

IEPA Log No.: **C-0474-14**
CoE appl. #: **CEMVR-OD-P-2014-1280**

Public Notice Beginning Date: **October 23, 2015**
Public Notice Ending Date: **November 23, 2015**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Unimin Corporation - Utica Plant – 258 Elm Street, New Canaan,
CT 06840

Discharge Location: Near Utica in Sections 9, 10, 14 and 15 of Township 33N, Range 2E of the 3rd
P.M. in LaSalle County.

Name of Receiving Water: Unnamed tributary to the Illinois River and unnamed wetlands

Project Description: Proposed impacts to wetlands and stream to facilitate construction of new rail lines
for new silica sand rail loadout facility.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Darren Gove at 217/782-3362.

DRG:C-0474-14_401 PN and FS_13Aug14.docx

Fact Sheet for Antidegradation Assessment
For Unimin Corporation - Utica Plant
IEPA Log No. C-0474-14
COE Log No. CEMVR-OD-P-2014-1280
Contact: Diane Shasteen (217) 558-2012
Public Notice Start Date: October 23, 2015

Unimin Corporation (“Applicant”) has applied for Section 401 water quality certification for impacts to 1,750 feet of channelized stream channel and approximately 6.28 acres of permanent and 2.53 acres of temporary impacts to jurisdictional wetlands. These impacts include the realignment and enhancement of the stream channel and filling and dredging of wetlands. Fill for conveyor footings, conveyor maintenance access path, and three new spur line railroad tracks will include ballast (3,800 CY), sub-ballast (4,400 CY), and clean fill (25,161 CY) for a total fill amount of approximately 33,361 CY. Dredge material will be removed from the area and reused in mine reclamation. The proposed project will construct a second loadout facility, expand the rail track corridor adjacent to the existing CSX Railroad extending approximately 1.4 miles to the east, construct an inspection road per CSX Transportation safety requirements, and create a berm to prevent flooding to meet Mine Safety & Health Administration (MSHA) and CSX Transportation safety requirements. The proposed rail expansion is located at 402 Mill Street, Utica, LaSalle County, Township 33 North, Range 52 East, Sections 9, 10, 14, and 15. The purpose of this project is to provide additional rail tracks for loading, switching, and storage of rail cars for the proposed sand loadout facility. The project will also alleviate safety issues and public concern in regards to the train blockage/road closures at Mill Street and State Route 178 through Utica.

The proposed project will permanently impact approximately 6.28 jurisdictional wetland acres and 1,750’ of stream channel. Mitigation will include the purchase of 9.963 wetland credits from the DeKalb County Forest Preserve District’s Afton Prairie and Afton South Prairie Wetland Mitigation Banks. Stream mitigation will include the relocation and restoration of 1,925 linear feet (LF) of the existing stream channel and the creation of 145 LF of stream channel to connect the existing channel to the relocated channel.

Information used in this review was obtained from the Applicant in a document entitled, Individual Permit Application Unimin Corporation, Utica Plant Rail Expansion-LaSalle County dated August 12, 2014 and revised July 2015.

Identification and Characterization of the Affected Water Body.

The unnamed tributary (no Segment Code) to the Illinois River will be impacted by the proposed project. The stream segment has not been assessed by Illinois EPA and is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. The USGS Illinois Streamstats basin characteristics program gives a watershed size of 3.09 square miles for the unnamed tributary; however, the Applicant reported the actual drainage for the unnamed tributary is 0.9 miles due to a previous diversion upstream of the project location. According to the Illinois State Water Survey, this tributary to the Illinois River is likely to be a 7Q1.1 zero flow stream based on the actual reported drainage area. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 1 square miles or

less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years.

