

**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:

Monday, December 13, 2021

Public Notice Ending Date:

Monday, January 3, 2022

Agency Log No.:C-0196-21

Federal Permit Information: Federal permit/license no. CEMVR-OD-P-2019-0394 is under the jurisdiction of Rock Island District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: :Ecology Solutions, LLC, Jerry Golf - 6132 Oakton Street, Morton Grove, IL 60053

Discharge Location: In Section 2 of Township 16-North and Range 4-East of the East 4th Principal Meridian in Henry County. Additional project location information includes the following: 137 Commercial Drive, Atkinson, IL 61235

Name of Receiving Water: Unnamed tributary, tributary to Mud Creek

Project Description: Expansion of the existing Eco Hill landfill

Construction Schedule: Beginning March 2022 and ending March 2023

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-0196-21-12132021-PublicNoticeAndFactSheet.pdf

Antidegradation Assessment Review for a 401 Water Quality Certification for Ecology Solutions, LLC.
IEPA Log No. C-0196-21
Henry County
Contact: Angie Sutton 217-782-9864

Ecology Solutions, LLC. (“Applicant”), has applied for a 401 Water Quality Certification for impacts associated with expansion of its’ existing landfill. The proposed expansion area contains 3,103 linear feet (LF) of jurisdictional perennial tributary and 1.14 acres (Ac) of jurisdictional emergent wetlands. The proposed project location is Section 2, Township 16 North, Range 4 East, Henry County, Atkinson, Illinois. The landfill is projected to reach its current disposal capacity within 10 years and expansion would provide needed landfill disposal space for an additional 12 years. This increase is needed in order to provide disposal to the service area in the next 20 years and the expansion will provide the needed 15.2 million cubic yards (CY) to fulfill future planned operations and disposal capacity at the facility.

Impacts to the tributary and wetlands will occur in order to construct a 4-ft thick composite liner for landfill cells. The tributary is an impounded tributary which receives flow entering from under Interstate 80. The inflow will be rerouted through a new channel south of the proposed expansion and north of I-80 and into an approximately 12.3 Ac stormwater basin located along the eastern boundary of the proposed expansion area. The basin will discharge into the existing stream channel that currently flows out of the impounded stream. Stream impacts will be mitigated through the purchase of 14,990 stream mitigation credits from the Skare Park Creek Mitigation Bank and wetland impacts will be mitigated at a 1.5 to 1 ratio through the purchase of 1.71 Ac of wetland mitigation credits from the Northern Illinois’ Wetland Mitigation Bank.

Information used in this review was obtained from application materials dated July 8, 2019, August 9, 2019, August 2019, September 15, 2020, March 26, 2021, July 28, 2021, and July 2021.

Identification and Characterization of the Affected Water Body.

Civil and Environmental Consultants, Inc. identified 5 wetlands (1.7 Ac.), 1 intermittent stream (871 LF), and 29 open water features (19.97 Ac.) within the 117 Ac study area. It was determined that 2 of the 5 wetlands (WTL-B-1 and WTL-B-2) and one open water feature (OWF-B-1) are jurisdictional waters. The study area consisted of mostly upland areas previously disturbed by strip mining or agriculture.

Wetland WTL-B-1 consists of a series of small Palustrine Emergent Wetlands (PEM) totaling 1.10 Ac. The wetlands are designated WTL-B-1A, WTL-B-1B, WTL-B-1C, WTL-B-1D, and WTL-B-1E. Dominant vegetation consists of Common reed (*Phragmites australis*), jewelweed (*Impatiens capensis*), amur honeysuckle (*Lonicera maackii*), and box elder (*Acer negundo*).

Wetland WTL-B-2 is a 0.04 Ac PEM wetland located south of OWF-B-1, on the south side of the I-80 culvert. This wetland receives drainage via an 18-inch culvert under I-80, and from a ditch that runs along the interstate but has no defined channel. Dominant vegetation consists of only Common reed (*Phragmites australis*) and leafy pondweed (*Potamogeton foliosus*). This wetland is connected to OWF-B-1 and therefore considered jurisdictional.

