pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST REGIONAL OFFICE
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0027715**
Facility Type	**Industrial**	APS ID	**686159**
Major / Minor	**Major**	Authorization ID	**781773**

NPDES PERMIT FACT SHEET ADDENDUM

Applicant and Facility Information

Applicant Name	**MAX Environmental Technologies, Inc.**	Facility Name	**Yukon Facility**
Applicant Address	651 Holiday Drive Suite 5	Facility Address	233 Max Lane
	Pittsburgh, PA 15220-2740		Yukon, PA 15698-1003
Applicant Contact	Carl Spadaro	Facility Contact	***same as applicant***
Applicant Phone	(412) 343-4900	Facility Phone	***same as applicant***
Client ID	121054	Site ID	245145
SIC Code	4953	Municipality	South Huntingdon Township
SIC Description	Trans. & Utilities - Refuse Systems	County	Westmoreland
Date Published in PA Bulletin	November 9, 2019	EPA Waived?	No
Comment Period End Date	December 24, 2019 (extended)	If No, Reason	Major Facility
Purpose of Application	Renewal of an NPDES permit for discharges of treated sanitary wastewater; treated landfill leachate and groundwater; and storm water.		

Internal Review and Recommendations

The draft permit for MAX Environmental Technologies, Inc.'s (MAX) Yukon Facility was published in the *Pennsylvania Bulletin* on November 9, 2019. By email dated November 13, 2019, the Mountain Watershed Association (MWA) requested a 90-day extension of the public comment period. In response to that request, the Department granted a 15-day extension of the comment period—the maximum allowed by 24 Pa. Code § 92a.82(d)— through December 24, 2019. MWA subsequently requested and then withdrew a request for a public hearing in favor of a meeting among MWA, local community members, and Department representatives. The meeting took place at the Department's New Stanton office on January 9, 2020.

Responses to comments on the draft NPDES permit are provided in this document.

By letter dated December 16, 2019, MAX Environmental Technologies, Inc. (MAX) provided comments on the draft NPDES permit. The Department's responses to MAX's comments are provided below after each comment.

MAX Comment 1: NPDES Permit Fact Sheet Pages, 14, 15, and 16. The header on pages 14, 15, and 16 of the NPDES Permit Fact sheet contains incorrect information. MAX requests that the header is corrected with the correct facility information and NPDES Permit designation.

DEP Response to MAX Comment 1: Some formatting was copied from another Fact Sheet and the incorrect header was inadvertently kept. The Department's file copy of the Fact Sheet will contain the correct header on those pages, but some electronic versions (such as those sent to EPA) cannot be modified. In either case, the Department acknowledges the error.

MAX Comment 2: Permit Part I.A., pertaining to WQBELs and monitoring requirements for benzidine, 3,3-dichlorobenzidine, 4,4-DDT, 4,4-DDD, 4,4-DDE, dieldrin, and toxaphene. In accordance with the instructions provided in the cover letter for the Draft Permit, MAX is electing to collect additional samples to meet target QLs. The NPDES Pre-Draft Permit Survey for Toxic Pollutants is provided as Attachment A.

Approve	Return	Deny	Signatures	Date
X			Ryan C. Decker, P.E. / Environmental Engineer	December 17, 2020
X			Michael E. Fifth, P.E. / Environmental Engineer Manager	January 19, 2021

Internal Review and Recommendations

DEP Response to MAX Comment 2: By letter dated January 31, 2020, MAX submitted new analytical data for the seven parameters listed above. Samples were collected on November 26, 2019, December 3, 2019, December 17, 2019, and January 14, 2020. The analytical results from those samples are summarized in the table below.

Sample ID Sample Date Chemical Name	Units	Outfall 001 11/26/2019		Outfall 001 12/3/2019		Outfall 001 12/17/2019		Outfall 001 1/14/2020	
Semivolatile Organic Compounds (Method 625.1)									
3,3-Dichlorobenzidine	µg/L	0.96	U	1	U	0.93	U	1	U
Benzidine	µg/L	19	U	21	U	19	U	20	U
Organochlorine Pesticides (Method 608.3)									
4,4-DDD	µg/L	0.0054	U	0.0054	U	0.0013	U	0.0013	U
4,4-DDE	µg/L	0.0054	U	0.0054	U	0.0013	U	0.0013	U
4,4-DDT	µg/L	0.0054	U	0.0054	U	0.0013	U	0.0013	U
Dieldrin	µg/L	0.0054	U	0.0054	U	0.0013	U	0.0013	U
Toxaphene	µg/L	0.42	U	0.42	U	0.1	U	0.096	U

U - result not detected at reported concentration

Based on the updated analytical results, discharges from Outfall 001 containing benzidine, 3,3-dichlorobenzidine, 4,4-DDT, 4,4-DDD, 4,4-DDE, dieldrin, and toxaphene do not exhibit a reasonable potential to cause or contribute to excursions above water quality criteria (see attached water quality analysis using DEP's new Toxics Management Spreadsheet). Therefore, the new WQBELs and monitoring requirements for those parameters will be removed from the permit. New WQBELs for arsenic are being imposed as part of the revised draft permit (see DEP's Response to MWA Supplemental Comment 4), but MAX is expected to be able to comply with those limits immediately. Therefore, the schedule of compliance for new WQBELs on benzidine, dieldrin, and toxaphene and related permit requirements for "WQBELs Below Quantitation Limits" (Conditions III and IV in Part C of the draft permit) will be removed. The remaining Part C conditions are renumbered accordingly.

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MAX Comment 3: Permit Part I.A., pertaining to instantaneous maximum (IMAX). As referenced on page 38 of the associated NPDES Permit Fact Sheet, required reportable IMAX values are limited to Oil and Grease, therefore; MAX requests that the IMAX limits be removed for all parameters except Oil and Grease.

DEP Response to MAX Comment 3: Even though IMAX limits were included in Part A of the permit for parameters other than Oil and Grease, MAX does not need to report results against the IMAX limits in eDMR. Pursuant to the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* [Doc. No. 362-0400-001; 10/97], Chapter 5, p.17, the following footnote will be added to Part A of the permit.

> Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee is not required to monitor for the instantaneous maximum limitations. However, if grab samples are collected by the permittee, the results must be reported.

DEP notes that the last sentence of the above passage is a reference to 40 CFR § 122.41(l)(4)(ii), which states:

> If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

The IMAX limits for parameters with WQBELs and 24-hour composite sampling will remain in the permit so the Department's compliance personnel can collect a grab sample to spot-check compliance. However, the 1.25 mg/L IMAX limit for TRC at Outfall 001 will be removed because grab sampling is specified for that parameter. The IMAX limits for pH and oil and grease at Outfall 001 and the IMAX limits for parameters at Outfall 007 are not subject to the footnote and must be reported.

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MAX Comment 4: Permit Part I.A., pertaining to monitoring requirements for biochemical oxygen demand (BOD). MAX requests that the monitoring frequency for BOD be revised from 1/week to 1/month to be consistent with the sampling schedule for total dissolved solids (TDS).

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DEP Response to MAX Comment 4: The Department understands that sample scheduling is part of a permittee's procedural planning to comply with the requirements of an NPDES permit. However, sampling frequencies are dependent on the nature and effect of the discharge (per 40 CFR § 122.44(i)(2)). Reductions in sampling frequencies should be technically and statistically supported. Aligning sampling schedules between unrelated parameters with different impacts (BOD is a pollutant of concern with effluent limits, TDS is not subject to effluent limits) is not an adequate basis to reduce the sampling frequency for BOD from the recommended frequency in the Department's guidance.

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MAX Comment 5: Permit Part I.A., pertaining to monitoring requirements for antimony. MAX requests that the monitoring frequency for antimony be revised from 2/month to 2/quarter as a monitor and report parameter.

DEP Response to MAX Comment 5: Monitoring requirements for antimony were prompted by the Department's water quality analysis indicating that antimony concentrations at Outfall 001 may exhibit a reasonable potential to cause or contribute to excursions above water quality criteria in the receiving stream. The antimony concentrations did not exceed the Department's thresholds for imposing WQBELs, but they did exceed the thresholds for monitoring. That determination was confirmed again by the updated analysis in this Fact Sheet Addendum using effluent data collected by the Department on June 30, 2020. The parameters with quarterly sampling frequencies at Outfall 001 did not meet the same criteria for monitoring as antimony, which is why antimony's monitoring frequency is different.

