

IEPA Log No.: **C-0202-13**
CoE appl. #: **2013-315**

Public Notice Beginning Date: **November 23, 2015**
Public Notice Ending Date: **December 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
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Williamson Energy, LLC, PO Box 300, Johnston City, IL 62951

Discharge Location: Section 12, T8S, R4E of the 3rd P.M. in Williamson County near Johnston City

Name of Receiving Water: Unnamed tributaries to Pond Creek and unnamed wetlands.

Project Description: Pond Creek Mine No. 1 Refuse Disposal Facility No. 3.

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 Thaddeus Faught at 217/782-3362.

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Fact Sheet for Antidegradation Assessment

Williamson Energy – Unnamed Tributaries to Pond Creek & Unnamed Wetlands – Williamson County

COE # MVS-2013-315

IEPA Log # C-0202-13

Contact: Diane Shasteen (217) 558-2012

November 23, 2015

Williamson Energy, LLC (“Applicant”) has applied for Section 401 water quality certification for impacts to approximately 1,517 linear feet (LF) of ephemeral and intermittent streams, unnamed tributaries (UTs) to Pond Creek. The proposed project encompasses Section 12, Township 8 South, Range 4 East, approximately 5 miles northeast of Johnston City, Williamson County, Illinois. The proposed permitted area covers 279 acres, previously utilized for agricultural production and residential activities; current land use is predominately old field and forest habitat. The proposed coarse coal refuse embankment will range from 112’ to 190’ high with a 30’ wide crest at an elevation of 626’. A four foot thick compacted clay liner or a geosynthetic liner will be placed below the coarse coal refuse embankment and within the limits of the incised portion of the impoundment. Additional infrastructure for the proposed project include a 40’ wide access/haul/maintenance road, sediment control structures around the impoundment and a sediment pond, a decant water discharge pipe, two slurry lines, and three 42” culverts at road crossings. The purpose of the project is to construct a new refuse disposal area which will provide approximately 15.3 years of coarse coal and 12 years of fine coal refuse disposal from the Williamson Energy, LLC, Pond Creek Mine preparation plant located west of the proposed site. This project will maximize the storage capacity of the project area.

In addition to the stream impacts, the proposed project will impact 32.56 acres of jurisdictional forested wetlands. Wetland mitigation will occur within the 100-year floodplain of Pond Creek at a location approximately ½ mile northeast of the refuse disposal area with the creation of 97.68 acres of forested wetlands (3.0:1 mitigation ratio). Stream mitigation includes the creation of a 1,525 LF stream channel that will serve as a tributary to Pond Creek. The stream mitigation will include a 50’ riparian buffer on each side of the newly created channel. Stream and wetland mitigation sites will be constructed prior to or concurrent with the refuse facility development.

Identification and Characterization of the Affected Water Body.

The ephemeral and intermittent streams to be impacted, unnamed tributaries (no Segment Codes) to Pond Creek, have not been assessed by Illinois EPA. These streams are not listed as 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 an integrity rating in that document. The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.15 square miles for the combination of these five stream segments which are located in the southwest corner of the proposed site. According to the Illinois State Water Survey, these unnamed tributaries are likely to be 7Q1.1 zero flow streams. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 5 square miles or less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization would be required.

Pond Creek (IL_NG-02), a direct tributary to the Big Muddy River, is a General Use Water with an estimated zero cfs 7Q10 flow. According to the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, Pond Creek has been assessed by Illinois EPA and is listed as fully supporting Primary Contact Recreation and Secondary Contact uses and not supporting Aquatic Life use. Causes of Aquatic Life impairment include the following non-pollutants-Alteration in stream-side or littoral vegetative covers, Changes in stream depth and velocity patterns, and Loss of instream cover, and the following pollutants- Chloride, Dissolved Oxygen, and Sedimentation/Siltation. Fish Consumption and Aesthetic Quality uses have not been assessed. Pond 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 at this location. Pond Creek is not designated as an enhanced water pursuant to the dissolved oxygen water quality standard.

