Via Electronic Mail

November 14, 2022

Jose E. Terrones, Superintendent
Anthony Water and Sanitation District
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Brent Larsen, Permitting Section Manager
U.S. Environmental Protection Agency (USEPA), Region 6
Water Division – Permitting Section (WDPE)
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Re: State of New Mexico Antidegradation Review, NPDES Application No. NM0029629, Anthony Water and Sanitation District Wastewater Treatment Plant, Proposed Design Flow Increase

Dear Jose Torrones and Brent Larsen:

Water quality standards include a framework and methodology known as "antidegradation" for deciding if, when, and how water quality may be degraded. Antidegradation applies to all activities with the potential to adversely affect water quality or existing or designated uses, including any new point source discharges. The New Mexico Environment Department (NMED), acting under authority delegated by the Water Quality Control Commission, implements water quality standards in the State of New Mexico, including the antidegradation policy and implementation plan. As such, NMED "requires the highest and best degree of wastewater treatment practicable and commensurate with protecting and maintaining the designated uses and existing water quality." (20.6.4.8(B) New Mexico Administrative Code or NMAC)

The Anthony Water and Sanitation District (AWSD) and their contractors are proposing an increase to the design flow of the AWSD wastewater treatment plant (WWTP) from 0.9 million gallons per day (MGD) to 1.3 MGD. The AWSD WWTP currently discharges to the Rio Grande under the National Pollutant Discharge Elimination System (NPDES) individual permit number NM0029629.

The segment of the Rio Grande where the AWSD WWTP discharges is a classified water of the state described in Section 20.6.4.101 NMAC as, "the main stem of the Rio Grande from the international boundary with Mexico upstream to one mile downstream of Percha dam." Designated uses of this segment of the Rio Grande are irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat, and primary contact. Pursuant to New Mexico's antidegradation regulations and procedures, the Department's Surface Water Quality Bureau (NMED-SWQB) conducted an antidegradation review of AWSD's proposed change in discharge volume to the Rio Grande.

NMED-SWQB evaluated water quality data from the AWSD's 2021 monitoring activities to determine baseline water quality and assimilative capacity of the receiving water (Section 20.6.4.101 NMAC Rio Grande). NMED-SWQB also evaluated data provided in the NPDES pre-application to estimate the proposed effluent discharge concentrations.

As a result of the antidegradation review, NMED-SWQB concludes that the proposed discharge will not

result in "significant degradation" as defined in New Mexico's Antidegradation Policy Implementation Procedure and characterized by the baseline water quality evaluation. The antidegradation review process is complete and the permitting process may proceed. A summary of the calculations and results are attached.

NMED-SWQB is still evaluating if additional monitoring is needed during the actual discharge of wastewater, and will provide those requirements, if necessary, in the State's Clean Water Act Section 401 certification. NMED-SWQB staff will continue to work with USEPA Region 6 to ensure effluent limitations are protective of state water quality standards. Furthermore, it should be noted that this segment of the Rio Grande is impaired due to boron and NMED-SWQB will likely develop a Total Maximum Daily Load (TMDL) in the future, which may affect future permits for the AWSD WWTP.

If you have any questions about this letter or the NMED-SWQB antidegradation review, please contact Susan A. Lucas-Kamat, SWQB Point Source Regulation Program Manager, at 505-946-8924 or susan.lucaskamat@env.nm.gov.

Sincerely,

Shelly Lemon, Bureau Chief
Surface Water Quality Bureau

cc: (w/ enclosures)
Tung Nguyen, USEPA (6WDPE) via email nguyen.tung@epa.goc
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CITATIONS: 20.6.4.8 NMAC Antidegradation Policy and Implementation Plan
20.6.4.99 NMAC Unclassified Perennial Waters
Statewide Water Quality Management Plan and Continuing Planning Process (WQMP/CPP)
Appendix A, Antidegradation Policy Implementation Procedure for Regulated Activities
40 C.F.R. §131.12 Antidegradation policy and implementation methods

NM0029629 Anthony Water and Sanitation Department Antidegradation Analysis

Calculations

Calculations to Baseline Water Quality and Determine Significance of Degradation (See 2020 Water Quality Management Plan / Continuous Planning Process Appendix A Sections 4 and 5).

Determine Critical Low Flow / Mixing Zones (See 20.6.4.11 NMAC (Applicability of Water Quality Standards):

	Streams:	**Lakes, Reservoirs, Playas:**
Human Health-Organism Only Criteria	= Harmonic Mean (HM) or Modified (See 20.6.4.7 (H)(2) & 20.6.4.11(B)(1) NMAC)	See 20.6.4.11(E)(1) NMAC Mixing Zone Limitations / Criteria applicable "at point of discharge"
All Other Narrative and Numeric Criteria	= 4Q3 (See 20.6.4.7 (A)(1) & 20.6.4.11(B)(2) NMAC)	See 20.6.4.11(E)(1) NMAC Mixing Zone Limitations / Criteria applicable "at point of discharge"
	4Q3 Notes: Minimum average four consecutive day flow that occurs with a frequency of once in three years and may be determined on an annual, a seasonal or a monthly basis, as appropriate, after due consideration of site-specific conditions.	Lake Notes: Antideg Procedures" omit Mixing Zone Limitations in 20.6.4.11 NMAC (Applicability of Water Quality Standards) and "Critical lake and reservoir water levels will be determined on a case-by-case basis."

Determine Reasonably Expected Concentration Effluent (Ce):

Reasonably Expected Pollutants: Determined by NPDES application, Safety Data Sheets, Manufacture's labels, intake or source waters, best professional judgement, or other sources

Ce Calculation Notes: See calculation notes for Cbwq

Determine Baseline Water Quality (BWQ):

Baseline Water Quality Concentration = Cbwq = Cs = Ca (concentration surface water quality above discharge)

Cbwq Calculation Notes: Minimum Detection Limit = MDL (See 2020 WQMP/CPP Appendix A Glossary and USEPA 40 CFR 136 Appendix B)
Minimum Level (ML) = Reported Level (RL) or Quantitation Level (See USEPA Sufficiently Sensitive Method Rule)
If pollutant "not detected" or "less than" MDL and MDL < or = Cwqs; then use Geometric Mean of MDL
If at least one data point detected (i.e., = or > MDL meaning estimated data may be used), then use MDL/2 for "less than"
If data not provided / not retested at MDL that is lower or < Cwqs, then Cbwq = MDL/2
If data not reported to MDL, then may substitute reported or quantitation minimum level (ML)
If higher ML or 1/2 ML (using same instructions for MDL) results in no or allowable degradation, then use of MDL or 1/2 MDL will also result in no or allowable degradation.

Evaluate Level of Degradation (Surface Water + Discharge):

Mass Balance Equation: = (Qs x Cs) + (Qd x Cd) = (Qr x Cr)

Solve for Cd = [(Qr x Cr) - (Qs x Cs)] / (Qd)

Qr = (Qs + Qd)

Cd = [((Qs + Qd) x (Cr)) - (Qs x Cs)] / (Qd)

Where (Streams):
= Flow x Concentration + Flow x Concentration = Flow x Concentration
Qs = critical low flow stream (4Q3 or HM)
Qd = flow discharge (cfs or MGD)
Qr = flow resulting in-stream or downstream of outfall (cfs or MGD)
Cs = concentration stream (mg/L)
Cd = concentration discharge (mg/L)
Cr = concentration resultant (in-stream) (mg/L)

Where (Lakes, Reservoirs, Playas - Antidegradation Procedure Only, Simplified Model):
= Volume x Concentration + Volume x Concentration = Volume x Concentration
Qs = volume critical lake water level case by case (acre-feet or million gallons US)
Qd = discharge flow rate cfs or MGD or volume (acre-feet or million gallons US)
Qr = volume surface water resulting (assumes mixing) (acre-feet or million gallons US)
Cs = concentration surface water (mg/L)
Cd = concentration discharge (mg/L)
Cr = concentration resultant (assumes mixing) (mg/L)
"Antideg Procedures" omit an intake water credit when reasonably expected pollutants in the discharge are caused or contributed by source water which is also receiving surface water.

Concentration Water Quality Standard = Cwqs (limiting segment or use-specific numeric criteria (mg/L or as indicated))

Assimilative Capacity = AC = Cwqs-Cbwq (mg/L)

Notes: If AC negative (-), then water may not be high-quality. Tier 2 review not applicable and/or Tier 2 review not applicable at this time.
If AC negative (-), then evaluate need for additional testing or condition that Ce = Cwqs at point of discharge, outfall or end of pipe.
For example, may re-test to lower MDL (if available) if pollutant reasonably expected in discharge

Calculated Concentration Resultant ($Cr_{10\%}$) = [(Cwqs - Cbwq) x 0.1 + Cbwq]

Calculated concentration discharge that uses 10% AC ($Cd_{10\%}$) = {[((Cwqs – Cbwq) x 0.1 + Cbwq) x (Qs + Qd)] – (Cs x Qs)} / [Qd]

Cs = Cbwq

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Calculated concentration discharge that uses 10% AC ($Cd_{10\%}$) = {[((Cwqs – Cbwq) x 0.1 + Cbwq) x (Qs + Qd)] – (Cbwq x Qs)} / [Qd]

50% cumulative cap = Not applicable for only one (1) regulated discharge
= Only applicable for multiple regulated discharges to the same receiving water over time

Comparison (comprehensive Tier 2 antidegradation review includes an alternatives analysis and social and economic demonstration - See 2020 WQMP/CPP Appendix A Sections 6 & 7):

"no significant degradation" = If $Cd_{10\%}$ > Ce, then antidegradation review process is complete and the permitting process may proceed

"comprehensive Tier 2 review required" = If $Cd_{10\%}$ < or = Ce or Ce > 50% cumulative cap, then "comprehensive Tier 2 review required"

Loading Calculations Notes: Calculated maximum loading capacity (with increased 10% assimilative capacity) would be flagged if further comprehensive review required.

References:

State of New Mexico Water Quality Management Plan / Continuing Planning Process Appendix A
Antidegradation Policy Implementation Procedure for Regulated Activities Revision October 23, 2020
https://www.env.nm.gov/surface-water-quality/wqs/

State of New Mexico Water Quality Standards (NMWQS) effective April 23, 2022 for state purposes
https://www.env.nm.gov/surface-water-quality/wqmp-cpp/

2022-2024 Integrated Report Clean Water Act 303(d)/305(b) Integrated Report EPA-Approved April 26, 2022
https://www.env.nm.gov/surface-water-quality/303d-305b/

Additional Information:

20.6.4.900(J)(1) Use-specific criteria (effective 04/23/22)
(2) Notes applicable to the table of numeric criteria in Paragraph (1) of this subsection.
(a) Where the letter “a” is indicated in a cell, the criterion is hardness-based and can be referenced in Subsection I of 20.6.4.900 NMAC.
(b) Where the letter “b” is indicated in a cell, the criterion can be referenced in Subsection C of 20.6.4.900 NMAC.
(c) Criteria are in µg/L unless otherwise indicated.
(d) Abbreviations are as follows: CAS - chemical abstracts service (see definition for “CAS number” in 20.6.4.7 NMAC);
DWS - domestic water supply; Irr/Irr storage- irrigation and irrigation storage; LW - livestock watering;
WH - wildlife habitat; HH-OO - human health-organism only; C – criteria based on cancer-causing endpoint; P - persistent toxic pollutant.
(e) The criteria are based on analysis of an unfiltered sample unless otherwise indicated. The
acute and chronic aquatic life criteria for aluminum are based on analysis of total recoverable aluminum in a sample that is filtered to
minimize mineral phases as specified by the department.
(f) The criteria listed under human health-organism only (HH-OO) are intended to protect human
health when aquatic organisms are consumed from waters containing pollutants. These criteria do not protect the aquatic life itself;
rather, they protect the health of humans who ingest fish or other aquatic organisms.
(g) The dioxin criteria apply to the sum of the dioxin toxicity equivalents expressed as 2,3,7,8-TCDD dioxin.
(h) The criteria for polychlorinated biphenyls (PCBs) apply to the sum of all congeners, to the sum of all homologs or to the sum of all aroclors.
(i) The acute and chronic aquatic life criteria for dissolved aluminum only apply when the
concurrent pH is less than 6.5 or greater than 9.0 S.U. If the concurrent pH is between 6.5 and 9.0 S.U. then the hardness-dependent
total recoverable aluminum criteria in Paragraphs (1) and (2) of Subsection I of 20.6.4.900 NMAC apply.

