

National Pollutant Discharge Elimination System (NPDES) Permit Program

FACT SHEET

Regarding an NPDES Permit to Discharge to Waters of the State of Ohio  
for **BDM Warren Steel Operations**

Public Notice No.: 14-10-064  
Public Notice Date: October 31, 2014  
Comment Period Ends: January 1, 2015

OEPA Permit No.: **3ID00071\*HD**  
Application No.: **OH0101079**

Where  
Name and Address of Applicant:

**BDM Warren Steel Operations**  
**999 Pine Street SE**  
**Warren, Ohio 44483**

Name and Address of Facility

Discharge Occurs:

**BDM Warren Steel Operations**  
**999 Pine Street SE**  
**Warren, Ohio 44483**  
**Trumbull County**

Receiving Water: **Mahoning River**

Subsequent  
Stream Network: **Beaver River to**  
**Ohio River**

**Introduction**

Development of a Fact Sheet for NPDES permits is mandated by Title 40 of the Code of Federal Regulations (CFR), Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Ohio Environmental Protection Agency (Ohio EPA), as well as the methods by which the public can participate in the process of finalizing those actions.

This Fact Sheet is prepared in order to document the technical basis and risk management decisions that are considered in the determination of a modification of the BDM Warren Steel Operations (BDM) NPDES Permit. The technical basis for the Fact Sheet consists of evaluations of existing effluent quality. This Fact Sheet details the discretionary decision-making process empowered to the Director by the Clean Water Act (CWA) and Ohio Water Pollution Control Law (Ohio Revised Code Section 6111).

**Summary of Permit Conditions**

The plant ceased operations on May 31, 2012 as R.G. Steel, LLC prior to BDM's purchase of the property. BDM purchased the plant out of bankruptcy on September 1, 2012. The current steel

operations are being decommissioned and most of the manufacturing buildings are being demolished. Ohio EPA received an NPDES modification request on June 2, 2014, with revisions on August 28, 2014. Specifically, the request is to revise the permit to reflect the current conditions at the facility. The request includes removal of some outfalls, removal of some parameters, or a reduction in monitoring frequencies of some parameters. To facilitate the revision of the permit, Ohio EPA used only the monitoring data performed since steel operations were ceased - May of 2012. However, entry of the monitoring data has not occurred since March of 2013. Additional monitoring data was forwarded to Ohio EPA to aid in the evaluation of the facility.

A portion of the BDM property has a pending sale to ArcelorMittal Warren, Inc. (ArcelorMittal), an adjacent property owner. BDM and ArcelorMittal have a contractual agreement at this time that BDM would continue to monitor the facility under their NPDES permit until the sale is finalized. Upon the final sale, additional outfalls may be removed from this permit. A condition has been added to Part II of the permit to reflect the outfalls that could be additionally modified as a result of that sale. If the sale occurs during the draft action of the permit, Ohio EPA will revise the draft NPDES permit and remove the condition.

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## **Procedures for Participation in the Formulation of Final Determinations**

The draft action shall be issued as a final action unless the Director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Within thirty days of the date of the Public Notice, any person may request or petition for a public meeting for presentation of evidence, statements or opinions. The purpose of the public meeting is to obtain additional evidence. Statements concerning the issues raised by the party requesting the meeting are invited. Evidence may be presented by the applicant, the state, and other parties, and following presentation of such evidence other interested persons may present testimony of facts or statements of opinion.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be addressed to:

**Legal Records Section  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, Ohio 43216-1049**

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted in person or by mail no later than 30 days after the date of this Public Notice. Deliver or mail all comments to:

**Ohio Environmental Protection Agency  
Attention: Division of Surface Water  
Permits and Compliance Section  
P.O. Box 1049  
Columbus, Ohio 43216-1049**

The Ohio EPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. The first 250 pages copied are free. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

For additional information about this fact sheet or the draft permit, contact Virginia Wilson at (330) 963-1180 ([virginia.wilson@epa.ohio.gov](mailto:virginia.wilson@epa.ohio.gov)) or John Schmidt at (330) 963-1175 ([john.schmidt@epa.ohio.gov](mailto:john.schmidt@epa.ohio.gov)).

## **Location of Discharge/Receiving Water Use Classification**

BDM discharges from 24 outfalls (process water and storm water) located between River Miles (RM) 37.0 and 35.9 of the Mahoning River. The approximate location of the facility is shown in Figure 1.

