pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Southwest Regional Office**
**CLEAN WATER PROGRAM**

| | | | |
|---|---|---|---|
| Application Type | **New** | Application No. | **PA0255530** |
| Facility Type | **Industrial** | APS ID | **983836** |
| Major / Minor | **Minor** | Authorization ID | **1257002** |

# NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **New Choice Home Deco Inc.** | Facility Name | **New Choice Home Deco** |
| Applicant Address | 5994 Steubenville Pike | Facility Address | 4118 Campbells Run Road |
| | McKees Rocks, PA 15136-1334 | | Pittsburgh, PA 15205 |
| Applicant Contact | John Chen | Facility Contact | John Chen |
| Applicant Phone | (304) 670-2949 | Facility Phone | (304) 670-2949 |
| Client ID | 347102 | Site ID | 833802 |
| SIC Code | 5211 | Municipality | Robinson Township |
| SIC Description | Lumber and Other Building Materials | County | Allegheny |
| Date Application Received | January 3, 2019 | EPA Waived? | Yes |
| Date Application Accepted | | If No, Reason | |

Purpose of Application: New NPDES Permit for the discharge of Stormwater associated with industrial activity

## Summary of Review

The Department received a new NPDES permit application from New Choice Home Deco Inc. on January 3, 2019 for coverage of its facility in Robinson Township in Allegheny County.

New Choice Home Deco specializes in natural stone countertops including granite, quartzite and marble and engineered quartz from Silestone.

Wastewater from cutting table will flow to a trench. The water will be passing through 2 Floc Socks that will be changed every two weeks. Finally, the water will be processed through a duplex bag filter. The duplex bag filter will be cleaned every month.

Public Participation

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

| Approve | Deny | Signatures | Date |
|---|---|---|---|
| X | | Angela Rohrer / Environmental Engineering Specialist | January 4, 2023 |
| X | | Michael E. Fifth, P.E. / Environmental Engineer Manager | February 10, 2023 |

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

| | | | |
|---|---|---|---|
| Outfall No. | 001 | Design Flow (MGD) | 0.00005 |
| Latitude | 40º 25' 33" | Longitude | -80º 06' 30" |
| Quad Name | 1505 | Quad Code | Pittsburgh West |
| Wastewater Description: | IW Process Effluent without ELG | | |

| | | | |
|---|---|---|---|
| Receiving Waters | Campbells Run | Stream Code | 36786 |
| NHD Com ID | 99687232 | RMI | 1.76 |
| Drainage Area | 2.73 $mi^2$ | Yield ($cfs/mi^2$) | 0.009 |
| $Q_{7-10}$ Flow (cfs) | 0.0271 | $Q_{7-10}$ Basis | U.S. Army Corp of Engineers |
| Elevation (ft) | 1055 | Slope (ft/ft) | 0.0001 |
| Watershed No. | 20-F | Chapter 93 Class. | WWF |
| Existing Use | | Existing Use Qualifier | |
| Exceptions to Use | | Exceptions to Criteria | |
| Assessment Status | Impaired | | |
| Cause(s) of Impairment | Metals, Nutrients, Total Suspended Solids (TSS), | | |
| Source(s) of Impairment | Acid Mine Drainage, On-Site Treatment Systems (septic systems and similar decentralized systems), Urban Runoff/Storm Sewers | | |
| TMDL Status | Final | Name | Chartiers Creek Watershed |

| | | | |
|---|---|---|---|
| Nearest Downstream Public Water Supply Intake | West View Water Authority (40.0 MGD) | | |
| PWS Waters | Ohio River | Flow at Intake (cfs) | 4,730 |
| PWS RMI | 976.17 | Distance from Outfall (mi) | 11.84 |

**Development of Effluent Limitations**

| | | | |
|---|---|---|---|
| **Outfall No.** | 001 | **Design Flow (MGD)** | 0.00005 |
| **Latitude** | 40º 25' 30" | **Longitude** | -80º 06' 31.60" |

**Wastewater Description:** IW Process Effluent without ELG

**Technology-Based Effluent limitations:**

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1) which is displayed in Table 1 below.

Effluent standards for pH are also imposed on industrial wastes by 25 Pa. Code §§ 95.2(1) which is displayed in Table 1 below.