The Applicant contracted Northwater Consulting to conduct a stream bioassessment to characterize the biological, chemical, and physical conditions of the stream located in the project area. In July 2015, a bioassessment was conducted at three stations (Stations 1, 2, and 3) following the Environmental Protection Agency's Rapid Bio-assessment Protocol (RBP II) for wadeable and headwater streams. Locations of sampling stations included Station 1- furthest downstream section of the project area, Station 2- midpoint of the project area, and Station 3- upstream of the project area. This assessment included macroinvertebrate, fish, habitat, water quality, and chemical measurements. The macroinvertebrate community in the unnamed tributary was dominated by tolerant and moderately tolerant taxa including Chironomidae – Chironomini (Stations 1 & 2), Physidae and Amphipoda (Station 1), Asellidae and Oligochaeta (Station 2), and Sphaeriidae, Asellidea and Tanytarsus (Station 3). A total of fourteen fish species were collected across all the sites with the two most abundant species at all three sites being Creek Chub (*Semotilus atromaculatus*) and Bluntnose Minnow (*Pimephales notatus*); White Sucker (*Catostomus commersonii*) and Orangethroat Darter (*Etheostoma spectabile*) were also collected at all sites. Other common fishes collected included the Red Shiner (*Cyprinella lutrensis*; Stations 1 & 3) and Gizzard Shad (*Dorosoma cepedianum*; Stations 2 & 3). Unique fauna collected at each site included Station 1 – Yellow Bullhead (*Ameiurus natalis*), Station 2 – Blacknose Dace (*Rhinichthys atratulus*), Fantail Darter (*Etheostoma flabellare*), Johnny Darter (*Etheostoma nigrum*), and Logperch (*Percina caprodes*), and Station 3 – Southern Redbelly Dace (*Chrosomus erythrogaster*), Green Sunfish (*Lepomis cyanellus*), and Blackside Darter (*Percina maculata*). Physical habitat assessments (QHEI) of Stations 1 & 2 located within the project footprint consistently scored in the poor category; the sites were considered limited due to low channel flow status, low pool substrate character, poor channel morphology, and the absence of riffles. None of the water quality/chemistry parameters tested exceeded state or federal water quality standards or guidelines. Habitat and macroinvertebrate scores and classifications and additional assessment results of all stations are summarized in Table 1. Permanent impacts to the stream channel will be mitigated utilizing the “Illinois Stream Mitigation Method.”

Table 1: Unnamed Tributary to Illinois River Bioassessment Results

	Station 1	Station 2	Station 3
Drainage Area	0.93	0.90	0.82
QHEI Score/Classification	39.5/Poor	38.5/Poor	57/Good
mIBI Score/Classification	38.33/Fair	28.15/Fair	26.51/Fair
pH	7.51	7.26	7.72
Turbidity (NTU)	11.4	20.5	16.9
Conductivity (µS/cm)	756	776	764
Total Dissolved Solids (mg/l)	486	497	489
Total Fish Species	6	9	9
Total Number of Fish	75	73	68

The Illinois River (IL_D-20), a direct tributary to the Mississippi River, is a General Use Water with an estimated 3,520 cfs 7Q10 flow, at this location. According to the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, the Illinois River has been assessed by Illinois EPA and is listed as fully supporting Aquatic Life use and not supporting Fish Consumption and Primary Contact Recreation uses. Causes for Fish Consumption use impairment are Mercury and Polychlorinated biphenyls (PCBs). The cause listed for Primary Contact Recreation impairment is Fecal Coliform. Secondary Contact and Aesthetic Quality uses have not been assessed. The Illinois River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*; nor is it given an integrity rating in that document. The Illinois River, at this location, is designated as an **enhanced** water pursuant to the dissolved oxygen water quality standard.

Wetland delineations were completed by ENCAP, Inc. at the proposed site on three separate occasions (June & September 2011 and July 2014). The 2014 delineation by ENCAP, Inc. included two wetlands (Wetland 1 & 2). Wetland 1 (5.42 acres) was primarily vegetated by American Elm (*Ulmus americana*), Eastern Poison Ivy (*Toxicodendron radicans*), Common Reed (*Phragmites australis*), and Green Ash (*Fraxinus pennsylvanica*). The native Floristic Quality Index (FQI) of Wetland 1 was determined to be 20.50 indicating a high quality aquatic resource (HQAR). Wetland 2 (13.89 acres) was primarily vegetated by Common Reed; however, its FQI score of 21.04 classified the wetland as a HQAR. The wetlands were reassessed by I + S Group in January 2015. This consulting firm reported three wetlands totaling approximately 32.12 acres within the project area. Wetland 1 (4.17 acres) was classified as a fresh (wet) meadow dominated by Common Reed and Reed Canary Grass (*Phalaris arundinacea*). Wetland 2 (11.18 acres; ENCAP, Inc.'s Wetland 1) consisted of fresh (wet) meadow, hardwood swamp, and 50% hardwood swamp/50% fresh (wet) meadow. Dominate species reported were the same as ENCAP, Inc.'s plus Boxelder (*Acer negundo*) and Swamp White Oak (*Quercus bicolor*). Wetland 3 (16.77 acres; ENCAP Inc.'s Wetland 2), was dominated by Common Reed and consisted of fresh (wet) meadow, hardwood swamp, and shallow marsh. No FQI or Coefficient of Conservation scores were reported by this consultant;

however, the Applicant stated: “Based on these assessments, the wetlands located on site would be classified as low quality wetlands.” Impacts to these areas are unavoidable and will be mitigated with the purchase of 9.963 wetland credits from the DeKalb County Forest Preserve District’s Afton Prairie and Afton South Prairie Wetland Mitigation Banks.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur during this project include possible increases in suspended solids during construction. Best Management Practices (BMPs) including silt fences, erosion control blankets, straw bale barriers, and rip rap will be strategically placed to ensure that the project will not cause erosion or accretion in the vicinity of the project. These measures will be constructed prior to land clearing and remain in place until the project is fully developed.