This segment of the Mahoning River is described by Ohio EPA River Code: 18-001, U.S. EPA River Reach #: 05030103-007, County: Trumbull, Ecoregion: Erie-Ontario Lake Plain. The Mahoning River is designated for the following uses under Ohio's WQS (Ohio Administrative Code 3745-1-25): Warmwater Habitat (WWH), Agricultural Water Supply (AWS), Industrial Water Supply (IWS), and Class A Primary Contact Recreation (PCR).

Use designations define the goals and expectations of a waterbody. These goals are set for aquatic life protection, recreation use and water supply use, and are defined in the Ohio WQS (OAC 3745-1-07). The use designations for individual waterbodies are listed in rules -08 through -32 of the Ohio WQS. Once the goals are set, numeric water quality standards are developed to protect these uses. Different uses have different water quality criteria.

Use designations for aquatic life protection include habitats for cold-water fish and macro invertebrates, warm-water aquatic life and waters with exceptional communities of warm-water organisms. These uses all meet the goals of the federal CWA. Ohio WQS also include aquatic life use designations for water-bodies which cannot meet the CWA goals because of human-caused conditions that cannot be remedied without causing fundamental changes to land use and widespread economic impact. The dredging and clearing of some small streams to support agricultural or urban drainage is the most common of these conditions. These streams are given Modified Warmwater or Limited Resource Water designations.

Recreation uses are defined by the depth of the water-body and the potential for wading or swimming. Uses are defined for bathing waters, swimming/canoeing (PCR) and wading only (Secondary Contact - generally waters too shallow for swimming or canoeing).

Water supply uses are defined by the actual or potential use of the water-body. Public Water Supply designations apply near existing water intakes so that waters are safe to drink with standard treatment. Most other waters are designated for agricultural and industrial water supply.

## **Facility Description**

BDM purchased one of the old steel manufacturing facilities in Warren, Ohio, formerly known as R. G. Steel and Warren Consolidated Industries (WCI). This facility, a steel mill dating to 1912, consisted of blast furnaces for the production of iron, basic oxygen furnaces (BOF) for the production of steel and a continuous caster. Processing and finishing operations included hot rolling of strip steel, cold rolling, pickling, galvanizing and silicon coating.

The process operations that were performed at this facility were classified by the Standard Industrial Classification (SIC) codes 3312, "Steel Works, Blast Furnace, Rolling Mills". Discharges resulting from process operations were; therefore, subject to Federal Effluent Guideline Limitations, contained in Chapter 40 of the Code of Federal Regulations, Part 420, "Iron and Steel Manufacturing" Industrial Category. Discharges were regulated under Subparts C – Ironmaking, D – Steelmaking, F – Continuous Casting, G – Hot Forming, I – Acid Pickling, J – Cold Forming and L – Hot Coating.

### **Description of Existing Discharge Locations and eDMR Data**

Most of the process wastewater at the facility was discharged via outfall 013. Outfall 013 contained treated blast furnace recycle system wastewaters from outfall 601, treated finishing mill process wastewaters from the Central Treatment Plant (outfall 602) plus non-contact cooling water from the blast furnace area. Outfall 013 was not treated beyond the treatment provided at outfalls 601 and 602.

Outfall 601 wastewaters were treated by clarification. This outfall was normally 100% recycled or used for slag quenching. The outfall has since been decommissioned and the outfall has been eliminated from the NPDES permit.

The Central Treatment Plant (CTP) received wastewater from the continuous caster, BOF, cold rolling, pickling and galvanizing processes, as well as leachate from the solid waste landfills. As of May 2012, all sources have been idled that are tributary to the CTP except for leachate production, wastewaters associated with the closure of Pond No. 5 surface impoundment, and storm water/infiltration that could contain process residuals. These wastewaters are treated by coagulation, clarification and neutralization prior to sampling at outfall 602.

The other process outfall at this facility was outfall 008. This outfall contained treated process waters from the hot strip mill (outfall 603) plus non-contact cooling water. Outfall 603 was treated by settling in a lagoon. All outfall 008 flows were treated for oil removal. BDM requested and obtained a permit-to-install (PTI) to decommission the 52" Hot Mill Pond, which is tributary to Outfalls 603 and 008. Process wastewaters have the potential to discharge during the closure of this pond through execution of the PTI.