**Table 1: Regulatory Effluent Standards**

| Parameter | Monthly Avg | Daily Max | IMAX |
|---|---|---|---|
| Flow | Monitor | Monitor | ---- |
| pH | 6-9 at all times | | ---- |

**Water Quality-Based Effluent limitations**:

Toxics Management Spread Sheet

The Department of Environmental Protection (DEP) has developed the DEP Toxics Management Spreadsheet (“TMS”) to facilitate calculations necessary for completing a reasonable potential (RP) analysis and determining water quality-based effluent limitations for discharges of toxic pollutants. The Toxics Management Spreadsheet is a macro-enabled Excel binary file that combines the functions of the PENTOXSD model and the Toxics Screening Analysis spreadsheet to evaluate the reasonable potential for discharges to cause excursions above water quality standards and to determine WQBELs. The Toxics Management Spread Sheet is a single discharge, mass-balance water quality calculation spread sheet that includes consideration for mixing, first-order decay and other factors to determine recommended WQBELs for toxic substances and several non-toxic substances. Required input data including stream code, river mile index, elevation, drainage area, discharge name, NPDES permit number, discharge flow rate and the discharge concentrations for parameters in the permit application or in DMRs, which are entered into the spread sheet to establish site-specific discharge conditions. Other data such as low flow yield, reach dimensions and partial mix factors may also be entered to further characterize the conditions of the discharge and receiving water. Discharge concentrations for the parameters are chosen to represent the "worst case" quality of the discharge (i.e., maximum reported discharge concentrations). The spread sheet then evaluates each parameter by computing a Waste Load Allocation for each applicable criterion, determining a recommended maximum WQBEL and comparing that recommended WQBEL with the input discharge concentration to determine which is more stringent. Based on this evaluation, the Toxics Management Spread sheet recommends average monthly and maximum daily WQBELs.

Reasonable Potential Analysis and WQBEL Development for Outfall 001

Discharges from Outfall 001 are evaluated based on concentrations reported on the application; data from those sources are entered into the Toxics Management Spread Sheet. The maximum reported value of the parameters from the application form is used as the input concentration in the Toxics Management Spread Sheet. All toxic pollutants whose maximum concentrations, as reported in the permit application, that are greater than the most stringent applicable water quality criterion are considered to be pollutants of concern. [This includes pollutants reported as "Not Detectable" or as "<MDL" where the method detection limit for the analytical method used by the applicant is greater than the most stringent water quality criterion]. The Toxics Management Spread Sheet is run with the discharge and receiving stream characteristics shown in Table 2. For IW discharges, the design flow used in modeling is the average flow during production or operation taken from the permit application. Pollutants for which water quality standards have not been promulgated (e.g., TSS, oil and grease) are excluded from the analysis. All the parameters are evaluated using the model to determine the water quality-based effluent limits applicable to the discharge and the receiving stream. The spreadsheet then compares the reported discharge concentrations to the calculated water quality-based effluent limitations to determine if a reasonable

potential exists to exceed the calculated WQBELs. Effluent limitations are established in the draft permit where a pollutant's maximum reported discharge concentration equals or exceeds 50% of the WQBEL. For non-conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 25% - 50% of the WQBEL. For conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 10% - 50% of the WQBEL. The information described above including the maximum reported discharge concentrations, the most stringent water quality criteria, the pollutant-of-concern (reasonable potential) determinations, the calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment B of this Fact Sheet. The Toxics Management Spread Sheet did not recommend any WQBELs for Outfall 001.

**Table 2: TMS Inputs for Outfall 001**

| **Parameter** | **Value** |
|---|---|
| River Mile Index | 1.76 |
| Discharge Flow (MGD) | 0.00005 |
| **Basin/Stream Characteristics** | |
| **Parameter** | **Value** |
| Area in Square Miles | 2.73 |
| $Q_{7-10}$ (cfs) | 0.0271 |
| Low-flow yield (cfs/$mi^2$) | 0.009 |
| Elevation (ft) | 1055 |
| Slope | 0.0001 |

Total Maximum Daily Loads

Wastewater discharges from New Choice Home Deco Inc are located within the Chartiers Creek Watershed for which the Department has developed two TMDLs. The watershed is impacted by metals pollution (aluminum, iron & manganese) from abandoned mine drainage, sedimentation, low pH, PCBs and chlordane.

Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the Code of Federal Regulations Part 130) requires states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991). Stream reaches within the Chartiers Creek watershed are included in the state's 2008 Section 303(d) list because of various impairments, including PCBs, chlordane, metals and pH. The TMDLs include consideration for each tributary within their target watersheds and relevant impairment sources. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDLs are based on established water quality criteria of 0.750 mg/L total recoverable aluminum, 1.5 mg/L total recoverable iron based on a 30-day average and 1.0 mg/L total recoverable manganese. The reduction needed to meet the minimum water quality standards is then divided between each known point and non-point pollutant source in the form of a watershed allocation. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity).

The Chartiers Creek TMDL was finalized on April 9, 2001 and regulates the discharge of PCBs and Chlordane to Chartiers Creek. Neither of these pollutants are handled, stored, or generated at New Choice Home Deco Inc; nor are they present in their discharges. Accordingly, PCB and Chlordane effluent limits are not applicable to this facility.

The Chartiers Creek Watershed TMDL was finalized on April 9, 2003 and regulates the discharge of aluminum, iron, and manganese primarily from abandoned mine discharges within the Chartiers Creek Watershed. The TMDL does not include a specific wasteload allocation for New Choice Home Deco Inc. Allocations were provided only for abandoned mine discharges, active mining operations, and one industrial wastewater generator (Allegheny Ludlum Houston Plant). It is apparent from the TMDL report that stormwater discharges associated with industrial activity were considered to be negligible sources of metals pollution and omitted from inclusion to the TMDL. New Choice Home Deco Inc aluminum (21.0 mg/L), iron (5.2 mg/L), and manganese (3.6 mg/L) discharges are higher than the water quality criteria values and allocated discharge concentrations defined in the TMDL.

Calculations used in the development of water quality based effluent limitations are provided below:

**Aluminum:** The specific water quality criterion for aluminum is expressed as an acute or maximum daily in 25 Pa. Code Chapter 93. Discharges of aluminum may only be authorized to the extent that they will not cause or contribute to any violation of the water quality standards. Therefore, the water quality criterion for aluminum (0.75 mg/L) is imposed as a maximum daily effluent limit (MDL). Whenever the most stringent criterion is selected for the MDL, the Department should also impose an average monthly limit (AML) and instantaneous maximum limit (IMAX) if applicable. The imposition of an AML that is more stringent than the MDL is typically not appropriate because the water quality concerns have already been fully addressed by setting the MDL equal to the most stringent applicable criterion. Therefore, where the MDL is set at the value of the most stringent applicable criterion, the AML should be set equal to the MDL. Accordingly, TMDL aluminum limits are proposed for Outfall 001. The proposed aluminum limits are shown in Table 3.

**Iron:** The specific water quality criterion for iron is expressed as a 30-day average of 1.5 $^{mg}/_{L}$ in 25 Pa. Code § 93.7(a). The criterion is based on the protection of aquatic life and is associated with chronic exposure. There are no other criteria for total iron. Since the duration of the total iron criterion coincides with the 30-day duration of the AML, the 30-day average criterion for total iron is set equal to the AML.

In addition, because the total iron criterion is associated with chronic exposure, the MDL (representing acute exposure) and the IMAX may be made less stringent according to established procedures described in Section III.C.3.h on Page 13 of the Water Quality Toxics Management Strategy (Doc. # 361-0100-003). These procedures state that a MDL and IMAX may be set at 2 times and 2.5 times the AML, respectively, or there is the option to use multipliers from EPA's Technical Support Document for Water Quality-based Toxics Control, if data are available to support the use of alternative multipliers. Accordingly, TMDL iron limits are proposed for Outfall 001. The proposed iron limits are shown in Table 3.

**Manganese:** The specific water quality criterion for manganese is expressed as an acute or maximum daily of 1.0 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of human health and is associated with chronic exposure

associated with a potable water supply (PWS). Since no duration is given in Chapter 93 for the manganese criterion, a duration of 30 days is used based on the water quality criteria duration for Threshold Human Health (THH) criteria given in Section III.C.3.a., Table 1 on Page 10 of DEP's Water Quality Toxics Management Strategy. The 30-day duration for THH criteria coincides with the 30-day duration of an AML, which is why the manganese criterion is set equal to the AML for a "permitting at criteria" scenario.

