pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0092487**
Facility Type	**Non-Municipal**	APS ID	**277112**
Major / Minor	**Minor**	Authorization ID	**1212285**

Applicant and Facility Information

Applicant Name	**Nino Barsotti**	Facility Name	**Ninos Restaurant STP**
Applicant Address	546 Three Mile Hill Road	Facility Address	546 Three Mile Hill Road
	Mt Pleasant, PA 15666-8874		Mt Pleasant, PA 15666-8874
Applicant Contact	Elizabeth - Nino Barsotti	Facility Contact	Same as Applicant
Applicant Phone	(724) 547-2900	Facility Phone	Same as Applicant
Client ID	45085	Site ID	243894
Ch 94 Load Status	Not Overloaded	Municipality	Bullskin Township
Connection Status		County	Fayette
Date Application Received	October 31, 2017	EPA Waived?	Yes
Date Application Accepted	January 4, 2018	If No, Reason	

Purpose of Application: Application for a renewal of an existing NPDES permit for discharge of treated Sewage.

Summary of Review

The applicant has applied for a renewal of NPDES Permit No. PA0092487, which was previously issued by the Department on April 22, 2013. That permit expired on April 30, 2018.

WQM Permit No. 2676402 authorized the construction of a STP with a hydraulic design capacity of 0.007 MGD.

The existing extended aeration treatment process consists of EQ tank, 2 aeration tanks, a clarifier, Pyradeck fixed media filtration and chlorination.

The receiving stream, UNT to Jacobs Creek, is classified as a CWF and is located in State Watershed No. 19-D.

The applicant has complied with Act 14 Notifications and no comments were received

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		/s/ William C. Mitchell, E.I.T. / Project Manager	August 23, 2019
X		/s/ Donald J. Leone, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.007
Latitude	40º 8' 34.00"	Longitude	-79º 28' 59.00"
Quad Name	Mammoth	Quad Code	1710
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Jacobs Creek (CWF)	Stream Code	37983
NHD Com ID	69914045	RMI	0.15
Drainage Area	2.85	Yield (cfs/mi^2)	0.026
Q_{7-10} Flow (cfs)	0.074	Q_{7-10} Basis	PA Bulletin 12, STA 03083000, Green Lick Run @ Green Lick Reservoir
Elevation (ft)	1160	Slope (ft/ft)	0.025
Watershed No.	19-D	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use	NONE	Exceptions to Criteria	NONE
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake		Pennsylvania-American Water Company, Pittsburgh	
PWS Waters	Monongahela River	Flow at Intake (cfs)	
PWS RMI	4.6	Distance from Outfall (mi)	

Changes Since Last Permit Issuance: NONE

Treatment Facility Summary				
Treatment Facility Name: Ninos Restaurant STP				
WQM Permit No.	**Issuance Date**			
2676402				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Chlorine	
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.007		Not Overloaded	Aerated Holding Tank	Regional WWTP

Changes Since Last Permit Issuance: NONE

Compliance History

Operations Compliance Check Summary Report

Facility: Nino's Restaurant STP
NPDES Permit No.: PA0092487
Compliance Review Period: 8/2014 – 8/2019

Inspection Summary:

INSP ID	INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC	INSPECTION COMMENT
2826532	11/14/2018	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted	
2789820	10/04/2018	Administrative/File Review	PA Dept of Environmental Protection	Violation(s) Noted	
2650669	10/16/2017	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	
2610683	04/11/2017	Administrative/File Review	PA Dept of Environmental Protection	Violation(s) Noted	
2351981	01/29/2015	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	Total Phosphorus & Total Nitrogen parameter results not submitted for 2014.

Violation Summary:

VIOL ID	VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE	INSPECTED DATE	INSP TYPE
830670	10/04/2018	92A.61(G)	NPDES - Failure to use a format or process required by DEP for self-monitoring results	11/19/2018	10/04/2018	Administrative/File Review
799771	10/16/2017	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	10/23/2017	10/16/2017	Compliance Evaluation
789662	04/11/2017	92A.61(G)	NPDES - Failure to use a format or process required by DEP for self-monitoring results	11/19/2018	04/11/2017	Administrative/File Review
717768	01/29/2015	92A.61(C)	NPDES - Failure to monitor pollutants as required by the NPDES permit	03/16/2015	01/29/2015	Compliance Evaluation

Open Violations by Client ID:

No open violations for client ID 90463

Enforcement Summary:

ENF ID	ENF TYPE	ENF CREATION DATE	VIOLATIONS	ENF FINALSTATUS	ENF CLOSED DATE
368253	NOV	10/17/2018	92A.61(G)	Comply/Closed	11/19/2018
358808	NOV	10/23/2017	92A.41(A)12B	Administrative Close Out	08/21/2019
354814	NOV	07/05/2017	92A.61(G)	Comply/Closed	11/19/2018
320979	NOV	03/16/2015	92A.61(C)	Administrative Close Out	08/19/2019

DMR Violation Summary:

eDMR started in July 2019. No exceedances in 2017 and 2018

Compliance Status:

Permittee is in compliance.