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MAX Comment 6: Permit Part I.A., pertaining to monitoring requirements for a-terpineol, benzidine, benzoic acid, and p-cresol. MAX requests that the monitoring frequency be revised from 1/week to 1/month. MAX understands that there is no existing data for these pollutants, however; the occurrence of these pollutants is unlikely based on the type of waste disposed of in Landfill No. 6. A monitoring frequency of 1/month over the permit term would provide a more than adequate representation of the presence of and concentrations of the aforementioned pollutants, if detected.

DEP Response to MAX Comment 6: It is appropriate to relax sampling frequencies based on data rather than assumptions. MAX posited that α-terpineol, benzoic acid, and p-cresol are unlikely to be present in the effluent as part of MAX's permit application revisions when MAX requested that TBELs for those pollutants be excluded from the Yukon Facility's NPDES permit. As explained in the Fact Sheet, the Department is unwilling to draw conclusions about the presence of α-terpineol, benzoic acid, and p-cresol (or to agree with MAX's assumptions about those pollutants) without data when EPA has identified those parameters as regulated pollutants in landfill leachate. If effluent data collected during the permit term demonstrate to the satisfaction of the Department that the pollutants are not present in the effluent, then the permit can be amended during its term to relax the sampling frequencies.

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MAX Comment 7: Permit Part I.G., pertaining to monitoring requirements for Outfall 006. MAX requests that the monitoring frequency and parameters are consistent with the schedule in the approved groundwater monitoring plan (Attachment B). Specifically, MAX requests the following revisions.

- The monitoring frequency for turbidity be revised from 1/quarter to 1/year;
- Dissolved iron be removed from the parameter list;
- Dissolved magnesium be removed from the parameter list; and,
- The monitoring frequency for total organic carbon be revised from 1/quarter to 1/year

DEP Response to MAX Comment 7: During an inspection of the Yukon Facility on June 30, 2020, MAX indicated that the Impoundment No. 6 blanket drain that formerly discharged through Outfall 006 was re-routed to Impoundment No. 6's leachate collection system for treatment and discharge via Outfall 001. On October 27, 2020, MAX updated its NPDES permit application to remove Outfall 006 consistent with the elimination of direct discharges from the Impoundment No. 6 blanket drain at that location. Therefore, Outfall 006 will be removed from the permit.

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To the extent that the Department disagrees with MAX's requested sampling frequency reductions in Comments 4, 5, and 6, the Department notes that MAX can request to amend the permit during the permit term. The Department will consider sampling frequency reductions if there is enough information to justify the reductions.

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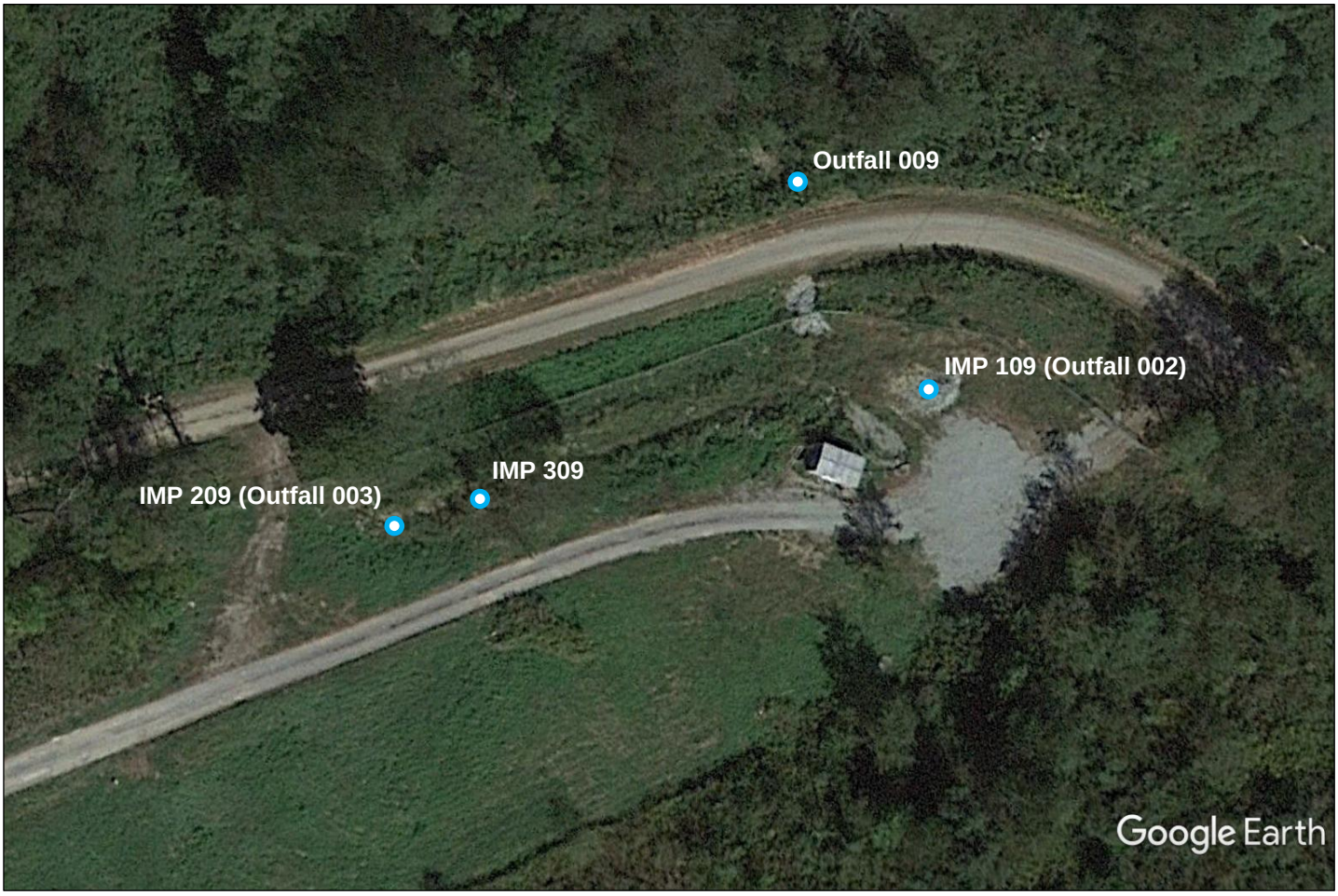
On November 16, 2020, MAX submitted updates to its NPDES permit application. Among other things, the updates remove Outfalls 004, 005, and 006. The Department concurs with the removal of those outfalls from the permit. Outfall 004 is eliminated pursuant to the Department's explanation in the Fact Sheet that the outfall is the point at which offsite water flows onto MAX's property and not a discharge location. That condition was observed during a June 30, 2020 inspection of the Yukon Facility by the Department. Outfall 005 was removed in the draft permit with emergency overflows from Pond No. 4 managed pursuant to an "Emergency Overflows" condition in Part C of the permit. As described in DEP's Response to MAX Comment 6, Outfall 006's discharges were re-routed to the leachate collection system, thus eliminating direct discharges from Outfall 006.

The Department's June 30, 2020 inspection also resulted in changes to Outfalls 002 and 003. DEP identified three pipes discharging into a channel on the south side of MillBell Road. MAX previously identified two of those pipes as Outfalls 002 and 003. The third pipe discharges storm water runoff from areas near the toe of Impoundment No. 5.

The channel south of Millbell Road leads to a culvert under MillBell Road. The culvert discharges on the north side of MillBell Road. Following correspondence with MAX regarding these observations, MAX updated the application to re-designate Outfall 002 as Internal Monitoring Point 109; to re-designate Outfall 003 as Internal Monitoring Point 209, and to identify the third pipe discharging into the channel as Internal Monitoring Point 309. The outlet from the culvert is identified as new Outfall 009. The three internal monitoring points (IMPs) and Outfall 009 are depicted in the image below.



Effluent monitoring requirements in the draft permit for Outfalls 002 and 003 will be maintained at IMPs 109 and 209. Comparable semi-annual monitoring requirements will be imposed at IMP 309 and Outfall 009.

By email dated December 24, 2019, Environmental Action Center submitted comments on the draft permit on behalf of the Mountain Watershed Association ("MWA"). MWA's comments and the Department's responses are stated below.