Because the manganese criterion is interpreted as having chronic exposure, the manganese MDL and IMAX may be made less stringent according to procedures established in Section III.C.2.h. of the Water Quality Toxics Management Strategy (AML multipliers of 2.0 and 2.5 for the MDL and IMAX respectively). Accordingly, TMDL manganese limits are proposed for Outfall 001. The proposed manganese limits are shown in Table 3.

**Table 3 – TMDL Limits for Outfall 001**

| Parameter | Discharge Concentrations Outfall 001 | TMDL Limits | | Units |
|---|---|---|---|---|
| | | Average Monthly | Daily Maximum | |
| Aluminum, Total | 21.0 | 0.75 | 0.75 | mg/L |
| Iron, Total | 5.2 | 1.5 | 3.0 | mg/L |
| Manganese, Total | 3.6 | 1.0 | 2.0 | mg/L |

## Anti-Backsliding

New Choice Home Deco Inc was not previously covered under an NPDES permit. EPA's anti-backsliding regulation, 40 CFR 122.44(l) is not applicable to this facility.

## Proposed Effluent Limitations and Monitoring Requirements

The proposed interim effluent monitoring requirements and proposed final effluent limitations and monitoring requirements for Outfall 001 are displayed in Tables 4 and 5 below.

### Effluent Limitation Compliance Schedule

Whenever the Department proposes the imposition of water quality based effluent limitations on existing sources, the NPDES permit may include a schedule of compliance to achieve the WQBELs. Any compliance schedule contained in an NPDES permit must be an "enforceable sequence of actions or operations leading to compliance with the water quality-based effluent limitations ("WQBELs"). In accordance with 40 CFR 122.47(a)(3) and PA Code, Chapter 92a.51, compliance schedules that are longer than one year in duration must set forth interim requirements and dates for their achievement. In order to grant a compliance schedule in an NPDES permit, the permitting authority has to make a reasonable finding, adequately supported by the administrative record and described in the fact sheet, that a compliance schedule is "appropriate" and that compliance with the final WQBEL is required "as soon as possible".

In this case, New Choice Home Deco may be unable to meet the proposed effluent limits at Outfall 001 for Aluminum, Iron and Manganese based on the current lack of installed treatment technologies and the known discharge concentrations of these pollutants. Monitoring for Aluminum, Iron and Manganese will be imposed for the first three years of coverage. After three years following the permit effective date, the final permit limits will take effect.

The interim limitations will be effective from the permit effective date to three years after permit effective date. During this period, New Choices Deco Inc., may consider connecting to the sanitary sewer system and stop the discharge to Campbells Run.

The final limitations will be become effective from three years after permit effective date to permit expiration date. A compliance schedule is provided to give the permittee time to evaluate site conditions and treatment options to achieve the final effluent limitations.

**Table 4: Proposed Interim Effluent Limitation at Outfall 001**

| Parameters | Mass (lb/day) | | Concentration (mg/L) | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Average Monthly | Daily Maximum | Instant. Minimum | Average Monthly | Daily Maximum | Instant. Maximum | Frequency | Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | 2/Month | Measured |
| Total Aluminum | XXX | XXX | XXX | Report | Report | XXX | 2/Month | Grab |
| Total Iron | XXX | XXX | XXX | Report | Report | XXX | 2/Month | Grab |
| Total Manganese | XXX | XXX | XXX | Report | Report | XXX | 2/Month | Grab |
| pH (S.U.) | XXX | XXX | 6.0 | XXX | XXX | 9.0 | 2/Month | Grab |