Pollutant Approach:

Dinitrolphenols use 2,4-DNP as the surrogate (Source: https://www.oregon.gov/deq/FilterDocs/sToxicsdinitrolphenols.pdf)
BisChloromethyl (BCME) no recommended analytical methods (Source: https://www.oregon.gov/deq/FilterDocs/sToxicsBisChloromethylMemo.pdf)
Hexachlorocyclohexane (BHC) sum four major isomers alpha, beta, delta, and gamma (Source: https://www.oregon.gov/deq/FilterDocs/sToxicsbhcTechnical.pdf)
Nitrosamines use N-nitrosodiethylamine as surrogate (Source: EPA Method 607, https://www.oregon.gov/deq/FilterDocs/sToxicsnitrosamines.pdf)

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

Permittee / Applicant:	Antony Water & Sanitation Department (AWSD)
Facility / Proposed Discharge:	Wastewater Treatment Plant (WWTP)
NPDES Permit/Application Tracking #:	NM0029629
Source Water:	N/A
Receiving Water:	Rio Grande, Segment 20.6.4.101 NMAC
Segment:	Subject to 20.6.4.99 NMAC (perennial)
Designated Uses:	Irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat, and primary contact
Existing Uses:	Same as designated uses.
Segment Specific Numeric Criteria:	Temperature 34°C (93.2°F) or less. At mean monthly flows above 350 cfs, the monthly average concentration for: TDS 2,000 mg/L or less, sulfate 500 mg/L or less and chloride 400 mg/L or less.
Use Specific Numeric Criteria / Table:	20.6.4.900(J)(1) NMAC (Applicable to Existing, Designated or Attainable Uses unless otherwise specified in 20.6.4.97 through 20.6.4.899 NMAC)
Impairments:	E. coli,, 2022-2024 Integrated Report (Source: https://www.env.nm.gov/surface-water-quality/303d-305b/)

Cd ={ [((Cwqs - Cbwq) x 0.1 + Cbwq) x (Qd + Qs)] - [(Cbwq x (Qs)]}/Qd

Cd = discharge concentration (mg/L)
Cwqs = water quality standard
Cbwq = baseline water quality
Qd = Discharge flow (cfs)
Qs = Stream flow (4Q3) (cfs)
Cs = concentration in-stream (at upstream water quality station, mg/L)
Cr = resultant concentration set equal to [(WQS-Cbwq) x 0.1 + Cbwq]

Solve for Cd (NMED solves for the discharge concentration that would use up 10% of the assimilative capacity):

	cubic feet per second (cfs)	million galls per day (MGD)		
Q_{d1} =	2.42 cfs	1.30 MGD	from AWSD planned expansion	
Q_{d2} =	0.0 cfs	0.0 MGD		
Q_{d3} =	0.0 cfs	0.0 MGD		
Q_{d4} =	0.0 cfs	0.0 MGD		
Qd (effluent discharge) =	2.42 cfs	1.30 MGD		
Qs (4Q3) =	0.0 cfs	0.0 MGD	from calculation EBID Mesilla Cable 5, 2017-2022	Jan 1 to Dec 31, annual
Qd + Qs (total streamflow)=	2.42 cfs	1.30 MGD		
Qs (Harmonic Mean) =	0.0199788 cfs	0.0107526 MGD	from calculation EBID Mesilla Cable 5, 2017-2022	
Qd + Qs (total streamflow, HM for HH-OO) =	2.44 cfs	1.31 MGD		
Cs (in-stream) =	Same as Cbwq, baseline water quality		from AWSD data	
Cbwq =	Upstream of facility			
Cd_{10} (mg/L) =	**Effluent discharge concentration using 10% AC**			

The calculated discharge concentration (Cd) is compared with the proposed discharge concentration. If the proposed discharge is less than 10% of the assimilative capacity (calculated > proposed) and existing uses are maintained, the antidegradation review process is complete and the permitting process may proceed. If the proposed discharge consumes more than 10% of available assimilative capacity (calculated < proposed), a comprehensive Tier 2 review is required.

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							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs), mg/L**	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degradation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
Aluminum, dissolved	7429-90-5	5,000	5	4.5	0.5000	4.55	5.915	0.0000	4.5500	49.3311
Aluminum, total *	7429-90-5	4,030.00	4.03	0.606	3.4240	0.9484	1.233	0.0000	0.9484	10.2826
Antimony, dissolved	7440-36-0	640	0.64	0.00021	0.6398	0.064189	0.083	0.0000	0.0642	0.6959
Arsenic, dissolved	7440-38-2	9	0.009	0.00066	0.0083	0.001494	0.002	0.0000	0.0015	0.0162
Boron, dissolved	7440-42-8	750	0.75	0.151	0.5990	0.2109	0.274	0.0000	0.2109	2.2866
Cadmium, dissolved *	7440-43-9	1.3	0.0013	0.000012	0.0013	0.0001408	0.00018	0.0000	0.0001	0.0015
Chloride	7782-50-5	400,000	400	95.1	304.9000	125.59	163.267	0.0000	125.5900	1,361.6468
Chromium III, dissolved *	16065-83-1	141	0.141	0.03	0.1110	0.0411	0.053	0.0000	0.0411	0.4456
Chromium VI, dissolved	18540-29-9	11	0.011	0.000014	0.0110	0.0011126	0.001	0.0000	0.0011	0.0121
Chromium, dissolved	7440-47-3	100	0.100	0.00031	0.0997	0.010279	0.013	0.0000	0.0103	0.1114
Cobalt, dissolved	7440-48-4	50	0.050	0.00055	0.0495	0.005495	0.007	0.0000	0.0055	0.0596
Copper, total *	7440-50-8	17.6	0.0176	0.00012	0.0175	0.001868	0.002	0.0000	0.0019	0.0203
Cyanide, total recoverable	57-12-5	5.2	0.005	0.0016	0.0036	0.00196	0.003	0.0000	0.0020	0.0213
Iron	7439-89-6	1,000	1.000	1.13	-0.1300	1.117	1.452	0.0000	1.1170	12.1105
Lead, total *		5.87	0.00587	0.000031	0.0058	0.0006149	0.001	0.0000	0.0006	0.0067
Manganese, total *	7439-96-5	2140	2.14	0.177	1.9630	0.3733	0.485	0.0000	0.3733	4.0473
Mercury	7439-97-6	0.77	0.001	0.000011	0.0008	0.0000869	0.000	0.0000	0.0001	0.0009
Mercury, dissolved	7439-97-6	0.77	0.001	0.00001	0.0008	0.000086	0.000	0.0000	0.0001	0.0009
Molybdenum, dissolved	7439-98-7	1,000	1.000	0.0016	0.9984	0.10144	0.132	0.0000	0.1014	1.0998
Molybdenum, total recoverable	7439-98-7	1,895	1.895	0.0016	1.8934	0.19094	0.248	0.0000	0.1909	2.0702
Nickel, total *	7440-02-0	101	0.101	0.00012	0.1009	0.010208	0.013	0.0000	0.0102	0.1107
Selenium, dissolved **	7782-49-2		0.13	0.00007	0.1299	0.013063	0.017	0.0000	0.0131	0.1416
Selenium, total recoverable	7782-49-2	5	0.005	0.00012	0.0049	0.000608	0.001	0.0000	0.0006	0.0066
Silver, total *	7440-22-4	12	0.012	0.00006	0.0119	0.001254	0.002	0.0000	0.0013	0.0136
Thallium, dissolved	7440-28-0	2	0.002	0.00003	0.0020	0.000227	0.000	0.0000	0.0002	0.0025
Uranium, dissolved	7440-61-1	30	0.030	0.00034	0.0297	0.003306	0.004	0.0000	0.0033	0.0358
Vanadium, dissolved	7440-62-2	100	0.100	0.0019	0.0981	0.01171	0.015	0.0000	0.0117	0.1270
Zinc, total *	7440-66-6	248	0.248	0.0055	0.2425	0.02975	0.039	0.0000	0.0298	0.3225
Adjusted gross alpha (pCi/L)		15	15.000	1.54	13.4600	2.886	3.752	0.0000	2.8860	31.2900
Radium 226 + Radium 228 (pCi/L)		30	30	0.286	29.7140	3.2574	4.235	0.0000	3.2574	35.3167
Tritium (pCi/L)		20,000	20,000		20,000.0000	2000	2600.000	0.0000	2000.0000	21,684.0000
Acenaphthene	83-32-9	90	0.09	0.00086	0.0891	0.009774	0.013	0.0000	0.0098	0.1060
Acrolein	107-02-8	3	0.003	0.00016	0.0028	0.000444	0.001	0.0000	0.0004	0.0048
Acrylonitrile	107-13-1	70	0.070	0.00013	0.0699	0.007117	0.009	0.0000	0.0071	0.0772
Aldrin	309-00-2	0.0000077	0.0000000077	0.000000008	-0.0000000003	7.97E-09	0.000	0.0000	0.0000	0.0000
Anthracene	120-12-7	400	0.400	0.00094	0.3991	0.040846	0.053	0.0000	0.0408	0.4429
Benzene	71-43-2	160	0.160	0.00021	0.1598	0.016189	0.021	0.0000	0.0162	0.1755
Benzidine	92-87-5	0.11	0.00011	0.000037	0.0001	0.0000443	0.000	0.0000	0.0000	0.0005