BDM has a process overflow point for outfall 602. In an extreme situation, for example a pump station failure, process waters could be diverted to outfall 007 via a manually-operated gate structure at station 606. The combined loadings from station 606 and 602 could not exceed the load limits for outfall 602. There had been no overflows from station 606 during the life of the past permit.

Outfalls 003, 006, 007, 010, 011, and 012 contained non-contact cooling water and storm water from the facility. Outfalls 015 and 016 were intake screen backwash discharges. Outfall 018 was a partially treated bypass from the blast furnace process treatment system; if influent flows exceeded the treatment capacity, either the primary or secondary clarifier could overflow to the

Mahoning River through Outfall 018. There had been no overflows from this bypass during the life of the past permit.

Outfalls 051, 052, 053, 054, 055, 056, 057, 059, 060, 061, 062, 063, 064, 065, and 066 are all storm water discharge locations. Outfall 067 is a storm water discharge from the residual waste landfills.

To make a determination of which parameters and outfalls to change from the permit as requested by BDM, Ohio EPA reviewed the Discharge Monitoring Report (DMR) data for Outfalls 003, 006, 007, 008, 010, 011, 012, 013, 602 and 603; current permit limits; and data summaries provided by BDM as a part of the NPDES permit modification request. All of this data is available in the Ohio EPA, Division of Surface Water, Northeast District Office files and are available for review if requested.

### **Requested Permit Modifications and Resulting Ohio EPA Action**

1. Outfall 003: Proposed to be eliminated by March 2016. Former process line that continues to receive storm water. Request to remove monitoring requirements for zinc, temperature, and oil/grease, and decrease the monitoring frequency for flow to monthly. pH is proposed to remain unchanged.

Ohio EPA Response: Based upon a review of data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, temperature, and oil/grease, and decrease the monitoring frequency for flow to monthly. pH will remain unchanged.

2. Outfall 006: Proposed to be eliminated by March 2018. Former process line that continues to receive storm water. Request to remove monitoring requirements for zinc, temperature, and oil/grease, and decrease the monitoring frequency for flow to monthly. pH is proposed to remain unchanged.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, temperature, and oil/grease, and to reduce the frequency of flow monitoring to monthly. pH will remain unchanged.

3. Outfall 007: Proposed to be eliminated by March 2016. Former process line that continues to receive storm water. Request to remove monitoring requirements for zinc, lead, copper, temperature, and oil/grease, and decrease the monitoring frequency for flow and pH to monthly.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for temperature, oil/grease, lead, and zinc, and to reduce flow readings to monthly. If flow is still being discharged through this outfall, remaining parameters must continue to be collected and reported as specified in the NPDES permit. Ohio EPA recommends that weekly pH and copper monitoring requirements remain in the permit. Once demolition activities have been completed that

are tributary to this outfall and a monitoring history, post-demolition, is demonstrated, BDM may request future reduction in monitoring parameters and frequencies for those that remain for this outfall.

4. Outfall 008: Proposed to be eliminated by March 2018. Receives water from the hot mill cooling water lagoon (Outfall 603). Former process line that continues to receive storm water and flow-through water from the lagoon. Request to remove monitoring requirements for zinc, fluoride, iron, total dissolved residue, temperature, and oil/grease; decrease the monitoring frequency for flow and pH to monthly; and decrease the monitoring frequency for total suspended solids, lead, copper, and mercury to semi-annually.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, fluoride, iron, and temperature; decrease the monitoring frequency for flow and pH to monthly; and decrease the monitoring frequency for lead, copper, and mercury to semi-annually. Ohio EPA recommends that total suspended solids, total non-filterable residue, and oil/grease monitoring frequencies be reduced from weekly to monthly. Once demolition activities have been completed that are tributary to this outfall and a monitoring history, post-demolition, is demonstrated, BDM may request future reduction in monitoring parameters and frequencies for those that remain for this outfall.

5. Outfall 010: Proposed to be eliminated by March 2018. Former process line that continues to receive storm water. Request to remove monitoring requirements for zinc, lead, copper, temperature, and oil/grease; decrease the monitoring frequency for flow and pH to monthly; and decrease the monitoring frequency for iron to semi-annually.

6. Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, lead, copper, temperature, and oil/grease; decrease the monitoring frequency for flow and pH to monthly; and decrease the monitoring frequency for iron to semi-annually.

