design capacities cited (0.090 MGD hydraulic design capacity and 183.9 lb BOD5/day organic design capacity), i.e. **as-built** 0.030 MGD hydraulic design capacity and 61.3 lbs BOD5/day organic design capacity. **At the lower as-built organic design capacity, there has been previous organic overloading and projected future organic overloading (2024 – 2028)**.
    - 0.015 MGD ADF flows. The 0.030 MGD as-built Facility is considered underloaded by the permittee. Subdivision has been fully built-out per Report, but original WQM permitting assumed commercial development.
    - The annual organic loading is 21 lbs BOD5/day. They do not project annual loadings to exceed 48 lbs BOD5/year.
        - There had been spiking above 60 lbs BOD5/day in 2019 and 2020.
        - **They are projecting maximum monthly organic loadings above the as-built treatment plant capacity (~61 lbs BOD5/day), and up to 88 lbs BOD5/day capacity in 2028**. These projections are above the as-built capacity of the plant. They may be required to construct the planned second treatment train if organic overloading occurs in the future. However, the projection is based on a 5-year factor that may be biased (as old 2019-2020 data was missing months of data with spiking months).
    - The Report noted that the SCMA committed to complete any upgrades or improvements or facilities to provide for hook-up of the remaining Seiders Hill residential lots identified as "Phase 3 of the Seiders Hill development". A 48-bed nursing facility went online in 2020.
    - They are projecting 10 EDU/year growth in their loading projections.
- Form Item 4: No sewer line extension completed or proposed.
- Form Item 5: SCMA does the sewer system O&M. The plant O&M personnel routinely monitor the treatment plant and collection system. The collection system was indicated to be in good condition.
- Form Item 6: No capacity issues reported.
- Form Item 7: One existing duplex pump station at 614 Gordon Nagle Trail with identified rated capacity of 0.04 MGD. No flow meter at pump station or flow information provided (i.e. not comparison of max pumping rate with

present max flows or projected 2-year max flows). NPDES Permit application indicated only one pump station in service area.

- Form Item 8: No IW contribution to sewage.
- Form Item 10:
    - They did not use the existing NPDES Permit Condition Part C.II.C condition-required EPA methodology for their Chapter 94 Report sewage sludge management inventory.
    - 30,318 gallons (1.90 dry tons) pumped out for disposal in 2023, and disposed at the SCMA Deer Lake WWTP.
    - Revised Application Information: Included sludge management inventory using DEP Operators spreadsheet. Facility within 93% of expected volume wasted (based on Chapter 94 Report and based on population).

Compliance History

DMR Data for Outfall 001 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Average Monthly	0.013	0.015	0.013	0.015	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Flow (MGD) Daily Maximum	0.020	0.018	0.016	0.022	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
pH (S.U.) Instantaneous Minimum	6.61	7.03	7.05	6.96	7.41	7.56	6.57	7.45	7.10	7.39	7.10	7.18
pH (S.U.) Instantaneous Maximum	8.28	8.36	8.29	8.07	8.19	8.16	8.38	8.19	8.15	8.06	8.00	7.96
DO (mg/L) Daily Minimum	6.13	8.85	7.95	8.30	7.65	6.91	7.05	5.98	5.24	6.31	7.34	6.48
TRC (mg/L) Average Monthly	0.03	0.04	0.04	0.03	0.04	0.04	0.03	0.09	0.11	0.05	0.04	0.03
TRC (mg/L) Instantaneous Maximum	0.13	0.19	0.18	0.10	0.11	0.21	0.07	0.76	0.56	0.21	0.17	0.13
CBOD5 (mg/L) Average Monthly	10.85	5.45	5.10	4.60	4.40	9.55	2.80	3.0	4.30	3.10	8.05	6.15
TSS (mg/L) Average Monthly	21.50	6.0	6.50	9.00	5.50	7.5	4.0	7.0	10.00	13.50	19.50	24.00
Fecal Coliform (No./100 ml) Geometric Mean	8.37	2.0	2	2	3.16	5.66	4.47	3.16	8.49	2.45	2.45	3.74
Fecal Coliform (No./100 ml) Instantaneous Maximum	10.0	2.0	2	2	5	16.00	10	5	36.0	3.00	3.0	7.00
Nitrate-Nitrite (lbs/year) Annual Average					0.09							
Nitrate-Nitrite (mg/L) Annual Average					1.15							
Total Nitrogen (lbs/year) Annual Average					0.13							

