

**Illinois Environmental Protection Agency
Bureau of Water, Permit Section
(IEPA)**

1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276, 217/782-3362

The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

Public Notice Beginning Date:

Wednesday, February 7, 2024

Public Notice Ending Date:

Wednesday, February 21, 2024

Agency Log No.: C-0223-22

Federal Permit Information: Federal permit/license no. 2017-936 is under the jurisdiction of Rock Island District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: U.S. Silica Company, Tom Proctor - 701 Boyce Memorial Drive, Ottawa, IL 61350

Discharge Location: In Section 19 of Township 33-North and Range 3-East of the East 3rd Principal Meridian in LaSalle County. Additional project location information includes the following: Intersection of 1251st Road and IL Route 71, Ottawa, IL 61305

Name of Receiving Water: Browns Brook

Project Name/Description: West Ottawa Mine Expansion – proposed expansion of existing U.S. Silica Company surface mine operations west of the current sand mine in an effort to mine additional below ground sand reserves on U.S. Silica Company owned property

Construction Schedule: Beginning Sep 2022 and ending Sep 2030

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters must provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as “any other appropriate requirement of State [or tribal] law”. Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, unless the IEPA grants an extended notice period. The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA’s antidegradation assessment.

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 see the contact information below.

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Post Document. No. C-0223-22-02072024-PublicNoticeAndFactSheet.pdf

U.S. Silica Company (“Applicant”) proposes to expand surface mining operations of the Ottawa Mine to the western adjacent property owned by U.S. Silica. The project area is approximately 300 acres (Ac), of which approximately 186 Ac will be mined. The primary purpose of the project is to expand mining operations to mine below ground sand reserves on U.S. Silica owned property. The proposed project area is located 4 miles west of Ottawa, Illinois, on the southeast side of the intersection of 1251st Road and IL Route 71. The project is in LaSalle County, Sections 19, 20, 29, and 30, Township 33 North, Range 3 East.

Preliminary plans, illustrate that the proposed mining expansion includes approximately 128.8 acres of agricultural land. An approximately 60-foot-wide hauling road will surround the mining area, while inside the haul road a 6-foot-tall safety berm will be installed. Inside the safety berm a groundwater cut-off trench will be excavated. This trench includes a base of bentonite and sandstone and polysheeting on the walls, to prevent hydrologic impacts to the adjacent Catlin Salt Marsh and potentially to Brown’s Brook. The trench walls will also be sloped for safety. Once the trench is excavated it will be dewatered prior to the installation of the polysheeting, and then backfilled.

Twelve wetland sites totaling 34.1 Ac are located within the review area. The construction of the mine will result in 4.61 Ac of unavoidable permanent losses to wetlands which includes 0.06 Ac forested wetland (Wetland E) and 4.55 Ac emergent wetland (Wetlands B, F, and L). Four of the twelve wetlands onsite are considered jurisdictional and will be impacted by the proposed project. Stream impacts include approximately 250 linear feet (LF) of Brown’s Brook as a result of bridge placement, and 40 LF of Tributary B resulting from installation of a culvert and riprap outfall to drain minor stormwater flows form a compensatory storage area on the west side of Catlin Park Road. Two 40 x 40 foot bridges with associated wing walls and riprap for erosion protection will be constructed over Brown’s Brook. Approximately 1 Ac of trees will be removed from the project area to accommodate the bridge crossings as well as to provide minor clearing for the haul road around the site.

A total of 4.61 Ac of wetlands and 290 LF of streams will be impacted by the project and will require compensatory mitigation. To offset the impacts of fill material, the Applicant proposes off-site stream and wetland mitigation by purchasing mitigation credits from USACE approved wetland and stream mitigation banks.

The original proposal for this project included moving Brown’s Brook, impacting approximately 6,720 linear feet but this plan was abandoned. Appropriate erosion control measures will be taken during project development to reduce the potential for unintentional sedimentation and sediment runoff into adjacent regulated waters.

Information used in this review was obtained from the application and supporting documents dated August 26, 2022, September 7, 2022, October 5, 2022, December 5, 2022, and December 14, 2022,

Identification and Characterization of the Affected Water Body.

