pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST REGIONAL OFFICE
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET ADDENDUM

Application Type	**Renewal**	Application No.	**PA0034118**
Facility Type	**Sewage**	APS ID	**608738**
Major / Minor	**Minor**	Authorization ID	**1179258**

Applicant and Facility Information

Applicant Name	**Blue Ridge Real Estate Co. (BRREC)**	Facility Name	**Jack Frost Sewage Treatment Plant (STP)**
Applicant Address	PO Box 707 Blakeslee, PA 18610-0707	Facility Address	110 Jack Frost Way Blakeslee, PA 18610
Applicant Contact	Bruce Beaty	Facility Contact	Maureen Minnick
Applicant Phone	(570) 443-8433	Facility Phone	(570) 965-6054
Client ID	38912	Site ID	1767
SIC Code	7011 (skiing center and resort)	Municipality	Kidder Township
SIC Description	Services - Museums And Art Galleries	County	Carbon
Date Published in PA Bulletin	September 1, 2018 (First Draft) **Redraft: TBD**	EPA Waived?	Yes
Comment Period End Date	October 16, 2018 (First Draft) extended due to meetings, etc. **Redraft: TBD**	If No, Reason	--
Purpose of Application	Application for a renewal of an NPDES permit for discharge of treated Sewage		

Approve	Return	Deny	Signatures	Date
X			James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	July 23, 2025
X			Edward Dudick, P.E. / Environmental Engineer Manager	August 13, 2025
NA			NA – not required for Redraft NPDES Permit Amy M. Bellanca, P.E. / Environmental Program Manager	

Internal Review and Recommendations

This is a Fact Sheet Addendum for a **Redraft** NPDES Permit for the 0.400 MGD Blue Ridge Real Estate Co. (BRREC) Jack Frost Sewage Treatment Plant (STP) discharging to Porter Run (HQ-CWF, Stream Code #4354, Natural Trout Reproduction stream, subject to the Lehigh River Watershed TMDL (AMD)).

The Redraft was required due to the obsoleteness of the previous **8/1/2018 Draft NPDES Permit** due to: age; changes in standard NPDES Permit template conditions; updated Reasonable Potential Analysis/water quality modeling using applicant-provided data (indicating need for Total Copper, Total Zinc, and Ammonia-N limits); new E Coli Water Quality Standards; new DRBC Docket requirements (incorporated per Chapter 92a.12 & 92a.36); changes made in response to public comments; etc. Updated water quality modeling indicated permit limits were required.

- Public Upload# 320969 (updated NPDES Permit Application) was received 5/29/2025.
- See Public Comment Section and Communications Log (including meeting highlights) below for public comments and responses.

Background Information for Context: See the 2018 Draft NPDES Permit Fact Sheet for additional information.

- The facility outfall is located near the headwaters of the receiving stream (Porter Run) with a 0.98 square mile drainage area, and 1.5 miles upstream of confluence with Lehigh River (HQ-CWF). The receiving stream (Porter Run) is presently attaining, but the facility has never discharged more than a small fraction of the 0.400 MGD NPDES Permit-basis flows. The receiving stream will be >7:1 effluent-dominated at NPDES Permit Basis flows, but is not presently effluent dominated.
    - The facility considered potential relocation of outfall to Lehigh River (HQ-CWF, Stream# 3335), but did not pursue that option.
    - The facility considered tiered limits, but did not request that option. The facility is discharging only a small fraction of its 0.400 MGD NPDES Permit Basis flow.
    - The facility's PWS intake is on Tobyhanna Creek (HQ-CWF, Stream# 4357). The closest downstream potable water intake is ~23 miles downstream.
    - The facility uses both groundwater and surface water sources.
    - The 0.400 MGD facility has SEJ coverage, but SEJ only allows for reduction of water quality to the Chapter 93 minimum statewide Water Quality Standards (WQS). Since original SEJ/permitting, new and more stringent Chapter 93 WQS for Ammonia-N, Copper, etc. have come into effect.
- **The 0.400 MGD facility is underloaded**:
    - Existing Flows:
        - AADF Flows: The 0.400 MGD facility is receiving Annual Average Daily Flows of 0.0135 (2022), 0.0156 MGD (2023), and 0.0150 MGD (2024) with the highest monthly flow of 0.0299 MGD (January 2024). It produced 0.05 dry tons of biosolids in 2024.
        - 6/2024 – 5/2025 EDMR data (missing August):
            - Monthly Average Flows: 0.00902 – 0.01835 MGD
            - Daily Max Flows: 0.01915 – 0.04256 MGD
    - Existing Sources: The updated application indicates the STP receives flows from Snow Ridge Village, Jack Frost Ski Resort a.k.a. Jack Frost Mountain Summit Lodge (estimated 0.0263 MGD average wastewater flow), Jack Frost National Golf Club (estimated 0.0029 MGD wastewater flow), and ID Logistics (Warehouse with estimated 0.0155 MGD wastewater flow).
    - 6/12/2019 DRBC Docket No. D-1985-081-2 Information:
        - Expanding service area: To include three lots along PA-940 for intended development and existing warehouse areas. The proposed revision in the docket holder's existing service area will include the removal of 285 acres of the existing service area and the addition of 285 acres of along PA-940, outlined as 3 separate lots. The WWTP will utilize an existing force main and gravity sewer line connected to WWTP and proposed service area. Lot 1 and Lot 2 are intended to be utilized for commercial and non-process industrial purposes. Lot 3 is not intended for development at this time. **NOTE**: NPDES Permit Part A.III.C.2 (Changes in Waste Stream) notification requirements would apply if any non-sewage wastewaters are proposed in the future.
        - Docket Description of WWTP: The WWTP facilities consist of comminutors, an aerated equalization tank, 4 bio-reactor units. Effluent from the bio-reactor units flow to a tertiary treatment process, the WWTP implements flash mixing with a chemical feed system, 2 flocculation units, and 2 tray settlers. The disinfection system utilizes a chlorine contact tank, de-chlorination and post aeration, a multi-cell sand filter with an automatic backwash system. Wasted sludge from the tray settler units is

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recycled or directed to a sludge holding unit. **NOTE**: Additional NPDES/WQM Permit Application information:

- The (0.100 MGD capacity each) bio-reactors (aeration/clarifier units) are in parallel. Reactors 2 & 3 are in-service with 1 & 4 in reservice. Sand filter after plate settlers/chlorine disinfection, followed by chambered de-chlorination outfall tank.
- Facility uses Alum for coagulant/TP reduction, Soda Ash for pH buffering, and Sodium bicarbonate for alkalinity.
- 2019 WQM Permit No. 1319401 authorized:
    - Non-functional Comminutor (Unit A-12) will be removed. Functional Comminutor Unit (A-8) will remain in operation. The facility is required to maintain space and piping provisions to allow for installation of a replacement comminutor upon need. In that event, the Department would require prior written notification at least sixty (60) days prior to installation. **NOTE**: 2025 NPDES Permit Application indicated both comminutors may remain in place.
    - Aerated Influent EQ Tank pump replacement with Staged Submersible Shredder Pump Installation (VFD/level sensor-controlled with new VFD control panel added to existing control panel):
        - Initial sizing: 190 GPM (0.2736 MGD) @ 20.64 Feet TDH BJM Model SK15C (2-HP) with VFDs or approved equal
        - Future sizing (when ADF flows approach 0.273 MGD): 330 GPM (0.4752 MGD) @ 25.3 Feet TDH BJM Model SK37C (5-HP) with VFDs or approved equal.

- **Available 2018 - 2019 Metals/Total Hardness Sampling Data**: See TOXCONC Spreadsheet below for Total Copper Long Terma Average Monthly Effluent Concentration (LTAMEC) and daily Coefficient of Variability (COV). See Total Hardness calculations below.

Sample Date	Effluent Total Copper (mg/l)	Stream Hardness (mg/l)	Discharge Hardness (mg/l)
6/19/2019	0.02		
6/28/2019	0.021		
7/7/2019	0.028		41.9
7/26/2019		12.1	
7/27/2019	0.023		38.5
8/1/2019	0.034	8.86	40.2
8/10/2019	0.0205	10.3	43.8
8/21/2019	0.0217	9.8	47.2
9/6/2019	0.0216	8.45	44
9/26/2019	0.0161	8.96	41.4
9/28/2019	0.0122	7.61	41.2
10/3/2019	0.012	7.66	39.3
12/22/2018	0.0168		
12/28/2019	0.0182		
1/1/2019	0.0236		
1/20/2019	0.0167		
1/21/2019	0.0326		
1/22/2019	0.0278		
1/26/2019	0.0118		

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2/2/2019	0.0165		
2/3/2019	0.0134		
2/9/2019	0.0207		
2/16/2019	0.0275		

- **2025 NPDES Application Update Information (24-hour composite samples)**:
  - Total Copper: 0.0160 mg/l (1 sample)
  - Total Lead: 0.00651 mg/l (1 sample)
  - Total Zinc: 0.0274 mg/l (1 sample)
  - TMDL Parameters (Aluminum, Total Iron, and Manganese): No data. The facility uses alum for phosphorus control (i.e. potential source). Site uses both groundwater and surface water sources (unknown metals concentrations), with potential for metals being discharged to Porter Run. Due to nature of facility, quarterly monitoring required due to seasonal loadings/flows.

Changes (beyond minor editing) from Previous Draft NPDES Permit:

- **Parts A and B**: Updated Part A and B NPDES Permit standard Template conditions. Part C special conditions updated as needed.
- **Part A**: General Updating:
  - Daily Max Limits: Any exceedance of an existing IMAX limit, of any duration, is an exceedance of the IMAX Limit. Daily Max limits were set equal to the IMAX limits to ensure reporting of any such exceedance by EDMR. No additional sampling required.
  - Additional Reporting: The permit now includes additional reporting requirements for mass loadings and daily max concentrations (when there is no applicable IMAX limit). No additional sampling is required.
  - Flow Proportional 24-Hour Composite Sampling: Now required to eliminate potential 8-hour composite sampling biasing, especially with copper WQBELs near the DEP Target Quantitation Limits and unusual seasonal recreational usage pattern.
- **Part A.I.A (Outfall No. 001)**: Quarterly AMD (Total Aluminum, Total Manganese, and Total Iron) metal monitoring for first 2 years of permit term to gather information. Facility has seasonal flows/loadings and is discharging to the Lehigh River Watershed TDML (AMD). No application sampling data available. Facility uses alum and ground/surface water sources of unknown quality.
- **Part A.I.B & Part A.I.C (Outfall No. 001) Revised Ammonia-N limits and Part C.II 4-year Schedule of Compliance**: New Ammonia-N limits (with interim existing limits) per updated water quality modeling, with Part C.II Schedule of Compliance (4-Year Schedule of Compliance). Recent EDMR data (6/2024 – 5/2025) showed monthly average values spiking above the proposed Final WQBEL monthly average.
- **Part A.I.B & Part A.I.C (Outfall No. 001) Revised/New Copper, Lead and Zinc Limits and Part C.IV (WQBELs for Toxic Pollutants with 4-year Schedule of Compliance)**: New limits (with interim monitoring requirements) per updated Reasonable Potential Analysis below (incorporating applicant-provided Total Hardness data and additional copper sampling data), with Part C (WQBELs for Toxic Pollutant) conditions (4-Year Schedule of Compliance).
- **Part A.I.D (Outfall No. 001):**
  - **Total Dissolved Solids (TDS)**: Quarterly monitoring & reporting per DRBC Docket Requirements (Chapter 92a.12 and 92a.36) and earlier discussions with applicant. Previous draft TDS limits dropped out per updated Reasonable Potential Analysis and Antidegradation Analysis.
  - **CBOD5 Minimum Monthly Average Removal Percentage**: Monthly monitoring & reporting per DRBC Docket requirements (Chapter 92a.12 and 92a.36).
  - **E Coli Monitoring**: Monitoring is required per the new Chapter 93 E Coli Water Quality Criteria.
  - **Chlorides, Sulfates, and Bromides**: Previous proposed monitoring requirement deleted as the Department is no longer requiring reporting for statewide information gathering purposes. Monitoring is not required per Reasonable Potential analysis.
- **Part A.I.E (Internal Monitoring Point/Outfall No. 101)**: Raw Sewage Influent (headworks) CBOD5 Monitoring & Reporting (paired with effluent CBOD5 monitoring sample) per DRBC Docket requirements (Chapter 92a.12 and 92a.36).
- **Part C.I.F**: **New** dry stream condition due to limited available dilution at 0.400 MGD NPDES Permit Basis flow.
- **Part C.I.H**: **New** operator-in-responsible charge notification requirement due to noncompliance with existing permit limits (see Compliance Section) and facility operating under severe underloading conditions.

