pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Northcentral Regional Office**
**CLEAN WATER PROGRAM**

| | | | |
|---|---|---|---|
| Application Type | **Renewal** | Application No. | **PA0008591** |
| Facility Type | **Industrial** | APS ID | **1062417** |
| Major / Minor | **Minor** | Authorization ID | **1394741** |

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

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **Gold Bond Building Products, LLC** | Facility Name | **Milton Paper Plant** |
| Applicant Address | 2586 Old Route 15 | Facility Address | 2586 Old Route 15 |
| | New Columbia, PA 17856-9367 | | New Columbia, PA 17856-9367 |
| Applicant Contact | Scott Smith | Facility Contact | Scott Smith |
| Applicant Phone | (570) 413-8854 | Facility Phone | (570) 413-8854 |
| Client ID | 191313 | Site ID | 3914 |
| SIC Code | 2631 | Municipality | White Deer Township |
| SIC Description | Manufacturing - Paperboard Mills | County | Union |
| Date Application Received | April 29, 2022 | EPA Waived? | No |
| Date Application Accepted | May 9, 2022 | If No, Reason | Significant CB Discharge |

Purpose of Application: Renewal of an existing NPDES permit for the discharge of treated industrial waste and storm waters.

## 1.0 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 | | *Derek S. Garner*<br>Derek S. Garner / Project Manager | April 19, 2023 |
| X | | *Nicholas W. Hartranft*<br>Nicholas W. Hartranft, P.E. / Environmental Engineer Manager | April 20, 2023 |

## 2.0 Facility Summary

Gold Bond Building Products, LLC's Milton Plant supplies linerboard paper for gypsum board manufacturing. The linerboard paper is produced from 100% recyclable post-consumer content, including; cardboard, magazines, and trimmings from print shops. Process water used in the linerboard paper manufacturing activities is pulled from three on-site wells. Water used in the boilers and for sanitary uses is provided by the municipal water system. Process water and boiler blowdown is treated at an onsite industrial wastewater treatment plant ("IWTP") prior to discharge. Treatment is as follows:

1. Vacuum Filtration
2. Primary Clarification
3. Aerated Lagoon
4. Secondary Clarification

After secondary clarification, the wastewater is discharged via Outfall 001 to the West Branch Susquehanna River. Wasted solids is stored onsite in sludge lagoons.

All sanitary waste is treated at the White Deer Municipal Authority Wastewater Treatment Plant (NPDES Permit No. PA0020800).

Onsite stormwater is discharged via Outfalls 002 through 007. Outfall 002 is identified as the facility's representative stormwater sample outfall.

See Attachment A for the Facility and Discharge Location Map.

## 3.0 Discharge, Receiving Waters and Water Supply Information

### *3.1 Outfall 001*

Outfall 001 continuously discharges IWTP effluent 24 hours a day, seven days a week. The discharge is a blend of process wastewater and boiler blowdown.

**Table 3-1. Outfall 001 Information**

| | | | |
|---|---|---|---|
| Outfall No. | 001 | Design Flow (MGD) | 0.231 |
| Latitude | 41º 3' 24.37" | Longitude | -76º 51' 26.20" |
| Quad Name | Milton | Quad Code | 1031 |
| Wastewater Description: | IW Process Effluent with ELG | | |

| | | | |
|---|---|---|---|
| Receiving Waters | West Branch Susquehanna River | Stream Code | 18668 |
| NHD Com ID | 66919015 | RMI | 14.03 |
| Drainage Area | 6650 | Yield (cfs/mi$^2$) | 0.112 |
| $Q_{7-10}$ Flow (cfs) | 745 | $Q_{7-10}$ Basis | Streamgage No. 01553500 |
| Elevation (ft) | 443 | Slope (ft/ft) | n/a |
| Watershed No. | 10-C | Chapter 93 Class. | WWF |
| Existing Use | n/a | Existing Use Qualifier | n/a |
| Exceptions to Use | n/a | Exceptions to Criteria | n/a |
| Assessment Status | Attaining Use(s) | | |
| Cause(s) of Impairment | n/a | | |
| Source(s) of Impairment | n/a | | |
| TMDL Status | n/a | Name | n/a |

| | | | |
|---|---|---|---|
| Nearest Downstream Public Water Supply Intake | Pennsylvania American Water Company | | |
| PWS Waters | West Branch Susquehanna River | Flow at Intake (cfs) | 741.48 |
| PWS RMI | 10.64 | Distance from Outfall (mi) | 3.39 |

## *3.2 Outfall 002*

Outfall 002 drains approximately 1,002,700 sq. ft. of the permittee's property. The area consists of vegetated and paved surfaces, as well as the manufacturing facility's roofing.

Outfall 002 has been selected as a representative outfall since it has the largest drainage area out of all six stormwater outfalls and includes a variety of activities and surfaces in its drainage area. By establishing one outfall as representative of the quality of stormwater existing the site it will cut down on redundant sampling and permit requirements, while still indicating if the in-place storm water best management practices are in place and working as intended.

**Table 3-2. Outfall 002 Information**

| | | | |
|---|---|---|---|
| Outfall No. | 002 | Design Flow (MGD) | n/a |
| Latitude | 41º 3' 42.81" | Longitude | -76º 51' 56.27" |
| Quad Name | Milton | Quad Code | 1031 |
| Wastewater Description: | Stormwater | | |
| Receiving Waters | Unnamed Tributary to West Branch Susquehanna River | Stream Code | 19141 |
| NHD Com ID | 66918909 | RMI | 0.41 |
| Drainage Area | n/a | Yield (cfs/mi$^2$) | n/a |
| $Q_{7-10}$ Flow (cfs) | n/a | $Q_{7-10}$ Basis | n/a |
| Elevation (ft) | n/a | Slope (ft/ft) | n/a |
| Watershed No. | 10-C | Chapter 93 Class. | WWF, MF |
| Existing Use | n/a | Existing Use Qualifier | n/a |
| Exceptions to Use | n/a | Exceptions to Criteria | n/a |
| Assessment Status | Impaired | | |
| Cause(s) of Impairment | Siltation | | |
| Source(s) of Impairment | Agriculture, Road Runoff | | |
| TMDL Status | n/a | Name | n/a |
| Nearest Downstream Public Water Supply Intake | Pennsylvania American Water Company | | |
| PWS Waters | West Branch Susquehanna river | Flow at Intake (cfs) | 741.48 |
| PWS RMI | 10.64 | Distance from Outfall (mi) | 4.0 |

## *3.3 West Branch Susquehanna River*

As summarized in Section 3.1, Outfall 001 discharges to the West Branch Susquehanna River. The Q7-10 of the River at Outfall 001 was calculated using flow data from USGS Stream Gage No. 01553500 (W. Br. Susquehanna River at Lewisburg, PA) spanning from 1990 to 2021. A Q7-10 was developed using DFLOW to achieve a flow of 767 cfs. Based on the stream gage's drainage area of 6,847 $mi^2$ a low-flow yield of 0.112 $cfs/mi^2$ was developed. By applying the low-flow yield to the drainage area at Outfall 001 of 6,650 $mi^2$ a Q7-10 of 745 cfs is calculated. A Q7-10 of 746 cfs at the mouth of Muddy Run (RMI 13.52) was calculated for modeling purposes. See Attachment B for Q7-10 calculations and supporting documentation.

A TMDL for the West Branch Susquehanna River Watershed was approved by the U.S. Environmental Protection Agency ("EPA") to address low pH, and in some cases, high levels of metals (Al, Fe, Mn) in the watershed caused by abandoned mine drainage. RMI 0.0 of the TMDL is the Market Street Bridge in Williamsport, PA which is approximately 25 river miles upstream of the discharge. Since the discharge is located downstream of the TMDL it cannot contribute to the impairment of the TMDL's watershed. Accordingly, the TMDL will not impact the development of effluent limits.

## *3.4 Downstream Public Water Supply Intake*

The nearest downstream water supply intake is operated by Pennsylvania American Water Company located in Milton, PA, approximately 3.4 river miles downstream. The discharge is not expected to impact the water supply.

## 4.0 Compliance History

### *4.1 Inspection Reports*

The facility was most recently inspected by DEP on April 4, 2023. The inspection report made note of TSS violations in December 2022 and January 2023. The problem appears to have been corrected by increased solids wasting.

### *4.2 Violations*

**Table 4-1. Violation Summary**

| Submission Date | Noncompliance Description | Parameter | Sample Value | Violation Condition | Permit Value | Unit | SBC |
|---|---|---|---|---|---|---|---|
| 2/27/2018 | Violation of permit condition | Total Suspended Solids | 304 | > | 285 | lbs/day | Daily Maximum |
| 3/26/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 149.9 | > | 100 | mg/L | Average Monthly |
| 3/26/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 230 | > | 190 | lbs/day | Average Monthly |
| 3/26/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 298.9 | > | 150 | mg/L | Daily Maximum |
| 3/26/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 449 | > | 285 | lbs/day | Daily Maximum |
| 3/26/2018 | Violation of permit condition | Total Suspended Solids | 1720 | > | 150 | mg/L | Daily Maximum |
| 3/26/2018 | Violation of permit condition | Total Suspended Solids | 2582 | > | 285 | lbs/day | Daily Maximum |
| 3/26/2018 | Violation of permit condition | Total Suspended Solids | 458 | > | 100 | mg/L | Average Monthly |
| 3/26/2018 | Violation of permit condition | Total Suspended Solids | 686 | > | 190 | lbs/day | Average Monthly |
| 4/27/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 295.2 | > | 100 | mg/L | Average Monthly |
| 4/27/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 342.3 | > | 150 | mg/L | Daily Maximum |
| 4/27/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 611 | > | 190 | lbs/day | Average Monthly |
| 4/27/2018 | Violation of permit condition | Biochemical Oxygen Demand (BOD5) | 694 | > | 285 | lbs/day | Daily Maximum |
| 4/27/2018 | Violation of permit condition | Total Suspended Solids | 1198 | > | 100 | mg/L | Average Monthly |
| 4/27/2018 | Violation of permit condition | Total Suspended Solids | 1640 | > | 150 | mg/L | Daily Maximum |
| 4/27/2018 | Violation of permit condition | Total Suspended Solids | 2485 | > | 190 | lbs/day | Average Monthly |
| 4/27/2018 | Violation of permit condition | Total Suspended Solids | 3383 | > | 285 | lbs/day | Daily Maximum |
| 12/3/2019 | Late DMR Submission | --- | --- | --- | --- | --- | --- |
| 1/24/2023 | Violation of permit condition | Total Suspended Solids | 112 | > | 100 | mg/L | Average Monthly |
| 1/24/2023 | Violation of permit condition | Total Suspended Solids | 160 | > | 150 | mg/L | Daily Maximum |
| 2/17/2023 | Violation of permit condition | Total Suspended Solids | 290 | > | 150 | mg/L | Daily Maximum |
| 2/17/2023 | Violation of permit condition | Total Suspended Solids | 302 | > | 285 | lbs/day | Daily Maximum |

The permittee continues to adjust treatment processes to address effluent violations.