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis					
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**	**Additional analysis**
Aluminum, dissolved	0.007981	0.086527	No Additional Degradation Analysis	Not applicable	Not applicable	
Aluminum, total *	0.039903	0.432629	No Additional Degradation Analysis	Not applicable	Not applicable	
Antimony, dissolved	0.000205	0.002223	No Additional Degradation Analysis	Not applicable	Not applicable	
Arsenic, dissolved	0.000296	0.003209	No Additional Degradation Analysis	Not applicable	Not applicable	
Boron, dissolved	0.447494	4.851730	Further Degradation Analysis Needed	Detected at MDL	Further Degradation Analysis Needed	See 4Q3 = 220 cfs analysis.
Cadmium, dissolved *	0.000012	0.000125	No Additional Degradation Analysis	Not applicable	Not applicable	
Chloride	505.395859	5479.501903	Further Degradation Analysis Needed	Detected at MDL	Further Degradation Analysis Needed	See 4Q3 = 220 cfs analysis.
Chromium III, dissolved *	0.000160	0.001735	No Additional Degradation Analysis	Not applicable	Not applicable	
Chromium VI, dissolved	0.000006	0.000064	No Additional Degradation Analysis	Not applicable	Not applicable	
Chromium, dissolved	0.000160	0.001735	No Additional Degradation Analysis	Not applicable	Not applicable	
Cobalt, dissolved	0.000550	0.005963	No Additional Degradation Analysis	Not applicable	Not applicable	
Copper, total *	0.000312	0.003378	No Additional Degradation Analysis	Not applicable	Not applicable	
Cyanide, total recoverable	0.002530	0.027428	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Iron	0.088805	0.962820	No Additional Degradation Analysis	Not applicable	Not applicable	
Lead, total *	0.000062	0.000674	No Additional Degradation Analysis	Not applicable	Not applicable	
Manganese, total *	0.025207	0.273292	No Additional Degradation Analysis	Not applicable	Not applicable	
Mercury	0.000011	0.000119	No Additional Degradation Analysis	Not applicable	Not applicable	
Mercury, dissolved	0.000011	0.000119	No Additional Degradation Analysis	Not applicable	Not applicable	
Molybdenum, dissolved	0.001600	0.017347	No Additional Degradation Analysis	Not applicable	Not applicable	
Molybdenum, total recoverable	0.002736	0.029663	No Additional Degradation Analysis	Not applicable	Not applicable	
Nickel, total *	0.000303	0.003283	No Additional Degradation Analysis	Not applicable	Not applicable	
Selenium, dissolved **	0.000070	0.000759	No Additional Degradation Analysis	Not applicable	Not applicable	
Selenium, total recoverable	0.000115	0.001247	No Additional Degradation Analysis	Not applicable	Not applicable	
Silver, total *	0.000022	0.000239	No Additional Degradation Analysis	Not applicable	Not applicable	
Thallium, dissolved	0.000030	0.000325	No Additional Degradation Analysis	Not applicable	Not applicable	
Uranium, dissolved	0.000602	0.006528	No Additional Degradation Analysis	Not applicable	Not applicable	
Vanadium, dissolved	0.001150	0.012468	No Additional Degradation Analysis	Not applicable	Not applicable	
Zinc, total *	0.012765	0.138398	No Additional Degradation Analysis	Not applicable	Not applicable	
Adjusted gross alpha (pCi/L)	4.326233	46.905019	Further Degradation Analysis Needed	Detected at MDL	Further Degradation Analysis Needed	See 4Q3 = 220 cfs analysis.
Radium 226 + Radium 228 (pCi/L)	0.450000	4.878900	No Additional Degradation Analysis	Not applicable	Not applicable	
Tritium (pCi/L)	0.000000	0.000000	No Additional Degradation Analysis	Not applicable	Not applicable	
Acenaphthene	0.000860	0.009324	No Additional Degradation Analysis	Not applicable	Not applicable	
Acrolein	0.000155	0.001681	No Additional Degradation Analysis	Not applicable	Not applicable	
Acrylonitrile	0.000130	0.001409	No Additional Degradation Analysis	Not applicable	Not applicable	
Aldrin	0.000008	0.000087	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Anthracene	0.000940	0.010191	No Additional Degradation Analysis	Not applicable	Not applicable	
Benzene	0.000205	0.002223	No Additional Degradation Analysis	Not applicable	Not applicable	
Benzidine	0.000037	0.000396	No Additional Degradation Analysis	Not applicable	Not applicable	

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs), mg/L**	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degradation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
Benzo(a)anthracene	56-55-3	0.013	0.000013	0.000007	0.000006	0.0000076	0.000	0.0000	0.0000	0.0001
Benzo(a)pyrene	50-32-8	0.0013	0.0000013	0.000005	-0.0000037	0.00000463	0.000	0.0000	0.0000	0.0001
Benzo(b)fluoranthene	205-99-2	0.013	0.000013	0.000012	0.000001	0.0000121	0.000	0.0000	0.0000	0.0001
Benzo(k)fluoranthene	207-08-9	0.13	0.00013	0.00000008	0.0001	0.000013072	0.000	0.0000	0.0000	0.0001
alpha-BHC	319-84-6	0.0039	0.0000039	0.000014	-0.00001	0.00001299	0.000	0.0000	0.0000	0.0001
beta-BHC	319-85-7	0.14	0.00014	0.000014	0.0001	0.0000266	0.000	0.0000	0.0000	0.0003
gamma-BHC (Lindane)	58-89-9	0.95	0.0010	0.000017	0.0009	0.0001103	0.000	0.0000	0.0001	0.0012
Bis(2-chloroethyl) ether	111-44-4	22	0.022	0.00024	0.0218	0.002416	0.003	0.0000	0.0024	0.0262
Bis(2-chloro-1-methylethyl) ether	108-60-1 or 102-80-1	4,000	4.000	0.00206	3.9979	0.401854	0.522	0.0000	0.4019	4.3569
Bis(2-ethylhexyl) phthalate	117-81-7	3.7	0.0037	0.000845	0.0029	0.0011305	0.001	0.0000	0.0011	0.0123
Bis(chloromethyl) ether	542-88-1	0.17	0.00017	0.000815	-0.0006	0.0007505	0.001	0.0000	0.0008	0.0081
Bromoform	75-25-2	1,200	1.200	0.00015	1.1999	0.120135	0.156	0.0000	0.1201	1.3025
Butylbenzyl phthalate	85-68-7	1	0.001	0.000615	0.0004	0.0006535	0.001	0.0000	0.0007	0.0071
Carbaryl	63-25-2	2.1	0.0021	0.00001	0.0021	0.000219	0.000	0.0000	0.0002	0.0024
Carbon tetrachloride	56-23-5	50	0.050	0.00019	0.0498	0.005171	0.007	0.0000	0.0052	0.0561
Chlordane	57-74-9	0.0032	0.0000032	0.00002	-0.00002	0.00001832	0.000	0.0000	0.0000	0.0002
Chlorobenzene	108-90-7	800	0.800	0.00022	0.7998	0.080198	0.104	0.0000	0.0802	0.8695
Chlorodibromomethane	124-48-1	210	0.210	0.00015	0.2099	0.021135	0.027	0.0000	0.0211	0.2291
Chloroform	67-66-3	2,000	2.0000	0.0001859	1.9998	0.20016731	0.260	0.0000	0.2002	2.1702
Chlorpyrifos	2921-88-2	0.041	0.000041	0.00002	0.000021	0.0000221	0.000	0.0000	0.0000	0.0002
2-Chloronaphthalene	91-58-7	1,000	1.000	0.000705	0.9993	0.1006345	0.131	0.0000	0.1006	1.0911
2-Chlorophenol	95-57-8	800	0.800	1.6	-0.8000	1.52	1.976	0.0000	1.5200	16.4798
Chrysene	218-01-9	1.3	0.0013	0.000009	0.0013	0.0001381	0.000	0.0000	0.0001	0.0015
Demeton	8065-48-3	0.1	0.0001	0.000024	0.0001	0.0000316	0.000	0.0000	0.0000	0.0003
Diazinon	333-41-5	0.17	0.00017	0.000055	0.0001	0.0000665	0.000	0.0000	0.0001	0.0007
2,4-Dichlorophenoxyacetic acid	94-75-7	12,000	12.000	0.000012	12.0000	1.2000108	1.560	0.0000	1.2000	13.0105
Dichlorodiphenyldichloroethane (DDD)	72-54-8	0.0012	0.0000012	0.000024	-0.000023	0.00002172	0.000	0.0000	0.0000	0.0002
Dichlorodiphenyldichloroethylene (DDE)	72-55-9	0.00018	0.00000018	0.000022	-0.000022	0.000019818	0.000	0.0000	0.0000	0.0002
Dichlorodiphenyltrichloroethane (DDT)	50-29-3	0.0003	0.0000003	0.000026	-0.000026	0.00002343	0.000	0.0000	0.0000	0.0003
4,4'-DDT and derivatives	Various	0.001	0.000001	0.000026	-0.000025	0.0000235	0.000	0.0000	0.0000	0.0003
Dibenzo(a,h)anthracene	53-70-3	0.0013	0.0000013	0.000011	-0.00001	0.00001003	0.000	0.0000	0.0000	0.0001
Dibutyl phthalate	84-74-2	30	0.030	0.000615	0.0294	0.0035535	0.005	0.0000	0.0036	0.0385
1,2-Dichlorobenzene	95-50-1	3,000	3.000	0.000235	2.9998	0.3002115	0.390	0.0000	0.3002	3.2549
1,3-Dichlorobenzene	541-73-1	10	0.010	0.00019	0.0098	0.001171	0.002	0.0000	0.0012	0.0127
1,4-Dichlorobenzene	106-46-7	900	0.900	0.000245	0.8998	0.0902205	0.117	0.0000	0.0902	0.9782
3,3'-Dichlorobenzidine	91-94-1	1.5	0.0015	0.00141	0.0001	0.001419	0.002	0.0000	0.0014	0.0154
Dichlorobromomethane	75-27-4	270	0.27	0.00012	0.2699	0.027108	0.035	0.0000	0.0271	0.2939
1,2-Dichloroethane	107-06-2	6,500	6.500	0.00009	6.4999	0.650081	0.845	0.0000	0.6501	7.0482
1,1-Dichloroethylene	75-35-4	20,000	20.000	0.00017	19.9998	2.000153	2.600	0.0000	2.0002	21.6857

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis					
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**	**Additional analysis**
Benzo(a)anthracene	0.000007	0.000076	No Additional Degradation Analysis	Not applicable	Not applicable	
Benzo(a)pyrene	0.000005	0.000054	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Benzo(b)fluoranthene	0.000012	0.000125	No Additional Degradation Analysis	Not applicable	Not applicable	
Benzo(k)fluoranthene	0.000008	0.000087	No Additional Degradation Analysis	Not applicable	Not applicable	
alpha-BHC	0.000014	0.000152	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
beta-BHC	0.000014	0.000146	No Additional Degradation Analysis	Not applicable	Not applicable	
gamma-BHC (Lindane)	0.000017	0.000179	No Additional Degradation Analysis	Not applicable	Not applicable	
Bis(2-chloroethyl) ether	0.000240	0.002602	No Additional Degradation Analysis	Not applicable	Not applicable	
Bis(2-chloro-1-methylethyl) ether	0.002055	0.022280	No Additional Degradation Analysis	Not applicable	Not applicable	
Bis(2-ethylhexyl) phthalate	0.000845	0.009161	No Additional Degradation Analysis	Not applicable	Not applicable	
Bis(chloromethyl) ether	0.000815	0.008836	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Bromoform	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable	
Butylbenzyl phthalate	0.000615	0.006668	No Additional Degradation Analysis	Not applicable	Not applicable	
Carbaryl	0.000010	0.000108	No Additional Degradation Analysis	Not applicable	Not applicable	
Carbon tetrachloride	0.000185	0.002006	No Additional Degradation Analysis	Not applicable	Not applicable	
Chlordane	0.000020	0.000211	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Chlorobenzene	0.000215	0.002331	No Additional Degradation Analysis	Not applicable	Not applicable	
Chlorodibromomethane	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable	
Chloroform	0.000185	0.002006	No Additional Degradation Analysis	Not applicable	Not applicable	
Chlorpyrifos	0.000020	0.000217	No Additional Degradation Analysis	Not applicable	Not applicable	
2-Chloronaphthalene	0.000705	0.007644	No Additional Degradation Analysis	Not applicable	Not applicable	
2-Chlorophenol	0.001550	0.016805	No Additional Degradation Analysis	Not applicable	Not applicable	
Chrysene	0.000009	0.000098	No Additional Degradation Analysis	Not applicable	Not applicable	
Demeton	0.000024	0.000255	No Additional Degradation Analysis	Not applicable	Not applicable	
Diazinon	0.000055	0.000596	No Additional Degradation Analysis	Not applicable	Not applicable	
2,4-Dichlorophenoxyacetic acid	0.000026	0.000280	No Additional Degradation Analysis	Not applicable	Not applicable	
Dichlorodiphenyldichloroethane (DDD)	0.000024	0.000260	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Dichlorodiphenyldichloroethylene (DDE)	0.000022	0.000233	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Dichlorodiphenyltrichloroethane (DDT)	0.000026	0.000276	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
4,4'-DDT and derivatives	0.000026	0.000276	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Dibenzo(a,h)anthracene	0.000011	0.000114	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Dibutyl phthalate	0.000580	0.006288	No Additional Degradation Analysis	Not applicable	Not applicable	
1,2-Dichlorobenzene	0.000235	0.002548	No Additional Degradation Analysis	Not applicable	Not applicable	
1,3-Dichlorobenzene	0.000190	0.002060	No Additional Degradation Analysis	Not applicable	Not applicable	
1,4-Dichlorobenzene	0.000797	0.008646	No Additional Degradation Analysis	Not applicable	Not applicable	
3,3'-Dichlorobenzidine	0.000477	0.005172	No Additional Degradation Analysis	Not applicable	Not applicable	
Dichlorobromomethane	0.000120	0.001301	No Additional Degradation Analysis	Not applicable	Not applicable	
1,2-Dichloroethane	0.000090	0.000976	No Additional Degradation Analysis	Not applicable	Not applicable	
1,1-Dichloroethylene	0.000051	0.000553	No Additional Degradation Analysis	Not applicable	Not applicable	