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MWA Comment 1: The most pressing procedural concern involves DEP's failure to provide an adequate period of public notice and comment for this permit renewal application. This failure severely harms MWA's ability to provide public comment to DEP. This permit has been administratively continued since 2009. This means that the supporting permit information and data is based on the application to DEP from 2004, 15 years ago. NPDES permits are supposed to be renewed every 5 years. DEP saw fit to delay renewal for twice the period with no justification provided in the draft fact sheet or permit. Then once DEP decided to renew this ten-year-old permit for a toxic and hazardous waste landfill it only provided MWA and the rest of the concerned public with 45 days to review, research, and provide DEP with comments. This in and of itself is unacceptable but DEP also noticed the permit at the end of 2019 during two of the largest holiday periods in the US with the comment deadline being Christmas Eve. This decision by DEP has severely harmed MWA's ability to provide comment and participate in the permitting process and is wholly unacceptable and fundamentally unfair to MWA and the concerned public. MWA's request to extend the comment period 90 days into January 2020 was summarily denied. **MWA again requests that DEP extend the comment period into 2020 to allow for robust public participation and comment.**

DEP Response to MWA Comment 1: The duration of the comment period for the Yukon Facility's draft NPDES permit was the same length as the comment period for any other NPDES permit. The Department did not grant an extension longer than 15 days because, as stated in the November 15, 2019 email granting the extension request, one 15-day extension is the maximum time allowed by 25 Pa. Code § 92a.82(d). Section 92a.82(d) states:

> There will be a 30-day period following publication of notice under subsection (b) during which written comments may be submitted by interested persons before the Department makes its final determinations. Written comments submitted during the 30-day comment period will be retained by the Department and considered in making the final determinations. The period for comment may be extended at the discretion of the Department for one additional 15-day period.

To clarify, the Department is not bound by § 92a.82(d) to consider comments submitted after a maximum of 45 days when making a final determination on a permit. After a 30-day comment period (or 45 days if an extension is granted), the Department can make a final determination and take an action on an NPDES permit. Note that, generally, the Department considers all comments it receives up to the time of taking an action on a permit.

With respect to the comment period for the Yukon Facility's draft NPDES permit, the Department met with the MWA and local community members on January 9, 2020—over two weeks after the official end of the extended comment period. The Department considered all comments received through the date the Department submitted the revised draft permit requirements for publication in the *Pennsylvania Bulletin*.

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MWA Comment 2: The permit application notes, on page 1, that the permit fees for this application were waived by DEP. However, there is no supporting information or explanation as to why the permit fees were waived in this instance. Permit fees go to a variety of important DEP functions and activities. Considering that DEP is perpetually underfunded and understaffed1 permit fees should only be waived in exceptional circumstances. There is no demonstration as to why circumstances warranted permit fee waiver in this instance.

DEP Response to MWA Comment 2: The application fee was already paid and does not need to be paid again. MAX submitted a fee with its permit renewal application in 2009. Updating a pending application already on file with the Department does not require another application fee. MAX pays annual fees for its active NPDES permit pursuant to 25 Pa. Code § 92a.62. Annual permit fees facilitate the Department's implementation of the NPDES program.

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MWA Comment 3: The public notice in the PA Bulletin for this permit renewal does not contain any information regarding the compliance history and current compliance status of the permit. The public must be made aware in all public notices of this compliance information. The site has had effluent exceedances in May – August of 2019 and this information should be front and center to the public.

DEP Response to MWA Comment 3: 25 Pa. Code § 92a.82(a) and (b) regarding "public notice of permit applications and draft permits" identifies the required contents of public notices. The omission of the Yukon Facility's compliance history and current compliance status from the public notice is not unusual because compliance history and current compliance status are not required information in public notices per § 92a.82.

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The Fact Sheet is a document that is available for public review. The Fact Sheet for the draft permit identified MAX's recent compliance history as it relates to the NPDES permit. Interested parties can also contact the Department for more information by way of a public records request. Alternatively, as was already done by MWA, interested parties can search publicly available online resources such as the Department's "eFACTS on the Web" website or EPA's ECHO website, both of which provide compliance information that is always accessible.

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MWA Comment 4: Similarly, the draft permit documents do not contain enough information regarding the Applicant's efforts to resolve the compliance issue identified on ECHO for May – August of 2019. The public must be made aware, in detail, of the Applicants actions and DEP's requirements to ensure the site's operations are in compliance with state and federal laws. The permit should not be renewed until these compliance issues are addressed.

DEP Response to MWA Comment 4: See DEP Response to MWA Comment 3. The Department will ensure that any of MAX's outstanding instances of non-compliance with the NPDES permit are addressed before issuing the renewed permit.

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MWA Comment 5: In NPDES permit renewals of this nature where there is a demonstrated high level of public interest and the permit is for a unique operation such as the Applicant's, DEP must create a dedicated DEP webpage where the draft fact sheet, draft permit, and other highly relevant supporting documents and information are made readily available and accessible to the concerned public. This would facilitate more robust public participation and enhance the process for both DEP and the public. As it stands now the public's ability to fully participate and comment on certain aspects of the permit is harmed and foreclosed by DEP's failure to make more documentation/data/information available.

DEP Response to MWA Comment 5: The public notification requirements at 25 Pa. Code § 92a.82 do not require the Department to publish permit documents online. In limited circumstances, at its discretion, the Department publishes permit documents online in the Community Information section of the Regional Resources webpages for each Department region. In all other circumstances, interested parties made aware of a proposed Department action through a notice in the *Pennsylvania Bulletin* must request public records from the Department. There is no failure on the part of the Department to provide information that is available for public review, but that is not requested by an interested party.

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MWA Comment 6: The map on pg. 12 of the Fact Sheet is unreadable and must be made available in a higher resolution to allow for review and comment.

DEP Response to MWA Comment 6: The Department will email MWA an electronic version of the most up-to-date site map with the revised draft permit documents.

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MWA Comment 7: The fact sheet states that certain effluent limits may be removed from the draft permit after the public comment period is closed. This removal would be based on sampling conducted by the Applicant during the public comment period. DEP cannot remove effluent limits from the permit without allowing for public notice and comment of that substantial change in permit conditions. Furthermore, the public should have an opportunity to review the information that would support the removal of those limits. This practice by DEP harms MWA's ability to provide comments on that aspect of the permit.

DEP Response to MWA Comment 7: The Department provided the public with notice and an opportunity to comment on the potential removal of effluent limits for benzidine, 3,3-dichlorobenzidine, 4,4-DDD, 4,4-DDT, 4,4-DDE, dieldrin, and toxaphene. The conditions under which limits for the above pollutants would be removed from the permit were stated in the November 9, 2019 issue of the *Pennsylvania Bulletin* at the end of the public notice for the Yukon Facility's draft NPDES permit. Those conditions are the same conditions the Department uses to screen for pollutants of concern and that led to the omission of other new WQBELs from the draft NPDES permit (refer to Section 001.B.3 and Attachment A in the Fact Sheet). Omitting and/or removing WQBELs for pollutants that are not detected in the effluent using sufficiently sensitive analytical methods is reasonable.

Since MAX's updated effluent analyses from late 2019 and early 2020 indicate that benzidine, 3,3-dichlorobenzidine, 4,4-DDD, 4,4-DDT, 4,4-DDE, dieldrin, and toxaphene do not exhibit a reasonable potential to cause or contribute water quality criteria exceedances in the receiving stream, the WQBELs for those parameters will be removed from the permit (see DEP Response to MAX Comment 2). The Department is publishing a revised draft permit, so commenters will have an opportunity to review and comment on those changes.

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MWA Comment 8: The notice of this renewal published in the PA Bulletin on November 9th, 2019 does not include any information regarding process and procedures for submitting public comments. The notice does not contain a DEP contact person, contact information, or a deadline for comment submission on the renewal.

DEP Response to MWA Comment 8: The introductory paragraphs in the Department's "Applications, Actions and Special Notices" section of the November 9, 2019 issue of the *Pennsylvania Bulletin* at 49 Pa. B. 6716 states the following:

> Persons wishing to comment on NPDES applications are invited to submit statements to the contact office noted before the application within 30 days from the date of this public notice. Persons wishing to comment on WQM permit applications are invited to submit statements to the office noted before the application within 15 days from the date of this public notice. Comments received within the respective comment periods will be considered in the final determinations regarding the applications. A comment submittal should include the name, address and telephone number of the writer and a concise statement to inform the Department of the exact basis of a comment and the relevant facts upon which it is based.

