

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

## NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0217115  
APS ID 1056134  
Authorization ID 1384054

### Applicant and Facility Information

Applicant Name	<u>Indiana County Municipal Services Authority</u>	Facility Name	<u>Jacksonville STP</u>
Applicant Address	<u>602 Kolter Drive</u> <u>Indiana, PA 15701</u>	Facility Address	<u>105 Cunkleman Road</u> <u>Kent, PA 15752</u>
Applicant Contact	<u>Tricia Lefko</u>	Facility Contact	<u>Tricia Lefko</u>
Applicant Phone	<u>(724) 349-6640</u>	Facility Phone	<u>(724) 349-6640</u>
Client ID	<u>38534</u>	Site ID	<u>250626</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Black Lick Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Indiana</u>
Date Application Received	<u>February 4, 2022</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES Permit renewal for an existing minor sewage facility discharge.</u>		

### Summary of Review

An application was submitted for an NPDES permit renewal for an existing minor sewage facility discharge. The ICMSA owns and operates the Jacksonville STP in Black Lick Township.

E. Coli monitoring has been added to the permit.

There are open violations for NWRO, but only for the Safe Drinking Water Program.

This treatment plant consists of a lift tank, EQ tank, aeration tank, clarifier, UV disinfection, and Outfall 001 to Reeds Run.

Sludge use and disposal description and locations: Disposed off-site without treatment

#### Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		Benjamin R. Lockwood Benjamin R. Lockwood / Environmental Engineering Specialist	March 29, 2025
		Adam Olesnanik, P.E. / Environmental Engineer Manager	Okay to Draft JCD 4/3/2025

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.077</u>
Latitude	<u>40° 32' 20.67"</u>	Longitude	<u>-79° 16' 59.78"</u>
Quad Name	<u></u>	Quad Code	<u></u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Reeds Run (TSF)</u>	Stream Code	<u>43950</u>
NHD Com ID	<u>123720616</u>	RMI	<u>0.16</u>
Drainage Area	<u>7.28 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u>0.038</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.278</u>	Q <sub>7-10</sub> Basis	<u>USGS PA StreamStats</u>
Elevation (ft)	<u>1266</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>18-D</u>	Chapter 93 Class.	<u>TSF</u>
Existing Use	<u>N/A</u>	Existing Use Qualifier	<u>N/A</u>
Exceptions to Use	<u>N/A</u>	Exceptions to Criteria	<u>N/A</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals</u>		
Source(s) of Impairment	<u>Acid Mine Drainage</u>		
TMDL Status	<u>Final, Tentative</u>	Name	<u>Kiskiminetas-Conemaugh River Watersheds TMDL, Reeds Run Watershed</u>

Changes Since Last Permit Issuance: None

Other Comments: None

Treatment Facility Summary				
Treatment Facility Name: Jacksonville STP				
WQM Permit No.	Issuance Date			
3297404	3/23/98			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Ultraviolet	0.027
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.077	130	Not Overloaded	Aerobic Holding Tank	Other WWTP

Changes Since Last Permit Issuance: None

Other Comments: None

Compliance History	
Summary of DMRs:	There was a DO violation from 4/30/24.
Summary of Inspections:	8/5/2021: An incident inspection was conducted. An unauthorized bypass occurred due to heavy rainfall.

Other Comments: None

Compliance History

DMR Data for Outfall 001 (from February 1, 2024 to January 31, 2025)