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs), mg/L**	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degradation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
2,4-Dichlorophenol	120-83-2	60	0.060	0.00079	0.0592	0.006711	0.009	0.0000	0.0067	0.0728
1,2-Dichloropropane	78-87-5	310	0.310	0.000141	0.3099	0.0311269	0.040	0.0000	0.0311	0.3375
1,3-Dichloropropelyne	542-75-6	120	0.120	0.000167	0.1198	0.0121503	0.016	0.0000	0.0122	0.1317
Dieldrin	60-57-1	0.000012	0.000000012	0.000009	-0.000009	8.1012E-06	0.000	0.0000	0.0000	0.0001
Diethyl phthalate	84-66-2	600	0.600	0.000855	0.5991	0.0607695	0.079	0.0000	0.0608	0.6589
Dimethyl phthalate	131-11-3	2,000	2.000	0.000815	1.9992	0.2007335	0.261	0.0000	0.2007	2.1764
2,4-Dimethylphenol	105-67-9	3,000	3.000	0.00086	2.9991	0.300774	0.391	0.0000	0.3008	3.2610
Dinitrophenols	25550-58-7	1,000	1.000	0.000965	0.9990	0.1008685	0.131	0.0000	0.1009	1.0936
2,4-Dinitrophenol	51-28-5	300	0.300	0.0026	0.2974	0.03234	0.042	0.0000	0.0323	0.3506
2,4-Dinitrotoluene	121-14-2	17	0.017	0.000415	0.0166	0.0020735	0.003	0.0000	0.0021	0.0225
Dioxin	1764-01-6	5.10E-08	5.10E-11	5.1E-09	-0.000000005	4.5951E-09	0.000	0.0000	0.0000	0.0000
1,2-Diphenylhydrazine	122-66-7	2	0.002	0.000235	0.0018	0.0004115	0.001	0.0000	0.0004	0.0045
alpha-Endosulfan	959-98-8	0.056	0.000056	0.000015	0.00004	0.0000191	0.000	0.0000	0.0000	0.0002
beta-Endosulfan	33213-65-9	0.056	0.000056	0.000017	0.00004	0.0000209	0.000	0.0000	0.0000	0.0002
Endosulfan sulfate	1031-07-8	40	0.040	0.00002	0.0400	0.004018	0.005	0.0000	0.0040	0.0436
Endrin	72-20-8	0.03	0.00003	0.000023	0.00001	0.0000237	0.000	0.0000	0.0000	0.0003
Endrin aldehyde	7421-93-4	1	0.001	0.000026	0.0010	0.0001234	0.000	0.0000	0.0001	0.0013
Ethylbenzene	100-41-4	130	0.130	0.00021	0.1298	0.013189	0.017	0.0000	0.0132	0.1430
Fluoranthene	206-44-0	20	0.020	0.00097	0.0190	0.002873	0.004	0.0000	0.0029	0.0311
Fluorene	86-73-7	70	0.070	0.000905	0.0691	0.0078145	0.010	0.0000	0.0078	0.0847
Guthion	86-50-0	0.01	0.00001	0.0001	-0.0001	0.000091	0.000	0.0000	0.0001	0.0010
Heptachlor	76-44-8	0.000059	0.000000059	0.000019	-0.00002	1.71059E-05	0.000	0.0000	0.0000	0.0002
Heptachlor epoxide	1024-57-3	0.00032	0.00000032	0.000013	-0.00001	0.000011732	0.000	0.0000	0.0000	0.0001
Hexachlorobenzene	118-74-1	0.00079	0.00000079	0.000021	-0.00002	0.000018979	0.000	0.0000	0.0000	0.0002
Hexachlorobutadiene	87-68-3	0.1	0.0001	0.00038	-0.0003	0.000352	0.000	0.0000	0.0004	0.0038
Hexachlorocyclohexane (HCH)-Technical	608-73-1	0.1	0.0001	0.0003	-0.0002	0.00028	0.000	0.0000	0.0003	0.0030
Hexachlorocyclopen-tadiene	77-47-4	4	0.004	0.00056	0.0034	0.000904	0.001	0.0000	0.0009	0.0098
Hexachloroethane	67-72-1	33	0.033	0.000635	0.0324	0.0038715	0.005	0.0000	0.0039	0.0420
Ideno(1,2,3-cd)pyrene	193-39-5	0.013	0.000	0.000008	0.00001	0.0000085	0.000	0.0000	0.0000	0.0001
Isophorone	78-59-1	18,000	18	0.00067	17.9993	1.800603	2.341	0.0000	1.8006	19.5221
Malathion	121-75-5	0.1	0.0001	0.000021	0.0001	0.0000289	0.000	0.0000	0.0000	0.0003
Methoxychlor	72-43-5	0.02	0.00002	0.000045	-0.00003	0.0000425	0.000	0.0000	0.0000	0.0005
Methyl bromide	74-83-9	10,000	10	0.00015	9.9999	1.000135	1.300	0.0000	1.0001	10.8435
3-Methyl-4-chlorophenol	59-50-7	2,000	2	0.00091	1.9991	0.200819	0.261	0.0000	0.2008	2.1773
2-Methyl-4,6-dinitrophenol	534-52-1	30	0.030	0.00201	0.0280	0.004809	0.006	0.0000	0.0048	0.0521
Methylene chloride	75-09-2	10,000	10	0.00017	9.9998	1.000153	1.300	0.0000	1.0002	10.8437
Mirex	2385-85-5	0.001	0.000001	0.000021	-0.00002	0.000019	0.000	0.0000	0.0000	0.0002
Nitrobenzene	98-95-3	600	0.600	0.000865	0.5991	0.0607785	0.079	0.0000	0.0608	0.6590
Nitrosamines	Various	12.4	0.012	0.000794	0.0116	0.0019546	0.003	0.0000	0.0020	0.0212
Nitrosodibutylamine	924-16-3	2.2	0.002	0.000463	0.0017	0.0006367	0.001	0.0000	0.0006	0.0069
Nitrosodiethylamine	55-18-5	12.4	0.012	0.000331	0.0121	0.0015379	0.002	0.0000	0.0015	0.0167

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis					
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**	**Additional analysis**
2,4-Dichlorophenol	0.000790	0.008565	No Additional Degradation Analysis	Not applicable	Not applicable	
1,2-Dichloropropane	0.000141	0.001523	No Additional Degradation Analysis	Not applicable	Not applicable	
1,3-Dichloropropelyne	0.000167	0.001811	No Additional Degradation Analysis	Not applicable	Not applicable	
Dieldrin	0.000009	0.000098	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Diethyl phthalate	0.000855	0.009270	No Additional Degradation Analysis	Not applicable	Not applicable	
Dimethyl phthalate	0.000815	0.008836	No Additional Degradation Analysis	Not applicable	Not applicable	
2,4-Dimethylphenol	0.000855	0.009270	No Additional Degradation Analysis	Not applicable	Not applicable	
Dinitrophenols	0.000965	0.010463	No Additional Degradation Analysis	Not applicable	Not applicable	
2,4-Dinitrophenol	0.002600	0.028189	No Additional Degradation Analysis	Not applicable	Not applicable	
2,4-Dinitrotoluene	0.000415	0.004499	No Additional Degradation Analysis	Not applicable	Not applicable	
Dioxin	0.000000	0.000000	No Additional Degradation Analysis	Not applicable	Not applicable	
1,2-Diphenylhydrazine	0.000235	0.002548	No Additional Degradation Analysis	Not applicable	Not applicable	
alpha-Endosulfan	0.000015	0.000157	No Additional Degradation Analysis	Not applicable	Not applicable	
beta-Endosulfan	0.000017	0.000184	No Additional Degradation Analysis	Not applicable	Not applicable	
Endosulfan sulfate	0.000043	0.000467	No Additional Degradation Analysis	Not applicable	Not applicable	
Endrin	0.000023	0.000249	No Additional Degradation Analysis	Not applicable	Not applicable	
Endrin aldehyde	0.000026	0.000276	No Additional Degradation Analysis	Not applicable	Not applicable	
Ethylbenzene	0.000210	0.002277	No Additional Degradation Analysis	Not applicable	Not applicable	
Fluoranthene	0.000970	0.010517	No Additional Degradation Analysis	Not applicable	Not applicable	
Fluorene	0.000905	0.009812	No Additional Degradation Analysis	Not applicable	Not applicable	
Guthion	0.000100	0.001084	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Heptachlor	0.000019	0.000206	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Heptachlor epoxide	0.000013	0.000141	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Hexachlorobenzene	0.000021	0.000222	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Hexachlorobutadiene	0.000380	0.004120	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Hexachlorocyclohexane (HCH)-Technical	0.000250	0.002711	No Additional Degradation Analysis	Not applicable	Not applicable	
Hexachlorocyclopen-tadiene	0.000560	0.006072	No Additional Degradation Analysis	Not applicable	Not applicable	
Hexachloroethane	0.000635	0.006885	No Additional Degradation Analysis	Not applicable	Not applicable	
Ideno(1,2,3-cd)pyrene	0.000008	0.000087	No Additional Degradation Analysis	Not applicable	Not applicable	
Isophorone	0.000670	0.007264	No Additional Degradation Analysis	Not applicable	Not applicable	
Malathion	0.000021	0.000222	No Additional Degradation Analysis	Not applicable	Not applicable	
Methoxychlor	0.000045	0.000482	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Methyl bromide	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable	
3-Methyl-4-chlorophenol	0.000910	0.009866	No Additional Degradation Analysis	Not applicable	Not applicable	
2-Methyl-4,6-dinitrophenol	0.002010	0.021792	No Additional Degradation Analysis	Not applicable	Not applicable	
Methylene chloride	0.000635	0.006885	No Additional Degradation Analysis	Not applicable	Not applicable	
Mirex	0.000021	0.000228	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Nitrobenzene	0.000865	0.009378	No Additional Degradation Analysis	Not applicable	Not applicable	
Nitrosamines	0.000585	0.006343	No Additional Degradation Analysis	Not applicable	Not applicable	
Nitrosodibutylamine	0.000915	0.009920	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Nitrosodiethylamine	0.000585	0.006343	No Additional Degradation Analysis	Not applicable	Not applicable	