There are no open violations associated with the permittee.

## 5.0 Development of Effluent Limitations

Effluent limits are the most stringent of technology-based effluent limitations ("TBELs"), water quality-based effluent limitations ("WQBELs"), or best professional judgment ("BPJ").

## *5.1 Technology-based Effluent Limitations*

The first step in developing effluent limitations is to recognize and develop applicable TBELs based on the industrial activity that takes place athe facility for each outfall. TBELs are subject to the development of more stringent WQBELs or BPJ.

### *5.1.1 Outfall 001*

ELG Parameters

Outfall 001 discharges treated industrial waste from the IWTP, described in Section 2.0 above. NGC's linerboard process wastewater is covered under 40 CFR Part 430, Subpart J – Secondary Fiber Non-Deink Subcategory. The effluent limit guidelines ("ELGs") in Subpart J establish mass-based, production-normalized best practicable control technology currently available ("BPT"), best conventional pollutant control technology ("BCT"), and best available technology economically achievable ("BAT") effluent limitations as follows:

**Table 5-1. 40 CFR Part 430, Subpart J**

| Pollutant | Maximum Daily | Average Monthly | BPT | BCT | BAT |
|---|---|---|---|---|---|
| BOD5 (1) | 3.0 | 1.5 | X | X | |
| TSS (1) | 5.0 | 2.5 | X | X | |
| pH | Within 6.0 to 9.0 | | X | X | |
| Pentachlorophenol (2) | | | | | X |
| Tricholophenol (2) | | | | | X |

(1) kg/kkg (or pounds per 1,000 lb) of product
(2) BAT limitations for penachlorophenol and trichlorophenol only apply if the facility uses chlorophenolic-containing biocides. It does not appear that the facility uses any chlorophenolic-containing biocides. Accordingly, the BAT ELG limitations will not be established in the permit; however, a Part C condition will be established which prohibits the use of any chlorophenolic-containing biocides without a permit amendment to establish BAT limitations in Part 430, Subpart J.

Based on an average daily production of 699,600 lbs/day the following mass limits are calculated:

**Table 5-2. Calculated Mass Limits**

| Pollutant | Maximum Daily (lbs/day) | Average Monthly (lbs/day) |
|---|---|---|
| BOD5 | 2203 | 1101 |
| TSS | 3671 | 1836 |

See Attachment C for the ELG calculations and supporting documentation.

Chapter 95 Industrial Waste Treatment Standards

In addition to ELG requirements above, 25 PA Code Chapter 95 establishes industrial wastes treatment standards for pH, oil and grease, and dissolved iron as follows:

**Table 5-3. Chapter 95 Treatment Standards**

| Parameter | Limit (mg/l) | SBC | State Regulation |
|---|---|---|---|
| pH | 6.0 | Minimum | 95.2(1) |
| | 9.0 | IMAX | 95.2(1) |
| Oil and Grease (1) | 15 | Average Monthly | 95.2(2) |
| | 30 | IMAX | 95.2(2) |
| Dissolved Iron (2) | 7.0 | Average Monthly | 95.2(4) |

(1) Historically, oil and grease has not been detected in the effluent. Since there does not appear to be a potential to exceed the Chapter 95 TBEL for oil and grease, DEP does not propose to establish an effluent limit or monitoring requirements.

(2) Historically, dissolved iron has not been established in the permit based on the lack of potential to exceed the TBEL. Dissolved iron was detected in the effluent at a concentration of 0.102 mg/l, which is considerably less than the Chapter 95 TBEL of 7 mg/l. A potential to exceed the TBEL still has not been demonstrated. Accordingly, no dissolved iron limits or monitoring requirements are proposed.

#### *5.1.2 Outfall 002*

There are no applicable TBELs for stormwater discharges associated with SIC Code 2631.

## *5.2 Water Quality-based Effluent Limitations*

#### *5.2.1 Outfall 001*

After developing the TBELs, the next step is to determine if there are more stringent WQBELs that must be applied. An analysis using DEP's WQM 7.0 v1.1 and the Toxics Management Spreadsheet v1.3 ("TMS') was performed for the discharges. WQM 7.0 is a multiple source discharge model that is used to determine NPDES effluent limits for ammonia-nitrogen, CBOD5, and dissolved oxygen, if applicable. TMS is a single discharge model that is used to determine NPDES effluent limitations for toxics, if applicable. A thermal discharge analysis was also completed to determine the appropriateness of temperature limits.

See Attachment D for model input / output data and supporting documentation.

WQM 7.0

WQM 7.0 was used to determine if ammonia-nitrogen, BOD5, or dissolved oxygen WQBELs are appropriate for the discharge at Outfall 001. A reach was created in WQM 7.0 from Outfall 001 to the mouth of Muddy Run at RMI 13.52 to accurately model in-stream conditions downstream of the discharge. The model indicates that there is minimal impact on the dissolved oxygen levels in the river; therefore, the length of the reach is appropriate.

**Table 5-4. WQM 7.0 Modeling Results**

| Parameter | Effluent Limit (mg/l) | | |
|---|---|---|---|
| | Average Monthly | Daily Maximum | Minimum |
| CBOD5 (1) | 100 | -- | -- |
| Ammonia-nitrogen (2) | 0.89 | 1.78 | -- |
| Dissolved Oxygen | -- | -- | 3 |

(1) Existing technology-based BOD5 limit developed using best professional judgment. Assuming all BOD is carbonaceous is conservative and provides a "worst case scenario."

(2) Taken from sampling performed for the renewal application.

The model output indicates that the discharge will not negatively impact the Susquehanna River.

Toxics Management Spreadsheet

TMS was used to determine if WQBELs are appropriate for toxics found in the discharge. The maximum discharge concentrations taken from sampling completed for the renewal application were used as inputs. The spreadsheet compares the input data to the most stringent criterion and recommends if any reporting requirements or limits are necessary.

**Table 5-5. TMS Modeling Results**

| Pollutants | Mass Limits | | Concentration Limits | | | Units | Governing WQBEL | WQBEL Basis |
|---|---|---|---|---|---|---|---|---|
| | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | | | |
| Total Thallium [1] | Report | Report | Report | Report | Report | µg/l | 99.5 | THH |

[1] TMS recommends reporting requirements for total thallium even though it was not detected in the effluent. The detection limit reported in the application is higher than the Chapter 93 criteria and the recommended target quantitation limit ("QL"). Accordingly, DEP must assume the pollutant is present at the reported detection limit. The draft permit's cover letter will explain why total thallium has proposed reporting requirement and will inform the permittee that they may retest to achieve the recommended target QL to prove thallium is not present in the effluent.

Thermal Discharge Analysis

Flow data was entered in the Thermal Discharge Analysis Spreadsheet to determine if thermal limits are appropriate for Outfall 001. The permittee does not have an intake on the West Branch Susquehanna River; therefore, a Case 2 analysis is appropriate. The spreadsheet indicates that a thermal limit is not necessary to protect the receiving surface water. The maximum temperature recorded in the renewal application is 83 °F. Since the maximum temperature at Outfall 001 does not approach the 110 °F public safety threshold, no thermal limits are recommended.

#### *5.2.2 Outfall 002*

DEP does not have an established procedure for modeling stormwater discharges. Accordingly, no water quality-based limitations are proposed.

## *5.3 Best Professional Judgment*

#### *5.3.1 Outfall 001*

BOD5 and TSS

After applying the TBELs and determining if there are more stringent WQBELs, the next step is to apply best professional judgment, if applicable.

In 1988 a memo (Attachment E) was developed by DEP to substantiate water quality-based concentration limits for BOD5 and TSS in industrial discharges. The memo states that TSS and BOD5 concentrations in excess of 200 mg/l from industrial discharges to large bodies of water negatively impact the aesthetics of the surface water and may cause localized depressed levels of dissolved oxygen. Accordingly, this permit has historically contained IMAX limits of 200 mg/l for BOD5 and TSS. Average monthly and maximum daily limits of 100 and 150 mg/l, respectively, were established based on multipliers of 1.5 and 2. The concentration limits and associated mass limits are as follows:

**Table 5-6. BPJ for BOD5 and TSS**

| Parameter | Mass Units (lbs/day) | | Concentrations (mg/l) | | |
|---|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Average Monthly | Maximum Daily | Instant. Maximum |
| BOD5 | 190 | 285 | 100 | 150 | 200 |
| TSS | 190 | 285 | 100 | 150 | 200 |

Since these resulting mass limits are more stringent than the TBELs based on 40 CFR Part 430, Subpart J in Section 5.1 above, they are the controlling limits and will be established in the permit.