7. Outfall 011: Proposed to be eliminated by March 2018. Former process line that continues to receive storm water. Request to remove monitoring requirements for zinc, lead, copper, temperature, and oil/grease; decrease the monitoring frequency for flow and pH to monthly; and decrease the monitoring frequency for iron to semi-annually.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, lead, copper, temperature, and oil/grease; decrease the monitoring frequency for flow and pH to monthly; and decrease the monitoring frequency for iron to semi-annually.

8. Outfall 012: Proposed to be eliminated by March 2018. Former process line that continues to receive storm water. Request to remove monitoring requirements for zinc, iron, and oil/grease; and decrease the monitoring frequency for flow and pH to monthly.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, iron, and oil/grease; and decrease the monitoring frequency pH and flow to monthly. BDM did not request to remove temperature from this outfall; however, the Ohio EPA recommends temperature be removed as a monitoring parameter.

9. Outfall 013: Final outfall that receives flow from the BDM on-site wastewater treatment plant (WWTP), Outfall 602, which is still in operation and receiving leachate from the residual waste landfill. The blast furnace blow down (Outfall 601) has been eliminated from this outfall and any remaining boiler blow-down has been temporarily redirected to the Warren City sewer system by ArcelorMittal on a trial basis, according to ArcelorMittal. BDM proposes to eliminate the WWTP and redirect the wastewater to the Warren WWTP, but no date has been given in the request. BDM is requesting that this outfall be transferred from BDM to ArcelorMittal, and that BDM would only monitor Outfall 602 from the WWTP.

Ohio EPA Response: Ohio EPA has not received a request from ArcelorMittal to modify their NPDES permit to include Outfall 013; therefore, Ohio EPA will retain Outfall 013 in BDM's permit as written in the previous permit. However, Ohio EPA has included a condition in Part II of the permit to have this outfall modified upon receipt of that modification from ArcelorMittal.

10. Outfalls 015 and 016: Proposed to be eliminated by March 2018. Former process lines that no longer discharge. Request to eliminate the discharges from the permit although the outfalls have not been physically removed.

Ohio EPA Response: As long as the outfalls exist, they must remain in the NPDES permit. Until the outfalls are physically removed or are grouted up, BDM must continue to report "no flow". If these outfalls are used, BDM must report the flow rate as specified in the NPDES permit.

11. Outfall 018: Proposed to be eliminated by March 2018. Former process line that no longer discharges. No change in monitoring parameters requested.

Ohio EPA Response: Per discussions with BDM personnel during the July 25, 2014 inspection, this outfall has been grouted at the north catch basin northeast of the central treatment plant. If the final outfall has been grouted up or removed, DSW recommends BDM request to remove the outfall from the permit.

12. Outfalls 051, 052, 053, 056, and 060: Identified as storm water discharges. No change in monitoring parameters requested.

Ohio EPA Response: Ohio EPA will update the monitoring table associated with these outfalls to reflect current storm water monitoring language.

13. Outfall 054: Proposed to be eliminated, but no date given. Storm water discharge from diked area for oil tank which has the potential to receive storm water. Discussions with BDM personnel during the July 25, 2014 inspection indicates that water is removed from a sump within the oil tank diked area on a regular basis. Request to remove monitoring requirements for zinc, lead, total non-filterable residue and oil/grease. pH and flow are proposed to remain unchanged at quarterly.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for zinc, lead, and total non-filterable residue. Ohio EPA recommends that oil and grease remain in the permit until all process dike areas and the tank are pumped and rinsed, and discharge lines jetted prior to removing this monitoring parameter since the tank may still have oil in it.

14. Outfalls 055, 057, and 059: Proposed to be eliminated in 2018, but no date given. Represents storm water discharges from paved areas inside and outside multiple buildings. Request to remove monitoring requirements for zinc, lead, total non-filterable residue and oil/grease. pH and flow are proposed to remain unchanged at quarterly.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with the request to remove monitoring requirements for lead and total non-filterable residue. Ohio EPA recommends that zinc and oil/grease remain in the permit until all catch basins within the plant area are sealed and discharge lines jetted prior to removing zinc and oil/grease as monitoring parameters.

15. Outfall 061: Storm water discharge from portions of the plant now owned by ArcelorMittal. Identified as a storm water discharge. Request to remove the outfall from the BDM NPDES permit and make it the responsibility of ArcelorMittal.

Ohio EPA Response: Ohio EPA has not received a request from ArcelorMittal to modify their NPDES permit to include Outfall 061; therefore, Ohio EPA will retain Outfall 061 in BDM's permit as written in the previous permit. However, Ohio EPA has included a condition in Part II of the permit to have this outfall modified upon receipt of that modification from ArcelorMittal.