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs), mg/L**	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degradation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
N-Nitrosodimethylamine	62-75-9	30	0.030	0.00083	0.0292	0.003747	0.005	0.0000	0.0037	0.0406
N-Nitrosodi-n-propylamine	621-64-7	5.1	0.0051	0.00083	0.0043	0.001257	0.002	0.0000	0.0013	0.0136
N-Nitrosodiphenylamine	86-30-6	60	0.060	0.0011	0.0589	0.00699	0.009	0.0000	0.0070	0.0758
N-Nitrosopyrrolidine	930-55-2	340	0.340	0.000329	0.3397	0.0342961	0.045	0.0000	0.0343	0.3718
Nonylphenol	84852-15-3	6.6	0.0066	0.00006	0.0065	0.000714	0.001	0.0000	0.0007	0.0077
Parathion	56-38-2	0.013	0.000013	0.0000055	0.00001	0.00000625	0.000	0.0000	0.0000	0.0001
Pentachlorobenzene	608-93-5	0.1	0.0001	0.00028	-0.0002	0.000262	0.000	0.0000	0.0003	0.0028
Pentachlorophenol	87-86-5	0.4	0.0004	0.00151	-0.0011	0.001399	0.002	0.0000	0.0014	0.0152
Phenol	108-95-2	300,000	300.000	0.000705	299.9993	30.0006345	39.001	0.0000	30.0006	325.2669
Polychlorinated Biphenyls (PCBs)	1336-36-3	0.014	0.000014	5.24E-09	0.00001	1.40472E-06	0.000	0.0000	0.0000	0.0000
Pyrene	129-00-0	30	0.030	0.00063	0.0294	0.003567	0.005	0.0000	0.0036	0.0387
1,2,4,5-Tetrachlorobenzene	95-94-3	0.03	0.00003	0.00006	-0.00003	0.000057	0.000	0.0000	0.0001	0.0006
1,1,2,2-Tetrachloroethane	79-34-5	30	0.030	0.00012	0.0299	0.003108	0.004	0.0000	0.0031	0.0337
Tetrachloroethylene	127-18-4	290	0.290	0.000095	0.2899	0.0290855	0.038	0.0000	0.0291	0.3153
Toluene	108-88-3	520	0.520	0.00022	0.5198	0.052198	0.068	0.0000	0.0522	0.5659
Toxaphene	8001-35-2	0.0002	0.0000002	0.000105	-0.0001	0.00009452	0.000	0.0000	0.0001	0.0010
1,2-Trans-dichloroethylene	156-60-5	4,000	4	0.00016	3.9998	0.400144	0.520	0.0000	0.4001	4.3384
Tributyltin (TBT)	Various	0.072	0.000072	0.000526	-0.0005	0.0004806	0.001	0.0000	0.0005	0.0052
1,2,4-Trichlorobenzene	120-82-1	0.76	0.00076	0.000685	0.0001	0.0006925	0.001	0.0000	0.0007	0.0075
1,1,1-Trichloroethane	71-55-6	200,000	200	0.00015	199.9999	20.000135	26.000	0.0000	20.0001	216.8415
1,1,2-Trichloroethane	79-00-5	89	0.089	0.000156	0.0888	0.0090404	0.012	0.0000	0.0090	0.0980
Trichloroethylene	79-01-6	70	0.070	0.00013	0.0699	0.007117	0.009	0.0000	0.0071	0.0772
2,4,5-Trichlorophenol	95-95-4	600	0.600	0.00025	0.5998	0.060225	0.078	0.0000	0.0602	0.6530
2,4,6-Trichlorophenol	88-06-2	28	0.028	0.00091	0.0271	0.003619	0.005	0.0000	0.0036	0.0392
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	93-72-1	400	0.400	0.00006	0.3999	0.040054	0.052	0.0000	0.0401	0.4343
Vinyl chloride	75-01-4	16	0.016	0.0000505	0.0159	0.00164545	0.002	0.0000	0.0016	0.0178

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis					
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**	**Additional analysis**
N-Nitrosodimethylamine	0.000750	0.008132	No Additional Degradation Analysis	Not applicable	Not applicable	
N-Nitrosodi-n-propylamine	0.000830	0.008999	No Additional Degradation Analysis	Not applicable	Not applicable	
N-Nitrosodiphenylamine	0.001050	0.011384	No Additional Degradation Analysis	Not applicable	Not applicable	
N-Nitrosopyrrolidine	0.000580	0.006288	No Additional Degradation Analysis	Not applicable	Not applicable	
Nonylphenol	0.000060	0.000651	No Additional Degradation Analysis	Not applicable	Not applicable	
Parathion	0.000006	0.000060	No Additional Degradation Analysis	Not applicable	Not applicable	
Pentachlorobenzene	0.000460	0.004987	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Pentachlorophenol	0.001510	0.016371	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
Phenol	0.000705	0.007644	No Additional Degradation Analysis	Not applicable	Not applicable	
Polychlorinated Biphenyls (PCBs)	0.000002	0.000021	Further Degradation Analysis Needed	Detected at MDL	Further Degradation Analysis Needed	See 4Q3 = 220 cfs analysis.
Pyrene	0.000630	0.006830	No Additional Degradation Analysis	Not applicable	Not applicable	
1,2,4,5-Tetrachlorobenzene	0.000060	0.000651	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
1,1,2,2-Tetrachloroethane	0.000120	0.001301	No Additional Degradation Analysis	Not applicable	Not applicable	
Tetrachloroethylene	0.000095	0.001030	No Additional Degradation Analysis	Not applicable	Not applicable	
Toluene	0.000220	0.002385	No Additional Degradation Analysis	Not applicable	Not applicable	
Toxaphene	0.000105	0.001138	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
1,2-Trans-dichloroethylene	0.000140	0.001518	No Additional Degradation Analysis	Not applicable	Not applicable	
Tributyltin (TBT)	0.001085	0.011764	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis	
1,2,4-Trichlorobenzene	0.000685	0.007427	No Additional Degradation Analysis	Not applicable	Not applicable	
1,1,1-Trichloroethane	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable	
1,1,2-Trichloroethane	0.000155	0.001681	No Additional Degradation Analysis	Not applicable	Not applicable	
Trichloroethylene	0.000132	0.001431	No Additional Degradation Analysis	Not applicable	Not applicable	
2,4,5-Trichlorophenol	0.000245	0.002656	No Additional Degradation Analysis	Not applicable	Not applicable	
2,4,6-Trichlorophenol	0.000910	0.009866	No Additional Degradation Analysis	Not applicable	Not applicable	
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0.000060	0.000651	No Additional Degradation Analysis	Not applicable	Not applicable	
Vinyl chloride	0.000051	0.000548	No Additional Degradation Analysis	Not applicable	Not applicable	

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

Permittee / Applicant:	Antony Water & Sanitation Department (AWSD)
Facility / Proposed Discharge:	Wastewater Treatment Plant (WWTP)
NPDES Permit/Application Tracking #:	NM0029629
Source Water:	N/A
Receiving Water:	Rio Grande, Segment 20.6.4.101 NMAC
Segment:	Subject to 20.6.4.99 NMAC (perennial)
Designated Uses:	Irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat, and primary contact
Existing Uses:	Same as sdesignated uses.
Segment Specific Numeric Criteria:	Temperature 34°C (93.2°F) or less. At mean monthly flows above 350 cfs, the monthly average concentration for: TDS 2,000 mg/L or less, sulfate 500 mg/L or less and chloride 400 mg/L or less.
Use Specific Numeric Criteria / Table:	20.6.4.900(J)(1) NMAC (Applicable to Existing, Designated or Attainable Uses unless otherwise specified in 20.6.4.97 through 20.6.4.899 NMAC)
Impairments:	E. coli, 2022-2024 Integrated Report (Source: https://www.env.nm.gov/surface-water-quality/303d-305b/)

Cd ={ [((Cwqs - Cbwq) x 0.1 + Cbwq) x (Qd + Qs)] - [(Cbwq x (Qs)]}/Qd

Cd = discharge concentration (mg/L)
Cwqs = water quality standard
Cbwq = baseline water quality
Qd = Discharge flow (cfs)
Qs = Stream flow (4Q3) (cfs)
Cs = concentration in-stream (at upstream water quality station, mg/L)
Cr = resultant concentration set equal to [(WQS-Cbwq) x 0.1 + Cbwq]

Solve for Cd (NMED solves for the discharge concentration that would use up 10% of the assimilative capacity):

	cubic feet per secoond (cfs)	million galls per day (MGD)		
Q_{d1} =	2.42 cfs	1.30 MGD	from AWSD planned expansion	
Q_{d2} =	0.0 cfs	0.0 MGD		
Q_{d3} =	0.0 cfs	0.0 MGD		
Q_{d4} =	0.0 cfs	0.0 MGD		
Qd (effluent discharge) =	2.42 cfs	1.30 MGD		
Qs (4Q3) =	220 cfs	118 MGD	from calculation EBID Mesilla Cable 5, 2017-2022	Apr 1 to Oct 31,seasonal
Qd + Qs (total streamflow)=	222.42 cfs	119.70 MGD		
Qs (Harmonic Mean) =	0.0199788 cfs	0.0107526 MGD	from calculation EBID Mesilla Cable 5, 2017-2022	
Qd + Qs (total streamflow, HM for HH-OO) =	2.44 cfs	1.31 MGD		
Cs (in-stream) =	Same as Cbwq, baseline water quality		from AWSD data	
Cbwq =	Upstream of facility			
Cd_{10} (mg/L) =	**Effluent discl**	**Effluent discharge concentration using 10% AC**		

The calculated discharge concentration (Cd) is compared with the proposed discharge concentration. If the proposed discharge is less than 10% of the assimilative capacity (calculated > proposed) and existing uses are maintained, the antidegradation review process is complete and the permitting process may proceed. If the proposed discharge consumes more than 10% of available assimilative capacity (calculated < proposed), a comprehensive Tier 2 review is required.