Total Dissolved Solids

Total Dissolved Solids ("TDS") and its major constituents including sulfate, chloride, and bromide have emerged as pollutants of concern in several of Pennsylvania's major watersheds. Based on this, and under the authority of 25 PA Code § 92a.61, DEP has implemented increased monitoring for these pollutants. For facilities with discharges in excess of 0.1 MGD DEP generally establishes monitoring requirements for TDS, sulfate, chloride, and bromide when concentrations of TDS exceed 1,000 mg/l or the net loading exceeds 20,000 lbs/day. TDS sample results taken over the

last five years indicate a maximum TDS dishcarge concentration of 1,570 mg/l. Consequently, DEP recommends continued reporting requirements for TDS, sulfate, chloride, and bromide.

#### *5.3.2 Outfall 002*

Since this permit's most recent renewal, the PAG-03 has been reissued with increased sampling requirements. The discharge remains classified under Appendix E of the PAG-03. To ensure this individual permit is at least as stringent as the PAG-03's requirements, Outfall 002's reporting requirements are proposed to be as follows:

| Pollutant | Monitoring Requirements | | Benchmark Values |
|---|---|---|---|
| | Minimum Measurement Frequency | Sample Type | |
| Total Nitrogen (mg/L) | 1 / 6 months | Calculation | XXX |
| Total Phosphorus (mg/L) | 1 / 6 months | Grab | XXX |
| pH (S.U.) | 1 / 6 months | Grab | 9.0 |
| Chemical Oxygen Demand (COD) (mg/L) | 1 / 6 months | Grab | 120 |
| Total Suspended Solids (TSS) (mg/L) | 1 / 6 months | Grab | 100 |

## *5.4 Chesapeake Bay*

#### *5.4.1 Outfall 001*

The Phase 3 Watershed Implementation Plan ("WIP") Wastewater Supplement, Table 7-5, identifies Gold Bond Building Products, LLC as one of the 23 significant industrial wastewater facilities in Pennsylvania, and establishes final cap loads for total nitrogen and total phosphorus of 2,758 lbs/yr and 132 lbs/yr, respectively.

No changes are proposed to the existing Chesapeake Bay requirements.

#### *5.4.2 Outfall 002*

It is not anticipated that the storm water will have a net increase in total nitrogen or phosphorus. Accordingly, no nutrient monitoring is proposed for Outfall 002.

## 6.0 Effluent Limitations and Monitoring Requirements

### *6.1 Existing Effluent Limits*

The existing effluent limitations and monitoring requirements are as follows:

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

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) | | Concentrations (mg/L) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (S.U.) | XXX | XXX | 6.0 | XXX | XXX | 9.0 | 1/day | Grab |
| Biochemical Oxygen Demand (BOD5) | 190 | 285 | XXX | 100.0 | 150.0 | 200 | 1/week | 8-Hr Composite |
| Total Suspended Solids | 190 | 285 | XXX | 100.0 | 150.0 | 200 | 1/week | 8-Hr Composite |
| Total Dissolved Solids | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Sulfate, Total | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Chloride | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Bromide | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |

Compliance Sampling Location: Outfall 001

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

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs) | | Concentrations (mg/L) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Monthly | Annual | Monthly | Monthly Average | Maximum | Instant. Maximum | | |
| Ammonia--N | Report | Report | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Kjeldahl--N | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Total Nitrogen | Report | Report | XXX | Report | XXX | XXX | 1/month | Calculation |
| Total Phosphorus | Report | Report | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Net Total Nitrogen | Report | 2,758 | XXX | XXX | XXX | XXX | 1/month | Calculation |
| Net Total Phosphorus | Report | 132 | XXX | XXX | XXX | XXX | 1/month | Calculation |

Compliance Sampling Location: Outfall 001

**Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date**.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) | | Concentrations (mg/L) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| pH (S.U.) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Chemical Oxygen Demand (COD) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Suspended Solids | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |

Compliance Sampling Location: Outfall 002

## *6.2 Proposed Effluent Limits*

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

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

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) | | Concentrations (mg/L) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |
| Biochemical Oxygen Demand (BOD5) | 190 | 285 | XXX | 100.0 | 150.0 | 200 | 1/week | 8-Hr Composite |
| Total Suspended Solids | 190 | 285 | XXX | 100.0 | 150.0 | 200 | 1/week | 8-Hr Composite |
| Total Dissolved Solids | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Ammonia-Nitrogen | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Total Phosphorus | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Sulfate, Total | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Thallium, Total (ug/L) | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Chloride | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |
| Bromide | XXX | Report | XXX | XXX | Report | XXX | 1/month | 8-Hr Composite |

Compliance Sampling Location: Outfall 001

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

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) | | Concentrations (mg/L) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Monthly | Annual | Monthly | Monthly Average | Maximum | Instant. Maximum | | |
| Ammonia--N | Report | Report | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Kjeldahl--N | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Total Nitrogen | Report | Report | XXX | Report | XXX | XXX | 1/month | Calculation |
| Total Phosphorus | Report | Report | XXX | Report | XXX | XXX | 2/week | 8-Hr Composite |
| Net Total Nitrogen | XXX | 2758 | XXX | XXX | XXX | XXX | 1/year | Calculation |
| Net Total Phosphorus | XXX | 132 | XXX | XXX | XXX | XXX | 1/year | Calculation |

Compliance Sampling Location: Outfall 001

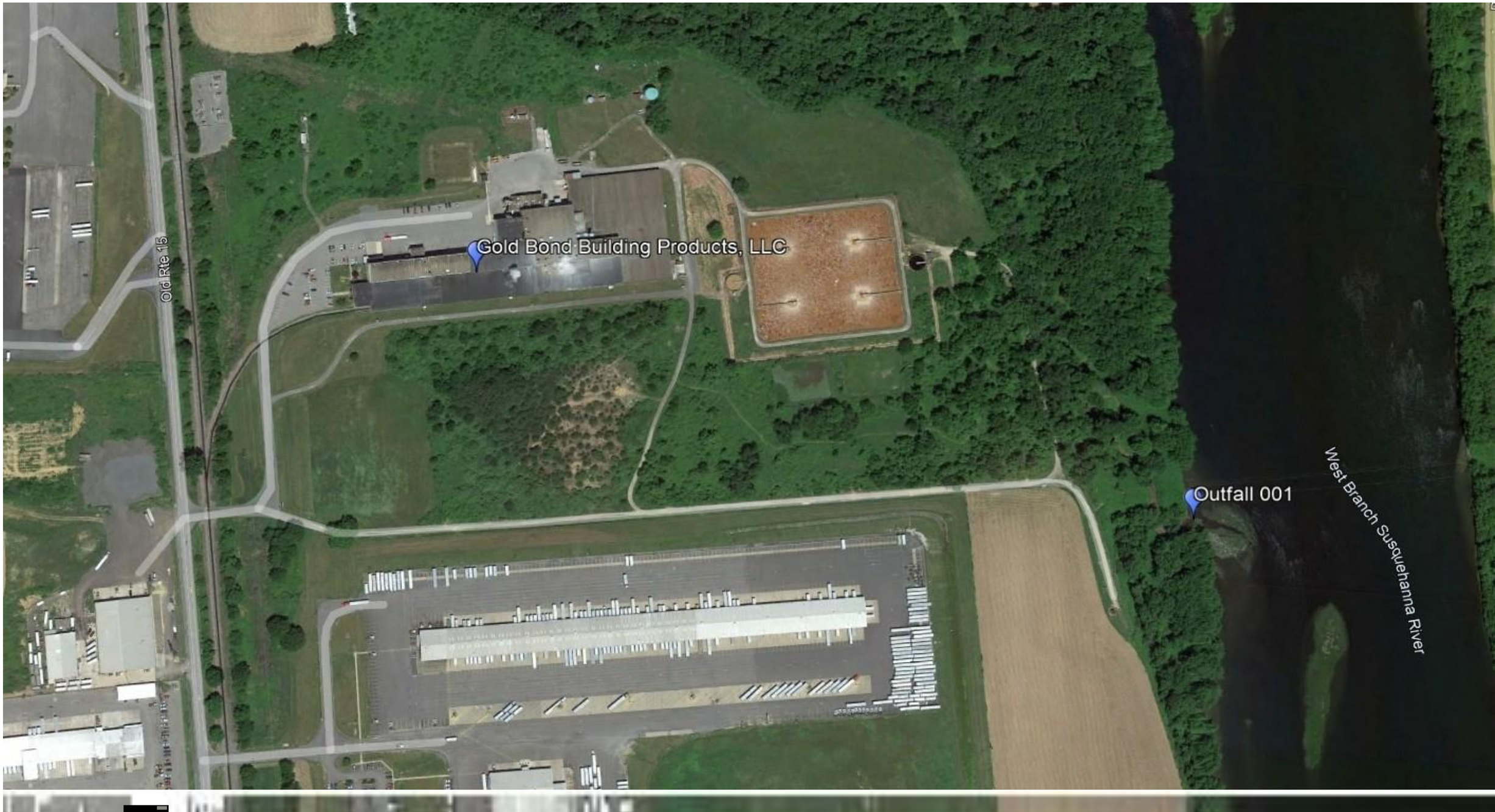
**Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.**

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) | | Concentrations (mg/L) | | | | Minimum Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| pH (S.U.) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Chemical Oxygen Demand (COD) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Suspended Solids | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Nitrogen | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Calculation |
| Total Phosphorus | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |

Compliance Sampling Location: Outfall 002

# Attachment A

# Facility and Discharge Location Map


Gold Bond Building Products, LLC
Old Rte 15
Outfall 001
West Branch Susquehanna River