The Applicant contracted Alliance Consulting, Inc. to field investigate the waters of the U.S. and prepare a report of the project area. Five jurisdictional stream channels, A, A1, A2, A3, and A3a, and an upland non-jurisdictional roadside ditch were identified within the permit area. Stream measurements were collected in February 2012 to determine the stream length within the permit area. Two stream channels were determined to be intermittent (A and A1) and three channels were determined to be ephemeral (A2, A3, and A3a). No additional biological characterization or assessments of the stream channels were conducted due to the intermittent flow regime of the stream channels identified. The 1,517 LF of proposed stream impacts include the filling of the five stream channels and the creation of a 1,525 LF stream channel, with associated 50' riparian buffer, that will serve as a tributary to Pond Creek.

The Applicant contracted Alliance Consulting, Inc. to conduct a wetland delineation report of the project area. Wetland measurements were collected in February 2012 to determine the total acreage within the permit area. Two forested wetlands (A, B) were identified within the permit area. Wetland B is located outside the area to be disturbed; 32.56 acres of Wetland A will be impacted by the project. No floristic quality scores were given for these wetlands. The species lists from these sites were dominated by eastern poison ivy (*Toxicodendron radicans*), facultative upland tree species such as Shag-bark Hickory (*Carya ovata*), facultative tree species- Red Maple (*Acer rubrum*) and Honey Locust (*Gleditsia triacanthos*), and facultative wetland tree species-River Birch (*Betula nigra*) and Pin Oak (*Quercus palustris*). No further assessments or classifications were given for the delineated wetlands.

Impacts to the stream channels and wetland areas are unavoidable and will be mitigated on- or near-site concurrent with the refuse facility development. Completion is expected before the end of the 2nd growing season from the issuance of the Section 404 permit. To mitigate for the impacts to the 1,517 LF of stream channel the Applicant will create a 1,525 LF channel with a 50' riparian buffer on each side to serve as a tributary to Pond Creek. The impacted ephemeral and intermittent streams will be mitigated utilizing the Illinois Stream Mitigation Method which would require 5,401 credits. The Applicant would generate 14,411 credits based on the proposed mitigation plan. Wetland impacts will be mitigated at a 3.0:1 ratio; 97.68 acres of forested wetlands will be restored within the floodplain of Pond Creek at a location approximately ½ mile northeast of the refuse disposal area. Additional requirements for the mitigation sites include annual monitoring for 5 years or until success criteria are met and the USACE determines the sites to be self-sustaining. Mitigation areas will be protected in perpetuity with a Declaration of Covenants and Restrictions to be placed with the County Recorder of Deeds.

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. Prior to land clearing, the Applicant will construct sediment control structures such as temporary silt basins, ditches, ponds, rock toe sediment structures, straw bale fencing, and cloth filter fences to minimize any increase in suspended solids. These structures will be maintained in combination with concurrent reclamation and revegetation of disturbed areas.

The project will fill approximately 1,517 LF of ephemeral/intermittent streams which will be relocated during construction of the proposed storage facility. Approximately 32.56 acres of forested wetlands will be eliminated by the proposed construction.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids in the project area will be local and temporary. Erosion control measures mentioned above will be utilized to minimize any increase in suspended solids. Perimeter ditches, flumes, and road gutters will be constructed to direct storm runoff away from the embankment. All releases from the proposed site will be regulated by Section 402 of the Clean Water Act and subject to the NPDES effluent discharge limits for this location.

On-site ephemeral, intermittent stream relocation (1,517 LF) and near-site wetland construction (97.68 acres) will be completed concurrent with the refuse facility development. The relocation of the stream channel and its associated riparian zone will create a drainage network on the southeastern portion of the site. A 50 foot forested riparian buffer will be established on each side of the newly created stream channel. Based on the Illinois Stream Mitigation Method, a total of 5,401.34 stream units will be impacted by this project; the mitigation plan proposes the creation of 14,411.25 stream units. The proposed stream restoration and riparian buffer establishment will result in a surplus of 9009.91 stream units. On-site mitigation for the forested wetlands will be completed at a ratio of 3.0:1 for a total wetland creation of 97.68 acres.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of constructing the Dwina Refuse Disposal Facility No. 3 is to provide storage for approximately 15.3 years of coarse coal refuse and approximately 12.0 years of fine coal refuse based on Williamson Energy, LLC. production rates, totaling approximately 4.6 MCY of coal refuse annually. Coal refuse may include coal, rock, shale, slurry, culm, gob, boney, slate, clay and related materials, associated with or near the coal seam that are removed in the process of mining or are separated from coal during the cleaning or preparation operations. The coal preparation plant, located southeast of the proposed refuse site, separates the non-combustible materials from the mined coal producing clean coal and coarse or fine refuse; fine refuse is blended with water to produce slurry. The Herrin No. 6 coal seam is proposed to be mined in the areas surrounding the proposed facility.