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs),** mg/L	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degredation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
Aluminum, dissolved	7429-90-5	5,000	5	4.5	0.5000	4.55	544.653	532.8180	9.1040	98.7056
Aluminum, total *	7429-90-5	4,030.00	4.03	0.606	3.4240	0.9484	113.527	71.7528	32.1342	348.3989
Antimony, dissolved	7440-36-0	640	0.64	0.00021	0.6398	0.064189	7.684	0.0249	5.8914	63.8745
Arsenic, dissolved	7440-38-2	9	0.009	0.00066	0.0083	0.001494	0.179	0.0781	0.0775	0.8398
Boron, dissolved	7440-42-8	750	0.75	0.151	0.5990	0.2109	25.246	17.8790	5.6666	61.4372
Cadmium, dissolved *	7440-43-9	1.3	0.0013	0.000012	0.0013	0.0001408	0.01685	0.0014	0.0119	0.1287
Chloride	7782-50-5	400,000	400	95.1	304.9000	125.59	15033.625	11260.2204	2902.6192	31,470.1974
Chromium III, dissolved *	16065-83-1	141	0.141	0.03	0.1110	0.0411	4.920	3.5521	1.0521	11.4067
Chromium VI, dissolved	18540-29-9	11	0.011	0.000014	0.0110	0.0011126	0.133	0.0017	0.1012	1.0969
Chromium, dissolved	7440-47-3	100	0.100	0.00031	0.0997	0.010279	1.230	0.0367	0.9183	9.9557
Cobalt, dissolved	7440-48-4	50	0.050	0.00055	0.0495	0.005495	0.658	0.0651	0.4559	4.9427
Copper, total *	7440-50-8	17.6	0.0176	0.00012	0.0175	0.001868	0.224	0.0142	0.1611	1.7464
Cyanide, total recoverable	57-12-5	5.2	0.005	0.0016	0.0036	0.00196	0.235	0.1894	0.0347	0.3767
Iron	7439-89-6	1,000	1.000	1.13	-0.1300	1.117	133.709	133.7965	-0.0670	(0.7268)
Lead, total *		5.87	0.00587	0.000031	0.0058	0.0006149	0.074	0.0037	0.0538	0.5833
Manganese, total *	7439-96-5	2140	2.14	0.177	1.9630	0.3733	44.686	20.9575	18.2523	197.8915
Mercury	7439-97-6	0.77	0.001	0.000011	0.0008	0.0000869	0.010	0.0013	0.0070	0.0759
Mercury, dissolved	7439-97-6	0.77	0.001	0.00001	0.0008	0.000086	0.010	0.0012	0.0070	0.0760
Molybdenum, dissolved	7439-98-7	1,000	1.000	0.0016	0.9984	0.10144	12.143	0.1894	9.1949	99.6908
Molybdenum, total recoverable	7439-98-7	1,895	1.895	0.0016	1.8934	0.19094	22.856	0.1894	17.4360	189.0414
Nickel, total *	7440-02-0	101	0.101	0.00012	0.1009	0.010208	1.222	0.0142	0.9290	10.0725
Selenium, dissolved **	7782-49-2		0.13	0.00007	0.1299	0.013063	1.564	0.0083	1.1965	12.9721
Selenium, total recoverable	7782-49-2	5	0.005	0.00012	0.0049	0.000608	0.073	0.0142	0.0451	0.4885
Silver, total *	7440-22-4	12	0.012	0.00006	0.0119	0.001254	0.150	0.0071	0.1100	1.1927
Thallium, dissolved	7440-28-0	2	0.002	0.00003	0.0020	0.000227	0.027	0.0036	0.0182	0.1970
Uranium, dissolved	7440-61-1	30	0.030	0.00034	0.0297	0.003306	0.396	0.0403	0.2734	2.9647
Vanadium, dissolved	7440-62-2	100	0.100	0.0019	0.0981	0.01171	1.402	0.2250	0.9052	9.8142
Zinc, total *	7440-66-6	248	0.248	0.0055	0.2425	0.02975	3.561	0.6512	2.2384	24.2692
Adjusted gross alpha (pCi/L)		15	15.000	1.54	13.4600	2.886	345.466	182.3422	125.4797	1,360.4507
Radium 226 + Radium 228 (pCi/L)		30	30	0.286	29.7140	3.2574	389.924	33.8635	273.8925	2,969.5426
Tritium (pCi/L)		20,000	20,000		20,000.00	2000	239408.000	0.0000	184,160.00	1,996,662.72
Acenaphthene	83-32-9	90	0.09	0.00086	0.0891	0.009774	1.170	0.1018	0.8217	8.9084
Acrolein	107-02-8	3	0.003	0.00016	0.0028	0.000444	0.053	0.0189	0.0263	0.2853
Acrylonitrile	107-13-1	70	0.070	0.00013	0.0699	0.007117	0.852	0.0154	0.6435	6.9768
Aldrin	309-00-2	0.0000077	0.0000000077	0.000000008	-0.0000000003	7.97E-09	0.000	0.0000	0.0000	0.0000
Anthracene	120-12-7	400	0.400	0.00094	0.3991	0.040846	4.889	0.1113	3.6755	39.8496
Benzene	71-43-2	160	0.160	0.00021	0.1598	0.016189	1.938	0.0249	1.4716	15.9546
Benzidine	92-87-5	0.11	0.00011	0.000037	0.0001	0.0000443	0.005	0.0044	0.0007	0.0077

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis				
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**
Aluminum, dissolved	0.007981	0.086527	No Additional Degradation Analysis	Not applicable	Not applicable
Aluminum, total *	0.039903	0.432629	No Additional Degradation Analysis	Not applicable	Not applicable
Antimony, dissolved	0.000205	0.002223	No Additional Degradation Analysis	Not applicable	Not applicable
Arsenic, dissolved	0.000296	0.003209	No Additional Degradation Analysis	Not applicable	Not applicable
Boron, dissolved	0.447494	4.851730	No Additional Degradation Analysis	Not applicable	Not applicable
Cadmium, dissolved *	0.000012	0.000125	No Additional Degradation Analysis	Not applicable	Not applicable
Chloride	505.395859	5479.501903	No Additional Degradation Analysis	Not applicable	Not applicable
Chromium III, dissolved *	0.000160	0.001735	No Additional Degradation Analysis	Not applicable	Not applicable
Chromium VI, dissolved	0.000006	0.000064	No Additional Degradation Analysis	Not applicable	Not applicable
Chromium, dissolved	0.000160	0.001735	No Additional Degradation Analysis	Not applicable	Not applicable
Cobalt, dissolved	0.000550	0.005963	No Additional Degradation Analysis	Not applicable	Not applicable
Copper, total *	0.000312	0.003378	No Additional Degradation Analysis	Not applicable	Not applicable
Cyanide, total recoverable	0.002530	0.027428	No Additional Degradation Analysis	Not applicable	Not applicable
Iron	0.088805	0.962820	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Lead, total *	0.000062	0.000674	No Additional Degradation Analysis	Not applicable	Not applicable
Manganese, total *	0.025207	0.273292	No Additional Degradation Analysis	Not applicable	Not applicable
Mercury	0.000011	0.000119	No Additional Degradation Analysis	Not applicable	Not applicable
Mercury, dissolved	0.000011	0.000119	No Additional Degradation Analysis	Not applicable	Not applicable
Molybdenum, dissolved	0.001600	0.017347	No Additional Degradation Analysis	Not applicable	Not applicable
Molybdenum, total recoverable	0.002736	0.029663	No Additional Degradation Analysis	Not applicable	Not applicable
Nickel, total *	0.000303	0.003283	No Additional Degradation Analysis	Not applicable	Not applicable
Selenium, dissolved **	0.000070	0.000759	No Additional Degradation Analysis	Not applicable	Not applicable
Selenium, total recoverable	0.000115	0.001247	No Additional Degradation Analysis	Not applicable	Not applicable
Silver, total *	0.000022	0.000239	No Additional Degradation Analysis	Not applicable	Not applicable
Thallium, dissolved	0.000030	0.000325	No Additional Degradation Analysis	Not applicable	Not applicable
Uranium, dissolved	0.000602	0.006528	No Additional Degradation Analysis	Not applicable	Not applicable
Vanadium, dissolved	0.001150	0.012468	No Additional Degradation Analysis	Not applicable	Not applicable
Zinc, total *	0.012765	0.138398	No Additional Degradation Analysis	Not applicable	Not applicable
Adjusted gross alpha (pCi/L)	4.326233	46.905019	No Additional Degradation Analysis	Not applicable	Not applicable
Radium 226 + Radium 228 (pCi/L)	0.450000	4.878900	No Additional Degradation Analysis	Not applicable	Not applicable
Tritium (pCi/L)	0.000000	0.000000	No Additional Degradation Analysis	Not applicable	Not applicable
Acenaphthene	0.000860	0.009324	No Additional Degradation Analysis	Not applicable	Not applicable
Acrolein	0.000155	0.001681	No Additional Degradation Analysis	Not applicable	Not applicable
Acrylonitrile	0.000130	0.001409	No Additional Degradation Analysis	Not applicable	Not applicable
Aldrin	0.000008	0.000087	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Anthracene	0.000940	0.010191	No Additional Degradation Analysis	Not applicable	Not applicable
Benzene	0.000205	0.002223	No Additional Degradation Analysis	Not applicable	Not applicable
Benzidine	0.000037	0.000396	No Additional Degradation Analysis	Not applicable	Not applicable

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs),** mg/L	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degredation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
Benzo(a)anthracene	56-55-3	0.013	0.000013	0.000007	0.000006	0.0000076	0.001	0.0008	0.0001	0.0007
Benzo(a)pyrene	50-32-8	0.0013	0.0000013	0.000005	-0.0000037	0.00000463	0.001	0.0006	0.0000	(0.0003)
Benzo(b)fluoranthene	205-99-2	0.013	0.000013	0.000012	0.000001	0.0000121	0.001	0.0014	0.0000	0.0002
Benzo(k)fluoranthene	207-08-9	0.13	0.00013	0.00000008	0.0001	0.000013072	0.002	0.0000	0.0012	0.0130
alpha-BHC	319-84-6	0.0039	0.0000039	0.000014	-0.00001	0.00001299	0.002	0.0017	-0.0001	(0.0009)
beta-BHC	319-85-7	0.14	0.00014	0.000014	0.0001	0.0000266	0.003	0.0017	0.0012	0.0127
gamma-BHC (Lindane)	58-89-9	0.95	0.0010	0.000017	0.0009	0.0001103	0.013	0.0020	0.0086	0.0933
Bis(2-chloroethyl) ether	111-44-4	22	0.022	0.00024	0.0218	0.002416	0.289	0.0284	0.2006	2.1750
Bis(2-chloro-1-methylethyl) ether	108-60-1 or 102-80-1	4,000	4.000	0.00206	3.9979	0.401854	48.104	0.2439	36.8151	399.1492
Bis(2-ethylhexyl) phthalate	117-81-7	3.7	0.0037	0.000845	0.0029	0.0011305	0.135	0.1001	0.0271	0.2942
Bis(chloromethyl) ether	542-88-1	0.17	0.00017	0.000815	-0.0006	0.0007505	0.090	0.0965	-0.0051	(0.0556)
Bromoform	75-25-2	1,200	1.200	0.00015	1.1999	0.120135	14.381	0.0178	11.0484	119.7864
Butylbenzyl phthalate	85-68-7	1	0.001	0.000615	0.0004	0.0006535	0.078	0.0728	0.0042	0.0451
Carbaryl	63-25-2	2.1	0.0021	0.00001	0.0021	0.000219	0.026	0.0012	0.0193	0.2088
Carbon tetrachloride	56-23-5	50	0.050	0.00019	0.0498	0.005171	0.619	0.0225	0.4588	4.9747
Chlordane	57-74-9	0.0032	0.0000032	0.00002	-0.00002	0.00001832	0.002	0.0024	-0.0001	(0.0015)
Chlorobenzene	108-90-7	800	0.800	0.00022	0.7998	0.080198	9.600	0.0260	7.3646	79.8469
Chlorodibromomethane	124-48-1	210	0.210	0.00015	0.2099	0.021135	2.530	0.0178	1.9324	20.9516
Chloroform	67-66-3	2,000	2.0000	0.0001859	1.9998	0.20016731	23.961	0.0220	18.4145	199.6497
Chlorpyrifos	2921-88-2	0.041	0.000041	0.00002	0.000021	0.0000221	0.003	0.0024	0.0002	0.0023
2-Chloronaphthalene	91-58-7	1,000	1.000	0.000705	0.9993	0.1006345	12.046	0.0835	9.2022	99.7704
2-Chlorophenol	95-57-8	800	0.800	1.6	-0.8000	1.52	181.950	189.4464	-5.7664	(62.5193)
Chrysene	218-01-9	1.3	0.0013	0.000009	0.0013	0.0001381	0.017	0.0011	0.0119	0.1290
Demeton	8065-48-3	0.1	0.0001	0.000024	0.0001	0.0000316	0.004	0.0028	0.0007	0.0078
Diazinon	333-41-5	0.17	0.00017	0.000055	0.0001	0.0000665	0.008	0.0065	0.0011	0.0121
2,4-Dichlorophenoxyacetic acid	94-75-7	12,000	12.000	0.000012	12.0000	1.2000108	143.646	0.0014	110.4959	1,197.9966
Dichlorodiphenyldichloroethane (DDD)	72-54-8	0.0012	0.0000012	0.000024	-0.000023	0.00002172	0.003	0.0028	-0.0002	(0.0020)
Dichlorodiphenyldichloroethylene (DDE)	72-55-9	0.00018	0.00000018	0.000022	-0.000022	0.000019818	0.002	0.0026	-0.0002	(0.0019)
Dichlorodiphenyltrichloroethane (DDT)	50-29-3	0.0003	0.0000003	0.000026	-0.000026	0.00002343	0.003	0.0031	-0.0002	(0.0023)
4,4'-DDT and derivatives	Various	0.001	0.000001	0.000026	-0.000025	0.0000235	0.003	0.0031	-0.0002	(0.0022)
Dibenzo(a,h)anthracene	53-70-3	0.0013	0.0000013	0.000011	-0.00001	0.00001003	0.001	0.0013	-0.0001	(0.0008)
Dibutyl phthalate	84-74-2	30	0.030	0.000615	0.0294	0.0035535	0.425	0.0728	0.2712	2.9403
1,2-Dichlorobenzene	95-50-1	3,000	3.000	0.000235	2.9998	0.3002115	35.937	0.0278	27.6221	299.4785
1,3-Dichlorobenzene	541-73-1	10	0.010	0.00019	0.0098	0.001171	0.140	0.0225	0.0905	0.9814
1,4-Dichlorobenzene	106-46-7	900	0.900	0.000245	0.8998	0.0902205	10.800	0.0290	8.2852	89.8280
3,3'-Dichlorobenzidine	91-94-1	1.5	0.0015	0.00141	0.0001	0.001419	0.170	0.1669	0.0022	0.0243
Dichlorobromomethane	75-27-4	270	0.27	0.00012	0.2699	0.027108	3.245	0.0142	2.4852	26.9443
1,2-Dichloroethane	107-06-2	6,500	6.500	0.00009	6.4999	0.650081	77.817	0.0107	59.8513	648.9074
1,1-Dichloroethylene	75-35-4	20,000	20.000	0.00017	19.9998	2.000153	239.426	0.0201	184.1586	1,996.6476