**Table 5: Proposed Final Effluent Limitation at Outfall 001**

| Parameters | Mass (lb/day) | | Concentration (mg/L) | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Average Monthly | Daily Maximum | Instant. Minimum | Average Monthly | Daily Maximum | Instant. Maximum | Frequency | Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | 2/Month | Measured |
| Total Aluminum | XXX | XXX | XXX | 0.75 | 0.75 | XXX | 2/Month | Grab |
| Total Iron | XXX | XXX | XXX | 1.5 | 3.0 | XXX | 2/Month | Grab |
| Total Manganese | XXX | XXX | XXX | 1.0 | 2.0 | XXX | 2/Month | Grab |
| pH (S.U.) | XXX | XXX | 6.0 | XXX | XXX | 9.0 | 2/Month | Grab |

| Tools and References Used to Develop Permit | |
|---|---|
| | |
| ☐ | WQM for Windows Model (see Attachment) |
| ☒ | Toxics Management Spreadsheet (see Attachment B) |
| ☐ | TRC Model Spreadsheet (see Attachment) |
| ☐ | Temperature Model Spreadsheet (see Attachment) |
| ☐ | Water Quality Toxics Management Strategy, 361-0100-003, 4/06. |
| ☐ | Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97. |
| ☐ | Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98. |
| ☐ | Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96. |
| ☐ | Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97. |
| ☐ | Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97. |
| ☐ | Pennsylvania CSO Policy, 385-2000-011, 9/08. |
| ☐ | Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03. |
| ☐ | Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97. |
| ☐ | Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97. |
| ☐ | Implementation Guidance Design Conditions, 391-2000-006, 9/97. |
| ☐ | Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004. |
| ☐ | Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997. |
| ☐ | Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99. |
| ☐ | Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004. |
| ☐ | Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97. |
| ☐ | Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008. |
| ☐ | Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994. |
| ☐ | Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09. |
| ☐ | Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97. |
| ☐ | Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97. |
| ☐ | Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99. |
| ☐ | Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999. |
| ☐ | Design Stream Flows, 391-2000-023, 9/98. |
| ☐ | Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98. |
| ☐ | Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97. |
| ☐ | Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07. |
| ☐ | SOP: |
| ☐ | Other: |

## Attachments

Attachment A. StreamStats Report

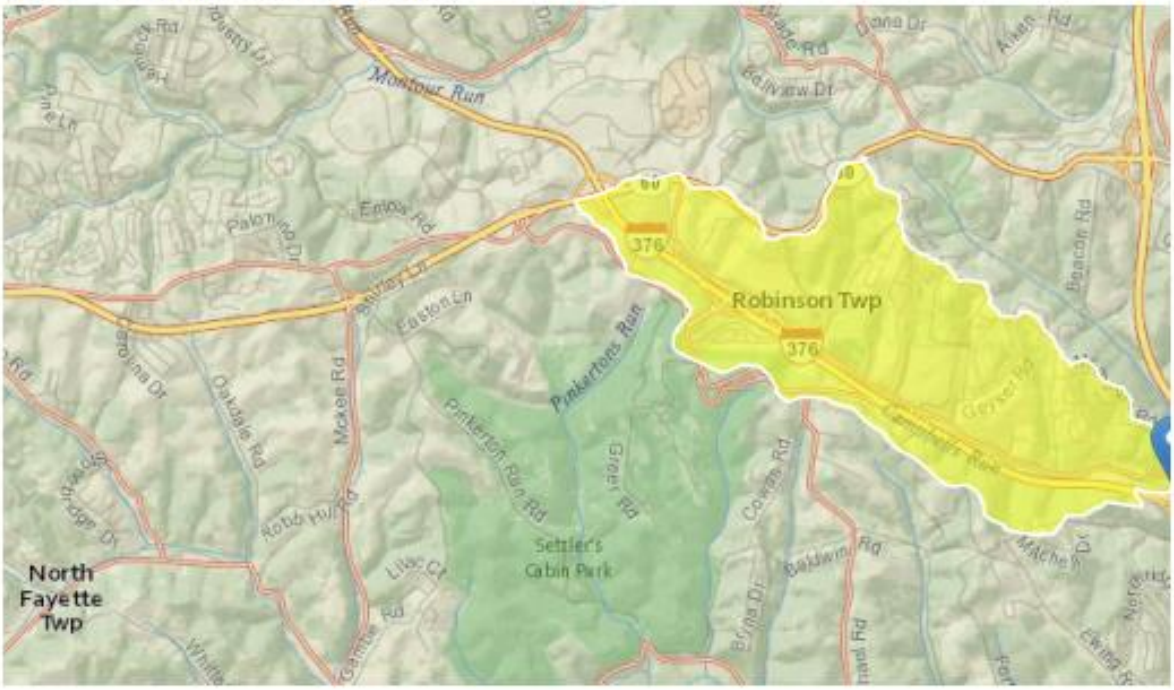
Attachment B. Toxic Management Spreadsheet for Outfall 001