Total Nitrogen (mg/L) Annual Average					1.65							
Ammonia (mg/L) Average Monthly	0.24	0.13	0.10	0.10	0.14	0.05	0.06	0.10	0.25	0.12	0.11	0.11
TKN (lbs/year) Annual Average					0.04							
TKN (mg/L) Annual Average					0.50							
Total Phosphorus (lbs/year) Annual Average					0.07							
Total Phosphorus (mg/L) Annual Average					0.88							

Compliance History

Inspection History:

SITE NAME	INSP PROGRAM	INSP ID	INSP CATEGORY	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	# OF VIOLATIONS
SCMA SEIDERS HILL WWTP	WPCNP	3825878	PF	09/05/2024	Compliance Inspection	No Violations Noted	0
SCMA SEIDERS HILL WWTP	WPCNP	2745431	PF	04/10/2020	Follow-up Inspection	No Violations Noted	0
SCMA SEIDERS HILL WWTP	WPCNP	2697994	PF	09/05/2019	Compliance Evaluation	Violation(s) Noted	5
SCMA SEIDERS HILL WWTP	WPCNP	2938343	PF	05/17/2018	Compliance Evaluation	No Violations Noted	0
SCMA SEIDERS HILL WWTP	WPCNP	3019655	PF	02/14/2018	Administrative/File Review	No Violations Noted	0

Comments:

- Application states all site-specific open violations precede SCMA ownership of the facility. SCMA noted that any corrective actions would have been done under the previous owner.

Compliance History: Five (5) open violations per 10/25/2024 WMS query (Open violations by client number):

FACILITY	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	VIOLATION DATE	VIOLATION CODE	VIOLATION
SCHUYLKILL CO MUN AUTH	Safe Drinking Water	3540038	3641547	8164411	11/07/2023	D6A	FAILURE OF A COMMUNITY WATER SYSTEM TO DEVELOP AND/OR UPDATE AN OPERATION AND MAINTENANCE PLAN
SCMA MT LAUREL WTP	WPC NPDES	PA0062197	3792339	8193459	06/06/2024	92A.44	NPDES - Violation of effluent limits in Part A of permit
BROAD MOUNTAIN WATER TRMT. PLT	WPC NPDES	PA0062529	3837907	8202209	09/24/2024	92A.44	NPDES - Violation of effluent limits in Part A of permit
BROAD MOUNTAIN WATER TRMT. PLT	WPC NPDES	PA0062529	3837907	8202210	09/24/2024	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports
SCHUYLKILL CO MUN AUTH	Safe Drinking Water	SM2321676	3552836	994605	05/12/2023	27	DISINFECTION/DISINFECTION BYPRODUCTS MONITORING/REPORTING VIOLATION

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .090
Latitude 40º 39' 36.12" **Longitude** -76º 12' 42.54"
Wastewater Description: Sewage Effluent