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis				
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**
Benzo(a)anthracene	0.000007	0.000076	No Additional Degradation Analysis	Not applicable	Not applicable
Benzo(a)pyrene	0.000005	0.000054	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Benzo(b)fluoranthene	0.000012	0.000125	No Additional Degradation Analysis	Not applicable	Not applicable
Benzo(k)fluoranthene	0.000008	0.000087	No Additional Degradation Analysis	Not applicable	Not applicable
alpha-BHC	0.000014	0.000152	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
beta-BHC	0.000014	0.000146	No Additional Degradation Analysis	Not applicable	Not applicable
gamma-BHC (Lindane)	0.000017	0.000179	No Additional Degradation Analysis	Not applicable	Not applicable
Bis(2-chloroethyl) ether	0.000240	0.002602	No Additional Degradation Analysis	Not applicable	Not applicable
Bis(2-chloro-1-methylethyl) ether	0.002055	0.022280	No Additional Degradation Analysis	Not applicable	Not applicable
Bis(2-ethylhexyl) phthalate	0.000845	0.009161	No Additional Degradation Analysis	Not applicable	Not applicable
Bis(chloromethyl) ether	0.000815	0.008836	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Bromoform	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable
Butylbenzyl phthalate	0.000615	0.006668	No Additional Degradation Analysis	Not applicable	Not applicable
Carbaryl	0.000010	0.000108	No Additional Degradation Analysis	Not applicable	Not applicable
Carbon tetrachloride	0.000185	0.002006	No Additional Degradation Analysis	Not applicable	Not applicable
Chlordane	0.000020	0.000211	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Chlorobenzene	0.000215	0.002331	No Additional Degradation Analysis	Not applicable	Not applicable
Chlorodibromomethane	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable
Chloroform	0.000185	0.002006	No Additional Degradation Analysis	Not applicable	Not applicable
Chlorpyrifos	0.000020	0.000217	No Additional Degradation Analysis	Not applicable	Not applicable
2-Chloronaphthalene	0.000705	0.007644	No Additional Degradation Analysis	Not applicable	Not applicable
2-Chlorophenol	0.001550	0.016805	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Chrysene	0.000009	0.000098	No Additional Degradation Analysis	Not applicable	Not applicable
Demeton	0.000024	0.000255	No Additional Degradation Analysis	Not applicable	Not applicable
Diazinon	0.000055	0.000596	No Additional Degradation Analysis	Not applicable	Not applicable
2,4-Dichlorophenoxyacetic acid	0.000026	0.000280	No Additional Degradation Analysis	Not applicable	Not applicable
Dichlorodiphenyldichloroethane (DDD)	0.000024	0.000260	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Dichlorodiphenyldichloroethylene (DDE)	0.000022	0.000233	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Dichlorodiphenyltrichloroethane (DDT)	0.000026	0.000276	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
4,4'-DDT and derivatives	0.000026	0.000276	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Dibenzo(a,h)anthracene	0.000011	0.000114	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Dibutyl phthalate	0.000580	0.006288	No Additional Degradation Analysis	Not applicable	Not applicable
1,2-Dichlorobenzene	0.000235	0.002548	No Additional Degradation Analysis	Not applicable	Not applicable
1,3-Dichlorobenzene	0.000190	0.002060	No Additional Degradation Analysis	Not applicable	Not applicable
1,4-Dichlorobenzene	0.000797	0.008646	No Additional Degradation Analysis	Not applicable	Not applicable
3,3'-Dichlorobenzidine	0.000477	0.005172	No Additional Degradation Analysis	Not applicable	Not applicable
Dichlorobromomethane	0.000120	0.001301	No Additional Degradation Analysis	Not applicable	Not applicable
1,2-Dichloroethane	0.000090	0.000976	No Additional Degradation Analysis	Not applicable	Not applicable
1,1-Dichloroethylene	0.000051	0.000553	No Additional Degradation Analysis	Not applicable	Not applicable

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs),** mg/L	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degredation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
2,4-Dichlorophenol	120-83-2	60	0.060	0.00079	0.0592	0.006711	0.803	0.0935	0.5460	5.9197
1,2-Dichloropropane	78-87-5	310	0.310	0.000141	0.3099	0.0311269	3.726	0.0167	2.8533	30.9357
1,3-Dichloropropelyne	542-75-6	120	0.120	0.000167	0.1198	0.0121503	1.454	0.0198	1.1036	11.9651
Dieldrin	60-57-1	0.000012	0.000000012	0.000009	-0.000009	8.1012E-06	0.001	0.0011	-0.0001	(0.0008)
Diethyl phthalate	84-66-2	600	0.600	0.000855	0.5991	0.0607695	7.274	0.1012	5.5178	59.8238
Dimethyl phthalate	131-11-3	2,000	2.000	0.000815	1.9992	0.2007335	24.029	0.0965	18.4093	199.5937
2,4-Dimethylphenol	105-67-9	3,000	3.000	0.00086	2.9991	0.300774	36.004	0.1018	27.6169	299.4229
Dinitrophenols	25550-58-7	1,000	1.000	0.000965	0.9990	0.1008685	12.074	0.1143	9.2001	99.7473
2,4-Dinitrophenol	51-28-5	300	0.300	0.0026	0.2974	0.03234	3.871	0.3079	2.7411	29.7186
2,4-Dinitrotoluene	121-14-2	17	0.017	0.000415	0.0166	0.0020735	0.248	0.0491	0.1531	1.6602
Dioxin	1764-01-6	5.10E-08	5.10E-11	5.1E-09	-0.000000005	4.5951E-09	0.000	0.0000	0.0000	(0.0000)
1,2-Diphenylhydrazine	122-66-7	2	0.002	0.000235	0.0018	0.0004115	0.049	0.0278	0.0165	0.1788
alpha-Endosulfan	959-98-8	0.056	0.000056	0.000015	0.00004	0.0000191	0.002	0.0018	0.0004	0.0043
beta-Endosulfan	33213-65-9	0.056	0.000056	0.000017	0.00004	0.0000209	0.003	0.0020	0.0004	0.0041
Endosulfan sulfate	1031-07-8	40	0.040	0.00002	0.0400	0.004018	0.481	0.0024	0.3682	3.9915
Endrin	72-20-8	0.03	0.00003	0.000023	0.00001	0.0000237	0.003	0.0027	0.0001	0.0009
Endrin aldehyde	7421-93-4	1	0.001	0.000026	0.0010	0.0001234	0.015	0.0031	0.0090	0.0975
Ethylbenzene	100-41-4	130	0.130	0.00021	0.1298	0.013189	1.579	0.0249	1.1953	12.9596
Fluoranthene	206-44-0	20	0.020	0.00097	0.0190	0.002873	0.344	0.1149	0.1762	1.9103
Fluorene	86-73-7	70	0.070	0.000905	0.0691	0.0078145	0.935	0.1072	0.6371	6.9078
Guthion	86-50-0	0.01	0.00001	0.0001	-0.0001	0.000091	0.011	0.0118	-0.0007	(0.0079)
Heptachlor	76-44-8	0.000059	0.000000059	0.000019	-0.00002	1.71059E-05	0.002	0.0022	-0.0002	(0.0017)
Heptachlor epoxide	1024-57-3	0.00032	0.00000032	0.000013	-0.00001	0.000011732	0.001	0.0015	-0.0001	(0.0011)
Hexachlorobenzene	118-74-1	0.00079	0.00000079	0.000021	-0.00002	0.000018979	0.002	0.0025	-0.0002	(0.0018)
Hexachlorobutadiene	87-68-3	0.1	0.0001	0.00038	-0.0003	0.000352	0.042	0.0450	-0.0022	(0.0238)
Hexachlorocyclohexane (HCH)-Technical	608-73-1	0.1	0.0001	0.0003	-0.0002	0.00028	0.034	0.0355	-0.0015	(0.0167)
Hexachlorocyclopen-tadiene	77-47-4	4	0.004	0.00056	0.0034	0.000904	0.108	0.0663	0.0322	0.3495
Hexachloroethane	67-72-1	33	0.033	0.000635	0.0324	0.0038715	0.463	0.0752	0.2987	3.2380
Ideno(1,2,3-cd)pyrene	193-39-5	0.013	0.000	0.000008	0.00001	0.0000085	0.001	0.0009	0.0001	0.0006
Isophorone	78-59-1	18,000	18	0.00067	17.9993	1.800603	215.539	0.0793	165.7385	1,796.9368
Malathion	121-75-5	0.1	0.0001	0.000021	0.0001	0.0000289	0.003	0.0025	0.0007	0.0081
Methoxychlor	72-43-5	0.02	0.00002	0.000045	-0.00003	0.0000425	0.005	0.0053	-0.0002	(0.0020)
Methyl bromide	74-83-9	10,000	10	0.00015	9.9999	1.000135	119.720	0.0178	92.0788	998.3180
3-Methyl-4-chlorophenol	59-50-7	2,000	2	0.00091	1.9991	0.200819	24.039	0.1077	18.4085	199.5853
2-Methyl-4,6-dinitrophenol	534-52-1	30	0.030	0.00201	0.0280	0.004809	0.576	0.2380	0.2597	2.8161
Methylene chloride	75-09-2	10,000	10	0.00017	9.9998	1.000153	119.722	0.0201	92.0786	998.3162
Mirex	2385-85-5	0.001	0.000001	0.000021	-0.00002	0.000019	0.002	0.0025	-0.0002	(0.0018)
Nitrobenzene	98-95-3	600	0.600	0.000865	0.5991	0.0607785	7.275	0.1024	5.5177	59.8229
Nitrosamines	Various	12.4	0.012	0.000794	0.0116	0.0019546	0.234	0.0940	0.1077	1.1673
Nitrosodibutylamine	924-16-3	2.2	0.002	0.000463	0.0017	0.0006367	0.076	0.0548	0.0165	0.1784
Nitrosodiethylamine	55-18-5	12.4	0.012	0.000331	0.0121	0.0015379	0.184	0.0392	0.1115	1.2085