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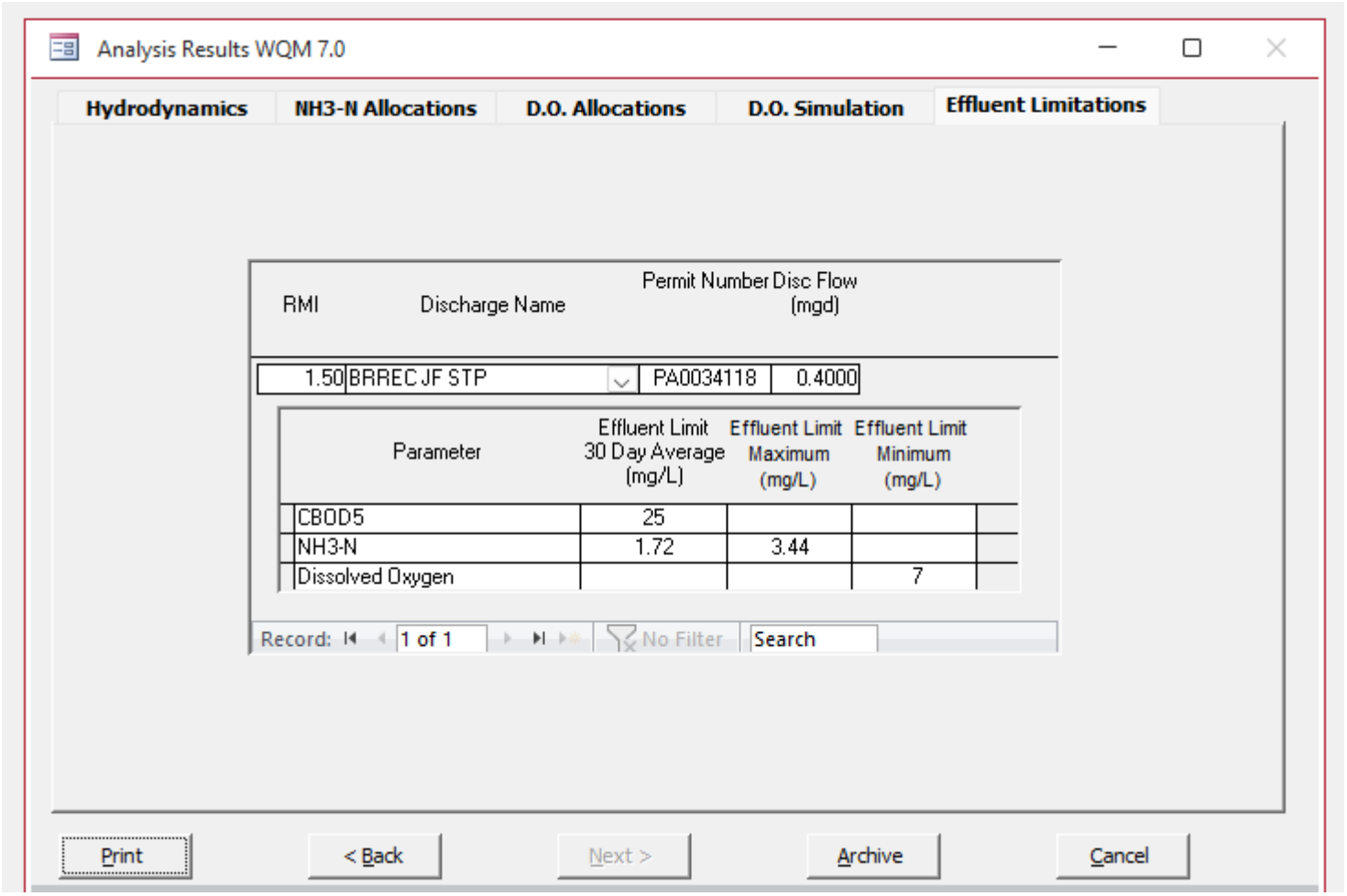
- **Part C.I.I**: New Operations & Maintenance (O&M) plan requirement due to noncompliance with existing permit limits (see Compliance Section) and facility operating under severe underloading conditions
- **Part C.I.G**: **New** Chapter 94 Reporting condition due to residential source and expansion of service area to include potential industrial sources.
- **Part C.II**: **New** Ammonia-N 4-year Schedule of Compliance due to new WQBELs.
- **Part C.III**: **Deleted** former lagoon-related Solids management condition because the former site lagoon closure was documented during the public comment period.
- **Part C.IV**: The **revised** standard WQBELs for Toxic Pollutants conditions (4-year Schedule of Compliance for Total Copper, Total Lead, and Total Zinc) have replaced the previous outdated TRE condition.

Updated Water Quality Modeling Outputs:

WQM Model 7.1.1: This model showed that more stringent Ammonia-N limits are required to meet the Chapter 93 Water Quality Standards.



BRRECJFWQModel2.pdf

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Updated Reasonable Potential Analysis: Incorporating new sampling data, TOXCONC Copper results, stream & discharge total hardness. Spreadsheet output units glitch, with rounding Copper MDL/IMAX values to 0.018 lb/day and 0.005 mg/l for discharge to HQ watershed. Quarterly AMD metal sampling for first two years of permit due to no TMDL sampling for discharge to TMDL (AMD) watershed and uncertain seasonal variations.

Updated TMS Spreadsheet Output:

☑ *Recommended WQBELs & Monitoring Requirements*

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	0.015	18.3	0.005	5.5	5.5	mg/L	0.005	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Lead	0.003	0.005	0.001	0.002	0.003	mg/L	0.001	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	0.17	0.2	0.052	0.059	0.059	mg/L	0.052	AFC	Discharge Conc ≥ 50% WQBEL (RP)

BRRECTMS2PDF.pdf

TOXCONC Output for Copper:

		Reviewer/Permit Engineer:	Berger
Facility:	BRREC Jack Frost		
NPDES #:	PA0034118		
Outfall No:	001		
n (Samples/Month):	4		
Parameter	**Distribution Applied**	**Coefficient of Variation (daily)**	**Avg. Monthly**
Copper (mg/L)	Lognormal	0.3123753	0.0291435

Stream Hardness Calculations: Following DEP Technical Guidance No.386-2000-005 methodology except as EPA TSD Appendix E equation was used due to apparent Guidance equation typo. The critical design flow period is July through November, but January sample added as it is a high flow month for the ski resort.

Date	**Total Hardness Stream above Outfall, i.e. "x" (mg/l)**	**Y = ln(x)**	**Y - u**	**$(Y - u)^2$**
1/1/2019	6.56	1.8809	-0.3333	0.1110
6/19/2019	10.7	2.3702	0.156	0.0243
6/28/2019	12.7	2.5416	0.3274	0.1072
7/26/2019	12.1	2.4932	0.2790	0.0778
8/1/2019	8.86	2.1815	-0.0327	0.0010
8/21/2019	9.8	2.2823	0.0681	0.0046
9/6/2019	8.45	2.1341	-0.0801	0.0064

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9/26/2019	8.96	2.1927	-0.0215	0.0004
9/28/2019	7.61	2.0294	-0.1848	0.0341
10/3/2019	7.66	2.0360	-0.1781	0.0317
Total	93.4	22.1419	-	0.3948

- Number of Samples (k): 10
- Arithmetic Mean of x: 9.34
- Uy = Estimated Mean (log normal): 2.2142
- Vy = Estimated Variance (log normal): 0.0438
- **Ex = Daily Average/Mean (normal) = Exp (U + variance/2): 9.35 mg/l**

- The DEP Biologist took stream sample data (see below) that otherwise would have been used in the Reasonable Potential Analysis (in the absence of data & analysis consistent with DEP Technical Guidance requirements to establish ambient conditions).

Porter Run - Kidder Township, Carbon County

1/23/2020

	Station 1	Station 2	Station 3
Description	Below Outfall	Above Outfall	Above Station 2
Latitude	41 06' 12.8"	41 06' 11.6"	41 06' 05.6"
Longitude	-75 39' 53.8"	-75 39' 53.3"	-75 39' 37.3"
Sample #	3206 553	3206 554	3206 555
Hardness mg/l	7	8	6
Copper µg/l	< 4.00	< 4.00	< 4.00
Aluminum µg/l	19.1	20.7	37.4
Barium µg/l	13.2	13.9	10.6
Magnesium mg/l	0.83	0.87	0.65
Manganese µg/l	< 10.0	< 10.0	12
Nickel µg/l	< 8.00	< 8.00	< 8.00
Zinc µg/l	5.63	< 5.0	<5.0

Effluent Discharge Total Hardness: Following DEP Technical Guidance No.386-2000-005 methodology except as EPA TSD Appendix E equation was used due to apparent Guidance equation typo. The critical design flow period is July through November, but June samples also used to reach 10 samples needed, and due to lowness values (less likely to bias upward).

Date	Discharge Hardness, i.e. "x" (mg/l)	Y = ln(x)	Y - u	$(Y - u)^2$
6/19/2019	37.3	3.6189	-0.0926	0.0085
6/28/2019	39.1	3.6661	-0.0454	0.0020
7/6/2019	41.9	3.7352	0.0237	0.0005
7/26/2019	38.5	3.6506	-0.0609	0.0037
8/1/2019	40.2	3.6938	-0.0177	0.0003
8/21/2019	47.2	3.8543	0.1428	0.0203
9/6/2019	44	3.7841	0.0726	0.0052

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9/26/2019	41.4	3.7232	0.0117	0.0001
9/28/2019	41.2	3.7184	0.0069	0.00004
10/3/2019	39.3	3.6712	-0.0403	0.0016
Total	410.1	37.1158	-	0.04224

- Number of Samples (k): 10
- Arithmetic Mean of x: 41
- Uy = Estimated Mean (log normal): 3.7115
- Vy = Estimated Variance (log normal): 0.0047
- **Ex = Daily Average/Mean (normal) = Exp (U + variance/2): 41 mg/l**

Antidegradation Considerations (Chapter 93.4): The new WQBELs will protect the HQ receiving stream from any new, additional, or increased degradation due to facility NPDES permitted discharges.