These same introductory paragraphs are included in all issues of the *Pennsylvania Bulletin* that contain applications, actions, and special notices. The deadline for comment submission is established by the above citation (30 days after the date of the public notice—i.e., 30 days after November 9, 2019 for the Yukon Facility's first draft permit). The name and address of the contact office for the permit are identified at the beginning of the section for applications and actions in the Southwest Region at 49 Pa. B. 6729: "*Southwest Regional Office: Regional Clean Water Program Manager, 400 Waterfront Drive, Pittsburgh, PA 15222-4745, Telephone: 412.442.4000".*

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MWA Comment 9: It is not clear from the draft fact sheet or the draft permit how much of the application and accompanying information has been updated since the Applicant reapplied in 2009. The Fact Sheet on pages 1-3 makes no reference to information regarding the NPDES permit received by DEP after 2009. It is unacceptable for DEP to not require that the 2009 application be updated for a decision in 2019-2020. A review of the permit application does not provide clarity on these issues. The application shows that pollutant analyses were done for the outfalls, but it does not state when the sampling occurred and most of the pollutants were only analyzed two times in the last 10 years. If this is the only data set DEP relied upon then that is unacceptable. DEP must require or conduct a more robust analysis of the wastewater pollutant characteristics to ensure that surface and ground water discharges of toxic and hazardous pollutants are not harming water quality and endangering public health. If DEP did receive and or require an updated application with more robust data sets that is not made clear in the draft fact sheet or draft permit.

DEP Response to MWA Comment 9: Some sections of the Fact Sheet mention that the application was updated (see pp.25, 26, and 44), but the introductory section of the Fact Sheet does not state as much. To clarify, MAX submitted an updated application on April 20, 2018. Additional application revisions were submitted on April 17, 2019, August 14, 2019, September 25, 2019, October 27, 2020, and November 16, 2020. The permit is based on the most up-to-date information from those submissions.

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MWA Comment 10: Similarly, it appears that the majority of the effluent limits in the draft permit are the same as the limits imposed in the 2004 permit. This means that the majority of the effluent limits are at least 15 years old and based on data that is even older. This does not seem appropriate given the special circumstances of this operation. As stated on the Applicant's website, it is the only "RCRA Subtitle C permitted waste treatment and on-site commercial disposal of residual waste" facility in Pennsylvania. This warrants more frequent analysis and update of permit limits and conditions for the site. Table 1 in the fact and accompanying footnotes demonstrate that the majority of the basis for the effluent limits at Outfall 001 are data, information, and limits from the 1970s and 1980s. The majority of effluent limits for all outfalls of the permit are carry overs from previous permit iterations, the most recent of which was approved in 2004 and is thus 15 years old. This is not acceptable or protective of water quality as this information, data, and rationale lacks more recent information and updates regarding recent precipitation trends and projects for the region.

DEP Response to MWA Comment 10: 40 CFR § 122.44(l) pertaining to 'anti-backsliding' requires that:

> (l) *Reissued permits.* (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations,

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standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62.)

Most of the effluent limits are maintained from previous permits because the federal regulations require effluent limits to be maintained from previous permits (subject to certain exceptions). The fact that a limit was first imposed 15 years ago or longer does not mean that the limit is invalid. Section 122.44(l)'s anti-backsliding requirement is an integral part of the NPDES program and serves to maintain existing effluent quality. To the extent necessary, limits are made more stringent with each permit renewal based on advances in pollutant toxicity information (if reflected in updated regulations) and treatment technologies and/or in response to changes in effluent characteristics at a facility.

All limits that warranted an update in MAX's permit were updated based on current information. MAX's application updates provided the Department with current information about MAX's operations (e.g., discharge flow rates and effluent characteristics) and the Department evaluated current environmental information relating to effluent limit development (e.g., stream flow). The effluent limits are protective of aquatic life and human health.

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MWA Comment 11: On page 34 of the fact sheet it states that flows were estimated and based on information from 1985. This estimated and old flow data forms the basis for the toxics water quality modeling program found within the permit. It is unacceptable to use data from 1985 and to estimate the rest of the flow without requiring the applicant to conduct flow monitoring and sampling to update the toxics monitoring program with more recent and pertinent data.

DEP Response to MWA Comment 11: The referenced section of the Fact Sheet states:

> The prior Q_{7-10} calculation methodology will be maintained. Previous permits used a watershed-based flow contribution of 4.83 cfs, which dates to June 1985 when DEP performed a water quality analysis for the Greater Greensburg STP. USGS's StreamStats web application (https://streamstats.usgs.gov/ss/) provides a more recent means to estimate Q_{7-10} flow at ungaged sites with some limitations on accuracy resulting from the application's use of regression equations. StreamStats estimates the Q_{7-10} flow of Sewickley Creek at Outfall 001 to be 2.94 cfs with 66% standard error. Accounting for the standard error results in a flow of 4.88 cfs, which is comparable to the historical estimate.
>
> Similarly, the design flows of the three STPs are close to the multi-year average discharge flow rates reported by those STPs. New Stanton STP: 4.5 MGD design versus 4.24 MGD (6.56 cfs) eight-year average; Youngwood Borough STP: 0.5 MGD design versus 0.45 (0.696 cfs) MGD nine-year average; Greater Greensburg STP: 5.57 MGD design versus 5.06 MGD (7.829 cfs) nine-year average. The STP flows used to calculated Q_{7-10} will conservatively be based on the long-term average flow rates from those facilities and not their design flow rates.

The Department kept the historical Q_{7-10} calculation methodology to the extent that Q_{7-10} stream flow incorporates discharge flows from upstream sewage treatment plants, but the Department used current information when applying that methodology for MAX's permit renewal.

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MWA Comment 12: Chapter 18 of the Fourth National Climate Assessment details the climate change impacts facing the Northeast United State[s]. This report makes it clear that the Northeast is experiencing a larger increase in the intensity of precipitation events than the rest of the contiguous United States. These recent increases in rainfall intensity are expected to continue. Considering this DEP must reevaluate the proposed stormwater monitoring and effluent limits in the permit. It is no longer acceptable or protective to allow for biannual stormwater monitoring especially for a facility that treats and discharges hazardous and toxic materials. The frequency of monitoring must be increased to ensure that onsite SW BMPs are adequate and protective of water quality and public health. There is no justification in the Permit for this level of infrequent SW monitoring other than to say that the federal and state SW general permit only require biannual monitoring. This is not sufficient justification as it is very likely that that limits and conditions of those general permits are also outdated and unprotective given the recent weather and rain trends in the Northeast US.

DEP Response to MWA Comment 12: It is unclear to the Department why an increase in the intensity of precipitation events warrants more frequent monitoring. Whenever MAX samples its storm water during the forthcoming permit term, it will be sampling runoff from precipitation events that are characteristic of current, more intense storms. Storm water sampling once every six months will capture the same types of precipitation-induced discharges as more frequent sampling would (regardless

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of rainfall intensity). Condition IV.F.4 in Part C of the revised permit requires MAX to sample storm water discharges within the first 30 minutes of a discharge. That condition will result in the collection of samples representing the 'first flush' of storm water, which generally contains the highest pollutant loadings. Also, MAX's storm water is not expected to contain hazardous or toxic materials that would warrant more frequent sampling. If effluent data indicate otherwise, then MAX's permit can be modified or renewed with more stringent requirements for storm water.

The monitoring frequencies for pollutants in storm water are based on the Department's PAG-03 General Permit for Discharges of Stormwater Associated with Industrial Activities. That permit was last updated in 2016 and is not outdated. It is reasonable and equitable for the Department to rely on existing permit requirements like those in the PAG-03 when establishing baseline monitoring requirements in permits that authorize the same types of discharges—in this case, storm water associated with industrial activities.

Furthermore, the storm water requirements of this permit already represent a significant increase in the requirements for MAX's storm water. The previous permit only required MAX to implement best management practices. However, unlike the draft permit, there was no effluent sampling or effluent benchmark values in the previous permit that automatically required corrective actions if exceeded.

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MWA Comment 13: DEP must conduct a comprehensive review of what types of pollutants may be present in the residual waste stream and determine if additional monitoring and/or effluent limits are needed to protect water quality and public health.

DEP Response to MWA Comment 13: MAX's residual wastes are regulated under the solid waste permit, not the NPDES permit. The U.S. Environmental Protection Agency's development of Federal Effluent Guidelines for discharges of landfill leachate (40 CFR Part 445) and the Department's procedures for evaluating reasonable potential and developing WQBELs conducted for this permit renewal (refer to Section 001.B.3 and Attachment A in the Fact Sheet) already represent a comprehensive review of pollutants that may be present in the wastewaters from the residual waste disposed onsite.

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MWA Comment 14: DEP should not remove monitoring at internal monitoring point 101, the ECHO report for this facility shows a recent exceedance (Aug 2019) at this monitoring point. The draft permit and fact sheet do not contain enough information to justify this removal nor do they address the recent effluent limit exceedance. If supporting documentation for this removal exists, it was not made readily available to the public and therefore has harmed MWA's ability to comment on this aspect of the permit.