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis				
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**
2,4-Dichlorophenol	0.000790	0.008565	No Additional Degradation Analysis	Not applicable	Not applicable
1,2-Dichloropropane	0.000141	0.001523	No Additional Degradation Analysis	Not applicable	Not applicable
1,3-Dichloropropelyne	0.000167	0.001811	No Additional Degradation Analysis	Not applicable	Not applicable
Dieldrin	0.000009	0.000098	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Diethyl phthalate	0.000855	0.009270	No Additional Degradation Analysis	Not applicable	Not applicable
Dimethyl phthalate	0.000815	0.008836	No Additional Degradation Analysis	Not applicable	Not applicable
2,4-Dimethylphenol	0.000855	0.009270	No Additional Degradation Analysis	Not applicable	Not applicable
Dinitrophenols	0.000965	0.010463	No Additional Degradation Analysis	Not applicable	Not applicable
2,4-Dinitrophenol	0.002600	0.028189	No Additional Degradation Analysis	Not applicable	Not applicable
2,4-Dinitrotoluene	0.000415	0.004499	No Additional Degradation Analysis	Not applicable	Not applicable
Dioxin	0.000000	0.000000	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
1,2-Diphenylhydrazine	0.000235	0.002548	No Additional Degradation Analysis	Not applicable	Not applicable
alpha-Endosulfan	0.000015	0.000157	No Additional Degradation Analysis	Not applicable	Not applicable
beta-Endosulfan	0.000017	0.000184	No Additional Degradation Analysis	Not applicable	Not applicable
Endosulfan sulfate	0.000043	0.000467	No Additional Degradation Analysis	Not applicable	Not applicable
Endrin	0.000023	0.000249	No Additional Degradation Analysis	Not applicable	Not applicable
Endrin aldehyde	0.000026	0.000276	No Additional Degradation Analysis	Not applicable	Not applicable
Ethylbenzene	0.000210	0.002277	No Additional Degradation Analysis	Not applicable	Not applicable
Fluoranthene	0.000970	0.010517	No Additional Degradation Analysis	Not applicable	Not applicable
Fluorene	0.000905	0.009812	No Additional Degradation Analysis	Not applicable	Not applicable
Guthion	0.000100	0.001084	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Heptachlor	0.000019	0.000206	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Heptachlor epoxide	0.000013	0.000141	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Hexachlorobenzene	0.000021	0.000222	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Hexachlorobutadiene	0.000380	0.004120	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Hexachlorocyclohexane (HCH)-Technical	0.000250	0.002711	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Hexachlorocyclopen-tadiene	0.000560	0.006072	No Additional Degradation Analysis	Not applicable	Not applicable
Hexachloroethane	0.000635	0.006885	No Additional Degradation Analysis	Not applicable	Not applicable
Ideno(1,2,3-cd)pyrene	0.000008	0.000087	No Additional Degradation Analysis	Not applicable	Not applicable
Isophorone	0.000670	0.007264	No Additional Degradation Analysis	Not applicable	Not applicable
Malathion	0.000021	0.000222	No Additional Degradation Analysis	Not applicable	Not applicable
Methoxychlor	0.000045	0.000482	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Methyl bromide	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable
3-Methyl-4-chlorophenol	0.000910	0.009866	No Additional Degradation Analysis	Not applicable	Not applicable
2-Methyl-4,6-dinitrophenol	0.002010	0.021792	No Additional Degradation Analysis	Not applicable	Not applicable
Methylene chloride	0.000635	0.006885	No Additional Degradation Analysis	Not applicable	Not applicable
Mirex	0.000021	0.000228	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Nitrobenzene	0.000865	0.009378	No Additional Degradation Analysis	Not applicable	Not applicable
Nitrosamines	0.000585	0.006343	No Additional Degradation Analysis	Not applicable	Not applicable
Nitrosodibutylamine	0.000915	0.009920	No Additional Degradation Analysis	Not applicable	Not applicable
Nitrosodiethylamine	0.000585	0.006343	No Additional Degradation Analysis	Not applicable	Not applicable

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

							Mixing Calculation		Loading Calculation	
Pollutant	**CAS**	**20.6.4 NMAC Water Quality Standard (Cwqs), ug/L**	**20.6.4 NMAC Water Quality Standard (Cwqs),** mg/L	**Baseline Concentration (Cbwq)** In-Stream, mg/L	**Assimilative Capacity (AC) (Cwqs-Cbwq),** mg/L	**Significant degredation (Cbwq+10% AC),** mg/L	**Calculated Effluent Concentration (Cd)** ((Cwqs-Cbwq) x 0.1 + Cbwq) x (Qd + Qs), mg/L	**Cs*Qs**	**Calculated Effluent Concentration @ 10% of AC Daily Max (Cd_{10}),** mg/L	**Allowable Effluent Load @ 10% of AC Daily Max,** mg/L
N-Nitrosodimethylamine	62-75-9	30	0.030	0.00083	0.0292	0.003747	0.449	0.0983	0.2694	2.9211
N-Nitrosodi-n-propylamine	621-64-7	5.1	0.0051	0.00083	0.0043	0.001257	0.150	0.0983	0.0401	0.4353
N-Nitrosodiphenylamine	86-30-6	60	0.060	0.0011	0.0589	0.00699	0.837	0.1302	0.5435	5.8921
N-Nitrosopyrrolidine	930-55-2	340	0.340	0.000329	0.3397	0.0342961	4.105	0.0390	3.1280	33.9140
Nonylphenol	84852-15-3	6.6	0.0066	0.00006	0.0065	0.000714	0.085	0.0071	0.0603	0.6536
Parathion	56-38-2	0.013	0.000013	0.0000055	0.00001	0.00000625	0.001	0.0007	0.0001	0.0008
Pentachlorobenzene	608-93-5	0.1	0.0001	0.00028	-0.0002	0.000262	0.031	0.0332	-0.0014	(0.0149)
Pentachlorophenol	87-86-5	0.4	0.0004	0.00151	-0.0011	0.001399	0.167	0.1788	-0.0087	(0.0944)
Phenol	108-95-2	300,000	300.000	0.000705	299.9993	30.0006345	3591.196	0.0835	2762.3942	29,949.8781
Polychlorinated Biphenyls (PCBs)	1336-36-3	0.014	0.000014	5.24E-09	0.00001	1.40472E-06	0.000	0.0000	0.0001	0.0014
Pyrene	129-00-0	30	0.030	0.00063	0.0294	0.003567	0.427	0.0746	0.2711	2.9389
1,2,4,5-Tetrachlorobenzene	95-94-3	0.03	0.00003	0.00006	-0.00003	0.000057	0.007	0.0071	-0.0002	(0.0023)
1,1,2,2-Tetrachloroethane	79-34-5	30	0.030	0.00012	0.0299	0.003108	0.372	0.0142	0.2753	2.9843
Tetrachloroethylene	127-18-4	290	0.290	0.000095	0.2899	0.0290855	3.482	0.0112	2.6695	28.9432
Toluene	108-88-3	520	0.520	0.00022	0.5198	0.052198	6.248	0.0260	4.7864	51.8937
Toxaphene	8001-35-2	0.0002	0.0000002	0.000105	-0.0001	0.00009452	0.011	0.0124	-0.0009	(0.0093)
1,2-Trans-dichloroethylene	156-60-5	4,000	4	0.00016	3.9998	0.400144	47.899	0.0189	36.8307	399.3183
Tributyltin (TBT)	Various	0.072	0.000072	0.000526	-0.0005	0.0004806	0.058	0.0623	-0.0037	(0.0396)
1,2,4-Trichlorobenzene	120-82-1	0.76	0.00076	0.000685	0.0001	0.0006925	0.083	0.0811	0.0014	0.0149
1,1,1-Trichloroethane	71-55-6	200,000	200	0.00015	199.9999	20.000135	2394.096	0.0178	1841.5988	19,966.6139
1,1,2-Trichloroethane	79-00-5	89	0.089	0.000156	0.0888	0.0090404	1.082	0.0185	0.8182	8.8713
Trichloroethylene	79-01-6	70	0.070	0.00013	0.0699	0.007117	0.852	0.0154	0.6435	6.9768
2,4,5-Trichlorophenol	95-95-4	600	0.600	0.00025	0.5998	0.060225	7.209	0.0296	5.5227	59.8776
2,4,6-Trichlorophenol	88-06-2	28	0.028	0.00091	0.0271	0.003619	0.433	0.1077	0.2504	2.7143
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	93-72-1	400	0.400	0.00006	0.3999	0.040054	4.795	0.0071	3.6827	39.9279
Vinyl chloride	75-01-4	16	0.016	0.0000505	0.0159	0.00164545	0.197	0.0060	0.1469	1.5928

NM0029629 Anthony Water and Sanitation District Antidegradation Analysis

	Antidegradation Analysis				
Pollutant	**Average (Geomean) Effluent Data,** mg/L	**Proposed discharge based on current effluent data,** mg/L	**Proposed Discharge: if > Allowable Effluent Load @ 10% of AC Daily, then Further Degradation Analysis Required**	**Pollutants at MDL (Only for Further Degradation Analysis Needed, AWSD Effluent Data)**	**Flagging Pollutants Reported at MDL, all others No Additional Degradation Analysis**
N-Nitrosodimethylamine	0.000750	0.008132	No Additional Degradation Analysis	Not applicable	Not applicable
N-Nitrosodi-n-propylamine	0.000830	0.008999	No Additional Degradation Analysis	Not applicable	Not applicable
N-Nitrosodiphenylamine	0.001050	0.011384	No Additional Degradation Analysis	Not applicable	Not applicable
N-Nitrosopyrrolidine	0.000580	0.006288	No Additional Degradation Analysis	Not applicable	Not applicable
Nonylphenol	0.000060	0.000651	No Additional Degradation Analysis	Not applicable	Not applicable
Parathion	0.000006	0.000060	No Additional Degradation Analysis	Not applicable	Not applicable
Pentachlorobenzene	0.000460	0.004987	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Pentachlorophenol	0.001510	0.016371	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
Phenol	0.000705	0.007644	No Additional Degradation Analysis	Not applicable	Not applicable
Polychlorinated Biphenyls (PCBs)	0.000002	0.000021	No Additional Degradation Analysis	Not applicable	Not applicable
Pyrene	0.000630	0.006830	No Additional Degradation Analysis	Not applicable	Not applicable
1,2,4,5-Tetrachlorobenzene	0.000060	0.000651	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
1,1,2,2-Tetrachloroethane	0.000120	0.001301	No Additional Degradation Analysis	Not applicable	Not applicable
Tetrachloroethylene	0.000095	0.001030	No Additional Degradation Analysis	Not applicable	Not applicable
Toluene	0.000220	0.002385	No Additional Degradation Analysis	Not applicable	Not applicable
Toxaphene	0.000105	0.001138	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
1,2-Trans-dichloroethylene	0.000140	0.001518	No Additional Degradation Analysis	Not applicable	Not applicable
Tributyltin (TBT)	0.001085	0.011764	Further Degradation Analysis Needed	Below MDL	No Additional Degradation Analysis
1,2,4-Trichlorobenzene	0.000685	0.007427	No Additional Degradation Analysis	Not applicable	Not applicable
1,1,1-Trichloroethane	0.000145	0.001572	No Additional Degradation Analysis	Not applicable	Not applicable
1,1,2-Trichloroethane	0.000155	0.001681	No Additional Degradation Analysis	Not applicable	Not applicable
Trichloroethylene	0.000132	0.001431	No Additional Degradation Analysis	Not applicable	Not applicable
2,4,5-Trichlorophenol	0.000245	0.002656	No Additional Degradation Analysis	Not applicable	Not applicable
2,4,6-Trichlorophenol	0.000910	0.009866	No Additional Degradation Analysis	Not applicable	Not applicable
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0.000060	0.000651	No Additional Degradation Analysis	Not applicable	Not applicable
Vinyl chloride	0.000051	0.000548	No Additional Degradation Analysis	Not applicable	Not applicable