16. Outfalls 062, 063, 064, and 066: Storm water and ground water discharge from the on-site landfill. No changes in monitoring frequencies or reduction in parameters are requested.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with this request.

17. Outfall 065: Storm water discharge from portions of the plant to be owned by ArcelorMittal. Identified as a storm water discharge. Request to remove the outfall from the BDM NPDES permit and make it the responsibility of ArcelorMittal.

Ohio EPA Response: Ohio EPA has not received a request from ArcelorMittal to modify their NPDES permit to include Outfall 065; therefore, Ohio EPA will retain Outfall 065 in BDM's permit as written in the previous permit. However, Ohio EPA has included a condition in Part II of the permit to have this outfall modified upon receipt of that modification from ArcelorMittal.

18. Outfall 067: Discharge from sedimentation pond from the on-site landfill. No changes in monitoring frequencies or reduction in parameters are requested.

Ohio EPA Response: Based upon a review of the data, Ohio EPA concurs with this request.

19. Outfall 096, 097, 098, and 099 (Calculated): These are calculated outfalls for waste load allocation for temperature, copper, iron, and lead respectively under 40 CFR 420 – Iron and Steel Manufacturing. BDM is requesting that these outfalls be eliminated.

Ohio EPA Response: As steel production ceased on May 31, 2012 and is not going to resume, Ohio EPA concurs with this recommendation.

20. Internal Monitoring Station (Outfall) 601: Tributary to Outfall 013. Outfall was eliminated prior to July 25, 2014. Request to remove outfall from the permit.

Ohio EPA Response: Outfall elimination was verified during the July 25, 2014 inspection. The above ground piping at this outfall has been cut off from discharging. Ohio EPA concurs with the request to remove the outfall from the permit.

21. Internal Monitoring Station (Outfall) 602: This is the discharge from the on-site WWTP that receives leachate from the residual waste landfills, the No. 5 pond, and the No. 9 pump station overflow. The WWTP is still active and is still treating wastewater through Outfall 602 upstream of final Outfall 013. BDM proposes to connect to the Warren City WWTP in the future. Request to eliminate the outfall.

Ohio EPA Response: Since this outfall is still active, BDM must continue to monitor it until connection has been achieved with Warren City. However, Ohio EPA has included a condition in Part II of the permit to have this outfall modified upon receipt of that modification from ArcelorMittal.

22. Internal Monitoring Station (Outfall) 603: Hot mill cooling water lagoon discharge, tributary to Final Outfall 008. Proposed to be eliminated, but no date given. Request to reduce monitoring frequency for total suspended solids and oil and grease to semi-annually, and to reduce the frequency for flow to monthly.

Ohio EPA Response: Based upon a review of the data, no flow has been reported from this lagoon since March 2012, with oil/grease values reported through September 2012.

An examination of the Hot Mill cooling water lagoon during the July 25, 2014 inspection indicated that the pond was well below the final outfall elevation and there was no discharge from the lagoon. It is noted that water is either seeping through the wooden gate or ground water is infiltrating the sump immediately downstream of this outfall. Since a discharge may occur during dewatering and closure of this lagoon, Ohio EPA recommends no change from current monitoring frequencies of weekly for all parameters. In addition, Ohio EPA recommends that zinc and fluoride be added to this monitoring station at a frequency of monthly as opposed to monitoring for these parameters at Final Outfall 008.

23. Internal Monitoring Station (Outfall) 606: Emergency overflow for Lift Station No. 9, tributary to Outfall 008. Proposed to be eliminated, but no date given. Request to eliminate the outfall.

Ohio EPA Response: An examination of the lift station during the July 25, 2014 inspection indicated that the pump station is inactive and received storm water from areas down-gradient of some pickling operations, all of which have been razed. Ohio EPA recommends no change from current monitoring frequencies of weekly for all parameters. As all parameters are at a frequency of “when discharging”, BDM need only collect data and report if a discharge occurs from the outfall. If a discharge occurs, all parameters must be reported as specified in the NPDES permit.

24. Internal Monitoring Station (Outfall) 804: Water intake and water sampling station. Identifies the pump house now owned by ArcelorMittal. Request to eliminate the outfall.