DEP Response to MWA Comment 14: As explained in the Fact Sheet, limits were imposed at IMP 101 to facilitate the classification of MAX's treatment plant sludge pursuant to 40 CFR Part 268 (pertaining to Land Disposal Restrictions). The limits were imposed at MAX's request and were not developed and imposed by the Department to control the quality of MAX's discharges. Holding MAX to the existing IMP 101 limits before MAX has a chance to treat the wastewater (i.e., before MAX has a chance to use the systems it has installed that enable it to control the quality of its wastewater) is unnecessary in the absence of the original justification for IMP 101.

Nevertheless, the Department has decided to reinstate IMP 101 because it is reasonable to require sampling and analyses of the influent wastewater to MAX's treatment system pursuant to 25 Pa. Code § 92a.61(b). Influent data can be used with effluent data to evaluate the effectiveness of MAX's aging wastewater treatment facility. No limits will be in effect at IMP 101, but monitoring will be required for the list of parameters currently in effect at IMP 101.

By email dated January 15, 2020, Mountain Watershed Association submitted additional comments and questions following-up on the meeting that took place at the Department's New Stanton office on January 9, 2020. MWA's comments and the Department's responses are provided below.

MWA Supplemental Comment 1: Stormwater Monitoring – DEP said they would look into the possibility of having more than just biannual storm water monitoring, due to the nature of the highly toxic waste that is treated there. Is it possible? We would prefer monthly monitoring.

DEP Response to MWA Supplemental Comment 1: Refer to DEP's Response to MWA Comment 12.

Internal Review and Recommendations

MWA Supplemental Comment 2: Outfall 004 – DEP said they would look into why outfall 004 is still included in Max's NPDES permit even though it is not Max's discharge. What was the outcome of this?

DEP Response to MWA Supplemental Comment 2: Outfall 004 will be removed from the permit.

MWA Supplemental Comment 3: Constituents Removed from New Draft – DEP said they would look into why arsenic, selenium, and vanadium were listed in the previous permit but are not in the current draft. Please explain.

DEP Response to MWA Supplemental Comment 3: DEP responded to this comment on February 7, 2020 in an email to Ashley Funk of MWA. That response follows:

> With respect to the removal of arsenic, selenium, and vanadium, those pollutants were not specifically targeted for removal. The limits for those pollutants were imposed at Internal Monitoring Point 101 and the draft permit proposed to eliminate IMP 101 because the reason the limits were originally imposed at that location is no longer applicable. Discharge Monitoring Report data also indicate that the concentrations of those metals in the influent to the treatment system are low and, for some, infrequently present above laboratory reporting limits.
>
> NPDES permits generally do not require permittees to report results for pollutants that are not present in a wastewater or, if present, are present at concentrations that do not risk violating water quality criteria in the receiving stream. For example, the highest reported selenium concentration at IMP 101 (before treatment) in the last five years was 770 µg/L. The highest reported selenium concentration in the effluent from the treatment system was 45.2 µg/L. The water quality analysis for the draft permit indicated that a selenium concentration in the discharge (after treatment) as high as 1346 µg/L would be protective of aquatic life and human health. So, the raw wastewater concentration before treatment is already less than the water quality limit and the maximum reported discharge concentration is even less—only 3% of the concentration necessary to protect aquatic life and human health. Based on that information, the Department would not require limits or monitoring for selenium.

Note that DEP is reinstating IMP 101 with monitor-only requirements. Monitoring for arsenic, selenium, and vanadium will be re-instated and monitoring for strontium will be added.

MWA Supplemental Comment 4: Fracking Waste Constituents Not Included – The following contaminants are associated with fracking waste, but they are not included in the draft permit:

- Boron
- Cobalt
- Lithium
- Phosphate
- Phosphorus (P)
- Rubidium
- Silicon
- Strontium
- Titanium
- Tungsten
- Uranium

DEP said they would look into adding some of these parameters - what was the outcome? Would it be possible to include them all, even if just as a monitor and report?

DEP Response to MWA Supplemental Comment 4: MAX (Carl Spadaro) reported to the Department (Ryan Decker) during a call on December 14, 2020 that the Yukon Facility accepts drill cuttings and drilling mud. Drill cuttings are disposed directly onsite. Drilling mud is solidified and then disposed onsite. Oil and gas wastewaters consisting of well pad wastewaters were accepted for solidification, but that activity ceased in 2016. The substantial pollutant-bearing oil and gas wastewaters (flowback and produced water) were not accepted at the Yukon Facility due to radioactivity concerns (i.e., Technologically Enhanced Naturally Occurring Radioactive Material or TENORM).

Results for boron, cobalt, and phosphorus were reported on the application and the Department's review did not identify those pollutants as pollutants of concern. There are no water quality criteria in 25 Pa. Code Chapter 93 for lithium, phosphate,

Internal Review and Recommendations

rubidium, silicon, titanium, tungsten, and uranium that could be used to evaluate the toxicity of those pollutants in surface waters and analytical data collected by MWA on June 2, 2020 (ostensibly at Outfall 001) indicated that those compounds are not present in significant concentrations.

DEP collected its own samples of Outfall 001's discharges on June 30, 2020 during the site inspection discussed in DEP's Response to MAX Comment 7. Based on analyses of those samples, the Department has reevaluated Outfall 001's discharges to determine whether additional WQBELs and water quality-based monitoring requirements should be imposed. The revised analyses were conducted using the Department's new Toxics Management Spreadsheet, which combines the functions of the Department's Toxics Screen Analysis Spreadsheet and PENTOXSD water quality modeling program. The results of the new analyses (see attached) identified the following WQBELs and monitoring requirements.

Parameter	Concentration Limit (µg/L)			DEP Result (µg/L)	Governing WQBEL (µg/L)
	Avg Mo.	Max Daily	IMAX		
Antimony, Total	Report	Report	—	594	1,511
Arsenic, Total	2,699	4,210	6,747	1900	2,699
Cadmium, Total	Report	Report	—	43	86.8
Osmotic Pressure (mOs/kg)	Report	Report	—	305 (mOs/kg)	2,924 (mOs/kg)

The new WQBELs for arsenic will be imposed without a compliance schedule because effluent concentrations are already less than the new WQBELs. Antimony, cadmium, and osmotic pressure are already subject to effluent limits or monitoring requirements at Outfall 001.

DEP is adding reporting requirements for selenium and strontium to Outfall 001. DEP did not analyze its June 30, 2020 samples for selenium, but selenium is monitored on the influent wastewaters (IMP 101) and comparative effluent data would be useful. MWA's results also showed elevated effluent selenium concentrations, but DEP does not have information on MWA's samples to use those data for modeling. Strontium monitoring will be required because concentrations were elevated in DEP's samples. MWA's strontium results also were elevated.

Note that the water quality analysis conducted for this Fact Sheet Addendum using DEP's data from June 30, 2020 and MAX's data from its late 2019 and early 2020 resampling (discussed in DEP's Response to MAX Comment 2) supplements, but does not replace the original water quality analysis. Therefore, WQBELs and water quality-based monitoring requirements developed for the 2019 draft permit will remain in the permit except for the revisions discussed in this Fact Sheet Addendum for benzidine, 3,3-dichlorobenzidine, 4,4-DDT, 4,4-DDD, 4,4-DDE, dieldrin, and toxaphene.

By email dated November 12, 2019, the Environmental Protection Agency indicated that it had no comments on the draft permit as a result of its limited review of permit requirements relating to the Raccoon Creek Watershed Total Maximum Daily Load and storm water.

Other Changes

The TBELs for zinc at Outfall 001 in the draft permit mistakenly omitted the adjustment for ELG-regulated wastewaters. Therefore, the effluent limits for zinc will be changed to 0.19 mg/L Average Monthly and 0.37 mg/L Daily Maximum as calculated on p.29 of the Fact Sheet. An Instantaneous Maximum limit of 0.475 mg/L is calculated for zinc based on DEP's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (p.16) [2.5 × 0.19 mg/L]. The IMAX limit is subject to the foonote described in DEP's Response to MAX Comment 3.