Stream impacts include the realignment and enhancement of 1,750’ of stream channel, the addition of a rock crossing and three 24’ diameter corrugated metal pipes installed in an unnamed tributary of the Illinois River at the western end of the project site, and the extension of a concrete box culvert into a second tributary of the Illinois River on the east-central portion of the site. Realignment of the unnamed tributary will occur by shifting the existing manmade channel approximately 80’ to the north of its current location and creating 145 LF of stream channel to connect the existing channel to the relocated channel. The stream mitigation plan maintains the current channel gradient and dimensions, increases stream sinuosity and bed structure, and reconnects the tributary to ground water seeps and the adjacent floodplain. Enhancements to the stream channel will include three meander bends which will increase the overall channel length to 1,925’ and a series of rock riffles to improve aquatic habitat. Aquatic life uses in the portion of the unnamed tributary that will be disturbed during construction may be negatively impacted, but in time, they will recover and support approximately the same community structure as is now found in the existing channel.

Permanent wetland impacts will be associated with 5.16 acres of emergent wetlands and 1.12 acres of forested wetlands (Table 2; provided by Applicant; revised). Temporary impacts (dredging) will affect 1.47 acres of emergent wetlands and 1.06 acres of forested wetlands. All temporary wetlands impacted will be stabilized with a seed mix comparable to Illinois Department of Transportation’s Class 4B wetland grass and sedge mixture. Impacts to these wetlands are unavoidable and permanent wetland impacts will be mitigated by the purchase of 9.963 wetland credits from the DeKalb County Forest Preserve District’s Afton Prairie and Afton South Prairie Wetland Mitigation Banks. Mitigation ratios range from 1.5:1 (7.733 wetland bank credits) for emergent wetlands and 2.0:1 (2.23 wetland bank credits) for impacts to forested wetlands.

Table 2: Discharge of Fill Material/Mitigation Stream Channel - Permanent Impact

Wetland Type	IMPACT ACRES						MITIGATION ACRES NEEDED				
	Wetland 1	Wetland 2		Wetland 3	Total Impact/Type	Total Emergent	Total Forested	Mitigation Ratio	Mitigation Credits Needed	Total Emergent Mitigation Credits Needed	Total Forested Mitigation Credits Needed
		Fill	Mitigation Stream Channel								
Shallow Marsh	0.00	0.00	0.00	1.20	1.20	5.16		1.5:1	1.800	7.733	
Fresh Meadow	0.29	0.70	0.14	2.19	3.32			1.5:1	4.980		
Fresh Meadow/ Hardwood Swamp (50/50)	0.00	1.09	0.18	0.00	1.27	1.12		(split 50/50)	0.953		2.230
Hardwood Swamp								0.14	0.13		
Total Impact/Wetland	0.29	2.38		3.60	6.27				9.963		

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. Erosion control measures will be utilized to minimize any increase in these disturbances and prevent further impacts to the remaining wetlands and the Illinois River. The realignment of the current stream channel will integrate the channel into the adjacent floodplain and connect the channel to existing ground water inputs; enhancements will create meander bends increasing the length of the channel and incorporate a series of rock riffles to improve in-stream aquatic habitat. The Applicant will purchase 9.963 wetland credits from the DeKalb County Forest Preserve District’s Afton Prairie and Afton South Prairie Wetland Mitigation Banks, the result of mitigation ratios ranging from 1.5:1 to 2.0:1 for impacts to jurisdictional wetlands.

Purpose and Social & Economic Benefits of the Proposed Activity.

The proposed railway expansion project is needed to meet new rail requirements for train control, movement, and efficiency to alleviate safety concerns and increase levels of service. The additional track length will provide unit train capacity (freight train carrying the same type of commodity from origin to destination) and alleviate safety issues and public concern with surrounding road closures due to train blockage. Train blockages, in excess of 30 minutes, have occurred at Mill Street and State Route 178 due to the ongoing plant expansion. These blockages affect the EMS route used to respond to emergencies and have frequently occurred at approximately 3:00 pm, when children are being released from school, causing major safety and public nuisance issues for the residents of Utica and the surrounding area. The proposed project will enhance the Applicant’s transportation network and provide sufficient tracks to obtain unit train capabilities for the entire mine’s operations and meet the safety and emergency needs of the region by reducing congestion caused by train blockages.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

Several alternatives were considered for the rail expansion project which includes the addition of the second loadout facility and the expansion of the rail track corridor to handle the added plant capacity. The major limiting factors for the location of the loadout facility included the location of the existing plant and plant expansion project, train car loading logistics, and optimum

conveyor operation. Considerations for the expansion of the rail track corridor included minimizing impacts to adjacent WOUS and choosing the best fit of the new yard with the existing track layout while utilizing the safest layout for employees and car movements with minimum cross traffic. Listed below are the alternatives for the location of the loadout facility (Alternative 1-3) and the rail track corridor expansion (Alternative 4-6).