Completed by: John Murphy

Completed date: 8/21/2019

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .004
Latitude 40º 8' 34.00" **Longitude** -79º 28' 59.00"
Wastewater Description: 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
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

The discharge was previously modeled using WQAM6.3 to evaluate the $CBOD_5$, Ammonia Nitrogen and Dissolved Oxygen parameters. Because there have been no changes to the discharge or the receiving stream, it is unnecessary to remodel these three parameters using the current WQM 7.0 model because the same effluent results are computed for a single discharge scenario. The modeling results show technology based effluent limitations for $CBOD_5$ are appropriate.

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

Parameter	Limit (mg/l)	SBC	Model
Ammonia Nitrogen (May 1 to Oct 31)	10.0	Average Monthly	WQAM6.3
Ammonia Nitrogen (Nov 1 to April 30)	20.0	Average Monthly	WQAM6.3

Best Professional Judgment (BPJ) Limitations

Comments: A Dissolved Oxygen minimum limitation of 4.0 mg/l will be imposed based on the standard in 25 PA Code Chapter 93 and best professional judgment.

Anti-Backsliding

N/A

Additional Considerations:

For pH, Dissolved Oxygen (DO) and Total Residual Chlorine (TRC), a monitoring frequency 1/day has been imposed. In general, less frequent monitoring may be established only when the permittee demonstrates that there will be no discharge on days where monitoring is not required.

Nutrient monitoring is required to establish the nutrient load from the waste water treatment facility and the impacts that load may have on the quality of the receiving stream(s). A 1/year monitor and report requirement for Total N & Total P has been added to the permit as per Chapter 92.a.61.

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers, from the Departments Technical Guidance for the Development and Specification of Effluent Limitations.

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" (362-0400-001), SOPs and/or BPJ.

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.007	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	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
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	20	XXX	40	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: 001

TRC_CALC

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.074	= Q stream (cfs)	0.5	= CV Daily
0.007	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 2.199	1.3.2.iii	WLA cfc = 2.136
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.819	5.1d	LTA_cfc = 1.242

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) = 1.635	

WLA afc	(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)

NPDES PA0092487 (3)

SINCE INTERACTION OF THE BARSOTTI, MENNONITE ASSOC. AND MACCARELLI DISCHARGES IS NOT EXPECTED TO OCCUR, THE BARSOTTI STP DISCHARGE WILL BE MODELED AS A SINGLE DISCHARGE IN THE EMPR MODELING WQM 6.3.

MODEL STP DISCHARGE FLOW RATE

7000 GPD
RUN OFF PERIOD 12 HRS FROM PART II 2676402

$$7000\,GPD \times \frac{24\,HRS/DAY}{12\,HR\ PERIOD} = 14{,}000\,GPD\ RATE.$$

HOWEVER, FLOW EQUALIZATION PROVIDED USE 7000GPD

REACH DESCRIPTION

FROM POINT of DISCHARGE TO CONFLUENCE WITH JACOBS CRK.
DISTANCE ≈ 800 ft
SLOPE = .025 ft/ft = (1160'-1140')/800'
D.O. GOAL 5.0 mg/L