- **Previous Social-Economic Justification (SEJ)**: The previous SEJ only allows lowering the receiving HQ Watershed quality to the statewide minimum Chapter 93 Water Quality Standards, and did not cover toxic pollutants (Copper Lead, and Zinc). The facility's service area has been generating flows in the ~0.020 MGD monthly average range, not the original Planning assumption of 0.400 MGD. There has not been either social or economic development as originally anticipated in the service area since 1984.
    - **New Ammonia-N WQBELs**: New Ammonia-N WQBELs apply due to updated water quality modeling (incorporating current Chapter 93 Water Quality Standards).
    - **New Toxic Pollutant WQBELs**: New Total Copper, Total Lead, and Total Zinc permit limits (see water quality modeling outputs) are required to prevent additional degradation of the HQ stream.
- **Background on Antidegradation Requirements**: As BRREC had public comments regarding the scope of the previous SEJ coverage, here is additional background information on antidegradation requirements. Chapter 93.4 Antidegradation regulations create a higher level of protection for the High Quality and/or Exceptional Value waters of the Commonwealth, above and beyond the minimum statewide Chapter 93 Water Quality Standards (including Chapter 93 Water Quality Criteria and protected water uses). Social-Economic Justification (SEJ) only allows for reduction in the Antidegradation level of protection down to the applicable minimum Water Quality Standards. It does not allow for voiding of the minimum statewide protections. Previous SEJ coverage does not preclude the promulgation and enforcement of new and/or more stringent revised statewide Water Quality Criteria. In event of known or predicted stream impairment, the Department would require corrective or preventative action to protect the waters of the Commonwealth if possible. In this case, the facility is not presently impairing the stream because it has only been discharging a small fraction (~0.020 MGD monthly average per EDMR) of the 0.400 MGD NPDES Permit Basis Flow. To clarify the regulatory requirements:
    - Chapter 93.4a(b): "Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected".
    - Chapter 93.4a(c): "The water quality of High Quality Waters shall be maintained and protected, except as provided in § 93.4c(b)(1)(iii) (relating to implementation of antidegradation requirements)". Please note the language addresses the higher level of water quality protection for a High Quality watershed.
    - Chapter 93.4.c(b)(1)(iii): "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)". (Bolding added.) Chapter 93.3 Table 1 water uses include Aquatic Life: Cold Water Fishes (CWF): Maintenance or propagation, or both, of fish species including the family Salmonidae and additional flora and fauna which are indigenous to a cold water habitat. Exceedances of the Chapter 93 Water Quality Criteria (Ammonia-N, Copper and Zinc) would not allow the receiving stream to support applicable existing and designated non-HQ water uses.
    - Chapter 93.4c(c)(1): "A proponent of a new, additional, or increased sewage discharge in High Quality Waters shall include an SEJ impact analysis as part of the proposed revision or update to the official municipal sewage facilities plan under Chapter 71 (relating to administration of sewage facilities planning program). The Department will make a determination regarding the consistency of the SEJ impact analysis

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with subsection (b)(1)(iii). The determination will constitute the subsection (b)(1)(iii) analysis at the National Pollutant Discharge Elimination System (NPDES) permit review stage under Chapter 92a (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance), unless there is a material change in the project or law between sewage facilities planning and NPDES permitting, in which case the proponent shall recommence sewage facilities planning and perform a new social or economic justification impact analysis". (Bolding added.) In this case, there have been material changes from original Planning/SEJ/Permitting assumptions:

- See DEP Policy No. 391-0300-002 (Water Quality Antidegradation Implementation Guidance) for additional antidegradation-related guidance and present ABACT technology limits.

- **Existing Limited Social-Economic Justification (SEJ) Coverage and Permit Limits**: To clarify the scope of the original 1984 SEJ Coverage: The 10/3/1984 SEJ Approval Memo (expansion from 0.030 MGD to 0.4 MGD) memo author (Mr. Edward R. Brezina) also signed the applicable 10/4/1984 Water Pollution Control (WPC) Report which identified specific permit limits and identified the Outfall as the first point of usage by aquatic life. Subsequent permit changes tightened several SEJ limits and allowed relaxation for several others in the absence of any known existing impacts for those constituents (such as CBOD5). **To clarify existing SEJ Coverage and permit limits**:
  - **BOD5/CBOD5 Limits**:
    - Original SEJ BOD5 Limits:
      - 5/1 – 10/31: 20 mg/l monthly average & 40 mg/l IMAX
      - 11/1 – 4/30: 30 mg/l monthly average & 60 mg/l IMAX
      - WPC Report noted: "Also, BOD5 = 85% removal, whichever is stricter"
      - Original SEJ Limits converted to CBOD5 limits: The original SEJ coverage applies to ~16.67 mg/l monthly average and 33.33 mg/l IMAX CBOD5 permit limits, with 85% minimum monthly average reduction if converted from BOD5 limits. In the absence of any known TP-related impairment, the existing TP limits are retained in this permit term.
        - CBOD5 (Carbonaceous Biochemical Oxygen Demand) is a subset of the BOD5 (Biochemical Oxygen Demand) excluding the Nitrogenous Oxygen Demand (NOD).
        - In the absence of better site-specific data, the Department assumes a ratio of 1.2 BOD5 to 1 CBOD5.
    - Existing CBOD5 permit limits (modified ~1989): 25.0 mg/l CBOD5 monthly average & 50.0 mg/l IMAX limits are not covered by the original SEJ. In the absence of present impairment (organic enrichment or low DO), the existing CBOD5 limits will be retained in this permit term.
    - Applicable ABACT Standards: If the Treatment Plant is replaced or substantially upgraded, the Department would consider applying stricter current ABACT Standards: 10.0 mg/l CBOD5 monthly average and 20.0 mg/l CBOD5 IMAX year-round.
  - **Total Suspended Solids (TSS)**:
    - 30.0 mg/l monthly average & 60.0 mg/l IMAX limits.
    - Applicable ABACT Standards: If the Treatment Plant was replaced/substantially upgraded or the stream impaired by solids, the Department would consider applying stricter ABACT Standards: 10.0 mg/l TSS monthly average and 20.0 mg/l TSS IMAX.
  - **Ammonia-N**:
    - Original SEJ Limits:
      - 5/1 – 10/31: 3.0 mg/l monthly average & 6.0 mg/l IMAX
      - 11/1 – 4/30: 9.0 mg/l monthly average & 18.0 mg/l IMAX
      - WPC Report noted: "Measureable change policy will govern for NH3-N"
    - Current permit limits (modified ~1989): Antibacksliding and Antidegradation considerations apply:
      - 5/1 – 10/31: 2.5 mg/l monthly average & 5.0 mg/l IMAX
      - 11/1 – 4/30: 7.5 mg/l monthly average and 15.0 mg/l IMAX
    - Current ABACT Standards:
      - 5/1 – 10/31: 1.5 mg/l monthly average & 3.0 mg/l IMAX
      - 11/1 – 4/30: 4.5 mg/l monthly average & 9.0 mg/l IMAX
  - **Dissolved Oxygen (DO)**: 7.0 mg/l Instantaneous Minimum DO. Antibacksliding and Antidegradation considerations would prohibit any less stringent limits than the existing limits.
  - **Fecal Coliform**:
    - Original SEJ: 200/100 ml GEO Average
    - Current permit limits:
      - 5/1 – 10/31: 200/100 ml GEO Average & 1000/100 ml IMAX

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- 11/1 – 4/30: 2000/100 ml GEO Average & 10000/100 ml IMAX
- New E Coli Monitoring Requirement: The new Chapter 93 E Coli Water Quality Standard applies. Monitoring requirements in this permit term.

- **pH**: 6.0 – 9.0 SU at all times.
- **Total Phosphorus**:
  - Original SEJ: 0.5 mg/l TP monthly average & 1.0 mg/l IMAX
  - Current permit limits: 1.0 mg/l monthly average & 2.0 mg/l IMAX. In the absence of any known TP-related impairment, the existing TP limits are retained in this permit term.

Public Comments and Responses:

Internal Comments:

SIC Code: SIC Code# 7011 (skiing center and resort) was identified as the primary SIC Code due to nature of site, with other secondary SIC Codes (7111 (Amusement and Recreation Services, Not Elsewhere Classified)) and/or SIC Code 7011 (Hotels) for other recreational activities (golf club, etc.).

BRREC Public Comments:

Extended Public Comments Period for 8/1/2018 Draft NPDES Permit & Original Fact Sheet: The Draft NPDES Public comment period was extended per applicant request to allow for submittal of additional sampling data (copper and hardness), applicant-requested meetings, etc. Additional copper and hardness data was submitted by the applicant. Additional 1/23/2020 DEP stream sampling was subsequently done due to applicant raising questions about its own submitted stream data.

Request for Consideration of Seasonal Limits: The applicant asked if "seasonal limits" were possible based upon seasonal flows at this recreation facility with different seasonal recreational activities/flows. The facility noted that its historic data and nature of a ski facility means that the higher flows would only occur during winter months, far from typical low flow months (summer through Fall).

- **The Department cannot grant "seasonal limits" except where there is an existing regulatory basis. Existing "Seasonal" limits are tied to regulatory bases such as temperature-dependent criteria (Ammonia-N) or seasonal water quality criteria (i.e. Natural Trout Reproduction DO water quality criteria) or seasonal regulatory limits (fecal coliforms) incorporated into the Chapter 92a regulations. The existing permit already addresses regulatory-basis seasonal limits for Ammonia-N and Fecal Coliforms. Other WQBELs are determined using Q7-10 low flows (Chapter 96.3) and the NPDES Permit Basis Flow (Annual Average Daily Flow as averaged during the 365-day year). Antidegradation and Antibacksliding prohibitions would apply to any less stringent standards.**
- **As discussed with the permittee during the 12/18/2019 Meeting, the NPDES Permit basis flow is the Annual Average Daily Flow (average throughout 365-day year) which is used in water quality modeling to develop protective Water Quality-Based Effluent Limits (WQBELs). This scenario would apply if they chose to reduce the 0.400 MGD NPDES Permit Basis flow for relief on the new Ammonia-N, Copper, Lead and Zinc limits:**
  - **0.400 MGD WWTP Hydraulic Design Capacity (original WQM permitting): Reducing the NPDES Permit AADF basis flow would not impact the existing Hydraulic Design Capacity unless concurrent STP changes were made. See Chapter 94 for definitions of Hydraulic Design Capacity and Hydraulic Overload if the facility ever exceeded the 0.400 MGD Hydraulic Design Capacity. Present application/EDMR data did indicated <0.020 MGD monthly average flows and <0.050 MGD daily max flows in the last 12 months.**
  - **High Quality Stream Antidegradation Considerations (NPDES permitting): Any increase in the NPDES Permit-basis flow would require Chapter 93.4 Antidegradation requirements were met. If**

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reduced, the SEJ coverage would remain in place in terms of concentration limits, but WQBELs would be recalculated as needed in the Final NPDES Permit.