**Attachment A**

StreamStats Report

# PA0255530 - New Choice Home Deco - Outfall 001 StreamStats Report

**Region ID:** PA
**Workspace ID:** PA20230103140320987000
**Clicked Point (Latitude, Longitude):** 40.42493, -80.10842
**Time:** 2023-01-03 09:03:43 -0500




Collapse All

## Basin Characteristics

| Parameter Code | Parameter Description | Value | Unit |
|---|---|---|---|
| CARBON | Percentage of area of carbonate rock | 0 | percent |
| DRNAREA | Area that drains to a point on a stream | 2.73 | square miles |
| ELEV | Mean Basin Elevation | 1105 | feet |
| FOREST | Percentage of area covered by forest | 39.2781 | percent |
| PRECIP | Mean Annual Precipitation | 37 | inches |
| URBAN | Percentage of basin with urban development | 46.6708 | percent |

## Low-Flow Statistics

### Low-Flow Statistics Parameters [Low Flow Region 4]

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|---|---|---|---|---|---|
| DRNAREA | Drainage Area | 2.73 | square miles | 2.26 | 1400 |
| ELEV | Mean Basin Elevation | 1105 | feet | 1050 | 2580 |

### Low-Flow Statistics Flow Report [Low Flow Region 4]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

| Statistic | Value | Unit | SE | ASEp |
|---|---|---|---|---|
| 7 Day 2 Year Low Flow | 0.0823 | ft^3/s | 43 | 43 |
| 30 Day 2 Year Low Flow | 0.151 | ft^3/s | 38 | 38 |
| 7 Day 10 Year Low Flow | 0.0271 | ft^3/s | 66 | 66 |
| 30 Day 10 Year Low Flow | 0.0533 | ft^3/s | 54 | 54 |
| 90 Day 10 Year Low Flow | 0.102 | ft^3/s | 41 | 41 |

*Low-Flow Statistics Citations*

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

## Base Flow Statistics

### Base Flow Statistics Parameters [Statewide Mean and Base Flow]

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|---|---|---|---|---|---|
| DRNAREA | Drainage Area | 2.73 | square miles | 2.26 | 1720 |
| PRECIP | Mean Annual Precipitation | 37 | inches | 33.1 | 50.4 |

**Attachment B**

Toxic Management Spreadsheet for Outfall 001

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

# Discharge Information

Instructions | Discharge | Stream

Facility: **New Choice Home Deco Inc** NPDES Permit No.: **PA0255530** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Wastewater from cutting table**

| Discharge Characteristics | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | $Q_{7-10}$ | $Q_h$ |
| 0.00005 | 560 | 4.5 | | | | | | |