# Attachment B

# Q7-0 Calculations and Supporting Documentation

USGS
science for a changing world

Prepared in cooperation with the Pennsylvania Department of Environmental Protection

# Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania

Open-File Report 2011-1070

U.S. Department of the Interior
U.S. Geological Survey

**Table 1.** List of U.S. Geological Survey streamgage locations in and near Pennsylvania with updated streamflow statistics.—Continued

[Latitude and Longitude in decimal degrees; $mi^2$, square miles]

| Streamgage number | Streamgage name | Latitude | Longitude | Drainage area ($mi^2$) | Regulated[1] |
|---|---|---|---|---|---|
| 01541303 | West Branch Susquehanna River at Hyde, Pa. | 41.005 | -78.457 | 474 | Y |
| 01541308 | Bradley Run near Ashville, Pa. | 40.509 | -78.584 | 6.77 | N |
| 01541500 | Clearfield Creek at Dimeling, Pa. | 40.972 | -78.406 | 371 | Y |
| 01542000 | Moshannon Creek at Osceola Mills, Pa. | 40.850 | -78.268 | 68.8 | N |
| 01542500 | WB Susquehanna River at Karthaus, Pa. | 41.118 | -78.109 | 1,462 | Y |
| 01542810 | Waldy Run near Emporium, Pa. | 41.579 | -78.293 | 5.24 | N |
| 01543000 | Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa. | 41.413 | -78.197 | 272 | N |
| 01543500 | Sinnemahoning Creek at Sinnemahoning, Pa. | 41.317 | -78.103 | 685 | N |
| 01544000 | First Fork Sinnemahoning Creek near Sinnemahoning, Pa. | 41.402 | -78.024 | 245 | Y |
| 01544500 | Kettle Creek at Cross Fork, Pa. | 41.476 | -77.826 | 136 | N |
| 01545000 | Kettle Creek near Westport, Pa. | 41.320 | -77.874 | 233 | Y |
| 01545500 | West Branch Susquehanna River at Renovo, Pa. | 41.325 | -77.751 | 2,975 | Y |
| 01545600 | Young Womans Creek near Renovo, Pa. | 41.390 | -77.691 | 46.2 | N |
| 01546000 | North Bald Eagle Creek at Milesburg, Pa. | 40.942 | -77.794 | 119 | N |
| 01546400 | Spring Creek at Houserville, Pa. | 40.834 | -77.828 | 58.5 | N |
| 01546500 | Spring Creek near Axemann, Pa. | 40.890 | -77.794 | 87.2 | N |
| 01547100 | Spring Creek at Milesburg, Pa. | 40.932 | -77.786 | 142 | N |
| 01547200 | Bald Eagle Creek below Spring Creek at Milesburg, Pa. | 40.943 | -77.786 | 265 | N |
| 01547500 | Bald Eagle Creek at Blanchard, Pa. | 41.052 | -77.604 | 339 | Y |
| 01547700 | Marsh Creek at Blanchard, Pa. | 41.060 | -77.606 | 44.1 | N |
| 01547800 | South Fork Beech Creek near Snow Shoe, Pa. | 41.024 | -77.904 | 12.2 | N |
| 01547950 | Beech Creek at Monument, Pa. | 41.112 | -77.702 | 152 | N |
| 01548005 | Bald Eagle Creek near Beech Creek Station, Pa. | 41.081 | -77.549 | 562 | Y |
| 01548500 | Pine Creek at Cedar Run, Pa. | 41.522 | -77.447 | 604 | N |
| 01549000 | Pine Creek near Waterville, Pa. | 41.313 | -77.379 | 750 | N |
| 01549500 | Blockhouse Creek near English Center, Pa. | 41.474 | -77.231 | 37.7 | N |
| 01549700 | Pine Creek below Little Pine Creek near Waterville, Pa. | 41.274 | -77.324 | 944 | Y |
| 01550000 | Lycoming Creek near Trout Run, Pa. | 41.418 | -77.033 | 173 | N |
| 01551500 | WB Susquehanna River at Williamsport, Pa. | 41.236 | -76.997 | 5,682 | Y |
| 01552000 | Loyalsock Creek at Loyalsockville, Pa. | 41.325 | -76.912 | 435 | N |
| 01552500 | Muncy Creek near Sonestown, Pa. | 41.357 | -76.535 | 23.8 | N |
| 01553130 | Sand Spring Run near White Deer, Pa. | 41.059 | -77.077 | 4.93 | N |
| 01553500 | West Branch Susquehanna River at Lewisburg, Pa. | 40.968 | -76.876 | 6,847 | Y |
| 01553700 | Chillisquaque Creek at Washingtonville, Pa. | 41.062 | -76.680 | 51.3 | N |
| 01554000 | Susquehanna River at Sunbury, Pa. | 40.835 | -76.827 | 18,300 | Y |
| 01554500 | Shamokin Creek near Shamokin, Pa. | 40.810 | -76.584 | 54.2 | N |
| 01555000 | Penns Creek at Penns Creek, Pa. | 40.867 | -77.048 | 301 | N |
| 01555500 | East Mahantango Creek near Dalmatia, Pa. | 40.611 | -76.912 | 162 | N |
| 01556000 | Frankstown Branch Juniata River at Williamsburg, Pa. | 40.463 | -78.200 | 291 | N |
| 01557500 | Bald Eagle Creek at Tyrone, Pa. | 40.684 | -78.234 | 44.1 | N |
| 01558000 | Little Juniata River at Spruce Creek, Pa. | 40.613 | -78.141 | 220 | N |
| 01559000 | Juniata River at Huntingdon, Pa. | 40.485 | -78.019 | 816 | LF |
| 01559500 | Standing Stone Creek near Huntingdon, Pa. | 40.524 | -77.971 | 128 | N |
| 01559700 | Sulphur Springs Creek near Manns Choice, Pa. | 39.978 | -78.619 | 5.28 | N |
| 01560000 | Dunning Creek at Belden, Pa. | 40.072 | -78.493 | 172 | N |

DFLOW Results

All available data from Apr 1, 1991 through Mar 31, 2021 are included in analysis.

| Gage | Period | Days in Record | Zero/Missing | 1B3 | Percentile | Excur per 3 yr | 1Q10 | Percentile | Excur per 3 yr | 1Qy Type | xQy | Percentile | Harmonic | Percentile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01553500 - West Branch Susquehanna River at Lewisburg, PA | 1990/04/01 - 2021/04/01 | 11,323 | 0/0 | 7.29E+02 | 0.09% | 0.97 | 7.31E+02 | 0.11% | 0.87 | 1Q11 | 6.36E+02 | 0.00% | 4.24E+03 | 31.46% |
| **Gage** | **Period** | **Days in Record** | **Zero/Missing** | **1B3** | **Percentile** | **Excur per 3 yr** | **7Q10** | **Percentile** | **Excur per 3 yr** | **7Qy Type** | **xQy** | **Percentile** | **Harmonic** | **Percentile** |
| 01553500 - West Branch Susquehanna River at Lewisburg, PA | 1990/04/01 - 2021/04/01 | 11,323 | 0/0 | 7.29E+02 | 0.09% | 0.97 | 7.67E+02 | 0.20% | 1.35 | 7Q11 | 6.93E+02 | 0.02% | 4.24E+03 | 31.46% |
| **Gage** | **Period** | **Days in Record** | **Zero/Missing** | **1B3** | **Percentile** | **Excur per 3 yr** | **30Q10** | **Percentile** | **Excur per 3 yr** | **30Qy Type** | **xQy** | **Percentile** | **Harmonic** | **Percentile** |
| 01553500 - West Branch Susquehanna River at Lewisburg, PA | 1990/04/01 - 2021/04/01 | 11,323 | 0/0 | 7.29E+02 | 0.09% | 0.97 | 9.02E+02 | 1.11% | 3.29 | 30Q19 | 7.27E+02 | 0.09% | 4.24E+03 | 31.46% |

## Low-Flow ($Q_{7-10}$) Calculation

Facility: **Gold Bond Building Products, LLC**
NPDES Permit No. **PA0008591**

| Gage Information | | Outfall Information | |
|---|---|---|---|
| Drainage Area | **6847** mi² | Drainage Area: | **6650** mi² |
| $Q_{7-10}$: | **767** cfs | $Q_{7-10}$: | **745** cfs |
| LFY: | **0.112** cfsm | | |

**Downstream Locations**

| | | | |
|---|---|---|---|
| RMI: | **13.52** | RMI: | |
| Drainage Area: | **6660** mi² | Drainage Area: | mi² |
| $Q_{7-10}$: | **746.1** cfs | $Q_{7-10}$: | cfs |
| RMI: | | RMI: | |
| Drainage Area: | mi² | Drainage Area: | mi² |
| $Q_{7-10}$: | c s | $Q_{7-10}$: | cfs |
| RMI: | | RMI: | |
| Drainage Area: | mi² | Drainage Area: | mi² |
| $Q_{7-10}$: | c s | $Q_{7-10}$: | cfs |
| RMI: | | RMI: | |
| Drainage Area: | mi² | Drainage Area: | mi² |
| $Q_{7-10}$: | c s | $Q_{7-10}$: | cfs |

# Attachment C

# ELG Calculations

430.102(a) BPT Noncorrugating medium finish subdivision

Production (thousand lbs/day) = 734.2

| Pollutant | pounds per 1,000 lb of product | | | |
|---|---|---|---|---|
| | Maximum Daily | Calculated MDL | Average Monthly | Calculated AML |
| BOD5 | 3.0 | 2203 | 1.5 | 1101 |
| TSS | 5.0 | 3671 | 2.5 | 1836 |
| pH | Within range of 6.0 to 9.0 at all times | | | |