Load-out Facility Alternatives:

Alternative 1: No Build Alternative

- Existing loadout facility operates 24/7 based on maximum shipping capacity
- Plant is currently under construction adding additional capacity; without the additional loadout facility it would prevent material from being produced and shipped from the plant expansion
- Would result in layoffs and decreased shipments
- Does not meet the purpose and need of the project to provide additional loadout capabilities

Alternative 2: Load-out Facility Addition to Existing Facility

- Major adverse impacts to wetlands and WOUS
- Approximately 1.13 acres of Wetland 1 impacted
- Require unnamed tributary to be rerouted

Alternative 3: Preferred Option: Load-out Facility Expansion further East in Upland Area

- Least amount of adverse impacts to wetlands
- Minimizes impacts to Wetland 1 to 0.29 acres
- Minimizes bends and slopes in the conveyor corridor
- Meets project objectives and provides the additional load-out capacity needed for the plant expansion

Rail Expansion Alternatives:

Alternative 4: No Build Alternative/Alternative Location

- Does not meet the purpose and need of the project to reduce safety issues associated with road blockages in Utica
- CSX Railroad is currently building new mainline to the south of existing mainline and providing the current mainline to the Applicant for plant operations
- Main rail line cannot be crossed leaving only north side of main line for additional tracks
- Steep topography of bluff directly north of the existing railroad prevents moving the tracks further to the north to avoid WOUS

Alternative 5: Standard Spacing Requirements

- Standards and capacity requirements are dictated by CSX for safe and proper car movements

- Spacing requirements allow for ample access down the corridor for vehicle traffic and an inspection road for each track
- Industry standards require tracks to be 25' from the existing mainline
- Would result in 10 acres of wetland impacts

Alternative 6: Preferred Option: Minimum Spacing Requirements

- Least amount of adverse impacts to wetlands and WOUS
- Minimizes lateral fill into wetland areas by increasing ballast side slopes to a 2:1 (v:h) from the standard 3:1 (v:h)
- Track centers at loadout facility required to be 30' for safe operation but will be reduced to 15' beyond the loadout facility
- Track distances between each other decreased as much as possible to minimize wetland impact
- Inspection road to be built between two of the proposed tracks thus eliminating one of the inspection roads
- Meets the requirements of the project and the safe and proper car movement standards dictated by CSX

Alternatives 3 (Load-out) and 6 (Rail Expansion) have been chosen as the best alternatives. These alternatives provide the least amount of impacts to the WOUS while providing the additional loadout facility needed by the Applicant and the additional tracks needed to reduce the traffic blockages of Mill Street and State Route 178 in Utica. Only the 'no build' alternative would result in no environmental impacts to the adjacent wetlands and WOUS. This option is not viable due to plant expansion and the need to reduce/eliminate traffic blockages at Mill Street and State Route 178 in Utica, specifically during peak times of school/student release, and allow access of EMS vehicles to and from Utica.

Conclusion:

The construction of the proposed project will follow conditions set forth by the Agency and USACE. The completion of the railway project is the most cost effective, viable means for increasing unit train capacity for Unimin Mine and reducing road blockages at Mill Street and State Route 178 in Utica. BMPs will be implemented prior to, during, and post-construction. Realignment and enhancement of 1,750' of stream channel and wetland mitigation of 9.963 acres of wetland credit from DeKalb County Forest Preserve District's Afton Prairie and Afton South Prairie Wetland Mitigation Banks will offset the permanent impacts to the current stream channel and the loss of 6.28 acres of jurisdictional wetlands.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

The Eco-CAT endangered species consultations submitted on July 11, 2014 to the Illinois Department of Natural Resources resulted in the identification of protected natural areas and threatened or endangered species residing in the area of the proposed rail expansion. IDNR reviewed the submittals and responded with the following- "Due to the sensitivity of the Starved

Rock – East INAI Site, the Plum Island Natural Heritage Landmark NPLWR, and various protected species in the vicinity of this project (Banded Killifish and River Redhorse), strict adherence to erosion and sedimentation control measures should be used to minimize the possibility of any adverse impacts to these resources”. IDNR concluded that adverse effects were unlikely if these control measures were followed and the EcoCAT consultation termination letters were issued for project numbers 1500381 and 1500385 on July 11, 2014.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this assessment was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by reducing the road blockage and congestion at Mill Street and State Route 178. The additional tracks will provide adequate rail service to accommodate increased train traffic that has resulted from Unimin Mine plant expansions and enable the mine to meet new rail requirements for train control, movement, and efficiency needed to alleviate the associated safety concerns. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.