Brown’s Brook (no segment code) and Tributary B (no segment code) are tributaries to the Illinois River. The tributaries have 0 cfs of flow during critical 7Q10 low-flow conditions and are classified as General Use Waters. The tributaries of the Illinois River are not listed as a biologically significant streams in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor are they given integrity ratings in that document. The unnamed tributaries of the Illinois River, tributaries to Waterbody Segment, IL_D-20, are not listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as they have not been assessed. The segments of the unnamed tributaries of the Illinois River are not subject to enhanced dissolved oxygen standards.

A Wetland and Waterbody Delineation was performed on March 22, 2022, by SCI Engineering. Stream Impacts proposed for this project include approximately 250 LF of Brown’s Brook and 40 LF of intermittent Tributary B, and wetland impacts include 4.61 Ac. The project is located within the Lower Illinois-Senachwine Lake – HUC code 07130001 watershed. This watershed is dominated by row crop agriculture, small rural homesites, and a portion of South Ottawa Township.

According to U.S. Geological Survey (USGS) Streamstats, the drainage area of Brown’s Brook, which is located along the eastern boundary of the subject site is approximately 6.54 square miles. 6720 LF of the perennial stream are within the project area. Minnows were observed in pools, but there were no macroinvertebrates observed in the channel at the time of the assessment though the tributary does possess suitable habitat. Minor riffles were observed as well as a mix of shallow and deep pool habitats within the assessment reach. Water appeared relatively clear with no discernable odor and no visible oil or sheen within the channel. Additionally, gravel and sediment bars and undercut banks with root exposure were observed throughout the channel. The riparian corridor is narrow and averaged 50 feet wide on either side of the channel with active farming along both banks. Dominant woody vegetation within the riparian corridor included eastern cottonwood, Osage orange (*Maclura pomifera*), common hackberry (*Celtis occidentalis*), bush honeysuckle (*Lonicera tatarica*), green ash (*Fraxinus pennsylvanica*), and elm (*Ulmus*) species. The EPA Rapid Bioassessment Protocol (RBP) was completed. Brown’s Brook was scored in the sub-optimal range with a score of 141/200 due to the habitat, vegetative cover, current condition, and stability of the tributary.

Tributary B was determined to have a drainage area of 0.45 square miles according to U.S. Geological Survey (USGS) Streamstats. Approximately 700 LF of the intermittent stream is located in the northwest corner of the project area. The substrate consisted of silt, sand, and clay, and the water appeared relatively clear with no discernable odor and no visible oil or sheen within the channel. Tributary B was scored on the lower end of the sub-optimal range of the RBP with a score of 111/200. Some of the categories were scored in the marginal range, as it receives more stormwater input from the surrounding agricultural fields and thus is impacted by sedimentation, reduced instream habitat, and downcutting of the channel.

The delineation identified 12 wetlands onsite, 5 of which were determined to be jurisdictional. Four of the five jurisdictional wetlands are proposed to be impacted as a result of the project.

Feature ID	Type	Ac on site	Ac impacted
Wetland B	Palustrine Emergent/Prior Converted Cropland (PEM/PCC)	14.1	3.72
Wetland E	Palustrine Forested (PFO)	0.4	0.06
Wetland F	PEM	0.42	0.42
Wetland L	PEM	0.41	0.41
	Total:	15.33	4.61

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

Permanent fill to wetlands will occur as a result of the proposed project. Total Suspended Solids (TSS) would be expected to increase temporarily during construction of the bridges and placement of the culvert. TSS loadings would subside once the construction is completed. Impacts to the uses of downstream waters due to suspended solids are not anticipated. The Applicant would take appropriate erosion control measures to reduce the potential for unintentional sedimentation and sediment runoff to adjacent, regulated waters.

Fate and Effect of Parameters Proposed for Increased Loading.

The Applicant proposes to mitigate functions lost from 250 LF of perennial streams; 40 LF of intermittent streams; and 4.6 Ac of wetlands. As part of the compensatory mitigation efforts, SCI completed the Illinois Stream Mitigation Method (ISMM) worksheet and determined that 716 stream mitigation credits will be

required as compensatory mitigation for tributary impacts. Additionally, the wetland mitigation credit ratio for impacts to the forested wetland (0.06 acre) are anticipated to be 2:1 and the mitigation credit ration for the emergent wetlands (4.55 acres) are anticipated to be 1:1 however, the USACE has the authority to determine the final compensation ratios. Wetland and stream mitigation credits will be purchased from USACE approved wetland and stream mitigation banks near the site. The specific bank locations where the credits will be purchased from have not yet been determined.