No other comments were received on the draft NPDES permit. Due to the substantial changes made to the draft permit in response to comments and other information, a revised draft permit will be published for a second 30-day comment period.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	009	Design Flow (MGD)	Variable
Latitude	40° 12' 59.96"	Longitude	-79° 41' 50.88"
Quad Name	Smithton	Quad Code	1708
Wastewater Description:	Storm water and sources monitored at IMPs 109, 209, and 309		
Receiving Waters	Unnamed Tributary to Sewickley Creek (WWF)	Stream Code	37634
NHD Com ID	134770158	RMI	0.21
Drainage Area	5,566,968 ft^2	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Flow Alterations		
Source(s) of Impairment	Flow Regulation/Modification		
TMDL Status	Final	Name	Sewickley Creek Watershed
Nearest Downstream Public Water Supply Intake	Westmoreland County Municipal Authority – McKeesport (PWSID 5020025)		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	510
PWS RMI	1.30	Distance from Outfall (mi)	

Discharge, Receiving Waters and Water Supply Information

IMP No.	109	Design Flow (MGD)	Variable
Latitude	40° 12' 59.18"	Longitude	-79° 41' 50.17"
Wastewater Description:	Non-contact storm water runoff from the eastern portion of the site		
Receiving Waters	Sewickley Creek thru Outfall 009	Stream Code	37634

Discharge, Receiving Waters and Water Supply Information

IMP No.	209	Design Flow (MGD)	Variable
Latitude	40° 12' 59.15"	Longitude	-79° 41' 51.36"
Wastewater Description:	Non-contact storm water runoff from the western portion of the site		
Receiving Waters	Sewickley Creek thru Outfall 009	Stream Code	37634

Discharge, Receiving Waters and Water Supply Information

IMP No.	309	Design Flow (MGD)	Variable
Latitude	40° 12' 58.95"	Longitude	-79° 41' 52.34"
Wastewater Description:	Storm water from areas near the toe of Impoundment No. 5		
Receiving Waters	Sewickley Creek thru Outfall 009	Stream Code	37634

Development of Effluent Limitations

Outfall Nos. 009 and IMPs 109, 209, and 309 **Design Flow (MGD)** Variable
Wastewater Description: Storm water

009.A. Technology-Based Effluent Limitations (TBELs)

Outfall 009 and IMPs 109, 209, and 309

Consistent with 25 Pa. Code § 92a.61(h) and DEP's policy for permitting storm water discharges associated with industrial activities, minimum standards described in the PAG-03 will be applied to the facility's storm water discharges. Based on the facility's SIC Code of 4953 and due to the presence of a RCRA Subtitle D landfill, the facility is classified under Appendix C – Landfills and Land Application Sites of the PAG-03 General Permit. To ensure that there is baseline consistency across the state for all landfills and land application sites that discharge storm water associated with their industrial activities, the minimum monitoring requirements of Appendix C of the PAG-03 will be imposed at Outfall 009 and IMPs 109, 209, and 309.

PAG-03 Appendix C – Minimum Monitoring Requirements

Discharge Parameter	Units	Sample Type	Appendix C Measurement Frequency
Total Suspended Solids	mg/L	1 Grab	1/6 months
Chemical Oxygen Demand	mg/L	1 Grab	1/6 months
Ammonia-Nitrogen	mg/L	1 Grab	1/6 months
Iron, Total	mg/L	1/Grab	1/6 months
pH	s.u.	1 Grab	1/6 months

MAX was not able to collect storm water samples at all the new monitoring locations, but the sample analyses that were provided do not result in any additional monitoring requirements over the minimum monitoring requirements.

Storm Water Analytical Results for Outfall 009 and IMP 209

Parameter	Outfall 009	IMP 209	No Exposure Thresholds (mg/L)	MSGP Benchmarks (mg/L)
Oil and Grease	<5.0	<4.8	≤ 5.0	N/A
BOD_5	2.4	21.4	≤ 10.0	30
COD	30.8	30.8	≤ 30.0	120
TSS	<5	<4	≤ 30.0	100
Total Nitrogen	5.5	5.5	≤ 2.0 (Tot. N)	N/A
Total Phosphorus	0.014J	0.014J	≤ 1.0	2.0
pH (s.u.)	8.8	7.9	6.0 – 9.0 s.u.	6.0 – 9.0 s.u.

Semi-annual monitoring requirements for aluminum, iron, and manganese will be imposed at Outfall 009 and IMPs 109, 209, and 309 pursuant to 25 Pa. Code § 92a.61(h) and 25 Pa. Code § 96.4(i) and the Sewickley Creek Watershed TMDL.

009.B. Water Quality-Based Effluent Limitations (WQBELs)

Effluent monitoring requirements in the draft permit for Outfalls 002 and 003 will be maintained at IMPs 109 and 209. Comparable monitoring requirements will be imposed at IMP 309 and Outfall 009.

Effluent Limits and Monitoring Requirements for Outfall 009 and IMP 109, 209, and 309

Parameter	Mass (pounds/day)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	—	Report	—	—	—	25 Pa. Code § 92a.61(h)
Total Suspended Solids	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix C

Effluent Limits and Monitoring Requirements for Outfall 009 and IMP 109, 209, and 309

Parameter	Mass (pounds/day)		Concentration (mg/L)			Basis
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Chemical Oxygen Demand	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix C
Ammonia-Nitrogen	—	—	—	Report	—	25 Pa. Code § 92a.61(h)
Aluminum, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); 96.4(i)
Iron, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix C
Manganese, Total	—	—	—	Report	—	25 Pa. Code § 92a.61(h); 96.4(i)
pH (s.u.)	—	—	—	Report	—	25 Pa. Code § 92a.61(h); PAG-03, Appendix C

The sampling frequency and type for all parameters will be 1/6 months grab samples as established in Appendix C of the PAG-03 General Permit—including parameters not based on Appendix C of the PAG-03. Flow should be estimated at the time of sampling.

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Toxics Management Spreadsheet
Version 1.1, October 2020

Discharge Information

Instructions | Discharge | Stream

Facility: **MAX Yukon** NPDES Permit No.: **PA0027715** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Industrial waste**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.048	7205	7						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L											
	Chloride (PWS)	mg/L		4045600									
	Bromide	mg/L		70150									
	Sulfate (PWS)	mg/L											
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L		520									
	Total Antimony	µg/L		594									
	Total Arsenic	µg/L		1900									
	Total Barium	µg/L		64									
	Total Beryllium	µg/L											
	Total Boron	µg/L		3417									
	Total Cadmium	µg/L		43									
	Total Chromium (III)	µg/L	<	50									
	Hexavalent Chromium	µg/L	<	1									
	Total Cobalt	µg/L	<	50									
	Total Copper	µg/L		80									
	Free Cyanide	µg/L		3.5									
	Total Cyanide	µg/L											
	Dissolved Iron	µg/L											
	Total Iron	µg/L		517									
	Total Lead	µg/L		76.2									
	Total Manganese	µg/L		215									
	Total Mercury	µg/L											
	Total Nickel	µg/L		147									
	Total Phenols (Phenolics) (PWS)	µg/L											
	Total Selenium	µg/L											
	Total Silver	µg/L	<	10									
	Total Thallium	µg/L											
	Total Zinc	µg/L		132									
	Total Molybdenum	µg/L		4442									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

Group 3	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	µg/L	<										
	Toluene	µg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	µg/L	<										
	Vinyl Chloride	µg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<	21									
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	µg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<	1									
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										

	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										
	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	µg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	µg/L	<										
	Pyrene	µg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<	0.0054									
	4,4-DDE	µg/L	<	0.0054									
	4,4-DDD	µg/L	<	0.0054									
	Dieldrin	µg/L	<	0.0054									
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<	0.42									
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L		35494									
	Total Uranium	µg/L	<	2									
	Osmotic Pressure	mOs/kg		305									
	Total Vanadium	µg/L		109									

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Toxics Management Spreadsheet
Version 1.0, Draft, June 2020

Stream / Surface Water Information

MAX Yukon, NPDES Permit No. PA0027715, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: Sewickley Creek

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	037556	10.42	887	120	0.003		Yes
End of Reach 1	037556	10	886	121	0.003		Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	10.42	0.0245	19.965									100	7.6		
End of Reach 1	10	0.0245													

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	10.42														
End of Reach 1	10														

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Toxics Management Spreadsheet
Version 1.1, October 2020

Model Results

MAX Yukon, NPDES Permit No. PA0027715, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.336 Analysis Hardness (mg/l): 177.87 Analysis pH: 7.59