430.103(a) BCT Noncorrugating medium finish subdivision

Production (thousand lbs/day) = 734.2

| Pollutant | pounds per 1,000 lb of product | | | |
|---|---|---|---|---|
| | Maximum Daily | Calculated MDL | Average Monthly | Calculated AML |
| BOD5 | 3.0 | 2203 | 1.5 | 1101 |
| TSS | 5.0 | 3671 | 2.5 | 1836 |
| pH | Within range of 6.0 to 9.0 at all times | | | |

# Attachment D

# Model Input / Output

# Input Data WQM 7.0

| SWP Basin | Stream Code | Stream Name | RMI | Elevation (ft) | Drainage Area (sq mi) | Slope (ft/ft) | PWS Withdrawal (mgd) | Apply FC |
|---|---|---|---|---|---|---|---|---|
| 10D | 18668 | WEST BRANCH SUSQUEHANNA RI | **14.030** | 443.00 | 6650.00 | 0.00000 | 0.00 | ☑ |

**Stream Data**

| Design Cond. | LFY (cfsm) | Trib Flow (cfs) | Stream Flow (cfs) | Rch Trav Time (days) | Rch Velocity (fps) | WD Ratio | Rch Width (ft) | Rch Depth (ft) | Tributary Temp (°C) | Tributary pH | Stream Temp (°C) | Stream pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q7-10** | 0.112 | 0.00 | 0.00 | 0.000 | 0.000 | 0.0 | 0.00 | 0.00 | 25.00 | 7.00 | 0.00 | 0.00 |
| **Q1-10** | | 0.00 | 0.00 | 0.000 | 0.000 | | | | | | | |
| **Q30-10** | | 0.00 | 0.00 | 0.000 | 0.000 | | | | | | | |

**Discharge Data**

| Name | Permit Number | Existing Disc Flow (mgd) | Permitted Disc Flow (mgd) | Design Disc Flow (mgd) | Reserve Factor | Disc Temp (°C) | Disc pH |
|---|---|---|---|---|---|---|---|
| NGC | PA0008591 | 0.2310 | 0.2310 | 0.2310 | 0.000 | 25.00 | 7.00 |

**Parameter Data**

| Parameter Name | Disc Conc (mg/L) | Trib Conc (mg/L) | Stream Conc (mg/L) | Fate Coef (1/days) |
|---|---|---|---|---|
| CBOD5 | 100.00 | 2.00 | 0.00 | 6.00 |
| Dissolved Oxygen | 3.00 | 8.24 | 0.00 | 0.00 |
| NH3-N | 0.89 | 0.00 | 0.00 | 0.70 |

# Input Data WQM 7.0

| SWP Basin | Stream Code | Stream Name | RMI | Elevation (ft) | Drainage Area (sq mi) | Slope (ft/ft) | PWS Withdrawal (mgd) | Apply FC |
|---|---|---|---|---|---|---|---|---|
| 10D | 18668 | WEST BRANCH SUSQUEHANNA RI | **13.520** | 442.00 | 6660.00 | 0.00000 | 0.00 | ☑ |

**Stream Data**

| Design Cond. | LFY (cfsm) | Trib Flow (cfs) | Stream Flow (cfs) | Rch Trav Time (days) | Rch Velocity (fps) | WD Ratio | Rch Width (ft) | Rch Depth (ft) | Tributary Temp (°C) | Tributary pH | Stream Temp (°C) | Stream pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q7-10** | 0.112 | 0.00 | 0.00 | 0.000 | 0.000 | 0.0 | 0.00 | 0.00 | 25.00 | 7.00 | 0.00 | 0.00 |
| **Q1-10** | | 0.00 | 0.00 | 0.000 | 0.000 | | | | | | | |
| **Q30-10** | | 0.00 | 0.00 | 0.000 | 0.000 | | | | | | | |

**Discharge Data**

| Name | Permit Number | Existing Disc Flow (mgd) | Permitted Disc Flow (mgd) | Design Disc Flow (mgd) | Reserve Factor | Disc Temp (°C) | Disc pH |
|---|---|---|---|---|---|---|---|
| | | 0.0000 | 0.0000 | 0.0000 | 0.000 | 25.00 | 7.00 |

**Parameter Data**

| Parameter Name | Disc Conc (mg/L) | Trib Conc (mg/L) | Stream Conc (mg/L) | Fate Coef (1/days) |
|---|---|---|---|---|
| CBOD5 | 25.00 | 2.00 | 0.00 | 1.50 |
| Dissolved Oxygen | 3.00 | 8.24 | 0.00 | 0.00 |
| NH3-N | 25.00 | 0.00 | 0.00 | 0.70 |

# WQM 7.0 Hydrodynamic Outputs

| SWP Basin | Stream Code | Stream Name |
|---|---|---|
| 10D | 18668 | WEST BRANCH SUSQUEHANNA RIVER |

| RMI | Stream Flow (cfs) | PWS With (cfs) | Net Stream Flow (cfs) | Disc Analysis Flow (cfs) | Reach Slope (ft/ft) | Depth (ft) | Width (ft) | W/D Ratio | Velocity (fps) | Reach Trav Time (days) | Analysis Temp (ºC) | Analysis pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q7-10 Flow** | | | | | | | | | | | | |
| 14.030 | 744.80 | 0.00 | 744.80 | .3574 | 0.00037 | 1.163 | 568.19 | 488.45 | 1.13 | 0.028 | 25.00 | 7.00 |
| **Q1-10 Flow** | | | | | | | | | | | | |
| 14.030 | 707.56 | 0.00 | 707.56 | .3574 | 0.00037 | NA | NA | NA | 1.10 | 0.028 | 25.00 | 7.00 |
| **Q30-10 Flow** | | | | | | | | | | | | |
| 14.030 | 878.86 | 0.00 | 878.86 | .3574 | 0.00037 | NA | NA | NA | 1.24 | 0.025 | 25.00 | 7.00 |

# WQM 7.0 Modeling Specifications

| | | | |
|---|---|---|---|
| Parameters | Both | Use Inputted Q1-10 and Q30-10 Flows | ☑ |
| WLA Method | EMPR | Use Inputted W/D Ratio | ☐ |
| Q1-10/Q7-10 Ratio | 0.95 | Use Inputted Reach Travel Times | ☐ |
| Q30-10/Q7-10 Ratio | 1.18 | Temperature Adjust Kr | ☑ |
| D.O. Saturation | 90.00% | Use Balanced Technology | ☑ |
| D.O. Goal | 5 | | |

# WQM 7.0 Wasteload Allocations

| SWP Basin | Stream Code | Stream Name |
|---|---|---|
| 10D | 18668 | WEST BRANCH SUSQUEHANNA RIVER |

## NH3-N Acute Allocations

| RMI | Discharge Name | Baseline Criterion (mg/L) | Baseline WLA (mg/L) | Multiple Criterion (mg/L) | Multiple WLA (mg/L) | Critical Reach | Percent Reduction |
|---|---|---|---|---|---|---|---|
| 14.030 | NGC | 11.07 | 1.78 | 11.07 | 1.78 | 0 | 0 |

## NH3-N Chronic Allocations

| RMI | Discharge Name | Baseline Criterion (mg/L) | Baseline WLA (mg/L) | Multiple Criterion (mg/L) | Multiple WLA (mg/L) | Critical Reach | Percent Reduction |
|---|---|---|---|---|---|---|---|
| 14.030 | NGC | 1.37 | .89 | 1.37 | .89 | 0 | 0 |

## Dissolved Oxygen Allocations

| RMI | Discharge Name | CBOD5 | | NH3-N | | Dissolved Oxygen | | Critical Reach | Percent Reduction |
|---|---|---|---|---|---|---|---|---|---|
| | | Baseline (mg/L) | Multiple (mg/L) | Baseline (mg/L) | Multiple (mg/L) | Baseline (mg/L) | Multiple (mg/L) | | |
| 14.03 | NGC | 100 | 100 | .89 | .89 | 3 | 3 | 0 | 0 |

# WQM 7.0 D.O.Simulation

| SWP Basin | Stream Code | Stream Name |
|---|---|---|
| 10D | 18668 | WEST BRANCH SUSQUEHANNA RIVER |

| RMI | Total Discharge Flow (mgd) | Analysis Temperature (ºC) | Analysis pH |
|---|---|---|---|
| 14.030 | 0.231 | 25.000 | 7.000 |
| **Reach Width (ft)** | **Reach Depth (ft)** | **Reach WDRatio** | **Reach Velocity (fps)** |
| 568.185 | 1.163 | 488.446 | 1.127 |
| **Reach CBOD5 (mg/L)** | **Reach Kc (1/days)** | **Reach NH3-N (mg/L)** | **Reach Kn (1/days)** |
| 2.05 | 0.127 | 0.00 | 1.029 |
| **Reach DO (mg/L)** | **Reach Kr (1/days)** | **Kr Equation** | **Reach DO Goal (mg/L)** |
| 8.240 | 2.199 | Tsivoglou | 5 |
| **Reach Travel Time (days)** | | | |
| 0.028 | | | |

**Subreach Results**

| TravTime (days) | CBOD5 (mg/L) | NH3-N (mg/L) | D.O. (mg/L) |
|---|---|---|---|
| 0.003 | 2.05 | 0.00 | 7.54 |
| 0.006 | 2.05 | 0.00 | 7.54 |
| 0.008 | 2.04 | 0.00 | 7.54 |
| 0.011 | 2.04 | 0.00 | 7.54 |
| 0.014 | 2.04 | 0.00 | 7.54 |
| 0.017 | 2.04 | 0.00 | 7.54 |
| 0.019 | 2.04 | 0.00 | 7.54 |
| 0.022 | 2.04 | 0.00 | 7.54 |
| 0.025 | 2.04 | 0.00 | 7.54 |
| 0.028 | 2.04 | 0.00 | 7.54 |