OWF-B-1 is a 3103 LF large end cut lake in the middle of the study area that is a perennial tributary to Mud Creek. The tributary drains into an intermittent channel at its easternmost point outside of the study area and eventually to Mud Creek. This tributary is considered jurisdictional due to the input from the culvert and eventual connection to Mud Creek. It is classified Palustrine Unconsolidated Bottom. Along the southern end the water is shallower and consists of leafy pondweed (*Potamogeton foliosus*) and duckweed (*Lemna spp.*) on the water’s surface. The tributary was a previously impounded perennial tributary that is now considered an open water feature and exists as a result of previous strip mining activities. There are some fish within OWF-B-1. Prior to the 1980s the lake was used by a local sportsman club and it is

assumed that it was likely stocked at that time. Lake depths vary from 2 feet at the southern reach to 17-19 feet at the northern reach. The center of the lake was found to range from 8 to 11 feet deep. The northern reach becomes shallow again at the property boundary where it was found to be about 9 feet deep. The end cut lake has 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributary to Mud Creek is classified as General Use Water. The unnamed tributary to Mud Creek 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 unnamed tributary to Mud Creek, tributary to Waterbody Segment IL_PBJ-04, is not listed on the 2018 Illinois Integrated Water Quality Report and Section 303(d) List as it has not been assessed. The unnamed tributary to Mud Creek is not subject to enhanced dissolved oxygen standards.

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

Pollutant load increases from the proposed project would likely include increases in suspended solids during project activities as well as during rerouting of the impounded tributary. The proposed tributary rerouting activity would include filling of the open water feature for construction of the landfill. Once the new channel is constructed it will discharge into the existing stream channel that currently outflows from the impounded stream. Additionally, all WOUS will be permanently impacted by over excavation in order to remove unacceptable soils and filling with a 4 foot thick composite landfill liner using clean earthen fill, an impermeable geomembrane liner, a gravel drainage layer, and geotextile filter. The liner is expected to fill approximately 92,347 CY.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids from proposed activities would be short-term and temporary in the tributary. The proposed measures to minimize the potential effect to the receiving water include the use of a storm water detention basin that could allow for sediment to settle out prior to discharge. The use of the basin as a means to reroute the tributary to the south of the project area will also preserve flow integrity and will minimize potential downstream impacts to aquatic organisms. Phasing will also be used for construction activities to minimize impacts. Creation of the new channel to direct surface water inflow along the south side of the proposed expansion area is the first phase. This will connect the existing stream channel northeast of the expansion area.

Compensatory mitigation for impacts to wetlands will be achieved through the purchase of 1.71 wetland mitigation credits from the Northern Illinois Wetland Mitigation Bank.

Wetland ID	Area (Ac)	Mitigation Ratio	Mitigation Credits
WTL-B-1	1.10	1:1.5	1.65
WTL-B-2	0.04	1:1.5	0.06
Total	1.14	-	1.71

Compensatory mitigation for impacts to perennial tributary OWF-B-1 will be achieved through the purchase of 14,990 stream mitigation credits from the Skare Park Creek Mitigation Bank. The number of credits was determined by use of the Adverse Impact Worksheet that look at the sum of factors multiplied by the total linear feet of stream impacted. The total factors scored for this formula considered the following: type of stream impacted (perennial), priority water type (tertiary), existing condition (functionally impaired), duration of impact (permanent), type of activity (fill), and cumulative impact (0.0003 x total LF stream impacted). The sum of these factors, which have specific values assigned to

them, are multiplied by the total linear feet of stream impacted to calculate the required total mitigation credits.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the project is to provide continued and uninterrupted solid waste services to the village, Henry County and the surrounding area. The project is in anticipation of Eco Hill's current disposal capacity projected expiration within 10 years by increasing the landfill's airspace to 15.2 million CY. The proposed expansion would provide an additional twelve years of disposal capacity.