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	68,436	
Total Antimony	0	0		0	1,100	1,100	100,372	
Total Arsenic	0	0		0	340	340	31,024	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	1,916,197	
Total Boron	0	0		0	8,100	8,100	739,104	
Total Cadmium	0	0		0	3.524	3.83	350	Chem Translator of 0.92 applied
Total Chromium (III)	0	0		0	913.102	2,890	263,665	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	1,487	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	8,669	
Total Copper	0	0		0	23.121	24.1	2,198	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	2,007	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	120.163	170	15,507	Chem Translator of 0.707 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	762.152	764	69,684	Chem Translator of 0.998 applied
Total Silver	0	0		0	8.661	10.2	930	Chem Translator of 0.85 applied
Total Zinc	0	0		0	190.879	195	17,809	Chem Translator of 0.978 applied
Benzidine	0	0		0	300	300	27,374	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
4,4-DDT	0	0		0	1.1	1.1	100	
4,4-DDE	0	0		0	1.1	1.1	100	
4,4-DDD	0	0		0	1.1	1.1	100	
Dieldrin	0	0		0	0.24	0.24	21.9	
Toxaphene	0	0		0	0.73	0.73	66.6	
Total Strontium	0	0		0	N/A	N/A	N/A	

Osmotic Pressure	0	0		0	50	50.0	4,562	
Total Vanadium	0	0		0	510	510	46,536	

☑ ***CFC*** CCT (min): ###### PMF: 1 Analysis Hardness (mg/l): 126.33 Analysis pH: 7.60

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	59,371	
Total Arsenic	0	0		0	150	150	40,480	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	1,106,455	
Total Boron	0	0		0	1,600	1,600	431,787	
Total Cadmium	0	0		0	0.289	0.32	86.8	Chem Translator of 0.899 applied
Total Chromium (III)	0	0		0	89.749	104	28,163	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	2,805	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	5,127	
Total Copper	0	0		0	10.935	11.4	3,074	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	5.2	5.2	1,403	
Total Iron	0	0		0	1,500	1,500	404,801	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	3.243	4.28	1,156	Chem Translator of 0.757 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	63.376	63.6	17,155	Chem Translator of 0.997 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Zinc	0	0		0	144.010	146	39,415	Chem Translator of 0.986 applied
Benzidine	0	0		0	59	59.0	15,922	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
4,4-DDT	0	0		0	0.001	0.001	0.27	
4,4-DDE	0	0		0	0.001	0.001	0.27	
4,4-DDD	0	0		0	0.001	0.001	0.27	
Dieldrin	0	0		0	0.056	0.056	15.1	
Toxaphene	0	0		0	0.0002	0.0002	0.054	
Total Strontium	0	0		0	N/A	N/A	N/A	
Osmotic Pressure	0	0		0	N/A	N/A	N/A	
Total Vanadium	0	0		0	100	100.0	26,987	

☑ ***THH*** CCT (min): ###### PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	1,511	
Total Arsenic	0	0		0	10	10.0	2,699	
Total Barium	0	0		0	2,400	2,400	647,681	
Total Boron	0	0		0	3,100	3,100	836,588	

Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	140	140	37,781	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	269,867	
Total Nickel	0	0		0	610	610	164,619	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	N/A	N/A	N/A	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
4,4-DDT	0	0		0	N/A	N/A	N/A	
4,4-DDE	0	0		0	N/A	N/A	N/A	
4,4-DDD	0	0		0	N/A	N/A	N/A	
Dieldrin	0	0		0	N/A	N/A	N/A	
Toxaphene	0	0		0	0.00028	0.0003	0.076	
Total Strontium	0	0		0	4,000	4,000	1,079,469	
Osmotic Pressure	0	0		0	N/A	N/A	N/A	
Total Vanadium	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 45.816 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

Benzidine	0	0		0	0.000086	0.00009	0.12	
3,3-Dichlorobenzidine	0	0		0	0.021	0.021	28.8	
4,4-DDT	0	0		0	0.00022	0.0002	0.3	
4,4-DDE	0	0		0	0.00022	0.0002	0.3	
4,4-DDD	0	0		0	0.00031	0.0003	0.42	
Dieldrin	0	0		0	0.000052	0.00005	0.071	
Toxaphene	0	0		0	0.00028	0.0003	0.38	
Total Strontium	0	0		0	N/A	N/A	N/A	
Osmotic Pressure	0	0		0	N/A	N/A	N/A	
Total Vanadium	0	0		0	N/A	N/A	N/A	

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

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Antimony	Report	Report	Report	Report	Report	µg/L	1,511	THH	Discharge Conc > 10% WQBEL (no RP)
Total Arsenic	1.08	1.69	2,699	4,210	6,747	µg/L	2,699	THH	Discharge Conc ≥ 50% WQBEL (RP)
Total Cadmium	Report	Report	Report	Report	Report	µg/L	86.8	CFC	Discharge Conc > 10% WQBEL (no RP)
Osmotic Pressure	XXX	XXX	Report	Report	Report	mOs/kg	2,924	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Total Aluminum	43,864	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	647,681	µg/L	Discharge Conc ≤ 10% WQBEL
Total Boron	431,787	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	28,163	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	N/A	N/A	Discharge Conc < TQL
Total Cobalt	5,127	µg/L	Discharge Conc ≤ 10% WQBEL
Total Copper	1,409	µg/L	Discharge Conc ≤ 10% WQBEL
Free Cyanide	1,287	µg/L	Discharge Conc ≤ 25% WQBEL
Total Iron	404,801	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	1,156	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	269,867	µg/L	Discharge Conc ≤ 10% WQBEL
Total Nickel	17,155	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	596	µg/L	Discharge Conc ≤ 10% WQBEL
Total Zinc	11,415	µg/L	Discharge Conc ≤ 10% WQBEL

Total Molybdenum	N/A	N/A	No WQS
Benzidine	0.12	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	28.8	µg/L	Discharge Conc < TQL
4,4-DDT	0.27	µg/L	Discharge Conc < TQL
4,4-DDE	0.27	µg/L	Discharge Conc < TQL
4,4-DDD	0.27	µg/L	Discharge Conc < TQL
Dieldrin	0.071	µg/L	Discharge Conc < TQL
Toxaphene	0.054	µg/L	Discharge Conc < TQL
Total Strontium	1,079,469	µg/L	Discharge Conc ≤ 10% WQBEL
Total Uranium	N/A	N/A	No WQS
Total Vanadium	26,987	µg/L	Discharge Conc ≤ 10% WQBEL

Department of Environmental Protection - June 30, 2020 Outfall 001 Effluent Analyses

Date of Issue: 07/23/2020 10:53:28

DEP Bureau of Laboratories - Harrisburg
P.O. Box 1467
2575 Interstate Drive
Harrisburg, PA 17105-1467

Contact Phone Number: (717) 346-7200

NELAP - accredited by

NJ DEP - Laboratory Number: PA059
PA DEP LAP - DEP Lab ID: 22-00223

Analytical Report For
Water Supply Management

Sample ID: 0654 011 **Date Collected:** 06/30/2020 02:00:00 PM **Lab Sample ID:** I2020008980 **Status:** IN PROCESS

Name of Sample Collector: James K Stewart
Date Received: 07/01/2020

County: NOT INDICATED **State:**
Municipality: NOT INDICATED

Location: NOT INDICATED
Reason: Routine Sampling
Project: NOT INDICATED
Standard Anlysis: 058
Matrix: Water

Stream Condition:

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
01105A ALUMINUM, TOTAL (WATER & WASTE) BY ICP	520.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00610A AMMONIA TOTAL AS NITROGEN	51.86 mg/L	07/10/2020 06:26 AM	CRADEK	EPA 350.1
01097H ANTIMONY, TOTAL (WATER &WASTE) BY ICPMS	594.000 ug/L	07/09/2020 10:56 AM	SCHOY	EPA 200.8
01002H ARSENIC, TOTAL (WATER & WASTE) BY ICPMS	1900.000 ug/L	07/09/2020 10:56 AM	SCHOY	EPA 200.8
01007A BARIUM, TOTAL (WATER & WASTE) BY ICP	64.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00310 BIOCHEMICAL OXYGEN DEMAND 5 DAY	26.20 mg/L	07/01/2020 10:42 AM	JRONEMUS	SM 5210B
01022K BORON, TOTAL (WATER & WASTE) BY ICP	3417.000 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
71870 BROMIDE BY ION CHROMATOGRAPHY	70.150 mg/L	07/02/2020 04:11 PM	TVOROBEYCH	EPA 300.0

Analytical Report For
Water Supply Management

Sample ID: 0654 011 **Date Collected:** 06/30/2020 02:00:00 PM **Lab Sample ID:** I2020008980 **Status:** IN PROCESS