# WQM 7.0 Effluent Limits

| SWP Basin | Stream Code | Stream Name |
|---|---|---|
| 10D | 18668 | WEST BRANCH SUSQUEHANNA RIVER |

| RMI | Name | Permit Number | Disc Flow (mgd) | Parameter | Effl. Limit 30-day Ave. (mg/L) | Effl. Limit Maximum (mg/L) | Effl. Limit Minimum (mg/L) |
|---|---|---|---|---|---|---|---|
| 14.030 | NGC | PA0008591 | 0.231 | CBOD5 | 100 | | |
| | | | | NH3-N | 0.89 | 1.78 | |
| | | | | Dissolved Oxygen | | | 3 |

# Discharge Information

Instructions | Discharge | Stream

Facility: **Gold Bond Building Products, LLC** NPDES Permit No.: **PA0008591** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **IW Process Effluent with ELG**

| Discharge Characteristics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | $Q_{7-10}$ | $Q_h$ |
| 0.231 | 285 | 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 | | 1570 | | | | | | | | | |
| | Chloride (PWS) | mg/L | | 550 | | | | | | | | | |
| | Bromide | mg/L | | 3.89 | | | | | | | | | |
| | Sulfate (PWS) | mg/L | | 301 | | | | | | | | | |
| | Fluoride (PWS) | mg/L | | | | | | | | | | | |
| Group 2 | Total Aluminum | µg/L | | 89 | | | | | | | | | |
| | Total Antimony | µg/L | < | 20 | | | | | | | | | |
| | Total Arsenic | µg/L | < | 10 | | | | | | | | | |
| | Total Barium | µg/L | | 67 | | | | | | | | | |
| | Total Beryllium | µg/L | < | 1 | | | | | | | | | |
| | Total Boron | µg/L | | 10400 | | | | | | | | | |
| | Total Cadmium | µg/L | < | 5 | | | | | | | | | |
| | Total Chromium (III) | µg/L | < | 2 | | | | | | | | | |
| | Hexavalent Chromium | µg/L | | 6.53 | | | | | | | | | |
| | Total Cobalt | µg/L | | 3 | | | | | | | | | |
| | Total Copper | µg/L | | 3 | | | | | | | | | |
| | Free Cyanide | µg/L | | | | | | | | | | | |
| | Total Cyanide | µg/L | < | 3 | | | | | | | | | |
| | Dissolved Iron | µg/L | | 102 | | | | | | | | | |
| | Total Iron | µg/L | | 118 | | | | | | | | | |
| | Total Lead | µg/L | < | 5 | | | | | | | | | |
| | Total Manganese | µg/L | | 127 | | | | | | | | | |
| | Total Mercury | µg/L | < | 0.1 | | | | | | | | | |
| | Total Nickel | µg/L | | 11 | | | | | | | | | |
| | Total Phenols (Phenolics) (PWS) | µg/L | | | | | | | | | | | |
| | Total Selenium | µg/L | < | 20 | | | | | | | | | |
| | Total Silver | µg/L | < | 5 | | | | | | | | | |
| | Total Thallium | µg/L | < | 10 | | | | | | | | | |
| | Total Zinc | µg/L | | 12 | | | | | | | | | |
| | Total Molybdenum | µg/L | | 150 | | | | | | | | | |
| | 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 | < | | | | | | | | | | |
| | 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 | < | | | | | | | | | | |
| | Diethyl Phthalate | µg/L | < | | | | | | | | | | |
| | Dimethyl Phthalate | µg/L | < | | | | | | | | | | |
| | Di-n-Butyl Phthalate | µg/L | < | | | | | | | | | | |
| | 2,4-Dinitrotoluene | µg/L | < | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | < | 0.01 | | | | | | | | | |
| | alpha-BHC | µg/L | < | 0.01 | | | | | | | | | |
| | beta-BHC | µg/L | < | 0.02 | | | | | | | | | |
| | gamma-BHC | µg/L | < | 0.01 | | | | | | | | | |
| | delta BHC | µg/L | < | 0.01 | | | | | | | | | |
| | Chlordane | µg/L | < | 0.5 | | | | | | | | | |
| | 4,4-DDT | µg/L | < | 0.01 | | | | | | | | | |
| | 4,4-DDE | µg/L | < | 0.01 | | | | | | | | | |
| | 4,4-DDD | µg/L | < | 0.01 | | | | | | | | | |
| | Dieldrin | µg/L | < | 0.01 | | | | | | | | | |
| | alpha-Endosulfan | µg/L | < | 0.02 | | | | | | | | | |
| | beta-Endosulfan | µg/L | < | 0.01 | | | | | | | | | |
| | Endosulfan Sulfate | µg/L | < | 0.01 | | | | | | | | | |
| | Endrin | µg/L | < | 0.01 | | | | | | | | | |
| | Endrin Aldehyde | µg/L | < | 0.02 | | | | | | | | | |
| | Heptachlor | µg/L | < | 0.01 | | | | | | | | | |
| | Heptachlor Epoxide | µg/L | < | 0.01 | | | | | | | | | |
| | PCB-1016 | µg/L | < | 0.05 | | | | | | | | | |
| | PCB-1221 | µg/L | < | 0.05 | | | | | | | | | |
| | PCB-1232 | µg/L | < | 0.05 | | | | | | | | | |
| | PCB-1242 | µg/L | < | 0.05 | | | | | | | | | |
| | PCB-1248 | µg/L | < | 0.05 | | | | | | | | | |
| | PCB-1254 | µg/L | < | 0.05 | | | | | | | | | |
| | PCB-1260 | µg/L | < | 0.05 | | | | | | | | | |
| | PCBs, Total | µg/L | < | 0.05 | | | | | | | | | |
| | Toxaphene | µg/L | < | 0.5 | | | | | | | | | |
| | 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 | < | | | | | | | | | | |
| | Total Uranium | µg/L | < | | | | | | | | | | |
| | Osmotic Pressure | mOs/kg | | | | | | | | | | | |
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# Stream / Surface Water Information

**Gold Bond Building Products, LLC, NPDES Permit No. PA0008591, Outfall 001**

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **West Branch Susquehanna River**

No. Reaches to Model: **1**

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

| Location | Stream Code* | RMI* | Elevation (ft)* | DA (mi²)* | Slope (ft/ft) | PWS Withdrawal (MGD) | Apply Fish Criteria* |
|---|---|---|---|---|---|---|---|
| Point of Discharge | 018668 | 14.03 | 443 | 6650 | | | Yes |
| End of Reach 1 | 018668 | 13.52 | 442 | 6660 | | | Yes |

***Q*** *7-10*

| Location | RMI | LFY (cfs/mi²)* | 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 | 14.03 | 0.112 | | | | | | | | | | 100 | 7 | | |
| End of Reach 1 | 13.52 | 0.112 | | | | | | | | | | | | | |

***Q*** *h*

| Location | RMI | LFY (cfs/mi²) | 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 | 14.03 | | | | | | | | | | | | | | |
| End of Reach 1 | 13.52 | | | | | | | | | | | | | | |

# Model Results

**Gold Bond Building Products, LLC, NPDES Permit No. PA0008591, Outfall 001**

Instructions | *Results* | RETURN TO INPUTS | SAVE AS PDF | PRINT | (●) All ( ) Inputs ( ) Results ( ) Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.029 Analysis Hardness (mg/l): 103.05 Analysis pH: 7.00

| 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 | |
| Total Aluminum | 0 | 0 | | 0 | 750 | 750 | 45,522 | |
| Total Antimony | 0 | 0 | | 0 | 1,100 | 1,100 | 66,765 | |
| Total Arsenic | 0 | 0 | | 0 | 340 | 340 | 20,636 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 21,000 | 21,000 | 1,274,606 | |
| Total Boron | 0 | 0 | | 0 | 8,100 | 8,100 | 491,634 | |
| Total Cadmium | 0 | 0 | | 0 | 2.073 | 2.2 | 133 | Chem Translator of 0.943 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 583.948 | 1,848 | 112,161 | Chem Translator of 0.316 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 16 | 16.3 | 989 | Chem Translator of 0.982 applied |
| Total Cobalt | 0 | 0 | | 0 | 95 | 95.0 | 5,766 | |
| Total Copper | 0 | 0 | | 0 | 13.825 | 14.4 | 874 | 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 | 66.726 | 84.8 | 5,149 | Chem Translator of 0.787 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 1.400 | 1.65 | 100.0 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 480.282 | 481 | 29,209 | Chem Translator of 0.998 applied |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | 3.387 | 3.98 | 242 | Chem Translator of 0.85 applied |
| Total Thallium | 0 | 0 | | 0 | 65 | 65.0 | 3,945 | |
| Total Zinc | 0 | 0 | | 0 | 120.200 | 123 | 7,460 | Chem Translator of 0.978 applied |
| Aldrin | 0 | 0 | | 0 | 3 | 3.0 | 182 | |
| alpha-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |
| beta-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| gamma-BHC | 0 | 0 | | 0 | 0.95 | 0.95 | 57.7 | |
| Chlordane | 0 | 0 | | 0 | 2.4 | 2.4 | 146 | |
| 4,4-DDT | 0 | 0 | | 0 | 1.1 | 1.1 | 66.8 | |
| 4,4-DDE | 0 | 0 | | 0 | 1.1 | 1.1 | 66.8 | |
| 4,4-DDD | 0 | 0 | | 0 | 1.1 | 1.1 | 66.8 | |
| Dieldrin | 0 | 0 | | 0 | 0.24 | 0.24 | 14.6 | |
| alpha-Endosulfan | 0 | 0 | | 0 | 0.22 | 0.22 | 13.4 | |
| beta-Endosulfan | 0 | 0 | | 0 | 0.22 | 0.22 | 13.4 | |
| Endosulfan Sulfate | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Endrin | 0 | 0 | | 0 | 0.086 | 0.086 | 5.22 | |
| Endrin Aldehyde | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Heptachlor | 0 | 0 | | 0 | 0.52 | 0.52 | 31.6 | |
| Heptachlor Epoxide | 0 | 0 | | 0 | 0.5 | 0.5 | 30.3 | |
| PCBs, Total | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Toxaphene | 0 | 0 | | 0 | 0.73 | 0.73 | 44.3 | |