The construction of the proposed project will provide continuation of mining activities, coal preparation plant operations, and provide coarse and fine coal refuse containment on site. The Pond Creek Mine No. 1, which has been operating since November 2006, is expected to generate 7.2 million tons of useable coal and 4.6 million cubic yards of coal refuse annually. This project will allow for the

continued employment of over 200 Pond Creek Mine and coal preparation plant employees and generate local retail trade for associated supply needs and employee commerce. The operation of the mine provides tax revenues through payroll, coal severance, and mineral resource taxes for the surrounding counties and the State of Illinois.

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

The applicant considered ten alternatives (No Action and Alternatives 1-9) for completion of the proposed refuse facility and completed a review of the economic and environmental advantages and disadvantages of these alternatives. The No Action alternative (Table 1) would result in the premature closure of Pond Creek Mine No. 1 and its preparation plant. These closures would result in a loss of approximately 200 direct and 179 indirect jobs, annual production of 7.5 million tons of coal, and other negative economic consequences such as losses in taxes and local retail trade generated from associated supply needs and employee commerce. The Applicant estimates the combined direct and indirect economic impact of closure would be the annual loss of over 60 million dollars in economic activity and almost 5.7 million dollars in taxes to various units of government. This alternative was deemed impracticable based on the project purpose and need.

Due to related costs, the Applicant considered it necessary to build the disposal area in the vicinity of the preparation plant and two primary criteria were used to narrow down the alternative site locations based on operation and cost feasibility. Alternatives 1-9 were chosen based on these two primary criteria: 1) Facility must be located on a previously undermined area so as not to limit future coal extraction opportunities and/or negatively affect the structural stability of the coal refuse disposal area and 2) Facility must be large enough to facilitate a minimum of approximately 10 years of service to the preparation plant in order to justify construction expenses.

The Applicant reviewed several sources including National Wetland Inventory (NWI), Soil Survey Geographic (SSURGO), Sanborn Aerial Planimetrics, and National Agriculture Imagery Program (NAIP) datasets to complete the Alternative Analysis. SSURGO provided prime farmland and soil data and NAIP was utilized to determine forest, residential, and road resources. Due to the lack of current updates to the NWI datasets, the Applicant chose the 2006 Sanborn aerial planimetric data to evaluate the aquatic resources (streams and wetlands) of the alternative sites. The Applicant stated the following: *“In order to complete the alternative analysis a standard basis for comparison must be utilized so that aquatic resources affects are evaluated similarly as part of the analysis. Sanborn Mapping standards indicate that when digitized at a 200’ scale a minimum of 85% of Marsh/Swamps and 90% of the streams/creeks will be identified within the planimetric mapping area.”*

Environmental and infrastructure impact, refuse storage efficiency, and cost analyses for Alternatives 1-9, based on these datasets, were compared. Alternatives 1, 3, 6, 7, and 9 were eliminated from further review due to higher densities of streams and total acres of open water/wetlands. Alternatives 2, 4, 5, and 8 were further evaluated; the efficiency and cost analyses of these alternatives are listed in Table 2 (provided by Applicant; modified for this assessment). In comparison to Alternative 8, Alternatives 2, 4, and 5 would provide less than half of the facility capacity and estimated lifespan. These alternatives would not provide enough capacity to justify construction expenses. Any combination of these alternative locations (2, 4, and 5) would also result in significant impacts to aquatic resources and a larger project footprint. All build alternatives would result in a loss of aquatic

habitat, including wetlands; however, Alternative 8 requires no new belt lines or slurry lines due to the proximity to the existing coal preparation plant further reducing disturbances such as road, railway, and stream crossings and operational and maintenance costs. Alternative 8 is the most practicable, cost efficient alternative providing the greatest facility capacity (64.0 MCY), estimated lifespan (13.9 years), and project efficiency (278,503 CY/A) at the lowest cost (2.2 M).