Request for Tiered Permit Limits (based on different discharge flow rates at permitted Outfall): WITHDRAWN: The applicant asked if (flow) tiered limits were possible, but then withdrew this proposal on the basis that its consultant determined the facility would still be subject to proposed copper limits (due to site-specific hardness data) at lower modeled flows (~0.075 MGD). At the 12/18/2019 Meeting, BRREC indicated lack of interest unless there were no new permit limits during the tiered flows. **Withdrawn, but still an option during the NPDES Permit Part C.II and C.IV schedules of compliance**.

BRREC's concern about "unfairness" of Copper Limits: BRREC indicated it believes copper limits are "unfair", citing a copper drinking water standard and complaining that not all other facilities have new copper limits. BRREC expressed concern that corrosion control might create new issues with TDS and/or zinc (if zinc products are used for corrosion control). BRREC also indicated the source might be from a separate water supplying entity (Snow Ridge Association) outside their control.

- **It is not "unfair" to protect the waters of the Commonwealth in accordance with the PA Constitution, regulations, scientifically-supported DEP water quality modeling (incorporating site-specific data) and scientifically-supported DEP statewide technical guidance. Other facilities have received new WQBELs for similar reasons. BRREC failed to identify any relevant statutory, regulatory, or technical reason for why copper limits and/or other proposed WQBELs are not justified at this facility. The Part C.II (Ammonia-N Schedule of Compliance) and C.IV (Water Quality-Based Effluent Limitations for Toxic Pollutants) provides additional opportunities and options for the permittee to modify the final WQBELs prior to their effective date. After the new WQBEL effective dates, the facility would have to demonstrate that an identified Antibacksliding Exception regulatory option applied. In terms of other facilities:**
  - **The NPDES permitting process will address copper requirements for any other facility during their next NPDES Permit renewal.**
    - **Other facilities have also become subject to new copper limits. The Department will be addressing the need for copper limits (as needed) during those other facilities' next NPDES Permit renewals by the normal permitting process.**
    - **Please note the NPDES Permit Application Form (minor sewage facilities <1.0 MGD) states: "If the facility receives industrial or commercial contributions, at least one result is required for Total Copper, Total Lead, Total Zinc and any other parameters that are known or suspected to be present in effluent". If the facility does not have any commercial or industrial sources (including recreational facilities such as ski resorts), copper effluent data is not required.**
  - **Site-specific conditions (total hardness, effluent-dominated stream, etc.) impact the need for copper limits, and were addressed in the Reasonable Potential Analysis.**
- **PWS Copper Standard: The BRREC-cited drinking water standard does not supersede the existing Chapter 93 regulatory copper water quality criteria protecting aquatic life. Aquatic life can be negatively impacted at dosages below that impacting human health.**
- **Sources and Corrosion Control: In terms of the potential source(s) in the potable water system:**
  - **BRREC is partly a water supplier (per DEP E-maps).**
  - **Other Water Supplier: In meetings, BRREC noted the Snow Ridge Association (water supplier) had a grant to investigate copper corrosion in a 2-year study, but BRREC did not know status because the Snow Ridge Association is not under BRREC control. To clarify:**
    - **Status of Snow Ridge Association Copper Corrosion Study: The PA Safe Drinking Water Program indicated: Snow Ridge Association is a transient public water system, and as such isn't required to complete lead and copper rule monitoring. Snow Ridge Village does currently have general corrosion control installed (pH adjustment). For further information, the Department recommends that BRREC directly contact its water suppliers and/or conduct its own influent sampling.**
    - **Minimum Corrosion Control Study Requirements: The Part C.IV.C.4 condition requires you to evaluate plant treatment options at minimum. As one of the water suppliers, the permittee can take action in regard to your portion of the water supply. The permittee can contact the Snow Ridge Association directly if they are a copper source. Nothing prohibits the applicant from working with any potential copper source to reduce copper influent to the STP.**

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- **Other technology options: Please note the Department is a regulatory agency that cannot act as a Technical Consultant in recommending specific treatment technologies/processes or products (Chapter 91.12) in terms of recommending any specific corrective action.**
  - **The US EPA does have an Operator Assistance program that can be contacted directly.**
  - **Some facilities have upgraded to increase copper precipitation and enhance solids removal to remove the solids fraction of the Total Copper Load.**
  - **Some facilities have taken source reduction actions to reduce copper in the STP influent and/or sources within their Treatment Plant.**
  - **Other facilities have implemented flushing programs to eliminate copper build-up in stagnant copper water pipes in addition to enhancing copper and zinc removal.**
  - **Other technological options might come into existence (due to technological advances) prior to the new permit limits' effective date.**
- **Reduction of Site-Specific NPDES Permit Basis Flow Option: Given the discrepancies between NPDES Permit-Basis flows and actual flows, the facility has the option of reducing its NPDES Permit Basis flow in order to obtain less stringent WQBELs.**

- **TDS and Zinc:**
  - **There are no present TDS limits in the permit.**
  - **There are proposed Zinc WQBELs. The facility options are not limited to zinc corrosion control chemicals. You can address Zinc concentrations during the Part C.IV process as discussed above.**

Conceptual Outfall Lehigh River Relocation Preliminary Effluent Limits (PELs) - WITHDRAWN: The applicant asked for preliminary effluent limits. The 8/7/2019 BRREC E-mail indicated a conceptual relocation (41.116057º; -75.655162º; 1425 Feet Elevation) of the Outfall to **Lehigh River (HQ-CWF; Stream Code# 3335; Natural Trout Reproduction; Lehigh River TMDL (AMD metals, pH) near Porter Run confluence, which would involve a ~7,700 LF pipeline connection to the new outfall.** Downstream is the Francis E. Walters Dam (about 5.6 miles) and Lehigh Gorge State Park. The 3.5 MGD Hazleton City Water Authority ID# 101801-001 PWS Intake is ~23 miles from existing Outfall location. At the 12/18/2019 Meeting Discussion, BRREC indicated its concern that it might not be able to meet the PEL copper limits in event it relocated the outfall and then did not purse this option. **This request was withdrawn, but remains a permittee option during the Part C.II and C.IV Schedules of Compliance. The 12/3/2019 Preliminary Effluent Limits (PEL) Letter was issued for 0.400 MGD NPDES Permit basis flow at a proposed Lehigh River outfall location.**

TDS Permit Limits: Request for deletion of limits. **Deleted per permittee request. Monitoring only in this permit cycle as per DRBC Docket requirements and as previously discussed with the permittee. See communications log for discussions of TDS issues.**

Request for relief from general monitoring frequencies: Request for relief from minimum monitoring frequency requirements. **Standard monitoring frequencies pertain (daily for DO, TRC, and pH; weekly for other parameters) for the 0.400 MGD NPDES Permit-basis facility and specific constituent. DRBC also set minimum monitoring frequencies in the DRBC Docket for DRBC parameters.**

TMDL Metals (Aluminum, Manganese, Iron) Quarterly Monitoring: Request to eliminate monitoring requirement because facility discharge is negligible. **Addressed in part only.**

- **Monitoring is required for updating the Lehigh River TMDL (AMD) and address future Antidegradation considerations. Quarterly monitoring is required because facility indicated variable seasonal loadings/sources (repeatedly emphasized) but did not provide AMD sampling data per application requirements.**
- **The Department is limiting monitoring to first two years of the permit term. Please note TMDL constituent sampling will be required with the next NPDES Permit Renewal as a standard application requirement.**

Lagoon Closure: Request for deletion of permit condition because Lagoon previously removed. **Permit condition language was deleted after applicant provided information showing lagoon was previously closed**.

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Applicant characterization of plant history: The permittee provided its viewpoint about facility history. **The Department thanks BRREC for clarifying its viewpoint.**

Concern over economic viability of plant in terms of new requirements: **The applicant failed to identify any statute or regulation superseding the applicable DEP Water Quality Standards and other regulatory requirements due to facility economics alone. See Redraft NPDES Permit Part C.IV requirements pertaining to requirements for showing "infeasibility". In practical terms, the facility can also obtain some relief by reducing the 0.400 MGD NPDES Permit Basis flows to reflect actual and anticipated future flows.**

Compliance History Update: No open violations per 7/21/2025 WMS query (Open Violations by Client Number), but EDMR and 2025 NPDES Application Update indicate potential compliance issues. This may be partly due to severe plant underloading and variable seasonal recreational flows/loadings.

- See EDMR exceedances below, with August 2024 EDMR information not found (when queried).
- Application Effluent data indicated exceedances of existing permit limits for pH (5.21 SU), Dissolved Oxygen (6.38 mg/l minimum), TRC (2.04 mg/l) and CBOD5 (89 mg/l).

Permit: PA0034118
Client ID: 38912
Client: All

Open Violations: 0

No data was found using the criteria entered. Please revise your choices and try again

Effluent Violations for Outfall 001, from: July 1, 2024 To: May 31, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
DO	09/30/24	Inst Min	6.38	mg/L	7.0	mg/L
TRC	12/31/24	Avg Mo	0.13	mg/L	.11	mg/L
TRC	09/30/24	IMAX	1.09	mg/L	.26	mg/L
TRC	01/31/25	IMAX	0.31	mg/L	.26	mg/L
TRC	11/30/24	IMAX	2.04	mg/L	.26	mg/L
TRC	12/31/24	IMAX	0.29	mg/L	.26	mg/L
Ammonia	07/31/24	Avg Mo	6.2	mg/L	2.5	mg/L

Communications Log Update for NPDES Permitting: See 2018 Draft NPDES Permit Fact Sheet for previous Communications Log.

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8/1/2018: Draft NPDES Permit and Fact Sheet issued for public comment.

8/28/2018 Meeting: DEP Planning Meeting (DEP Permit Chief attending) discussed the Draft NPDES Permit per DEP Permit Chief. The Permits Chief (Amy Bellanca) provided the following information:

- Additional Public Comments on Draft NPDES Permit: Would be forthcoming. The Permits Chief indicated the facility will ask for additional public comment period extension.
- Clarification about DRBC TDS Docket Information cited in Draft NPDES Permit Fact Sheet: The Draft NPDES Permit Fact Sheet used the old Docket as one of the data points for what the original SEJ covered in terms of effluent quality (single application sample in same range). The applicant requested the Department obtain DRBC clarification about the 1/27/1986 DRBC Docket No. D-85-81 statement: "The average total dissolved solids concentrations in the effluent is expected to be 500 mg/l". The Department e-mailed the DRBC to obtain clarification on 8/29/2018. The 8/29/2018 DRBC (Kovach) E-mail response indicated the DRBC Docket statement was the DRBC statement was included in assorted old DRBC Dockets, generally for the purpose of indicating that there was "no reasonable potential" that the effluent would exceed the DRBC basin-wide TDS effluent limit of 1,000 mg/l. No DRBC limit was being included. Additional DRBC clarifications from E-mail:
    - "The DRBC would not include such a statement any longer as it rarely holds true any longer. TDS has generally been creeping up especially where POTW's are accepting non-domestic wastewater and where water conservation and I&I have been improved."
    - "**DRBC would request that monthly monitoring and reporting be included in the permit for TDS, to determine if they can meet the basin-wide effluent limit of 1,000 mg/l."**
    - The DRBC E-mail indicated the DRBC Docket Condition J might require this facility to get DRBC approval to expand the proposed service area for the new development (i.e. a DRBC Docket update might be required to address this requirement and/or site-changes since original DRBC Docket issuance).
- Possible Additional Sampling: The applicant indicated the application sampling data (single 8-hour composite sampling for TDS, metals, etc.) was a summer flow sample (no sampling date or lab sheets in submitted application). **The seasonal nature of WWTP flows are a consideration for this NPDES Permit in terms of representative sampling data. The applicant can submit additional 24-hour Composite sampling data (during higher winter usage times) in Winter 2018**.