☑ ***CFC*** CCT (min): 720 PMF: 0.198 Analysis Hardness (mg/l): 100.45 Analysis pH: 7.00

| 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 | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 220 | 220 | 91,208 | |
| Total Arsenic | 0 | 0 | | 0 | 150 | 150 | 62,187 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 4,100 | 4,100 | 1,699,789 | |
| Total Boron | 0 | 0 | | 0 | 1,600 | 1,600 | 663,332 | |
| Total Cadmium | 0 | 0 | | 0 | 0.247 | 0.27 | 113 | Chem Translator of 0.909 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 74.385 | 86.5 | 35,859 | Chem Translator of 0.86 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 10 | 10.4 | 4,310 | Chem Translator of 0.962 applied |
| Total Cobalt | 0 | 0 | | 0 | 19 | 19.0 | 7,877 | |
| Total Copper | 0 | 0 | | 0 | 8.990 | 9.36 | 3,882 | 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 | 3,127,785 | WQC = 30 day average; PMF = 1 |
| Total Lead | 0 | 0 | | 0 | 2.529 | 3.2 | 1,327 | Chem Translator of 0.79 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 376 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 52.203 | 52.4 | 21,708 | Chem Translator of 0.997 applied |
| Total Selenium | 0 | 0 | | 0 | 4.600 | 4.99 | 2,068 | 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 | 5,390 | |
| Total Zinc | 0 | 0 | | 0 | 118.586 | 120 | 49,862 | Chem Translator of 0.986 applied |
| Aldrin | 0 | 0 | | 0 | 0.1 | 0.1 | 41.5 | |
| alpha-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |
| beta-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| gamma-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chlordane | 0 | 0 | | 0 | 0.0043 | 0.004 | 1.78 | |
| 4,4-DDT | 0 | 0 | | 0 | 0.001 | 0.001 | 0.41 | |
| 4,4-DDE | 0 | 0 | | 0 | 0.001 | 0.001 | 0.41 | |
| 4,4-DDD | 0 | 0 | | 0 | 0.001 | 0.001 | 0.41 | |
| Dieldrin | 0 | 0 | | 0 | 0.056 | 0.056 | 23.2 | |
| alpha-Endosulfan | 0 | 0 | | 0 | 0.056 | 0.056 | 23.2 | |
| beta-Endosulfan | 0 | 0 | | 0 | 0.056 | 0.056 | 23.2 | |
| Endosulfan Sulfate | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Endrin | 0 | 0 | | 0 | 0.036 | 0.036 | 14.9 | |
| Endrin Aldehyde | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Heptachlor | 0 | 0 | | 0 | 0.0038 | 0.004 | 1.58 | |
| Heptachlor Epoxide | 0 | 0 | | 0 | 0.0038 | 0.004 | 1.58 | |
| PCBs, Total | 0 | 0 | | 0 | 0.014 | 0.014 | 5.8 | |
| Toxaphene | 0 | 0 | | 0 | 0.0002 | 0.0002 | 0.083 | |

☑ ***THH*** CCT (min): 720 PMF: 0.198 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 | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 5.6 | 5.6 | 2,322 | |
| Total Arsenic | 0 | 0 | | 0 | 10 | 10.0 | 4,146 | |
| Total Barium | 0 | 0 | | 0 | 2,400 | 2,400 | 994,999 | |
| Total Boron | 0 | 0 | | 0 | 3,100 | 3,100 | 1,285,206 | |
| 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 | |
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 124,375 | |
| 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 | 414,583 | |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 20.7 | |
| Total Nickel | 0 | 0 | | 0 | 610 | 610 | 252,895 | |
| 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 | 99.5 | |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Aldrin | 0 | 0 | | 0 | N/A | N/A | N/A | |
| alpha-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| beta-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |
| gamma-BHC | 0 | 0 | | 0 | 4.2 | 4.2 | 1,741 | |
| Chlordane | 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 | |
| alpha-Endosulfan | 0 | 0 | | 0 | 20 | 20.0 | 8,292 | |
| beta-Endosulfan | 0 | 0 | | 0 | 20 | 20.0 | 8,292 | |
| Endosulfan Sulfate | 0 | 0 | | 0 | 20 | 20.0 | 8,292 | |
| Endrin | 0 | 0 | | 0 | 0.03 | 0.03 | 12.4 | |
| Endrin Aldehyde | 0 | 0 | | 0 | 1 | 1.0 | 415 | |
| Heptachlor | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Heptachlor Epoxide | 0 | 0 | | 0 | N/A | N/A | N/A | |
| PCBs, Total | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Toxaphene | 0 | 0 | | 0 | N/A | N/A | N/A | |

☑ ***CRL*** CCT (min): 720 PMF: 0.292 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 | |
| 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 | |
| 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 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 | |
| Aldrin | 0 | 0 | | 0 | 0.0000008 | 8.00E-07 | 0.002 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| alpha-BHC | 0 | 0 | | 0 | 0.0004 | 0.0004 | 0.79 | |
| beta-BHC | 0 | 0 | | 0 | 0.008 | 0.008 | 15.7 | |
| gamma-BHC | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Chlordane | 0 | 0 | | 0 | 0.0003 | 0.0003 | 0.59 | |
| 4,4-DDT | 0 | 0 | | 0 | 0.00003 | 0.00003 | 0.059 | |
| 4,4-DDE | 0 | 0 | | 0 | 0.00002 | 0.00002 | 0.039 | |
| 4,4-DDD | 0 | 0 | | 0 | 0.0001 | 0.0001 | 0.2 | |
| Dieldrin | 0 | 0 | | 0 | 0.000001 | 0.000001 | 0.002 | |
| alpha-Endosulfan | 0 | 0 | | 0 | N/A | N/A | N/A | |
| beta-Endosulfan | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Endosulfan Sulfate | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Endrin | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Endrin Aldehyde | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Heptachlor | 0 | 0 | | 0 | 0.000006 | 0.000006 | 0.012 | |
| Heptachlor Epoxide | 0 | 0 | | 0 | 0.00003 | 0.00003 | 0.059 | |
| PCBs, Total | 0 | 0 | | 0 | 0.000064 | 0.00006 | 0.13 | |
| Toxaphene | 0 | 0 | | 0 | 0.0007 | 0.0007 | 1.38 | |

☑ ***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 Thallium | Report | Report | Report | Report | Report | µg/L | 99.5 | THH | 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 |
|---|---|---|---|
| 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 |
| Total Aluminum | 29,178 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Antimony | 2,322 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Arsenic | 4,146 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Barium | 816,971 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Beryllium | N/A | N/A | No WQS |
| Total Boron | 315,117 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cadmium | 85.6 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Chromium (III) | 35,859 | µg/L | Discharge Conc < TQL |

| | | | |
|---|---|---|---|
| Hexavalent Chromium | 634 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cobalt | 3,696 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Copper | 560 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Cyanide | N/A | N/A | No WQS |
| Dissolved Iron | 124,375 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Iron | 3,127,785 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Lead | 1,327 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Manganese | 414,583 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Mercury | 20.7 | µg/L | Discharge Conc < TQL |
| Total Nickel | 18,722 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Selenium | 2,068 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Silver | 155 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Zinc | 4,781 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Molybdenum | N/A | N/A | No WQS |
| Aldrin | 0.002 | µg/L | Discharge Conc < TQL |
| alpha-BHC | 0.79 | µg/L | Discharge Conc < TQL |
| beta-BHC | 15.7 | µg/L | Discharge Conc < TQL |
| gamma-BHC | 37.0 | µg/L | Discharge Conc < TQL |
| delta BHC | N/A | N/A | No WQS |
| Chlordane | 0.59 | µg/L | Discharge Conc < TQL |
| 4,4-DDT | 0.059 | µg/L | Discharge Conc < TQL |
| 4,4-DDE | 0.039 | µg/L | Discharge Conc < TQL |
| 4,4-DDD | 0.2 | µg/L | Discharge Conc < TQL |
| Dieldrin | 0.002 | µg/L | Discharge Conc < TQL |
| alpha-Endosulfan | 8.56 | µg/L | Discharge Conc < TQL |
| beta-Endosulfan | 8.56 | µg/L | Discharge Conc < TQL |
| Endosulfan Sulfate | 8,292 | µg/L | Discharge Conc < TQL |
| Endrin | 3.35 | µg/L | Discharge Conc < TQL |
| Endrin Aldehyde | 415 | µg/L | Discharge Conc < TQL |
| Heptachlor | 0.012 | µg/L | Discharge Conc < TQL |
| Heptachlor Epoxide | 0.059 | µg/L | Discharge Conc < TQL |
| PCB-1016 | N/A | N/A | No WQS |
| PCB-1221 | N/A | N/A | No WQS |
| PCB-1232 | N/A | N/A | No WQS |
| PCB-1242 | N/A | N/A | No WQS |
| PCB-1248 | N/A | N/A | No WQS |
| PCB-1254 | N/A | N/A | No WQS |
| PCB-1260 | N/A | N/A | No WQS |
| PCBs, Total | 0.13 | µg/L | Discharge Conc < TQL |
| Toxaphene | 0.083 | µg/L | Discharge Conc < TQL |