Parameter	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24
Flow (MGD) Average Monthly	0.055	0.059	0.041	0.048	0.049	0.053	0.045	0.044	0.064	0.073	0.064	0.055
Flow (MGD) Weekly Average	0.06	0.059	0.046	0.061	0.059	0.058	0.046	0.048	0.076	0.080	0.079	0.061
pH (S.U.) Minimum	6.4	6.4	6.1	6.7	6.5	6.1	6.3	6.2	6.5	6.5	6.2	6.7
pH (S.U.) Maximum	7.0	7.1	7.1	7.2	7.3	7.1	7.1	7.0	7.3	7.1	7.2	7.1
DO (mg/L) Minimum	6.1	6.1	6.2	6.1	6.0	6.0	6.1	6.0	6.1	4.3	6.1	6.2
CBOD5 (lbs/day) Average Monthly	< 2.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 2.0	< 3.0	< 2.0
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 4.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	4.0	< 3.0	< 8.0	< 4.0
CBOD5 (mg/L) Instantaneous Maximum	< 3.0	3.8	4.13	< 3.0	3.11	< 3.0	< 3.0	< 3.0	4.16	< 3.0	9.09	4.92
BOD5 (lbs/day) Raw Sewage Influent   Average Monthly	97.0	68.0	46.0	70.0	79.0	69.0	72.0	107.0	41.0	67.0	95.0	76.0
BOD5 (mg/L) Raw Sewage Influent   Average Monthly	193.0	140.0	142.7	156.0	166.0	108.0	187.0	280.0	80.3	108.3	164.0	155.0
TSS (lbs/day) Average Monthly	2.4	2.3	2.1	2.1	2.2	< 0.7	< 0.9	< 0.6	1.3	1.6	2.1	2.4
TSS (lbs/day) Raw Sewage Influent   Average Monthly	103.0	56.0	163.0	87.0	89.0	108.0	107.0	122.0	116.0	49.0	90.0	60.0
TSS (mg/L) Average Monthly	5.0	5.0	6.0	5.0	5.0	2.0	< 2.0	< 2.0	2.0	3.0	3.0	5.0
TSS (mg/L) Raw Sewage Influent   Average Monthly	205.0	115.0	457.0	195.0	185.0	254.0	280.0	318.8	263.0	82.0	155.0	119.0

**NPDES Permit Fact Sheet  
Jacksonville STP**

**NPDES Permit No. PA0217115**

TSS (mg/L) Instantaneous Maximum	6.0	6.0	7.6	6.4	5.2	< 1.6	3.0	< 1.6	2.4	3.6	4.4	6.0
Fecal Coliform (No./100 ml) Geometric Mean	6.0	< 1.0	< 1.0	2.0	< 1.0	5.0	< 1.0	< 1.0	< 1.0	< 12.0	30.0	< 15.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	36.4	< 1.0	< 1.0	2.0	< 1.0	13.5	< 1.0	< 1.0	1.0	145.0	98.8	235.9
UV Transmittance (%) Average Monthly	2.7	3.8	3.6	3.5	3.6	3.4	3.6	3.6	3.6	3.6	3.8	4.0
Total Nitrogen (mg/L) Daily Maximum		< 0.5										
Ammonia (lbs/day) Average Monthly	< 0.05	< 0.05	< 0.05	< 0.04	< 0.05	< 0.04	< 0.04	< 0.04	< 0.05	< 0.07	< 0.06	< 0.5
Ammonia (mg/L) Average Monthly	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.9
Ammonia (mg/L) Instantaneous Maximum	< 0.1	< 0.1	0.2046	< 0.1	< 0.1	0.01	< 0.1	< 0.1	< 0.1	0.1245	< 0.1	1.772
Total Phosphorus (mg/L) Daily Maximum		1.67										

**Compliance History**

**Effluent Violations for Outfall 001, from: March 1, 2024 To: January 31, 2025**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
DO	04/30/24	Min	4.3	mg/L	6.0	mg/L

**Development of Effluent Limitations**

<b>Outfall No.</b>	001	<b>Design Flow (MGD)</b>	.077
<b>Latitude</b>	40° 32' 20.67"	<b>Longitude</b>	-79° 16' 59.78"
<b>Wastewater Description:</b> Sewage Effluent			

**Technology-Based Limitations**

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD <sub>5</sub>	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)

Comments: E. Coli monitoring has been added per Chapter 92 requirements.

**Water Quality-Based Limitations**

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
NH3-N	7.29	Avg. Mo.	WQM 7.0

The existing NH3-N limit is more stringent and will remain in the permit.