9/18/2018: BRREC E-mailed documentation on lagoon closure received.
9/25/2018: Conference Call with Applicant (Bruce Beaty & Craig Harahus) and consultant (Joella Poesy of AECOM) as requested by applicant per 9/24/2018 telephone call: Here are this reviewer's conference call notes (bolding responses to applicant comments/questions):

- Why New Limits when not required in previous NPDES Permit Renewals: **The NPDES permit statutes/regs require the Department to do a technical review for each renewal. The applicable regulations, application requirements, and Department review procedures changed during the previous NPDES Permit Term. The technical review inputted the application sampling data into the Toxic Screening Spreadsheet and PENTOXSD water quality modeling, resulting in the need for new permit limits. The DEP review SOPs are available on the DEP website, and the consultant indicated she had reviewed them. Many other facilities are now facing copper limits for example.**
- Draft NPDES Permit Cover Letter Item 1 (Planning and future Permitting Requirements) applicability: **The letter called certain NPDES permit conditions to their attention, in case future Planning/development triggered NPDES requirements. If they significantly increased existing loadings due to new development, there is a NPDES Part A.III.C.2 notification requirement. This requirement is not limited to exceeding the existing 0.400 MGD NPDES permit basis flow. Other requirements could be triggered under certain scenarios.**
- **June 20, 2018 Anti-Deg Preliminary Effluent Limit Letter**: They asked for the genesis of those limits (not part of Draft NPDES permit):
    - Scenario: They said that they never agreed to the scenario assumed for the June 20, 2018 DEP Antidegradation limits. That scenario assumed existing SEJ coverage would be dropped in return for not having to do the Chapter 93.4 Antideg Alternative Analysis. **Told them the scenario was given to the Region by Central Office who asked for limits under that scenario, quickly. Central Office saw the letter prior to its issuance.**
    - Methodology: **Region did not have time to do full anti-deg analysis (needing stream data or stream data from similar stream to run full anti-deg analysis spreadsheet). The limits were derived from DEP Antidegradation Policy ABACT technology-limits, water quality modeling using application data,**

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existing limits more stringent than ABACT limits, TMDL HQ water quality criteria for certain metals, etc. For example, the TMDL-based limits could have been modified in future permitting (dropped or made more stringent depending on actual discharge data). NOTE: The Draft NPDES Permit Cover Letter and Fact Sheet explicitly stated that the June 20, 2018 Anti-deg PELs were not used in the NPDES Permitting. The PELs included more stringent ABACT limits than the existing or Draft NPDES Permit on the assumption that there was no SEJ coverage.

- **Schedule for submittal of public comments on Draft NPDES Permit**: They said they have already been given the 15 days extension, and do not need more time. **Told them that they can ask for more time if needed (especially if they wanted to do more sampling and analysis).**
- **Draft/Future TDS Permit Limits**:
  - What was the Genesis of the TDS limits**: The Draft NPDES Permit TDS limits were antidegradation limits.**
    - **Permit Basis Flows: Permit limits are based on the NPDES Permit Basis flow (400,000 GPD). They are discharging to a small stream. At 400,000 GPD discharge, the discharge will largely be the stream. NOTE: Original Fact Sheet stated: At 0.400 MGD NPDES Permit Basis flows, Porter Run will become a 7.14:1 effluent-dominated stream. At 6% NPDES permit basis flows (0.02397 MGD), the 0.056 MGD stream is not yet effluent-dominated.**
    - **Methodology: The application TDS sample data was inputted into the Toxic Screening Spreadsheet and PENTOXSD water quality modeling which indicated limits were needed. PENTOXSD generated the daily max limit. The IMAX limit was from the standard IMAX limit multiplier. The monthly average limit (500 mg/l) was determined to be what the original SEJ covered based on the available DEP facility files (including DRBC Docket statement that the STP was not expected to generate more than 500 mg/l TDS). The single TDS sample result information (528 mg/l) was very close to the DRBC-estimated value.**
    - **Original Social-Economic Justification (SEJ) Coverage: The facility was covered under SEJ. The (1986) DRBC Docket (issued to the facility) explicitly included statement that DRBC expected the discharge TDS to not exceed 500 mg/l. DRBC was contacted and indicated that this was the general STP assumption back then, but is no longer expected to hold due to water conservation fixtures, I&I control, etc. Therefore, the existing SEJ was assumed to explicitly cover a 500 mg/l monthly average discharge at NPDES permit basis flow (400,000 GPD). If they discharged a higher monthly average concentration at 400,000 GPD flow, then they would be increasing the loading on the stream beyond the SEJ coverage, degrading the stream.**
- Final Permit Monitoring/Reporting:
  - Final Permit: **Told them that we would be able to go to Monitoring & Reporting (monthly sampling per DRBC request) for this permit per internal discussions with Permits Chief (Amy Bellanca).**
  - **Any future Anti-deg limits would factor in the original SEJ coverage (500 mg/l at 400,000 GPD discharge).**
  - **If they think the SEJ allowed for higher TDS values, the Department would look at their technical argument. The 1000 mg/l DRBC basin-wide limit (cited in the 8/29/2018 DRBC E-mail) is likely as high as any future permit limit could go (with PENTOXSD or multiplier to generate Daily Max limit plus IMAX generated by multiplier) if otherwise allowed by anti-deg considerations.**
    - **If they have any additional TDS data or want to do new TDS sampling & analysis, they could do so in the public comment period. NOTE: See above about need to ask for more time, if needed).**

      NOTE: The facility's annual average daily discharges are about 6% of permit basis flow, meaning the facility is not presently in danger of exceeding SEJ-covered loadings. The stream is presently considered to be "attaining uses" (Chapter 93.3 "Protected water uses; Chapter 93.4 "Statewide water uses").
- DRBC requested monthly monitoring and reporting: **They indicated they would prefer quarterly TDS monitoring to monthly. The Department might incorporate the DRBC request into the Final NDPES Permit.**
- They noted there are other facilities in area are without TDS limits or with less stringent TDS limits: **Site-specific differences can render sites non-comparable.**
- They said that they had historical TDS/copper data**: They can provide it and the Department would see if it changed anything. Department noted that old data is sometimes usable and sometimes not (DEP Target QLs, changes in facility operations over time, sheer age, etc.).**

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- DEP SOPs**:** They argued the DEP instructions/SOPs did not require a TDS permit limit for less than 20,000 lbs/day TDS loadings**. The Department pointed to the anti-deg considerations here and need to address NPDES permit-basis flows.**
- New Development: They said they are currently looking at a warehouse that might generate 30,000 GPD sewage (only).
- Existing Lagoon: They said they had decommissioned and cleaned out the lagoon, but left it in place in case they might want to use it for stormwater control or other purpose. They will not be using it for STP operations during the new NPDES permit term. **The Departent told them that they could put that into writing, and then we could drop the Part C.III lagoon condition from NPDES permit. Department could not find the WQM permit file for replacing the lagoon with a storage tank, and therefore had to assume it might be used in the new NPDES permit term.**
- Copper limit and TRE Condition:
    - They asked for a complete PENTOXSD modeling copy: **Told consultant to e-mail me so that I could e-mail them back the PENTOXSD modeling sheets. NOTE:** E-mailed the information to the consultant on 9/26/2018**.**
    - They indicated they only had one copper sample result and that one sample does not seem enough to require permit limits: **I noted that the single sample exceeded the PENTOXSD-generated WQBEL, and therefore permit limits were triggered. The highest application concentration is inputted into the Toxic Screening Spreadsheet and PENTOXSD modeling to generate the WQBEL. They would need a minimum of ten sample results to allow for use of TOXCONC (using EPA-approved log-normal statistical methods) to generate a LTA to input into PENTOXSD instead. The more data points, the more accurate the generated LTA. They would have to show a LTA of less than 50% of the WQBEL to eliminate the permit limit.**
- Other options in addition to additional effluent sampling: They think the copper is coming from about 283 homes that might have copper from copper piping (that probably has become worse over the years). They asked about options to deal with copper**:**
    - **The TRE process gives them time to try to modify the limits or come into compliance with the new limits before the new limit effective date (harder to change after effective date).**
    - **They can sample stream and discharge total hardness. Copper and other metals WQ criteria is dependent on hardness, so greater than default hardness would help them.**
    - **They can ask for more time to come into compliance. Has to be within the 5-year permit term due to Chapter 92a.51 (unless Court Consent Decree allowed for more time). Interim milestones cannot be more than 1 year apart.**
    - **Reduce NPDES Permit Basis Flow (0.400 MGD) since they were about 6% of it.** They said this was not possible, and would impact local real estate values.
    - **Some facilities have looked at water sources to see if anti-corrosion chemical would make the problem go away, or if an anti-corrosion chemical is part of the problem.**
    - **Some facilities look at maximizing copper settlement/removal at their facilities.**
    - **Some facilities refine WQ modeling with other site-specific information. Not sure what would help here.**
- They asked if the SEJ covered copper (found in normal domestic wastewater): **They could try to make an argument about what the original SEJ might have covered in terms of copper levels in normal treated domestic wastewater. Any such argument would be run by Central Office and possibly the EPA to see if it is workable based on regulations/statutes**. **One EPA document discussed treated sewage copper levels, but it did not breakdown what was to be expected from a STP without industrial users.**
- They noted the point of first use might have been the Lehigh River in the past**: The Point of first use by aquatic life (bugs) is at the point of discharge now. Cannot be changed now.**
- They thought the AMD monitoring costs would be high for a "small STP": **The monitoring is to gather data. They can ask for changes in monitoring frequency. In this case, variable seasonal flows make quarterly monitoring needed, but we could terminate the monitoring early if results indicated low values. I pointed out the TMDL High Quality Stream Criteria referenced in the Fact Sheet in event future permit limits are needed.**

9/28/2018: E-mail from Dave Weaver (Penn E&R) with attached "Lagoon Decommission Document" ("9/28/2018 E-mail letter"): The letter indicated the Lagoon was decommissioned in Fall 2007 and included: Disconnection of influent piping; removal of sludge; removal of interior aeration piping and cleaning of liner materials. "Remnants of the Lagoon" (including liner and excavation) have remained in place. Penn E&R noted that it had prepared the construction Certification for the

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project under WQM Permit No. 1306403. **The Part C Solids Management Lagoon-specific condition language will be deleted from the Final NPDES Permit as it is no longer part of the active WWTP.**

10/12/2018: BRREC (Beaty) Public Comment Letter on Draft NPDES Permit and Fact Sheet: Comments included:

- Request for deletion of proposed TDS Limits (Draft NPDES Permit Part A.I.C)
- Request for deletion of proposed Copper Limits (Draft NPDES Permit Parts A.I.A and A.I.B)
- Request for deletion for proposed Lehigh River TMDL (Acid Mine Drainage) monitoring for Aluminum, Manganese, and Total Iron (Draft NPDES Permit Part A.I.C).
- Deletion of proposed lagoon closure documentation permit condition (Draft NPDES Permit Part C.II.C)
- Request for Redraft NPDES Permit after BRREC obtained representative sampling data for copper.