The practices outlined in the Stormwater Pollution Prevention Plan (SWPPP) should decrease the potential for increased pollutant loading. Appropriate best management practices (BMPs) and erosion control measures will be taken during project development to reduce the potential for unintentional sedimentation and sediment runoff into adjacent regulated waters.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the project is to expand U.S. Silica's mining operations west of the current sand mine in an effort to mine below ground sand reserves on U.S. Silica owned property.

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

Alternatives to avoid and minimize impacts to the jurisdictional waters while meeting the project's purpose and need were considered. The alternatives are discussed as follows:

Alternative 1- No Impact: This alternative avoids all impacts to the 4.61 Ac of wetlands and 290 LF of streams from the proposed project. This option would not allow for the expansion of silica mining operations within U.S. Silica owned property. This facility is the largest silica production facility in North America and mines fine grain, nearly pure quartz sandstone. A variety of mining methods include hard rock mining, mechanical mining, and hydraulic mining, which produce whole grain and ground silica. The products mined have a variety of applications such as glass production, foundry and refractory sand, abrasives, polishes, paints, fillers, filtration sand, frac sand, and cement testing sands. The expansion will allow the Applicant to continue mining prime grade sands from property they already own. The location of jurisdictional wetlands and waterbodies within the project limits, and the need to utilized the majority of the project site for mining, render this no impact alternative not practicable.

Alternative 2-Original Site Plan: U.S. Silica previously proposed a site plan that would have resulted in approximately 2.44 acres of wetland impacts and 6,270 LF of impact to Brown's Brook. The plan included the relocation of Brown's Brook by creating a channel to the south and west of the project boundary. The tributary would have drained directly north towards the Illinois River and would cross under Illinois Highway 71 using an existing culvert crossing location. However, relocating Brown's Brook would have potentially greatly increased the pollutant load to downstream waters, potentially impacting aquatic habitat within Brown's Brook and downstream to the Illinois River. The proposed design was further evaluated in an effort to avoid and minimize impacts to Brown's Brook. This alternative was not selected as the preferred alternative, and a new plan that would reduce impacts to natural resources was evaluated.

Alternative 3-Preferred Alternative: The preferred alternative was developed to minimize environmental impacts while still making the proposed project viable. This option will involve expansion of the current mining operation within the approximately 128.8 Ac east of the action area. The proposed plan creates a trench with a bentonite and sandstone bottom, and polysheeting which will be backfilled in order to attempt to prevent impacts to the adjacent Catlin Salt Marsh and potentially to Brown's Brook. The plans also include two bridge crossings over Brown's Brook. This alternative would fill or excavate 4.61 Ac of wetlands, of which 0.06 is forested wetland impact to Wetland E, and 4.55 Ac of emergent wetland impacts to Wetlands B, F, and L. Impacts to Brown's Brook and Tributary B include 290 LF from a culvert and bridge crossings for access. This alternative does increase wetland impacts by 2.71 Ac, however, impacts to Brown's Brook are decreased by 6430 LF. Potential chemical, biological, and physical impacts would be reduced, including to

wildlife habitat and the riparian corridor. The additional proposed wetland impact involves a lower quality wetland feature along the western portion of the mining action area. The Applicant has determined this option to be economically and environmentally feasible and therefore chosen this as the preferred alternative in order to reduce natural resource impacts.

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

A Section 7 consult was initiated and information from the USFWS IPaC review listed five federally listed threatened and/or endangered species that have the potential to occur within the project area and/or is affected by the project. The species listed are as follows:

Decurrent false aster (*Boltonia decurrens*) – Likely not present in the project area

Eastern prairie fringed orchid (*Platanthera leucophaea*) - Likely not present in the project area

Leafy prairie-clover (*Dalea foliosa*) - Likely not present in the project area

Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*) - Based on a site visit conducted on November 7 and 8, 2017, a section of the site was found to contain snag and live trees with dead branches that exhibit characteristics that make the trees and snags suitable for northern long-eared and Indiana bats. The site also contains suitable foraging habitat. Based on the site size, characteristics, and surrounding land use, it is possible that the project site is used by northern long-eared and Indiana bats as summer roosting habitat. The Bat Habitat Assessment Section of the application documents provide more details on the suitability of the site as northern long-eared and Indiana bat habitat.