**Facility:** **Gold Bond Building Products, LLC**
**Permit Number:** PA0008591
**Stream Name:** West Branch Susquehanna River
**Analyst/Engineer:** Derek Garner
**Stream Q7-10 (cfs):** 745

| | Facility Flows | | | | Stream Flows | | | |
|---|---|---|---|---|---|---|---|---|
| | Intake (Stream) (MGD) | Intake (External) (MGD) | Consumptive Loss (MGD) | Discharge Flow (MGD) | PMF | Upstream Stream Flow (cfs) | Adjusted Stream Flow (cfs) | Downstream Stream Flow (cfs) |
| Jan 1-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 2302.05 | 66.76 | 67.12 |
| Feb 1-29 | 0 | 0.231 | 0 | 0.231 | 0.03 | 2607.50 | 75.62 | 75.97 |
| Mar 1-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 4842.50 | 140.43 | 140.79 |
| Apr 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 6675.20 | 193.58 | 193.94 |
| Apr 16-30 | 0 | 0.231 | 0 | 0.231 | 0.03 | 6675.20 | 193.58 | 193.94 |
| May 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 3784.60 | 109.75 | 110.11 |
| May 16-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 3784.60 | 109.75 | 110.11 |
| Jun 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 2205.20 | 63.95 | 64.31 |
| Jun 16-30 | 0 | 0.231 | 0 | 0.231 | 0.03 | 2205.20 | 63.95 | 64.31 |
| Jul 1-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 1013.20 | 29.38 | 29.74 |
| Aug 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 1035.55 | 30.03 | 30.39 |
| Aug 16-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 1035.55 | 30.03 | 30.39 |
| Sep 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 804.60 | 23.33 | 23.69 |
| Sep 16-30 | 0 | 0.231 | 0 | 0.231 | 0.03 | 804.60 | 23.33 | 23.69 |
| Oct 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 953.60 | 27.65 | 28.01 |
| Oct 16-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 953.60 | 27.65 | 28.01 |
| Nov 1-15 | 0 | 0.231 | 0 | 0.231 | 0.03 | 1348.45 | 39.11 | 39.46 |
| Nov 16-30 | 0 | 0.231 | 0 | 0.231 | 0.03 | 1348.45 | 39.11 | 39.46 |
| Dec 1-31 | 0 | 0.231 | 0 | 0.231 | 0.03 | 2235.00 | 64.82 | 65.17 |

*Please forward all comments to Tom Starosta at 717-787-4317, tstarosta@state.pa.us.*

Version 2.0 -- 07/01/2005 Reference: Implementation Guidance for Temperature Criteria, DEP-ID: 391-2000-017

NOTE: The user can only edit fields that are blue.

NOTE: MGD x 1.547 = cfs.

Facility: **Gold Bond Building Products, LLC**
Permit Number: PA0008591
Stream: West Branch Susquehanna River

| | **WWF Criteria** (ºF) | **CWF Criteria** (ºF) | **TSF Criteria** (ºF) | **316 Criteria** (ºF) | **Q7-10 Multipliers** (Used in Analysis) | **Q7-10 Multipliers** (Default - Info Only) |
|---|---|---|---|---|---|---|
| Jan 1-31 | 40 | 38 | 40 | | 3.09 | 3.2 |
| Feb 1-29 | 40 | 38 | 40 | | 3.5 | 3.5 |
| Mar 1-31 | 46 | 42 | 46 | | 6.5 | 7 |
| Apr 1-15 | 52 | 48 | 52 | | 8.96 | 9.3 |
| Apr 16-30 | 58 | 52 | 58 | | 8.96 | 9.3 |
| May 1-15 | 64 | 54 | 64 | | 5.08 | 5.1 |
| May 16-31 | 72 | 58 | 68 | | 5.08 | 5.1 |
| Jun 1-15 | 80 | 60 | 70 | | 2.96 | 3 |
| Jun 16-30 | 84 | 64 | 72 | | 2.96 | 3 |
| Jul 1-31 | 87 | 66 | 74 | | 1.36 | 1.7 |
| Aug 1-15 | 87 | 66 | 80 | | 1.39 | 1.4 |
| Aug 16-31 | 87 | 66 | 87 | | 1.39 | 1.4 |
| Sep 1-15 | 84 | 64 | 84 | | 1.08 | 1.1 |
| Sep 16-30 | 78 | 60 | 78 | | 1.08 | 1.1 |
| Oct 1-15 | 72 | 54 | 72 | | 1.28 | 1.2 |
| Oct 16-31 | 66 | 50 | 66 | | 1.28 | 1.2 |
| Nov 1-15 | 58 | 46 | 58 | | 1.81 | 1.6 |
| Nov 16-30 | 50 | 42 | 50 | | 1.81 | 1.6 |
| Dec 1-31 | 42 | 40 | 42 | | 3 | 2.4 |

NOTES:
WWF= Warm water fishes
CWF= Cold water fishes
TSF= Trout stocking

Facility: **Gold Bond Building Products, LLC**
Permit Number: PA0008591
Stream: West Branch Susquehanna River

| | **WWF** Ambient Stream Temperature (ºF) (Default) | Ambient Stream Temperature (ºF) (Site-specific data) | Target Maximum Stream Temp.[1] (ºF) | **WWF** Daily WLA[2] (Million BTUs/day) | **WWF** Daily WLA[3] (ºF) | at Discharge Flow (MGD) | **PMF** |
|---|---|---|---|---|---|---|---|
| Jan 1-31 | 35 | 0 | 40 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Feb 1-29 | 35 | 0 | 40 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Mar 1-31 | 40 | 0 | 46 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Apr 1-15 | 47 | 0 | 52 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Apr 16-30 | 53 | 0 | 58 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| May 1-15 | 58 | 0 | 64 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| May 16-31 | 62 | 0 | 72 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Jun 1-15 | 67 | 0 | 80 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Jun 16-30 | 71 | 0 | 84 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Jul 1-31 | 75 | 0 | 87 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Aug 1-15 | 74 | 0 | 87 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Aug 16-31 | 74 | 0 | 87 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Sep 1-15 | 71 | 0 | 84 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Sep 16-30 | 65 | 0 | 78 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Oct 1-15 | 60 | 0 | 72 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Oct 16-31 | 54 | 0 | 66 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Nov 1-15 | 48 | 0 | 58 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Nov 16-30 | 42 | 0 | 50 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |
| Dec 1-31 | 37 | 0 | 42 | N/A -- Case 2 | 110.0 | 0.231 | 0.03 |

[1] This is the maximum of the WWF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for WWF, or the ambient stream temperature based on site-specific data entered by the user. A minimum of 1ºF above ambient stream temperature is allocated.

[2] The WLA expressed in Million BTUs/day is valid for Case 1 scenarios, and disabled for Case 2 scenarios.

[3] The WLA expressed in ºF is valid only if the limit is tied to a daily discharge flow limit (may be used for Case 1 or Case 2). WLAs greater than 110ºF are displayed as 110ºF.

# Attachment E

# 1998 BOD5 / TSS BPJ Memo

COMMON,JEAL TH OF PENNSYLVANIA
March 10, 1988

SUBJECT: Effluent' Limitations.
Industrial Waste - NPDES Permits

TO: L: Richard Adams
Chief - Permits & Grants
Bureau of Water Quality Management
Williamsport Regional Office

FROM: William P. Parsonsl1)Pf · .
Regional Water Quat'ity Manager
Bureau of Water Quality Management
Williamsport Regional Office

I am concerned with the concentration limits we are establishing for BOD and suspended solids on some NPDEs· permits for industrial wastewater.

The Di V·i s ion of Water Quality has been saying for some time they· are unable to substantiate a Water Qual,jty based suspended sol ids concentration limit for our dischargers. l e ar obligated to protect stream us eS \JJ:!.\\ Chapt r 93 which inclui s - e b tics.___lt_is my ,opinion a .:\t[1l susrlgl\]JJ' j£'JA .,;:ii ,r il ] ,2;fjg,9,2 [!1i!JF:oma point source in.a large snallow~ri-ver (West Branch, North 73rancli, main stem Susquehanna) 1s aesthetically displeasing. We can also substantiate that a - :f" fQsUR. J.!J1;l .]:1t9!);1!JW;l;,§, £ §ii'2.ti;; . q gtili ,[9 {1.1ii :1:1J/IJj;[ o,:.Vil!itBZ£9"[h ·v'iol'at forfs4n½'th e'ifenst:r-at"ified"l'ialetr-ooaies. Therefore, effective· imme di atJiLy,, a11 i hi ¾?sJi:g r,,&!i:!)Jlljt§'l!lshcr.:1,l:'Jl!!tn:c,:luge,Fa:n"\'ftfis"failJ'ane'o'.ffs1

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technology-based poundage limits which shoul ct reflect a treatment pl ant which would routinely meet a concentration limit less than the instantaneous maximum. '

· On streams smaller than the three rivers I mentioned,· I believe the aesthetic impact of a ·discharge is more significant. Therefore, for these cases in the region,. the instantaneous maximum suspended sol id concentration should not ·exceed 100 mg/1 for aesthetic reasons. In all cases the instantaneous maximum BOD concentration should also be ·1ess than 200· mg/l, however, this decision should be based upon the characterjstics of the stream most notablymi-xing and modeling results.

It is· quite possible we may receive a proposal from .those we regulate to install outfall dispersicin devices to mitigate the aesthetic impact. Such proposals from dischargers have merit and if after review are acceptable will result in concentration limits in excess of the .abo e.

WPP/skb
cc: Aldenderfer
Alter.s
Division of Water Quality
Reg. WQ .Mngrs.·