3/19/2019: BRREC (Beaty) E-mail asking for meeting prior to issuance of Redraft NPDES Permit and with additional copper sampling results and hardness data (in-stream and effluent) received: New data resulted in LTAMEC used in an updated Reasonable Potential Analysis (with instream and discharge total hardness levels) that resulted in more stringent copper limits (with LTAMEC above new and proposed limits).

4/1/2019: The Department received a copy of the Draft DRBC Docket No. D-1985-081-2 Update from the DRBC.

- Service Area Change: Service area revised per Act 537 Plan (no net increase in area; three new lots in revised service area for intended development/existing warehouses, so increased flows will eventually come to facility).
- Section A.5 (Facilities): DRBC Docket indicates comminutors (one now nonfunctional and other to be replaced by grinder pumps in Aerated EQ Tank per 3/7/2019 WQM Permit Application No. 1319401).
- Section C.1 (DRBC Parameters not included in NPDES Permit): DRBC is requesting CBOD5 Influent Monitoring (paired with effluent monitoring) and reporting of Minimum Monthly Average CBOD5 reduction. New requirements incorporated into Redraft NPDES Permit per Chapter 92a.12. Other DRBC parameter (quarterly TDS monitoring) was already in Draft NPDES Permit.

4/2/2019: Berger E-mail asked for meeting agenda to allow scheduling (i.e. who needed to be there and to allow for productive meeting). NOTE: Consultant previously called circa 3/29 and was told to supply meeting agenda to allow the Department to schedule a meeting.

4/4/2019: BRREC (Wayne Gross) E-mail asking for meeting with specific items to be discussed.

4/5/2019: DEP (Berger) E-mail scheduling requested meeting and asking for lab chain of custody forms.

4/10/2019: BRREC (Wayne Gross) E-mail with sampling type clarification and meeting bullet items of BRREC questions. Influent samples were grab samples and other samples were composite.

4/14/2019: BRREC (Wayne Gross) E-mail with BRREC analytical chain of custody information.

5/22/2019: Meeting (at request of Applicant regarding NPDES Permitting but also touching on concurrent WQM Permit Application). Meeting highlights:

- **Attendees:**
  - BRREC was represented by: Bruce Beaty (BRREC), Craig Harahus (BRREC), Patrick Lambert (BRREC), Joelle Posey (AECOM) and Wayne Gross (RKR Hess).
  - DEP was represented by: Amy Bellanca and James Berger. DEP Safe Drinking Water was invited to the meeting per applicant request, but did not come.
- **Concurrent WQM Permit Application:** Now complete and scheduled for review. PA Bulletin Notice sent out, with earliest possible permit action date in June. Will contact applicant if questions.
- **Impact of site-specific hardness and copper data on NPDES Permit:** The Copper WQ Criteria/Standard is hardness dependent, with BRREC-provided site-specific data indicating lower hardness than previous WQ modeling default (100 mg/l). Redraft Copper Limits will be more stringent. New copper data included ~10 samples above previous proposed 10 ug/l limit and LTAMEC on order of 29 ug/l. Due to limit being close to the DEP Target Quantitation limit for copper (4.0 ug/l), 24-hour composite sampling will be required in new permit term. New "WQBELs for toxic pollutant" condition will be Redraft NPDES Permit. Copy of SOP with Attachment C (new standard template "WQBELs for toxic pollutant" condition language) given to applicant for informational purposes.

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- **Overall Time-frames:** BRREC will send in a letter in the next several weeks to provide its game-plan to either provide new information (sampling data), proposal for tiered limits (if it will be proposed), etc.
  - **Redrafting the NPDES Permit was halted upon receipt of the meeting request (with the new copper and hardness sampling data).**
  - **The overall goal is for one more Redraft NPDES Permit, and then final NPDES Permit action. The Department will use available information to generate the Redraft NPDES Permit.**
- **SEJ and Copper:**
  - BRREC asked when Copper became part of NPDES Permit Application requirements (as it believes copper WQC has been relatively unchanged for decades). **DEP will get date from Central Office.**
  - **The Antidegradation regulations created a higher level of WQ protection than the state-wide Water Quality Criteria.**
    - **The SEJ addresses the (higher) Antidegradation water quality protection requirements for HQ streams.**
      - **Without SEJ, no degradation is allowed for a HQ stream.**
      - **SEJ cannot allow for degradation of stream below applicable state-wide Water Quality Criteria/Standards (Chapter 93).**
      - **If a new WQ criterion is ever proposed, then BRREC could comment on the development of any new water quality criterion during the public comment period.**
      - **If the DRBC imposed a new permit limit, then Chapter 92a.12 would require the more stringent or additional limit be incorporated into the NPDES Permit.**
      - **The Original SEJ coverage addressed those constituents for which actual data was included (data points for the constituents).**

6/3/2019: BRREC (Beaty) E-mail follow-up to 5/22/2019 Meeting, requesting for 3 months to collect additional data, tiered approach, seasonal approach, and outfall relocation options.

6/12/2019: DRBC Docket No. D-1985-081-2 issued (service area change, some additional DRBC monitoring requirements including quarterly TDS monitoring and monthly CBOD5 influent and CBOD5 percent minimum monthly average removal monitoring). **NOTE**: Additional or more stringent DRBC requirements incorporated into Redraft NPDES Permit per Chapter 92a.12 and 92a.36.

7/1/2019: WQM Permit No. 1319401 issued to replace two (2) existing Aerated Equalization Tank sewage pumps (0.3456 MGD; 240 GPM @ 12 Feet TDH) with two (2) shredder pumps (with VFD & controls) and to eliminate a non-functional comminutor (other functional 1.47 MGD comminutor to remain in place). The shredder pumps will be increased in size whenever average daily flows approach 0.273 MGD, to address the 0.400 MGD NPDES Permit No. PA0034118 permit basis flows. Special Conditions-related information from Fact Sheet:

- Condition A: The Department will require written notification and subsequent construction certification if the facility upgrades to larger shredder pumps due to >0.276 MGD flows.
- Condition B: Due to much higher permitted flows, the Department cannot concur with permanent deletion of redundant comminutor capacity. The facility has to retain space and piping provisions to allow for replacement of a replacement comminutor upon need. Prior Department notification will be required due to potential changes in technology standards, potential changes in regulatory requirements, and potential site-specific circumstances that might preclude “replacement-in-kind”/ If they ever reach higher NPDES Permit basis discharge flows, they might have to replace the non-functional comminutor to ensure redundancy (without requiring a new WQM Permit for a new treatment unit/device). Condition needed for them to notify Department or relook at needs if facility flows increase substantially, but to keep provisions available due to 0.400 MGD NPDES Permit Basis Flow.
- Condition C: The Department is requiring as-built drawings as a standard requirement.

8/7/2019: BRREC (Beaty) E-mail update regarding data collection (following up on 6/3/2019 BRREC E-mail).

8/7/2019: Applicant request for Preliminary Effluent Limits (PELs) for a conceptual relocation of outfall to Lehigh River (HQ-CWF; Natural Trout Reproduction; Lehigh River TMDL).

9/23/2019: BRREC (Beaty) E-mail requesting more time to collect and review analytical testing data (per 8/7/2019 E-mail).

10/17/2019: BRREC (Beaty) E-mail with summary of testing results.

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10/18/2019: DEP (Berger) E-mail confirming 12/18/2019 Meeting date and clarifying that tiered limits were an option, that seasonal limits were not (except for Ammonia-N and fecal coliform which have a regulatory basis), and asking if there were any additional Planning items to be discussed (due to ambiguity of previous communications).

10/25/2019: Two BRREC (Beaty) E-mails:

- One thanking Department for the scheduled 12/18 Meeting, noting that they would bring an attorney, and indicating BRREC was evaluating potential discharge tiers and proposed outfall relocation concept. with updated summary testing table (lab sheets to be provided separately).
- Second with lab sheets for the Jack Frost data collection. **NOTE**: The applicant did not follow the DEP ID# 391-2000-021 (Field Data Collection and Evaluation Protocol for Determining Stream and Point Discharge Design Hardness) requirements exactly, but provided additional sampling data. The policy does indicate that July through November sample data (corresponding to typical low flow periods) should be used. In terms of data directly relevant to water quality modeling:

Date	Porter Run Upstream Hardness (mg/l)	Porter Run Upstream Total Copper (mg/l)	Facility Effluent Hardness (mg/l)	Facility Effluent Total Copper (mg/l)
12/22/2019	-	-	-	0.0168
12/28/2019	-	-	56.8	0.0182
1/1/2019	6.56	-	-	0.0236
1/2/2019	-	-	56.6	
1/20/2019	-	-	-	0.0167
1/21/2019	-	-	-	0.0326
1/22/2019	-	-	-	0.0278
1/26/2019	-	-	-	0.0118
2/2/2019	-	-	-	0.0165
2/3/2019	-	-	-	0.0134
2/9/2019	-	-	-	0.0207
2/16/2019	-	-	48.7	0.0275
6/19/2019	10.7	<0.020	37.3	0.020
6/28/2019	12.7	<0.020	39.1	0.021
7/7/2019	-	-	41.9	0.028
7/26/2019	12.1	<0.020	**-**	-
7/27/2019	-	-	**38.5**	0.023
8/1/2019	8.86	<0.020	**40.2**	0.034
8/10/2019	10.3	0.00338	**43.8**	0.0205
8/21-22/2019	9.80	0.00391**	**47.2**	0.0217
9/6/2019	8.45	0.00126***	**44**	0.0216
9/26/2019	8.96	**0.0178**	**41.4**	0.0161
9/28/2019	**7.61**	0.00215	**41.2**	0.0122
10/3/2019	**7.66**	<0.001	**39.3**	0.0120
Arithmetic Average**	**9.40**	-	**43.35**	-

*Superseding previously provided data. Sampling was also done downstream of outfall, and Influent sampling for Jack Frost Ski Area and Snow Ridge areas (more relevant to source identification/reduction).
**Dissolved copper at 0.00363 mg/l with additional analytical data (6.85 SU pH; 9.40 mg/l Chloride; <5.0 mg/l Sulfate; <20.0 mg/l Alkalinity as $CaCO_3$; 1.38 mg/l dissolved organic carbon).
***Dissolved copper at 0.00141 mg/l with additional analytical data (6.54 SU pH; 6.64 mg/l Chloride; <5.0 mg/l Sulfate; <20.0 mg/l Alkalinity as $CaCO_3$; 0.639 mg/l dissolved organic carbon).
****TOXCONC is used for effluent LTAMEC for toxic WQBELs (i.e. setting maximum allowable discharge concentrations), **not** stream or discharge total hardness calculated per DEP Technical Guidance. Insensitive ND levels would also bias LTAMECs for copper concentrations in the receiving stream. DEP Target QL for Copper is 0.0040 mg/l.