**Additional Considerations**

This facility is a POTW, therefore, the requirement to sample raw sewage BOD and TSS has been incorporated into the permit.

Total Nitrogen and Total Phosphorus will be monitored 1/year per the Departments' SOP.

Ultraviolet disinfection is used; therefore, a monitoring requirement for UV Transmittance is included in the permit.

**Anti-Backsliding**

Pursuant to 40 CFR § 122.44(l)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Wkly Avg	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
CBOD5	16	XXX	XXX	25	XXX	50	2/month	Grab
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS	19.2	XXX	XXX	30	XXX	60	2/month	Grab
Total Suspended Solids Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
UV Transmittance (%)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	5.5	XXX	XXX	8.5	XXX	17.0	2/month	Grab
Ammonia May 1 - Oct 31	2.8	XXX	XXX	4.4	XXX	8.8	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None



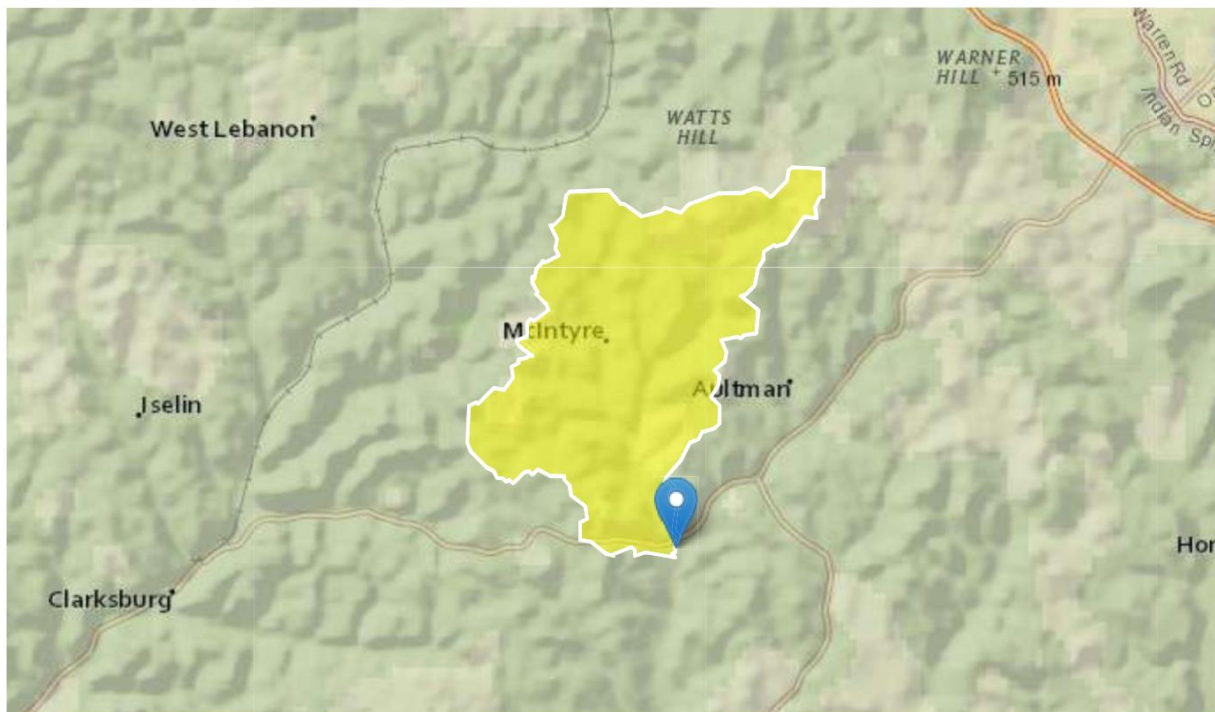
## Indiana County Municipal Services Authority PA0217115 Outfall 001

**Region ID:** PA

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**Time:** 2025-03-28 13:32:56 -0400



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### ➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	7.28	square miles
ELEV	Mean Basin Elevation	1266	feet
PRECIP	Mean Annual Precipitation	43	inches