On December 2, 2022, an IDNR EcoCAT consultation (Project # 2305740) was initiated and determined that the Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Illinois Natural Areas Inventory (INAI) Site

Catlin Salt Marsh

Ernat's Marsh

Starved Rock – East

Illinois Nature Preserves Commission Lands

Catlin Salt Marsh Natural Heritage Landmark

State Threatened or Endangered Species

Blacknose Shiner (*Notropis heterolepis*)

Indiana Bat (*Myotis sodalis*)

Pallid Shiner (*Hybopsis amnis*)

River Redhorse (*Moxostoma carinatum*)

Due to the project scope and proximity to protected resources the Department offers the following comments and recommends the following actions be taken to avoid adversely impacting listed species and protected natural areas in the vicinity of the project:

“Catlin Salt Marsh Natural Heritage Landmark (NHL), Catlin Salt Marsh INAI Site, Ernat's Marsh, & Starved Rock – East INAI Site

The Department has determined direct impacts to Starved Rock-East INAI site are unlikely. However, Catlin Salt Marsh NHL and INAI Site makes up a portion of the southern border of the proposed mining site and Ernat's Marsh is approximately 3,500 feet east of proposed mining site and have potential to be impacts by the

proposed mining activity. These sites are the only two remaining brackish marshes in Illinois. The Department is concerned any associated changes to the groundwater caused by mining activities this close to the NHL/INAI Site could cause adverse impacts to these sites. Based on a review of the *Groundwater Impact Analysis Report* conducted by the Illinois State Geological Survey, the Department has the following concerns:

- There is significant potential for water levels in and around the marsh to decline because of the stated proximity and anticipated depth of the mine.
- The assumption that relatively fresh water (e.g., precipitation) would be an adequate replacement for the saline water supporting the Catlin Marsh ecosystem is inaccurate.
- The methodology on which conclusions are drawn in the *Groundwater Impact Assessment Report* (e.g., adjustment of water levels in drive points, use of the pumping test as a corollary to the hydrologic impacts of mine expansion, and the use of relatively short-term data sets to extrapolate for long-term effects) may not be adequate to make the determinations outlined in the report.

In summary, the Department is concerned that there is significant potential for impacts to the marsh hydrology from the proposed mining expansion at Catlin Salt Marsh & Ernat's Marsh, which US Silica agreed to protect as part of the wetland mitigation agreement with the USACE. Due to the unique quality and rareness of these sites, and as these sites were initially preserved as mitigation for past wetland impact, The Department recommends the project proponent consider the conservation benefits of developing and implementing a management program for these sites and seek further protection for these sites. The Department suggests the project proponent also consider the potential financial and conservation benefits of enrolling some, or all, of the proposed mining site into a wetland/stream mitigation bank program. The Department and the Illinois Nature Preserves Commission look forward to working with the project proponent to ensure these rare and unique natural resources are protected and managed.

Indiana Bat

The Department recommends the following to avoid impacts to the Indiana Bat:

- If tree clearing is required, no tree clearing should occur between the dates of April 1st and October 31st.
- If these dates cannot be accommodated, a bat habitat assessment should be conducted in the project area by a qualified biologist to determine if habitat trees are present. Suitable habitat trees are defined as trees greater than 5 inches diameter breast height (DBH) with exfoliating bark, holes, cracks and/or crevices.
- If suitable habitat trees are found within the project area, these trees should be clearly flagged and/or marked and not be cut between April 1st and October 31st. All non-suitable trees may be cut at any time. Suitable habitat trees may potentially be cut during this time period if a qualified biologist determines the tree is not occupied by listed bat species and upon further coordination with the Department.

Please note that due to the federal status of the Indiana Bat, and its potential occurrence in the project area, coordination with the U.S. Fish and Wildlife Service may be necessary and is separate from this consultation and Illinois State regulations.

Blacknose Shiner, Pallid Shiner, & River Redhorse

The Department has determined adverse impacts to these protected fish species are unlikely.

Given the above recommendations are adopted, the Department has determined that impacts to these protected resources are unlikely. The Department has determined impacts to other protected resources in the vicinity of the project location are also unlikely.”

There is currently a review pending for this project with the consultant. This project remains an open discussion with the USACE and IDNR/INPC as further groundwater studies may be required. An agreement between the Illinois State Geological Survey and the consultant has not yet been reached.

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 local community by providing jobs and supporting the economy. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.

cc: Des Plaines Regional Office - Surface Water Manager