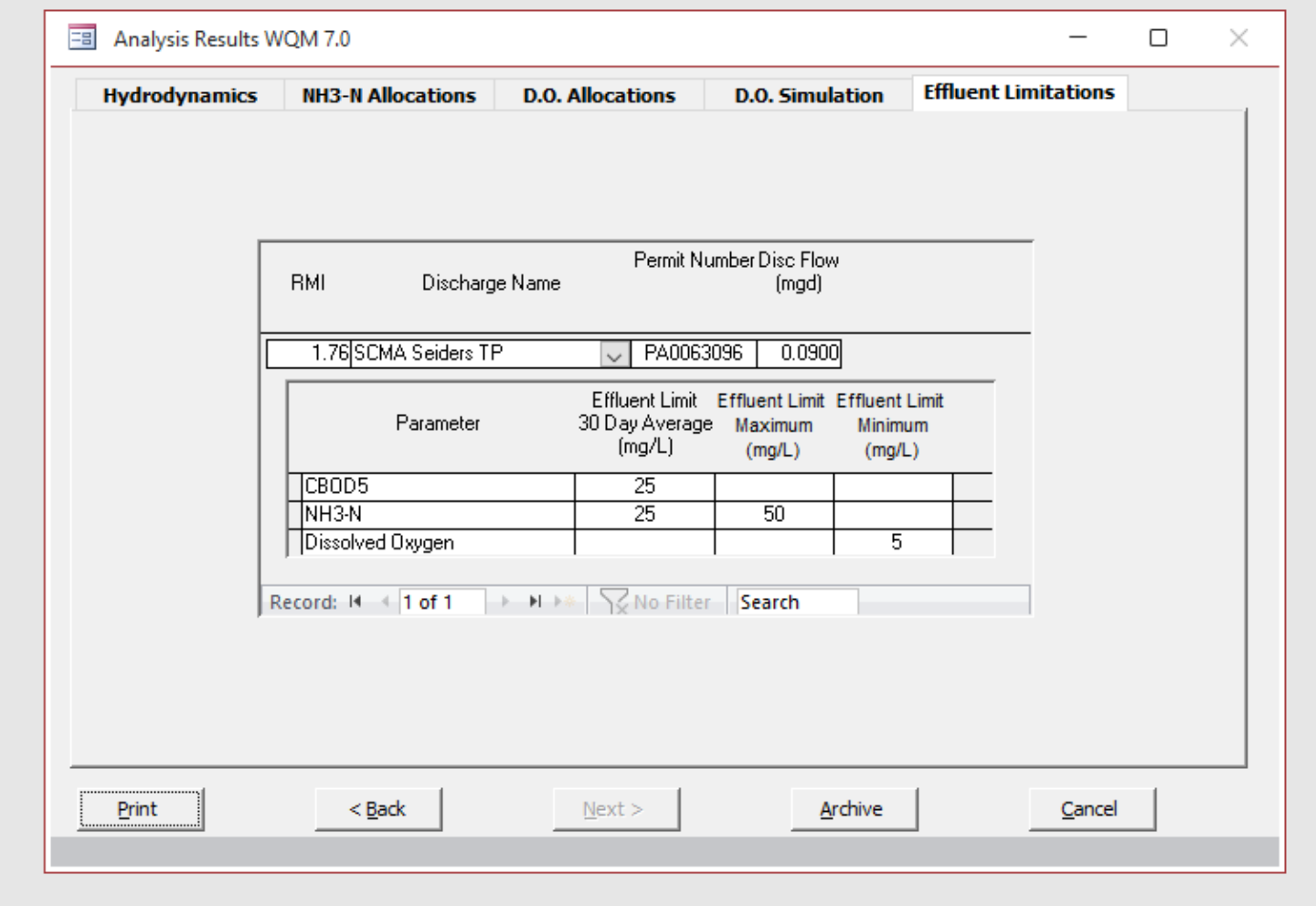
Permit Limits and/or Monitoring Requirements:

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
CBOD5	**Report lb/d** 25.0 **50.0** 50.0	**Monthly Average** Monthly Average **Daily Max** IMAX	Existing TBEL supported by updated water quality modeling. **Daily Max limit based on existing IMAX limit.** Application data: 15.5 mg/l max and 6.1 mg/l average (52 samples)
BOD5 (Raw Sewage Influent)	**Report lb/d** **Report** **Report**	**Monthly Average** **Monthly Average** **Daily Max**	**Existing DRBC Docket requirement, paired with effluent monitoring.** Application data: 617 mg/l max and 315 mg/l average (67 grab samples)
TSS (Raw Sewage Influent)	**Report lb/d** **Report** **Report**	**Monthly Average** **Monthly Average** **Daily Max**	**Existing DRBC Docket requirement, paired with effluent monitoring.** Application data: 652 mg/l max and 237 mg/l average (67 grab samples)
TSS	**Report lb/d** 30.0 **60.0** 60.0	**Monthly Average** Monthly Average **Daily Max** IMAX	Existing Technology limit (Chapter 92a.47). **Daily Max limit based on existing IMAX limit.** Application data: 49.0 mg/l max and 11.6 mg/l average (54 samples)
pH	6.0 – 9.0 SU	Inst. Min - IMAX	Existing Technology limit (Chapter 92a.47) Application data: 6.57 – 8.38 SU (783 samples)
Dissolved Oxygen (DO)	5.0	**Inst**. Min	Existing WQBEL based on water quality modeling. **Converted to Instantaneous Min from daily min.** Application data: 5.0 mg/l min, and 9.19 mg/l average (814 samples).
Fecal Coliform (5/1 – 9/30)	200/100 ml 1,000/100 ml	Geo Mean IMAX	Existing Technology limit (Chapter 92a.47) Application data: 58/100 ml max and 8/100 ml average (22 samples).
Fecal Coliform (10/1 – 4/30)	2,000/100 ml 10,000 ml/100 ml	Geo Mean IMAX	Existing Technology limit (Chapter 92a.47)
Total Residual Chlorine	0.5**0** 1.6**3**	Monthly Average IMAX	Existing Tech limits. **Significant digit added.** Application data: 0.90 mg/l max and 0.04 mg/l average (819 samples).
Ammonia-Nitrogen	**Report lb/d** 25.0 **50.0** 50.0	**Monthly Average** Monthly Average **Daily Max** IMAX	Existing WQBEL supported by updated water quality modeling. Application data: 0.580 mg/l max and 0.184 mg/l average (54 samples).
Total Phosphorus	**Report Lbs/d** Report **Report**	**Annual Average** Annual Average **Daily Max**	Existing annual monitoring requirement (also DRBC Docket requirement). **Daily Max reporting added (no additional sampling required).**