## ➤ Low-Flow Statistics

## Low-Flow Statistics Parameters [Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.28	square miles	2.33	1720
ELEV	Mean Basin Elevation	1266	feet	898	2700
PRECIP	Mean Annual Precipitation	43	inches	38.7	47.9

## Low-Flow Statistics Flow Report [Low Flow Region 3]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.651	ft^3/s	43	43
30 Day 2 Year Low Flow	0.949	ft^3/s	38	38
7 Day 10 Year Low Flow	0.278	ft^3/s	54	54
30 Day 10 Year Low Flow	0.404	ft^3/s	49	49
90 Day 10 Year Low Flow	0.599	ft^3/s	41	41

*Low-Flow Statistics Citations*

**Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)**

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Application Version: 4.28.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

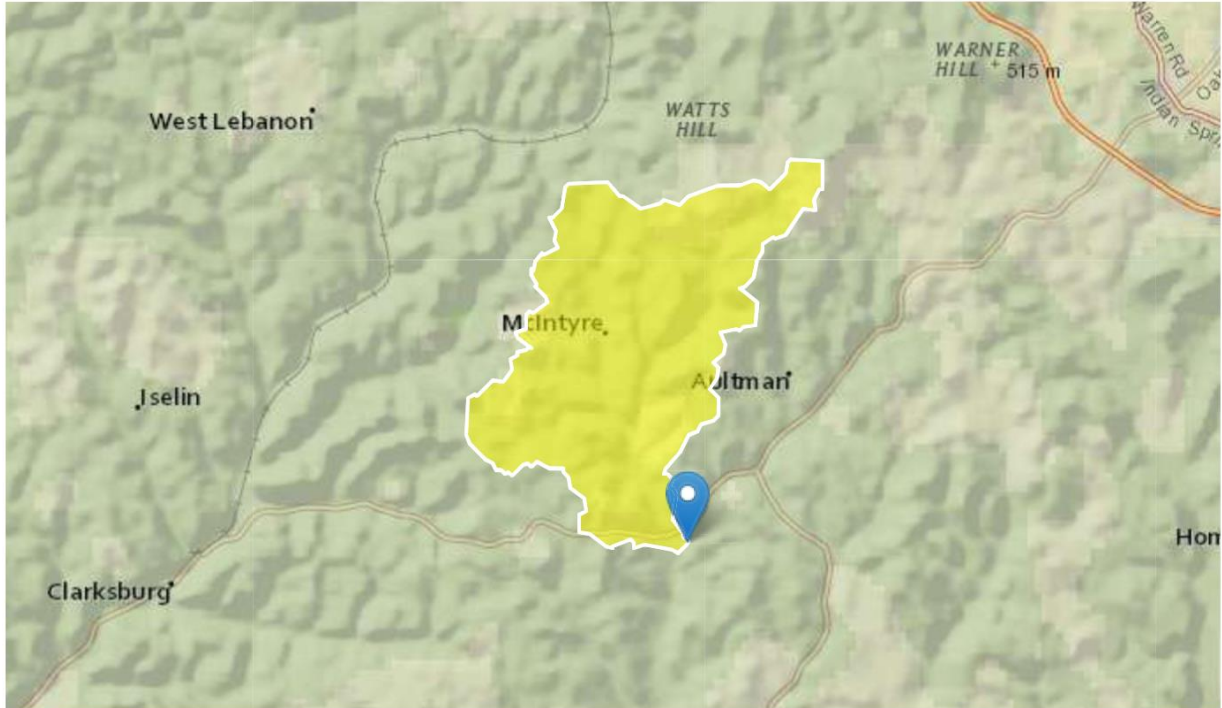
## Indiana County Municipal Services Authority PA0217115 RMI = 0.0

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**Workspace ID:** PA20250328173649934000