Test Codes / CAS # - Description	Reported Results	Date And Time Analyzed	Approved by	Test Method
01027A CADMIUM, TOTAL (WATER & WASTE) BY ICP	43.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00916A CALCIUM, TOTAL (WATER & WASTE) BY ICP	1191.000 mg/L	07/15/2020 09:53 AM	ATAPSOBA	EPA 200.7
01034A CHROMIUM, TOTAL (WATER & WASTE) BY ICP	<50.0 ug/L (U)	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01037A COBALT, TOTAL (WATER & WASTE) BY ICP	<50.0 ug/L (U)	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01042A COPPER, TOTAL (WASTER & WASTE) BY ICP	80.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01032A Hexavalent Chromium-Ion Chromatograph	<1.0 ug/L (U)	07/06/2020 04:37 PM	SAGREER	EPA 218.6
01045A IRON, TOTAL (WATER & WASTE) BY ICP	517.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01051H LEAD, TOTAL (WATER & WASTE) BY ICPMS	76.200 ug/L	07/09/2020 10:56 AM	SCHOY	EPA 200.8
01132A LITHIUM, TOTAL (WATER & WASTE) BY ICP	250.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00927A MAGNESIUM, TOTAL (WATER & WASTE) BY ICP	93.58 mg/L	07/15/2020 09:53 AM	ATAPSOBA	EPA 200.7
01055A MANGANESE, TOTAL (WATER & WASTE) BY ICP	215.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01062A MOLYBDENUM, TOTAL (WATER & WASTE) BY ICP	4442.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01067A NICKEL, TOTAL (WATER & WASTE) BY ICP	147.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
82550 OSMOTIC PRESSURE, MOS/KG	305	07/01/2020 11:37 AM	KMCMULLEN	BOL 3003
00403 pH, Lab (Electrometric)	7.6 pH units	07/01/2020 03:44 PM	MTUZINSKI	SM 4500-H+ B
00937A POTASSIUM, TOTAL (WATER & WASTE) BY ICP	421.40 mg/L	07/15/2020 09:53 AM	ATAPSOBA	EPA 200.7
00956A SILICA, TOTAL (WATER & WASTE) BY ICP*	14.20 mg/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01077A SILVER, TOTAL (WATER & WASTE) BY ICP	<10.0 ug/L (U)	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00929A SODIUM, TOTAL (WATER & WASTE) BY ICP	3229.00 mg/L	07/15/2020 09:53 AM	ATAPSOBA	EPA 200.7
01082A STRONTIUM, TOTAL (WATER & WASTE) BY ICP	35494.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00403T Temperature at which pH is measured	20.26 C	07/01/2020 03:44 PM	MTUZINSKI	SM 4500-H+ B
MR01102 Tin Manual Entry	<2000.000 ug/L	07/17/2020 01:53 PM	ATAPSOBA	EPA 200.7
01102A TIN, TOTAL (WATER & WASTE) BY ICP	Cancelled	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
01152A TITANIUM, TOTAL (WATER & WASTE) BY ICP	<10.0 ug/L (U)	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00940A Total Chloride-Colorimetric	4045.6 mg/L	07/08/2020 01:34 PM	JANBARRY	SM 4500-CL- E
70300U TOTAL DISSOLVED SOLIDS @ 180C BY USGS-I-1750	14382 mg/L	07/01/2020 12:13 PM	MARMANIOUS	USGS I-1750
00530 TOTAL SUSPENDED SOLIDS	38 mg/L	07/06/2020 09:09 PM	MARMANIOUS	USGS I-3765
22706E3 Uranium 238	<2.00 ug/L (U)	07/07/2020 02:39 PM	SCHOY	EPA 200.8
01087A VANADIUM, TOTAL (WATER & WASTE) BY ICP	109.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7
00719W Weak Acid Dissociable Cyanide	0.0035 mg/L	07/07/2020 12:12 PM	JRONEMUS	EPA KELADA-01
01092A ZINC, TOTAL (WATER & WASTE) BY ICP	132.00 ug/L	07/13/2020 11:13 AM	ATAPSOBA	EPA 200.7

Analytical Report For
Water Supply Management

Sample ID: 0654 011 **Date Collected:** 06/30/2020 02:00:00 PM **Lab Sample ID:** I2020008980 **Status:** IN PROCESS

The results of the analyses provided in this laboratory report relate only to the sample(s) identified therein. Unless otherwise noted, the results presented on this laboratory report meet all requirements of the 2016 TNI standard. Sample was in acceptable condition when received by the Laboratory. Any exceptions are noted in the report.
* denotes tests that the laboratory is not accredited for

U - Indicates analysis was performed for the test but it was not detected. The sample quantitation limit is reported.

J - Indicates an estimated value, reported between Reporting Limit (RL) and Minimum Detection Limit (MDL).

June Black, Technical Director, Bureau of Laboratories

MWA June 2, 2020 Effluent Analyses

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Thursday, June 11, 2020

To Whom It May Concern
MOUNTAIN WATERSHED ASSOCIATION INC.
PO BOX 408
MELCROFT, PA 15462

Order No.: G2006131

Dear To Whom It May Concern:

Geochemical Testing received 1 sample(s) on 6/2/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00308 PA DEP

Geochemical Testing

Date: *11-Jun-20*

CLIENT: MOUNTAIN WATERSHED ASSOCIATI
Project:
Lab Order: G2006131

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *11-Jun-20*

CLIENT:	MOUNTAIN WATERSHED ASSOCIATION INC.	**Client Sample ID:**	Dis
Lab Order:	G2006131		
Project:		**Sampled By:**	Mountain Watershed Associatio
Lab ID:	G2006131-001	**Collection Date:**	6/2/2020 9:55:00 AM
Matrix:	SURFACE WATER	**Received Date:**	6/2/2020 2:35:22 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
INORGANIC NON-METALS		Analyst: **MBG**				**EPA 300.0**	**EPA 300.0**
Bromide	81.2	5.0		mg/L	25	06/05/20 12:15 PM	06/05/20 5:22 PM
Chloride	4170	25.0		mg/L	25	06/05/20 12:15 PM	06/05/20 5:22 PM
Sulfate	5370	50.0		mg/L	25	06/05/20 12:15 PM	06/05/20 5:22 PM
INORGANIC METALS		Analyst: **MEG**				**EPA 200.2**	**EPA 200.7**
Aluminum	0.3	0.1		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Boron	5.74	0.05		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Calcium	874	1.0		mg/L	10	06/04/20 7:20 AM	06/06/20 9:25 AM
Cobalt	0.015	0.005		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Iron	0.29	0.05		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Lithium	0.41	0.01		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Magnesium	81.7	0.1		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Manganese	0.10	0.01		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Molybdenum	8.33	0.02		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Phosphorus	0.82	0.01		mg/L	1	06/04/20 7:20 AM	06/06/20 10:58 AM
Potassium	496	0.5		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Silicon	9.9	0.1		mg/L	1	06/04/20 7:20 AM	06/06/20 10:58 AM
Sodium	4130	4.0		mg/L	20	06/04/20 7:20 AM	06/08/20 7:12 AM
Tin	< 0.10	0.10		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Titanium	< 0.010	0.010		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Vanadium	0.310	0.005		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
Zinc	0.04	0.01		mg/L	1	06/04/20 7:20 AM	06/05/20 10:11 AM
INORGANIC METALS		Analyst: **RLR**				**EPA 200.2**	**EPA 200.8**
Antimony	1230	50.0		µg/L	50	06/04/20 7:20 AM	06/05/20 10:21 AM
Arsenic	2930	50.0		µg/L	50	06/04/20 7:20 AM	06/05/20 10:21 AM
Barium	39.7	5.0		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM
Cadmium	1.5	0.2		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM
Chromium	12.6	1.0		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM
Copper	15.0	1.0		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM
Lead	23.3	1.0		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM
Nickel	333	2.5		µg/L	5	06/04/20 7:20 AM	06/05/20 10:19 AM
Rubidium	815	50.0		µg/L	10	06/06/20 6:20 AM	06/10/20 7:59 AM
Selenium	178	5.0		µg/L	5	06/04/20 7:20 AM	06/05/20 10:19 AM
Silver	< 0.2	0.2		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM
Strontium	25800	2500		µg/L	500	06/04/20 7:20 AM	06/05/20 10:58 AM
Tungsten	160	25.0		µg/L	5	06/04/20 7:20 AM	06/05/20 10:19 AM
Uranium	< 1.0	1.0		µg/L	1	06/04/20 7:20 AM	06/05/20 9:54 AM

ACCREDITED IN ACCORDANCE WITH nelac
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