The Applicant elected to pursue Alternative 8 based on the original Alternative Site Evaluation utilizing Sanborn Planimetric Mapping which identified substantially fewer wetland acres (0.05 total acres impacted) than were delineated by Alliance Consulting, Inc. and the USACE (32.56 total acres impacted). In contrast to underestimating the wetlands located within Alternative 8, the mapping tool overestimated the stream impacts (19,482 LF) as compared to the actual stream impacts (1,517 LF). Efficiency and cost analyses based on these additional delineations are listed as Alternative 8* in Table 2.

Table 1: No Action Alternative for Williamson Energy, LLC Dwina Refuse Disposal Facility No. 3

Disadvantages

Loss of 7.2 million tons of coal annually; threatens necessary coal supply for electric utilities	Loss of approximately 60 million in economic activity annually and 5.7 million annual tax revenue for various government units	Site disturbance could potentially occur without regulated requirements
Loss of ~200 direct jobs associated with closure of Pond Creek Mine and preparation plant	Loss of retail trade generated from associated supply needs and employee commerce	Continued degradation of jurisdictional waters from agriculture
Loss of ~179 indirect jobs that support Pond Creek Mine and the preparation plant	Fails to meet Applicant's purpose and need of utilizing Pond Creek Mine's viable coal reserves	

Advantage

Eliminates refuse expansion-related disturbances of streams and wetlands

Table 2: Project Alternative Comparison for Williamson Energy, LLC East of Dwina Refuse Disposal Facility

Alternative	Land Area Impacted (Acres)	Stream Impact (LF)	Wetland Impact (Acres)	Forest Impact (Acres)	Prime Farmland (Acres)
2	194.2	13,895	1.64	161	50
4	128.2	4,729	0.1	13	33
5	290.2	8,296	0.11	101	98
8	229.8	19,482	0.05	118	71
8*	229.8	1,517*	32.56*	118	71

Alternative	Refuse Storage per Land Area Impacted (MCY/AC)	Refuse Storage per Stream Impacted (MCY/LF)	Refuse Storage per Wetland Impacted (MCY/AC)	Refuse Storage per Forest Impacted (MCY/AC)	Refuse Storage per Farmland Impacted (MCY/AC)
2	103,502	691	0.08	8.01	2.50
4	111,544	331	0.01	0.91	2.30
5	109,924	260	0.00	3.17	3.06
8	278,503	304	0.00	1.85	1.11
8*	278,503	24*	0.51*	1.85	1.11

Alternative	Refuse Storage (MCY)	Refuse Transport Distance (Miles)	Total Belt/Slurry Lines Costs (M)	Property Acquisition Costs (M)	Total Project Costs (M)
2	20.1	0.30	2.0	0.68	3.7
4	14.3	0.72	3.7	0.45	4.5
5	31.9	1.03	4.5	1.00	6.0
8	64.0	0.00	0.0	0.80	2.2
8*	64.0	0.00	0.0	0.80	1.5*

All stream/wetland information based on original evaluation of site alternatives (2, 4, 5, 8) utilizing 2006 Sanborn aerial planimetric data.

*Figures based on USACE actual stream/wetland acre impacts for proposed Alternative 8 which were 1,517 LF of streams and 32.56 wetland acres.

Conclusion:

The construction of the proposed project will follow conditions set forth by the Agency and USACE. The completion of the coal refuse facility construction project is the most cost effective, viable means for providing permanent coal byproduct storage for the existing Pond Creek Mine. Sedimentation ponds, ditches, and diversions will be placed throughout the construction site to collect surface runoff and convey water to NPDES outlets, thereby, minimizing the increase in total suspended solids and any adverse effects to aquatic resources. The construction of the proposed facility will allow Pond Creek Mine and its coal preparation plant to remain operational and retain 200 employees. The availability of high quality coal and a tax revenue base will remain uncompromised. Disturbance to ephemeral and intermittent streams and wetlands will be mitigated through the creation of a new stream channel and the creation of forested wetlands in the Pond Creek watershed.

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

An Eco-CAT endangered species consultation submitted on October 8, 2015 to the Illinois Department of Natural Resources resulted in no record of State-listed threatened or endangered species or protected natural areas in the vicinity of the project and consultation for IDNR Project #1604012 was immediately terminated.

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 retaining the employment of approximately 200 residents and provide the continuation of the tax revenue base and affordable energy to Illinois's citizens and businesses. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.