**Clicked Point (Latitude, Longitude):** 40.53885, -79.28056

**Time:** 2025-03-28 13:37:25 -0400



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### ➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	7.3	square miles
ELEV	Mean Basin Elevation	1265	feet
PRECIP	Mean Annual Precipitation	43	inches

## ➤ Low-Flow Statistics

## Low-Flow Statistics Parameters [Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.28	square miles	2.33	1720
ELEV	Mean Basin Elevation	1266	feet	898	2700
PRECIP	Mean Annual Precipitation	43	inches	38.7	47.9

## Low-Flow Statistics Flow Report [Low Flow Region 3]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.651	ft^3/s	43	43
30 Day 2 Year Low Flow	0.949	ft^3/s	38	38
7 Day 10 Year Low Flow	0.278	ft^3/s	54	54
30 Day 10 Year Low Flow	0.404	ft^3/s	49	49
90 Day 10 Year Low Flow	0.599	ft^3/s	41	41

*Low-Flow Statistics Citations*

**Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)**

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Application Version: 4.28.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

### Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
18D	43950	REEDS RUN	0.160	1266.00	7.28	0.00000	0.00	<input checked="" type="checkbox"/>

#### Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.100	0.00	0.28	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

#### Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
ICMSA	PA0217115	0.0770	0.0770	0.0770	0.000	25.00	7.00

#### Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

### Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
18D	43950	REEDS RUN	0.160	1266.00	7.28	0.00000	0.00	<input checked="" type="checkbox"/>

#### Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.100	0.00	0.28	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

#### Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
ICMSA	PA0217115	0.0770	0.0770	0.0770	0.000	25.00	7.00

#### Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70



### WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>			<u>Stream Name</u>							
18D		43950			REEDS RUN							
RMI	Stream Flow	PWS With	Net Stream Flow	Disc Analysis Flow	Reach Slope	Depth	Width	W/D Ratio	Velocity	Reach Trav Time	Analysis Temp	Analysis pH
	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft)	(ft)		(fps)	(days)	(°C)	
<b>Q7-10 Flow</b>												
0.160	0.28	0.00	0.28	.1191	0.00118	.466	11.86	25.42	0.07	0.136	21.50	7.00
<b>Q1-10 Flow</b>												
0.160	0.18	0.00	0.18	.1191	0.00118	NA	NA	NA	0.06	0.160	22.01	7.00
<b>Q30-10 Flow</b>												
0.160	0.38	0.00	0.38	.1191	0.00118	NA	NA	NA	0.08	0.120	21.20	7.00

**WQM 7.0 Modeling Specifications**

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	5		

### WQM 7.0 Wasteload Allocations

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
18D	43950	REEDS RUN

#### **NH3-N Acute Allocations**

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.160	ICMSA	14.19	35.39	14.19	35.39	0	0

#### **NH3-N Chronic Allocations**

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.160	ICMSA	1.75	7.29	1.75	7.29	0	0

#### **Dissolved Oxygen Allocations**

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
0.16	ICMSA	25	25	7.29	7.29	5	5	0	0

### WQM 7.0 D.O.Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
18D	43950	REEDS RUN		
<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
0.160	0.077	21.500	7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
11.856	0.466	25.421	0.072	
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>	
8.90	1.241	2.19	0.786	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
7.270	15.789	Owens	5	
<u>Reach Travel Time (days)</u>	<b>Subreach Results</b>			
0.136	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.014	8.74	2.16	7.28
	0.027	8.58	2.14	7.29
	0.041	8.43	2.12	7.30
	0.054	8.28	2.10	7.31
	0.068	8.13	2.07	7.33
	0.082	7.98	2.05	7.35
	0.095	7.84	2.03	7.37
	0.109	7.70	2.01	7.39
	0.123	7.56	1.99	7.41
	0.136	7.43	1.97	7.43

### WQM 7.0 Effluent Limits

<u>SWP Basin</u>		<u>Stream Code</u>	<u>Stream Name</u>				
18D		43950	REEDS RUN				
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
0.160	ICMSA	PA0217115	0.077	CBOD5	25		
				NH3-N	7.29	14.58	
				Dissolved Oxygen			5