| | | | | | 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 | | 1200 | | | | | | | | | |
| | Chloride (PWS) | mg/L | | 146 | | | | | | | | | |
| | Bromide | mg/L | < | 0.0025 | | | | | | | | | |
| | Sulfate (PWS) | mg/L | | 590 | | | | | | | | | |
| | Fluoride (PWS) | mg/L | | 0.933 | | | | | | | | | |
| Group 2 | Total Aluminum | µg/L | | 21000 | | | | | | | | | |
| | Total Antimony | µg/L | < | 2 | | | | | | | | | |
| | Total Arsenic | µg/L | | 22 | | | | | | | | | |
| | Total Barium | µg/L | | 51 | | | | | | | | | |
| | Total Beryllium | µg/L | | 5.2 | | | | | | | | | |
| | Total Boron | µg/L | | 120 | | | | | | | | | |
| | Total Cadmium | µg/L | | 1.2 | | | | | | | | | |
| | Total Chromium (III) | µg/L | | 6.2 | | | | | | | | | |
| | Hexavalent Chromium | µg/L | | | | | | | | | | | |
| | Total Cobalt | µg/L | | 120 | | | | | | | | | |
| | Total Copper | µg/L | | 72 | | | | | | | | | |
| | Free Cyanide | µg/L | | | | | | | | | | | |
| | Total Cyanide | µg/L | | 0.0096 | | | | | | | | | |
| | Dissolved Iron | µg/L | | 2300 | | | | | | | | | |
| | Total Iron | µg/L | | 5200 | | | | | | | | | |
| | Total Lead | µg/L | | 5.7 | | | | | | | | | |
| | Total Manganese | µg/L | | 3600 | | | | | | | | | |
| | Total Mercury | µg/L | < | 0.2 | | | | | | | | | |
| | Total Nickel | µg/L | | 200 | | | | | | | | | |
| | Total Phenols (Phenolics) (PWS) | µg/L | < | 10 | | | | | | | | | |
| | Total Selenium | µg/L | < | 5 | | | | | | | | | |
| | Total Silver | µg/L | | 0.68 | | | | | | | | | |
| | Total Thallium | µg/L | | 0.19 | | | | | | | | | |
| | Total Zinc | µg/L | | 390 | | | | | | | | | |
| | Total Molybdenum | µg/L | | 3.3 | | | | | | | | | |
| | Acrolein | µg/L | < | | | | | | | | | | |
| | Acrylamide | µg/L | < | | | | | | | | | | |
| | Acrylonitrile | µg/L | < | | | | | | | | | | |
| | Benzene | µg/L | < | | | | | | | | | | |
| | Bromoform | µg/L | < | | | | | | | | | | |
| | Carbon Tetrachloride | µg/L | < | | | | | | | | | | |
| | Chlorobenzene | µg/L | | | | | | | | | | | |
| | Chlorodibromomethane | µg/L | < | | | | | | | | | | |
| | Chloroethane | µg/L | < | | | | | | | | | | |
| | 2-Chloroethyl Vinyl Ether | µg/L | < | | | | | | | | | | |

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

# Stream / Surface Water Information

**New Choice Home Deco Inc, NPDES Permit No. PA0255530**

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Campbells Run**

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 | 036786 | 1.76 | 1055 | 2.73 | 0.001 | | Yes |
| End of Reach 1 | 036786 | 0.7 | 810 | 3 | 0.001 | | 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 | 1.76 | 0.1 | | | | | | | | | | 100 | 7 | | |
| End of Reach 1 | 0.7 | 0.1 | | | | | | | | | | | | | |

$Q_h$

| 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 | 1.76 | | | | | | | | | | | | | | |
| End of Reach 1 | 0.7 | | | | | | | | | | | | | | |

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Toxics Management Spreadsheet
Version 1.3, March 2021

# Model Results

**New Choice Home Deco Inc, NPDES Permit No. PA0255530**

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 11.727 PMF: 1 Analysis Hardness (mg/l): 100.13 Analysis pH: 6.96

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | 750 | 750 | 2,647,809 | |
| Total Antimony | 0 | 0 | | 0 | 1,100 | 1,100 | 3,883,453 | |
| Total Arsenic | 0 | 0 | | 0 | 340 | 340 | 1,200,340 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 21,000 | 21,000 | 74,138,647 | |
| Total Boron | 0 | 0 | | 0 | 8,100 | 8,100 | 28,596,335 | |
| Total Cadmium | 0 | 0 | | 0 | 2.016 | 2.14 | 7,541 | Chem Translator of 0.944 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 570.371 | 1,805 | 6,372,297 | Chem Translator of 0.316 applied |
| Total Cobalt | 0 | 0 | | 0 | 95 | 95.0 | 335,389 | |
| Total Copper | 0 | 0 | | 0 | 13.456 | 14.0 | 49,483 | Chem Translator of 0.96 applied |
| Dissolved Iron | 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 | 64.673 | 81.8 | 288,719 | Chem Translator of 0.791 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 1.400 | 1.65 | 5,815 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 468.752 | 470 | 1,658,204 | Chem Translator of 0.998 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | 3.224 | 3.79 | 13,391 | Chem Translator of 0.85 applied |
| Total Thallium | 0 | 0 | | 0 | 65 | 65.0 | 229,477 | |
| Total Zinc | 0 | 0 | | 0 | 117.310 | 120 | 423,468 | Chem Translator of 0.978 applied |