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

Civil and Environmental Consultants, Inc. has analyzed alternatives that considered the following site screening criteria:

- Alternative must have minimum capacity of 15.2 million CY in order to meet future planned disposal capacity
- Alternative shall consider areas that would not significantly impact state and federal protected species habitats, previously identified cultural resource areas and important water resource areas.
- Alternative considers areas that will not impact the surrounding land uses.
- Alternative shall be constructed where stability concerns are not a hazard to safety. This considers only available areas for parameters needed to determine airspace volume available (design type, landfill depth, base slopes, slope of leachate collection pipe, slope terraces, etc.).
- Alternative must be located within a proximity to Eco Hill that will allow for logistically, economically, and environmentally practical disposal and meet the essential trucking disposal transportation needs.
- Alternative must be located on property owned or available for purchase by applicant.
- Alternative must not cause conflict with existing infrastructure that cannot be moved or replaced.

The alternatives analysis includes evaluation of potential impacts to natural and cultural resources, including threatened and endangered species, for each expansion area considered. This information is included in the Civil and Environmental Consultants, Inc. application document "*Eco Hill Expansion – Alternatives Analysis*" dated July, 2021.

Alternatives considered are as follows:

Alternative 1 – No Action Alternative: This option would involve continued operation under the current permitted disposal capacity. The landfill would not undergo additional expansion and would reach capacity within 10 years. Eco Hill would close and result in job losses, loss of host fees to the Village of Atkinson and Henry County, and reduction in property tax revenue. Closure of the facility would result in a significant reduction of available disposal outlets and loss of disposal capacity in IEPA Regions 2 and 3.

Onsite Alternatives –

Alternative 2 – Southeast Expansion (Preferred Alternative): This option would involve utilization of approximately 85 acres of land making an estimated 15.2 million CY available in the southeast portion of the property owned by Ecology Solutions. The western edge of the Southeast Expansion borders the currently developed disposal area thus enabling the use of existing facility infrastructure. This would allow for one continuous tract of landfill property making incorporation into the existing Eco Hill landfill operation possible with very little need for change to infrastructure and logistics. No structures are present

in the proposed area therefore no demolition would be required for application of the proposed action. Surface water in the area includes a previously impounded perennial tributary and emergent wetlands and no portions of the proposed area exist within a special flood hazard area. Additionally, stability concerns meet the safety criteria, and stability requirements for design purposes are met and would not cause adverse effects to groundwater. Impacts to the 3103 LF of perennial tributary and 1.14 Ac of wetlands will be mitigated through the purchase of mitigation credits. This was chosen as the Preferred Alternative as it would result in the Least Environmentally Damaging Practicable Alternative (LEDPA). Additionally, the tillable acres in this area are considered prime farmland or prime farmland if drained. This option would not require additional land purchase, proprietorship of additional host agreements, or the need for extra infrastructure. This option is also the only area where stability concerns meet safety criterion outlined above.

Alternative 3 – East Expansion: This option would utilize approximately 150 Ac of land for expansion. However, only 75 Ac lie within the current landfill property resulting in a need to purchase an additional 75 Ac from the adjacent landowner. This land is currently being used for agricultural purposes. There is an existing access road in the southwest corner of the Alternative 2 boundary that could potentially be used to access the Alternative 3 property, but existing roads are not rated to support the anticipated truck traffic. This option would require construction of new roads and potentially a bridge. The East Expansion area is adjacent to East 2350th Street on the east and existing landfill property to the west. Due to the fact that this alternative expansion area would not allow for one continuous tract of property, significant infrastructure would be required to allow for access between existing landfill property and the Alternative 3 East Expansion area. Because there are 2.05 Ac of freshwater ponds in this expansion area, a formal delineation would be required to determine if the surface water features are WOUS. It was determined that this option would allow for approximately 7.5 million CY of available capacity and require 75 additional acres be available for purchase. Stability concerns likely meet the safety criterion, but a site investigation would be needed for conformation. This alternative would also require additional hydrogeologic and geotechnical investigations. Due to the lack of available storage, site availability/land purchase constraints, transportation/infrastructure needs, impacts to prime farmland soils, and potential impacts to natural and cultural resources, this alternative was eliminated from consideration.