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10/31/2019: Hard copies received of 10/25/2019 E-mail and 10/25/2019 Lab sheets for Jack Frost data collection (stream, effluent, select collection system sampling points for copper and hardness).

11/15/2019: DEP (Berger) E-mail inquiring if BRREC was still requesting tiered discharge limits.

11/21/2019: BRREC (Beaty) E-mail asking for confirmation of 12/18 Meeting. E-mail also referenced concern that tiered limits would not help the facility unless the first tier only required monitoring & reporting during the permit term (no permit limit). Original SEJ, facility flow history, and "lack of any observable adverse impact to the stream from 40+ years of discharge" referenced. The facility was indicated to have a historic maximum daily flow of 90,000 GPD. A conceptual tier starting at 100,000 GPD monthly average flow was mentioned with caveat that tiered limits request "should not be misconstrued as acquiescence of that point" (that BRREC does not believe any copper effluent limit be imposed). **NOTE**: Permit limits are based upon the 0.400 MGD NPDES Permit basis flow in the absence of a request to modify the NPDES Permit-basis flow.

11/21/2019: DEP (Amy Bellanca) E-mail confirming 12/18/2019 Meeting date.

12/3/2019: Preliminary Effluent Limits Letter for Conceptual Outfall Relocation (to Lehigh River) Letter issued. Same day Berger courtesy e-mailed copy to BRREC, with e-mail flagging changes to existing Outfall permit limits that would be in a Redraft NPDES Permit.

12/16/2019: BRREC (Beaty) E-mail with proposed 12/18/2019 meeting agenda

12/18/2019: 2nd Meeting requested prior to Redraft NPDES Permit: Highlights below. DEP Responses bolded.

- **Attendees:**
  - **BRREC**: Bruce Beaty (BRREC), Craig Harahus (BRREC), Patrick Lambert (BRREC), Joella Posey (AECOM) and Craig Wilson (K&L Gates).
  - **DEP**: Joseph Buczynski (Assistant Regional Director), Amy Bellanca (CW Permit Chief), James Berger (CW Engineer), Lance Zeyher (OCC) and Ann Conserette (OCC).
- **BRREC Permit History**: BRREC briefly described the history of the facility per its understanding (original SEJ through current NPDES Permit Renewal Application).
  - The facility was permitted with SEJ, with Porter Run initially being considered an "extension" of the WWTP discharge. The facility thought the original SEJ should address copper and other pollutants. **Per Central Office, SEJ does not cover the toxic pollutants (Copper and Zinc). The Department will double-check to see if Ammonia-N was covered by the original SEJ.**
  - The Draft NPDES Permit had 0.010 mg/l monthly average copper limit based on default hardness assumptions, with site-specific hardness data resulting in 0.004 mg/l copper monthly average limit. They had a 0.034 mg/l sampling event concentration. **The Department noted Copper LTAMEC was 0.029 ug/l (based on BRREC data). A quick glance at BRREC sampling data indicated only one exceedance of the LTAMEC. NOTE: Additional copper data will allow for refining the LTAMEC (Long Term Average Monthly Effluent Concentration) calculations prior to WQBEL effective date.**
  - They do not think their existing facility can meet the new copper limits (and possibly not the new zinc limits). BRREC noted that they collected site-specific data collection that only resulted in more stringent or new permit limits for copper and zinc (due to site-specific hardness data). The facility and receiving stream turned out to have very low hardness (impacting hardness-dependent metal water quality criteria). The site-specific data was below the PENTOXSD default hardness values (100 mg/l Total Hardness), being ~10 mg/l for stream and ~40 mg/l effluent hardness. BRREC indicated concern that further site-specific studies might result in more stringent limits. **Correct. More stringent limits are possible depending upon chemical translators and site-specific (Biotic-Ligand Model) results. They can do BLM as a desk top analysis to see if it helps. They will be able to obtain enough zinc effluent sampling data to allow for LTAMEC calculation prior to permit limit effective date (i.e. some potential for new zinc limit at that point in time but based on refined Long Term Average Monthly Effluent Concentration so compliance should be achievable).**

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- The 0.400 MGD NPDES Permit Basis Facility was estimated to discharge 0.032 MGD on average. The new warehouse customer was estimated to discharge 0.002 MGD normally (even with allowance for 0.020 MGD peak daily flows). The highest flow discharges are typically during winter, with lower flows during rest of year. **See Tiered Limits comments.**
- Potential TDS limits were to be removed from Redraft NPDES Permit per previous discussions.
- They noted the Preliminary Effluent Limits (PELs) Letter for a conceptual Lehigh River outfall relocation indicated revised existing Outfall permit limits for copper, zinc, and ammonia-N. **The Department used BRREC site-specific data to develop the PELs (copper and hardness) and to rerun the existing Outfall modeling. A prior modeling mistake was noted, indicating more stringent ammonia-N limits were needed to protect Porter Run. The new limits were flagged in the DEP E-mail (PEL letter attachment) to ensure BRREC noted the potential limits that would be incorporated into a Redraft NPDES permit.**
- They were unclear why copper became an issue since copper was not a major concern during SEJ and due not much change to the national WQS. **The Department noted Chapter 92a (effective 10/9/2010) was one reason. Permit application requirements were then expanded to include required copper sampling data that was then used in water quality modeling to determine if permit limits are required to meet the Chapter 93 water quality criteria.**
- They believe that the existing discharge has had no negative impact on the receiving stream. **The Department noted then they would be able to show that there is no impact at the existing discharge rates (i.e. potential lowest NPDES Permit flow tier) by site-specific data and/or criteria.**
- BRREC looked at other NPDES permits (including Aqua PA Inc. Lake Harmony NPDES No. PA0061204 with word searches in other permits) and did not see comparable copper limits, but noted site-specific circumstances can differ. **The Department noted the application required copper sampling data, which was then used in determining if permit limits were needed to meet the applicable water quality standards. The standard permitting procedures were followed for this 0.400 MGD NPDES Permit Basis discharge facility.**

- **Conceptual Relocation of Outfall to Lehigh River (12/3/2019 PEL Letter)**: BRREC indicated it was not interested in pursuing relocation of Outfall to Lehigh River, after reviewing Preliminary Effluent Limits (PELs) due to costs and lack of perceived benefits (as it thought copper limits would still be exceeded based on their sampling data). It requested copy of modeling for information purposes. They did not request Tiered limit PELs. BRREC indicated concern that DRBC might also impose additional or more stringent DRBC limits in event of such a relocation.
  - **The requested water quality modeling will be provided as requested. The Water Quality Modeling incorporated provided site-specific data on stream and effluent hardness.**
  - **The Department noted the copper PEL was based on the Long Term Average Monthly Effluent Concentration (LTAMEC) developed via TOXCONC spreadsheet (using EPA-approved statistical methodology). They should be able to meet this limit as a monthly average, with IMAX limit for exceedances. Facilities often take additional monthly average sampling in event of a sample exceeding the monthly average limit to show that they meet the monthly average limit over the course of a month. The LTAMEC limit can also be recalculated prior to the permit limit effective date using monitoring data (more data can be used to refine the copper LTAMEC). A Zinc LTAMEC will be calculated prior to the effective date of a new Zinc limit using monitoring data.**
  - **BRREC should contact DRBC directly if it wanted DRBC feedback on whether new or additional permit limits are required for such a relocation.**
- **Tiered Limits**: BRREC previously indicated that it was not interested in Tiered Permit Limits, because use of site-specific hardness data meant copper limits could not be met even at 0.075 MGD flows (per consultant modeling, who indicated uncertainty whether she had modeled 0.050 MGD flows)). The site-specific hardness data also triggered new requirements for zinc limits.
  - **The Department noted that BRREC could still pursue this option if BRREC identified the requested tiered flow levels. In conjunction with other options, this might make it easier for BRREC to meet the future permit limits. BRREC's consultant should model low flows to see if there is a monitor & report-only tier option.**
  - **The Department noted the NPDES Permit Basis flow is the Annual Average Daily Flow (365 days/year), so BRREC has option of modeling at lower flows. For example, they could have 0.100 MGD flows for three months in winter and still meet a lower NPDES Permit Basis annual average daily flow tier of 0.032 MGD (using BRREC-cited average flow). The LTAMEC was the basis of the copper monthly average limit, so should be achievable.**

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- **Until tiered limits are identified, the Department cannot determine if permit limits would apply to the lower tiered limits. BRREC's consultant can do the modeling to determine if there is some "magic" number where permit limits are not needed (only monitoring) that they could request.**
- **If tiered limits are proposed, the Part C WQBEL language would be modified as needed. Without actual proposed tiers, the Department was unsure how the Part C language would be modified to account for tiered limits. For example, if limits are still needed at specific tiers, then tiers might include new permit limits with new permit limit effective dates. The Part C schedule for action might be tied to trigger when BRREC anticipates meeting higher tier discharge flows. The Department would likely set any permit limit to trigger at 4.5 years in that event.**

- **Seasonal Limits**: BRREC noted DEP had previously indicated seasonal limits were not an option except for temperature-related (ammonia-N) or other regulatory-based permit limits (fecals). They noted that the Q7-10 low flow regime is usually during warm weather months whereas their peak flows are during ski seasons.
- **Options**: They asked for what are their options. **The Department provided a copy of the 2019 SOP for WQBELs, flagging Attachment C (WQBEL Special Condition) as the basic condition that would be in the Redraft NPDES Permit (minus non-applicable language). The Department then went through the permit condition process/options:**
  - **Timing of new Limits:** BRREC asked about timing of new permit limits. **If needed, new limits would be effective no later than 4.5 years into the NPDES permit term (maximum possible time-frame), to allow for time to modify permit if needed. Going beyond the 5-year NPDES Permit Term would require a Court Decree (Chapter 92a.51). Also, no interim milestone can be more than one year apart per regulation (Chapter 92a.51).**
    - **The first year would be to develop a TRE Work Plan.**
    - **A second year would be given to complete the TRE work Plan and any site-specific data collection**.
    - **A final WQBEL Compliance Report would be due at the end of the third year (unless there was an additional interim milestone like completion of a corrosion control study). They would have to determine if they can meet the new limits or not.**
    - **They can ask for a time-extension (into the next NPDES Permit term) if they meet the Chapter 95.4 requirements for a time extension. They could pursue site-specific water quality criteria during this time frame as well. The Department has accepted PENNVEST financial affordability analyses in the past for showing some upgrades are not financially feasible.**
    - **If they had a tiered flow that did not require permit limits, they would not have to do further investigation or action unless they anticipated greater flows in the future.**
    - **After new permit limits effective date, it takes meeting an antibacksliding exception to make permit limits less stringent than previously effective limits. New information can be the basis of antibacksliding exception.**
  - **Site-Specific Data Collection**: BRREC indicated it did not think site-specific data collection would help them. **The Department noted that several options might cumulatively make it easier for BRREC to meet permit limits in conjunction with tiered limits.**
    - **Discharge Pollutant Concentration Coefficients of Variability: This is an option. Might or might not help.**
    - **Discharge and Background Total Hardness: Copper and Zinc Water Quality Criteria/Standards are hardness-dependent.**
    - **Background/Ambient Pollutant Concentrations:** BRREC noted that one sample was ~17 ug/l with other sampling too insensitive to determine background concentrations for copper. **Would help if natural/ambient background is greater than proposed 0.004 mg/l permit limit (no additional stream degradation if natural stream concentration is higher).**
    - **Chemical (Metal) Translators**: BRREC consultant did not think this would be helpful. **Might help as there is a difference between total copper and dissolved copper in a stream.**
    - **Stream data and Mixing Study: Might or might not help.**
  - **Other Options**: BRREC indicated it would prefer to spend money solving the problem rather than doing more studies, but expressed concerns that it might not be able to meet limits at the end of the process. **Nothing prevents BRREC from pursuing treatment options to reduce copper effluent concentrations at any time (by pilot project or Part II WQM Permitting) instead of site-specific data collection or concurrent with it. In terms of other options**:

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- **TRE:** They have already done some collection system monitoring and have not found any copper hot spots for source reduction. They think the problem is water stagnating in residential copper pipes and then being flushed upon water usage. They expect relative copper concentrations to fall in event that they receive higher influent flows (in the absence of copper piping contributions).
- **Corrosion Control Study Option (Water Supply source reduction)**: They noted Snow Ridge Association (water supplier) had a grant to investigate copper corrosion in a 2-year study, but they did not know status. Snow Ridge Association is not under their control. They expressed concern that corrosion control might create new issues with TDS and/or zinc (if zinc products are used for corrosion control). **The Department noted BRREC had an option to finance corrosion control to reduce copper concentrations without causing other problems. There are a number of corrosion control chemicals. The Department will check with the DEP Safe Drinking Water Program for status of what Snow Ridge Association is doing & its status.**
- **Other Treatment Options**: BRREC asked about treatment technology options. They believe their data shows the plant is removing copper, but not enough to meet proposed permit limits. **Other permittees have used polymers to reduce copper solids and otherwise optimize solids removal. Reverse Osmosis is an option that some have looked at. The Department is not the technical consultant for permittees and cannot recommend a specific technology.**
- **Inability to meet Water Quality Standards**: BRREC indicated a concern that it might not be able to meet the future permit limits at the end of the process, while not impacting Porter Run aquatic life to its knowledge. **The Department noted that it has limited options when a permittee indicates inability to meet water quality criteria to protect aquatic life.**
  - **If the aquatic life is not being impacted, that is a sign that site-specific data/water quality criteria are available options. See related tiered limit comment (existing 0.032 MGD discharge flow tier concept).**
  - **The WQBEL for Toxics Pollutants SOP Attachment C (Permit Condition) addresses the process to handle the contingency of infeasibility to meet permit limits.**
- **Other sources of information**:
  - **There is no current DEP table of recommended technologies for meeting copper limits. The BRREC request for such a table will be passed on to DEP Central Office for their consideration.**
  - **EPA Operator Assistance can help operators.**
  - **Other facility operators are usually willing to explain what they have done.**
  - BRREC noted that they tried to schedule a file review for another 0.400 MGD facility in the area (Aqua PA Little Washington Lake Harmony WWTP) but it was rescheduled to after the meeting. They understood site-specific considerations might render that facility's limits non-comparable.
  - BRREC asked for other stream hardness data in Region. **The Department has some stream hardness data available for some streams, but not all. NOTE:** Site-specific data trumps data on other streams' data.
  - BRREC requested that all permittees/permit applicants be required to supply stream hardness data (not just Major POTWs, etc.). **The Department indicated it would pass on this request to DEP Central Office.**

- Sale: They sold the ski area but not the WWTP. **The Department noted that if the permittee must be the party in control of the purse strings, and that a change in EIN# would mean a NPDES/WQM Permit Transfer is needed.**
- New Warehouse Flows: BRREC asked about potential issues. **The Department noted that warehouses often have inside floor drains that discharge to directly to sewer systems. Warehouses have been known to cause WWTP operational problems due to cleaning chemicals, etc. impacting WWTP microbes (especially during low flow conditions). The Department noted NPDES Permit Part B.I.D (General Pretreatment Requirements) applies. Facilities can set limits or other requirements for customers. Some customers simply direct floor drains to a holding tank for offsite disposal.**

- **Action Items**:
  - **Safe Drinking Water Program and Corrosion Control Study:** DEP Clean Water will contact DEP Safe Drinking Water Program about what is going on with the Snow Ridge Association corrosion control grant/study. **NOTE**: DEP Safe Drinking Water Program subsequently indicated:

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- Snow Ridge Association is a transient public water system, and as such isn't required to complete lead and copper rule monitoring.
- Snow Ridge Village does currently have general corrosion control installed (pH adjustment).

- **Default Hardness Values**: The DEP Attorney asked if the Department could revert to default hardness data (water quality modeling inputs) in developing the WQBELs (despite submitted site-specific hardness data), in the context of the existing SEJ. The Clean Water Program indicated it would check with Central Office about this concept. **NOTE**: Site-specific data trumps default assumptions.
- **Water Quality Modeling:** The DEP will provide the requested water quality modeling after rechecking SEJ coverage in terms of Ammonia-N limits.
- **Future Redraft NPDES Permit (after DEP supplies other Action item information):** The next permitting step would be issuing a Redraft NPDES Permit (after DEP provided the above information for BRREC). If BRREC wants tiered limits, it can still request them to be included in a Redraft NPDES Permit. The Redraft NPDES Permit will address agreed-upon TDS change and new Part C WQBEL condition replacing previous TRE condition. The Redraft NPDES Permit would address all public comments. Only BRREC has commented on the Draft NPDES Permit.

10/19/2021: E-mail from the sanitarian (Jeremy Schrepple) for Snow Ridge Village: This is a transient public water system, and as such isn't required to complete lead and copper rule monitoring. Snow Ridge Village does currently have general corrosion control installed (pH adjustment). (BRREC has asked about the status of any corrosion control study for that source).

12/14/2021: New consultant (GHD) e-mail: GHD has been retained by the Blue Ridge Real Estate Co. to review documentation relative to their draft NPDES Permit No. PA0034118. They requested a copy of the water quality modeling.
NOTE: Old PENTOXSD modeling was outdated (not including applicant-provided site-specific information). New TMS modeling was generated.
1/6/2022: DEP (Berger) e-mailed GHD (consultant) a copy of Toxic Management Spreadsheet (TMS) water quality model and asked if there was any information/comment or schedule for providing such for redrafting the NPDES Permit. The client had previously indicated they were dropping requests for outfall relocation or tiered limits, but other options were mentioned in the last meeting

3/27/2024: Draft BRREC Jack Frost DRBC Docket No. D-1991-046-4 for Surface Water Withdrawal to renew the approval of an allocation of 12.4 million gallons per month (mgm) of surface water from an existing intake on Tobyhanna Creek for golf course irrigation. forwarded to Department. The same intake facility is also used to supply water for snow making operations at the JFBB Ski Areas, Inc. - Jack Frost Ski Area as described in DRBC Docket No. D-1993-057-3 approved on September 16, 2015.

- The docket holder's Tobyhanna Creek surface water withdrawal will continue to be subject to a pass-by flow requirement. DRBC staff previously estimated the seven-day low flow with a recurrence interval of 10 years (Q7-10) at the point of withdrawal to be 22.4 cubic feet per second (cfs) or 14.5 mgd. The project withdrawal must not cause the stream flow in Tobyhanna Creek to be less than 22.4 cfs at the point of taking and daily withdrawal rates shall be reduced as appropriate to ensure that a minimum of 22.4 cfs passes by the intake. Withdrawals shall cease entirely if the 24-hour average flow as measured below the intake, less the withdrawal, is 22.4 cfs or less. Whenever the stream flow below the intakes is less than 22.4 cfs, no withdrawal from Tobyhanna Creek shall be made and the entire natural stream flow must be allowed to pass. No withdrawals shall be made until flow in Tobyhanna as measured below the intake is above 23.3 cfs for at least a 24-hour period.
- Domestic wastewater from the project is conveyed to the docket holder's sewage treatment facility which received approval most recently approved by DRBC Docket No. D-1985-081-2 on January 22, 1986.

11/26/2024: DRBC E-mail inquiring into status of NPDES Permit. DRBC Docket being updated.
12/3/2024: DEP (Berger) E-mail response to DRBC, indicating NPDES Permit would be redrafted.
12/3/2024: DRBC E-mail thanking Department for response. The E-mail noted the facility has a low strength influent, and had miscalculated some CBOD5 removal values in previous years.
2/7/2025: DEP (Berger) E-mail restarting NPDES permitting. Told them to update the NPDES permit application information as needed to address any substantive change (since original NPDES Permit Application submittals), with flagging of substantive changes, and provide any additional public comments on the 2018 Draft NPDES Permit by 4/7/2025.
2/25/2025: Voice mail from Wayne Gross (Jack Frost consultant) with unidentified question about 2/7/2025 E-mail. Asked for call back.

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2/26/2025: This reviewer called the consultant back. They are working on revised application. They were asking if the Department had received public comments from third parties. The communications log noted a draft DRBC Docket but no specific public comments on the 2018 Draft NPDES Permit. DRBC Docket requirements would be incorporated into any Redraft NPDES permit.
3/4/2025: BRREC (Beaty) E-mail indicating no further public comments on 2018 Draft NPDES Permit beyond their 10/12/2018 Letter. Request for telephone call to address questions on the 2/7/2025 DEP E-mail requests. The E-mail noted that Craig Harahus (BRREC) had retired. **NOTE**: See Communications Log above for post-10/12/2018 BRREC public comments.
3/13/2025: BRREC (Beaty) E-mail asking for extension to response to 2/7/2025 DEP E-mail (application updating and public comments to allow redraft NPDES Permit). No target date for submittal included.
3/19/2025: DEP (Berger) E-mail asking for detailed meeting agenda to allow for a productive meeting and setting a date for updated application information submittal (and the requirements).
4/3/2025: BRREC (Beaty) E-mail requesting meeting to discuss 2018 public comments and indicating no new information is available.
4/4/2025: BRREC (Wayne Gross, RKR) E-mail asking for an extension for updated NPDES permit application update information. We need additional time beyond April 7, 2025 to include the needed information:

- Need lab to provide the "J" qualifier calculation for a number of the test results.
- Influent sampling is needed for a number of parameters.
- Effluent sampling is needed for a number of parameters not normally tested for during DMR testing.

We estimate being able to submit the updated NPDES application by June 1, 2025 or earlier pending processing of the lab results.
4/7/2025: DEP (Berger) E-mail extension to June 1, 2025 for updated application information, and noting that no meeting would be productive until after a Redraft NPDES Permit is issued that addressed previous public comments and/or new information.
5/29/2025: Public Upload# 320969 (updated NPDES Permit Application)