			Application data: 6.09 mg/l max and 3.67 mg/l average (3 samples)
Total Nitrogen (Nitrate-Nitrite-N + TKN measured in same sample)	Report Lbs/day Report **Report**	Annual Average Annual Average **Daily Max**	Existing annual monitoring requirement (also DRBC Docket requirement). **Daily Max reporting added (no additional sampling required).** Application data: 38.90 mg/l max and 22.33 mg/l average (3 samples)
Total Kjehldahl Nitrogen (TKN)	Report Lbs/day Report **Report**	Annual Average Annual Average **Daily Max**	Existing annual monitoring requirement (also DRBC Docket requirement) **Daily Max reporting added (no additional sampling required).** Application data: 4.49 mg/l max and 2.71 mg/l average (3 samples)
Nitrate-Nitrite-N	Report Lbs/day Report **Report**	Annual Average Annual Average **Daily Max**	Existing annual monitoring requirement (also DRBC Docket requirement) **Daily Max reporting added (no additional sampling required).** Application data: 38.9 mg/l max and 21.1 mg/l average (3 samples)
Total Dissolved Solids (TDS)	**Report lb/d** **Report** **Report**	**Annual Average** **Annual Average** **Daily Max**	**New annual monitoring requirement (Chapter 92a.61).** Application data: None
E Coli	**Report #/100 ml**	**IMAX**	**New annual monitoring requirement due to new WQS (Chapter 92a.61).** Application data: None
BOD5 minimum % removal	**85%**	**Minimum Monthly Average**	**DRBC Docket requirement and Chapter 92a.47**
TSS minimum % removal	**85%**	**Minimum Monthly Average**	**DRBC Docket requirement and Chapter 92a.47**

Comments:

- Added daily max load/concentration reporting. Daily max concentration limits based on existing IMAX limits. Going to 24-hour composite sampling requirement to eliminate biasing (with permittee indicating they have do 24-hour composite sampling).
- Water Quality Model WQM 7.1.1: Existing permit limits are adequately protective.



SCMASeidersWQModel.pdf

- Reasonable Potential Analysis: No permit limits or monitoring requirements warranted at this time. The only non-sanitary discharger is Green Valley Nursing Home which is not expected to be a significant source of metals. The Manganese concentration was low, indicating no significant AMD I&I impacts.

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits* AML (lbs/day)	*Mass Limits* MDL (lbs/day)	*Concentration Limits* AML	*Concentration Limits* MDL	*Concentration Limits* IMAX	*Concentration Limits* Units	Governing WQBEL	WQBEL Basis	Comments

SCMASeidersTMS1.pdf

TRC Spreadsheet: Existing limits are adequately protective.

A	B	C	D	E	F	G
TRC EVALUATION						
Input appropriate values in A3:A9 and D3:D9			SCMA Seiders Hill STP			
10.3	= Q stream (cfs)		0.5	= CV Daily		
0.09	= Q discharge (MGD)		0.5	= CV Hourly		
30	= no. samples		0.583	= AFC_Partial Mix Factor		
0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor		
0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)		
0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)		
0	= % Factor of Safety (FOS)			=Decay Coefficient (K)		
Source	Reference	AFC Calculations		Reference	CFC Calculations	
TRC	1.3.2.iii	WLA afc = 13.777		1.3.2.iii	WLA cfc = 23.018	
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581	
PENTOXSD TRG	5.1b	LTA_afc= 5.134		5.1d	LTA_cfc = 13.382	
Source		Effluent Limit Calculations				
PENTOXSD TRG	5.1f	AML MULT = 1.231				
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500		BAT/BPJ		
		INST MAX LIMIT (mg/l) = 1.635				