Ohio EPA Response: During the inspection, BDM personnel indicated that the water intake station is used by ArcelorMittal as a part of their operations, which was confirmed with discussions with ArcelorMittal. Ohio EPA has not received a request from ArcelorMittal to modify their NPDES permit to include Outfall 804; therefore, Ohio EPA will retain Outfall 804 in BDM’s permit as written in the previous permit. However, Ohio EPA has included a condition in Part II of the permit to have this outfall modified upon receipt of that modification from ArcelorMittal.

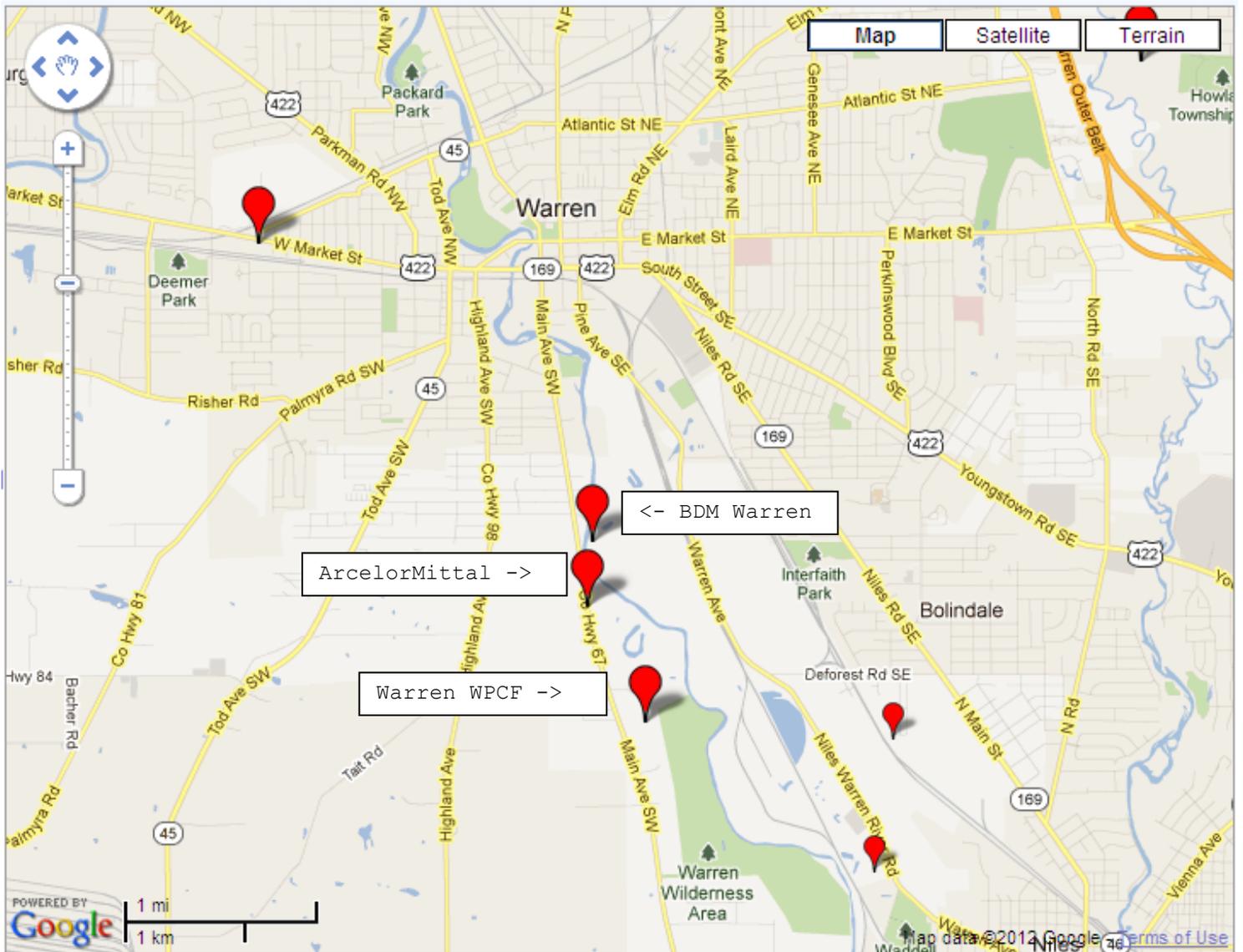


Figure 1. Approximate location of the BDM Warren Steel. Balloons indicate NPDES permittees. Large balloons are major permittees.