Alternative 4 – Northeast Expansion: This option would involve purchasing 252 Ac of land to the northeast of the property. Currently the land is a conservation and recreation area known as the Giant Goose Conservation Education Workshop owned by the Izaak Walton League. The land could be considered prime farmland if drained and consists mostly of strip mine lakes and ponds interspersed within a broad-leaf deciduous forest. Several cabins and outbuildings to support the site's recreational and educational activities are present on the property. Because water resources in the area consist of 31 Ac of freshwater ponds, 26 Ac of lakes and 2 Ac of linear riverine features, a formal delineation would be required to determine if the surface water features are WOUS. The Northeast Expansion Area is bordered by East 2350th Street to the east, landfill property to the south and west, and U.S. Route 6 to the north. This alternative would allow for one continuous tract allowing for integration into the existing facility operation possible with minimal changes to infrastructure and logistics. There are access roads on the north and south sides of the property that could be utilized but the roads are not rated to support the anticipated truck traffic, requiring construction of new roads. This alternative results in a lack of available storage required, as well as requires many factors involved in conversion of the land to a landfill. These factors include 146 Ac of forested habitat removal, bypass and dike construction, draining the lake, and soil grading. In addition, demolition of structures on the property and property purchase would need to occur. This option would only allow for 10 million CY of available capacity and require the purchase of land from Izaak Walton League. Stability concerns likely meet the safety criterion, but a site investigation would be needed for conformation. This alternative was eliminated from further consideration.

Offsite Alternative –

Alternative 5 – Relocation to Greenfield Site: This option involves moving the Eco Hill operating facility and infrastructure to a proposed greenfield site location. Potential sites in Henry County must have minimal jurisdictional waters on-site, must contain at least 400 Ac of land available for purchase, must be one continuous parcel or have the same owner if multiple continuous parcels, be in a geophysical area available for excavation, and have available existing transportation infrastructure needed to meet the trucking disposal transportation needs. A neighboring host community would be needed as well as a new host agreement negotiated, required public hearing held and development modifications completed, and acquisition of a new operating permit. There are numerous locations that could be considered but locations will not be specifically named in the alternatives analysis due to the exhaustive search process required. This alternative was determined to be the only way to achieve avoidance of all stream and wetland impacts, however, it was eliminated from consideration due to the time required for permitting and development of a greenfield site, overall cost and minimal availability of greenfield sites within proximity of Eco Hill.

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

On March 26, 2021 an IDNR EcoCAT consultation (Project # 2112009) was initiated for the proposed project site. The Illinois Natural Heritage Database reported containing no record of State-listed, threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. Consultation was terminated on March 26, 2021.

A Section 7 Consultation was initiated on July 8, 2019. According to the U.S. Fish and Wildlife Service's (USFWS) official species list for the study area, the following species may occur within the study area:

- Indiana bat (*Myotis sodalis*) - Federally listed endangered
- Northern long-eared bat (*Myotis septentrionalis*) – Federally listed threatened
- Mead's milkweed (*Asclepias meadii*) – Federally listed threatened
- Eastern prairie fringed orchid (*Platanthera leucophaea*) – Federally listed threatened

On June 25-27, 2019, Civil and Environmental Consultants, Inc. (CEC) conducted a threatened and endangered species habitat assessment. The results of the assessment found that the proposed action would have no effect on the federally threatened Mead's milkweed and the eastern prairie fringed orchid. CEC also concluded that while potentially suitable habitat for the Indiana bat and northern long-eared bat may exist within the study area, if the applicant adheres to limiting tree clearing activities to the hibernation period (October 1 – March 31) only, the proposed project may affect, but would not likely adversely affect these species. Additionally, there will be no effect on the threatened and endangered plant species due to the lack of suitable habitat within the project area.

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 and surrounding areas by providing adequate waste services for an extended period. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.