☑ ***CFC*** CCT (min): 11.727 PMF: 1 Analysis Hardness (mg/l): 100.13 Analysis pH: 6.96

| Pollutants | Stream Conc (µg/L) | Stream CV | Trib Conc (µg/L) | Fate Coef | WQC (µg/L) | WQ Obj (µg/L) | WLA (µg/L) | Comments |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Fluoride (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 | 776,691 | |
| Total Arsenic | 0 | 0 | | 0 | 150 | 150 | 529,562 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 4,100 | 4,100 | 14,474,688 | |
| Total Boron | 0 | 0 | | 0 | 1,600 | 1,600 | 5,648,659 | |
| Total Cadmium | 0 | 0 | | 0 | 0.246 | 0.27 | 956 | Chem Translator of 0.909 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 74.194 | 86.3 | 304,574 | Chem Translator of 0.86 applied |
| Total Cobalt | 0 | 0 | | 0 | 19 | 19.0 | 67,078 | |
| Total Copper | 0 | 0 | | 0 | 8.966 | 9.34 | 32,972 | Chem Translator of 0.96 applied |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | 1,500 | 1,500 | 5,295,618 | WQC = 30 day average; PMF = 1 |
| Total Lead | 0 | 0 | | 0 | 2.520 | 3.19 | 11,251 | Chem Translator of 0.791 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 3,198 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 52.064 | 52.2 | 184,360 | Chem Translator of 0.997 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | 4.600 | 4.99 | 17,614 | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 1 applied |
| Total Thallium | 0 | 0 | | 0 | 13 | 13.0 | 45,895 | |
| Total Zinc | 0 | 0 | | 0 | 118.269 | 120 | 423,468 | Chem Translator of 0.986 applied |

☑ ***THH*** CCT (min): 11.727 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 |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | 500,000 | 500,000 | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | 250,000 | 250,000 | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | 250,000 | 250,000 | N/A | |
| Fluoride (PWS) | 0 | 0 | | 0 | 2,000 | 2,000 | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 5.6 | 5.6 | 19,770 | |
| Total Arsenic | 0 | 0 | | 0 | 10 | 10.0 | 35,304 | |
| Total Barium | 0 | 0 | | 0 | 2,400 | 2,400 | 8,472,988 | |
| Total Boron | 0 | 0 | | 0 | 3,100 | 3,100 | 10,944,276 | |
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Chromium (III) | 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 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 1,059,124 | |
| 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 | 3,530,412 | |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 177 | |
| Total Nickel | 0 | 0 | | 0 | 610 | 610 | 2,153,551 | |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | 5 | 5.0 | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Thallium | 0 | 0 | | 0 | 0.24 | 0.24 | 847 | |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A | |

☑ ***CRL*** CCT (min): 2.804 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 |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chloride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Sulfate (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Fluoride (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 | |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Copper | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dissolved Iron | 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 Mercury | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Nickel | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Thallium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Zinc | 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 |
| | | | | | | | | | |

☑ ***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 |
|---|---|---|---|
| Total Dissolved Solids (PWS) | N/A | N/A | PWS Not Applicable |
| Chloride (PWS) | N/A | N/A | PWS Not Applicable |
| Bromide | N/A | N/A | No WQS |
| Sulfate (PWS) | N/A | N/A | PWS Not Applicable |
| Fluoride (PWS) | N/A | N/A | PWS Not Applicable |
| Total Aluminum | 1,697,139 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Antimony | N/A | N/A | Discharge Conc < TQL |
| Total Arsenic | 35,304 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Barium | 8,472,988 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Beryllium | N/A | N/A | No WQS |
| Total Boron | 5,648,659 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cadmium | 956 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Chromium (III) | 304,574 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cobalt | 67,078 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Copper | 31,717 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cyanide | N/A | N/A | No WQS |
| Dissolved Iron | 1,059,124 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Iron | 5,295,618 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Lead | 11,251 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Manganese | 3,530,412 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Mercury | 177 | µg/L | Discharge Conc < TQL |
| Total Nickel | 184,360 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Phenols (Phenolics) (PWS) | | µg/L | PWS Not Applicable |
| Total Selenium | 17,614 | µg/L | Discharge Conc < TQL |
| Total Silver | 8,583 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Thallium | 847 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Zinc | 271,426 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Molybdenum | N/A | N/A | No WQS |