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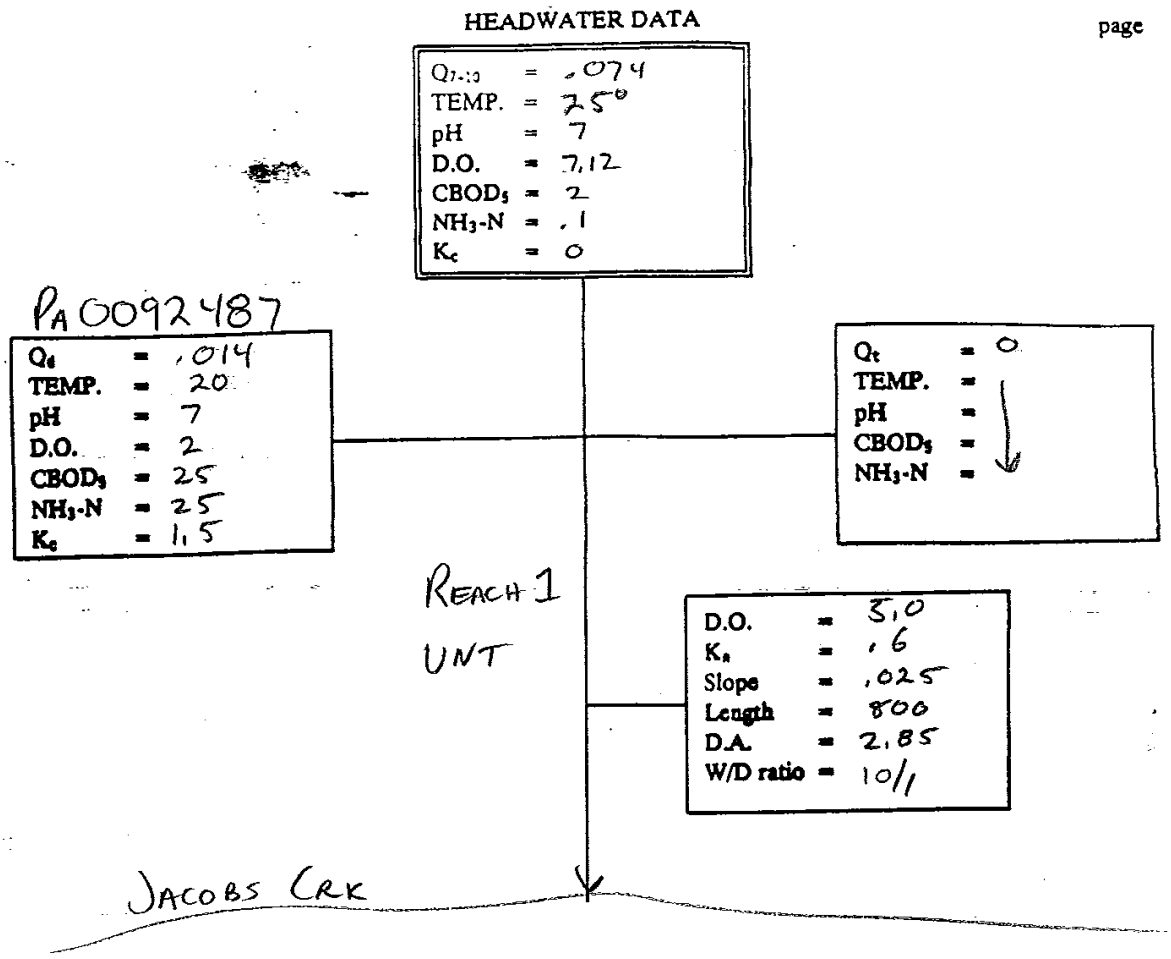
HEADWATER DATA
Q_{7-10} = .074
TEMP. = 25°
pH = 7
D.O. = 7.12
$CBOD_5$ = 2
NH_3-N = .1
K_c = 0
PA0092487
Q_d = .014
TEMP. = 20
pH = 7
D.O. = 2
$CBOD_5$ = 25
NH_3-N = 25
K_a = 1.5
Q_t = 0
TEMP. =
pH =
$CBOD_5$ =
NH_3-N =
REACH 1
UNT
D.O. = 3.0
K_a = .6
Slope = .025
Length = 800
D.A. = 2.85
W/D ratio = 10/1
JACOBS CRK

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NINO BARSOTTI RESTAURANT STP NPDES PA0092487
FILE:

SUMMER EVALUATION

HEADWATERS AND TRIBUTARY DATA

NO. OF REACHES : 1

RH	Q7-10 (CFS)	T (C)	PH	DO (MG/L)	CBOD5 (MG/L)	NH3-N (MG/L)
HW	.074	25	7	7.12	2	.1
1	0					

STREAM CHARACTERISTICS

RCH	Q7-10 CFS	T (C)	PH	DO MG/L	CBOD5 MG/L	NH3-N MG/L
1	.07	25	7	7.12	2	.1

Q 1-10/Q 7-10 = .64
Q30-10/Q 7-10 = 1.36

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NINO BARSOTTI RESTAURANT STP NPDES PA0092487
FILE:

DISCHARGER DATA
07-10 DESIGN CONDITIONS

RH	Q MGD	T (C)	PH	DO MG/L	CBOD5 MG/L	NH3-N MG/L	KC
1	7E-03	20	7	2	25	25	1.5

REACH CHARACTERISTICS

RH	D.O. GOAL	KN (/D)	RCH. SL. (FT/FT)	RCH. LEN. (FT.)	DRAIN AREA (MI^2)	W/D
1	5	.6	.025	800	2.85	10

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NINO BARSOTTI RESTAURANT STP NPDES PA0092487
FILE:

REACH CHARACTERISTICS

RH	KR (/D)	TT (DAYS)
1	0	0

FILE: BARSOTTI REST STP.WQM6.3

NH3-N DISCHARGE ALLOCATIONS AT 030-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	13.35	13.35	0	0

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NH3-N DISCHARGE ALLOCATIONS AT Q1-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	38.37	38.37	0	0

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FILE: BARSOTTI REST STP.WQM6.3 SUMMER EVALUATION

MULTIPLE DISCHARGE LIMITATIONS
(TOTAL) DISCHARGE = 7E-03 MGD
TEMP = 24.4 PH = 7
CBOD-5= 4.94 NH3-N= 1.79 D.O. = 6.47
KC'= .907 KN= .6 D.O.GOAL = 5
KR= 14.051 (OWENS)
DIS. 1 RCH. 1 TRVL TIME:.193

TR.TM. (DAYS)	CBOD-5 (MG/L)	NH3-N (MG/L)	D.O. (MG/L)
.019	4.83	1.76	6.69
.039	4.73	1.73	6.86
.058	4.63	1.71	7
.077	4.53	1.68	7.11
.097	4.43	1.65	7.12
.116	4.34	1.63	7.12
.135	4.25	1.6	7.12
.155	4.16	1.57	7.12
.174	4.07	1.55	7.12
.193	3.98	1.52	7.12

EFFLUENT LIMITATIONS DISPLAY

DIS #	Q MGD	NH3-N TOX. 1 DAY	30 DAY	C-BOD5 30-DAY	DISS. OXYGEN NH3-N 30-DAY	EFF. D.O.
1	7E-03	26.7	13.4	25	13.4	2
IMPOSE		20.0	10.0	25		

THE ALLOWABLE NH_3-N EFFLUENT CONCENTRATIONS WERE SLIGHTLY REDUCED TO ACCOUNT FOR THE OTHER DISCHARGES IN THE WATERSHED WHICH MAY BE ELEVATING THE NH_3N STREAM CONCENTRATION.

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FILE: BARSOTTI REST STP.WQM6.3 WINTER EVALUATION

HEADWATERS AND TRIBUTARY DATA

NO. OF REACHES : 1

RH	Q7-10 (CFS)	T (C)	PH	DO (MG/L)	CBOD5 (MG/L)	NH3-N (MG/L)
HW	.148	5	7	10.2	2	.1
1	0					

DISCHARGER DATA
Q7-10 DESIGN CONDITIONS

RH	Q MGD	T (C)	PH	DO MG/L	CBOD5 MG/L	NH3-N MG/L	KC
1	7E-03	15	7	2	25	25	1.5

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FILE: BARSOTTI REST STP.WQM6.3 WINTER

REACH CHARACTERISTICS

RH	D.O. GOAL	KN (/D)	RCH. SL. (FT/FT)	RCH. LEN. (FT.)	DRAIN AREA (MI^2)	W/D
1	5	.6	.025	800	2.85	10

REACH CHARACTERISTICS

RH	KR (/D)	TT (DAYS)
1	0	0

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FILE: BARSOTTI WINTER.WQM6.3 WINTER

NH3-N DISCHARGE ALLOCATIONS AT Q30-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	25	25	0	0

NH3-N DISCHARGE ALLOCATIONS AT Q1-10

DIS	Q (MGD)	IND. CONC. (MG/L)	ALL. CONC. (MG/L)	CRIT. RCH.	PCT. RED. (%)
1	7E-03	50	50	0	0

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FILE: BARSOTTI WINTER.WQM6.3 WINTER

EFFLUENT LIMITATIONS DISPLAY

DIS #	Q MGD	NH3-N TOX. 1 DAY	30 DAY	DISS. OXYGEN C-BOD5 30-DAY	NH3-N 30-DAY	EFF. D.O.
1	7E-03	50	25	25	25	2

Impose 40 20 25

2X SUMMER LIMITATIONS