

**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, December 27, 2021

**Agency Log No.:C-0239-21**

**Federal Permit Information:** Federal permit/license no. LRL-2019-00092-mlk is under the jurisdiction of Louisville District, Regulatory Branch U.S. Army Corps of Engineers

**Name and Address of Discharger:** :Village of Dieterich - P.O. Box 243, Dieterich, IL 62424

**Discharge Location:** In Section 13 of Township 7-North and Range 7-East of the East 3rd Principal Meridian in Effingham County. Additional project location information includes the following: Along E. Virginia Street, Village of Dieterich, IL 62424

**Name of Receiving Water:** Dieterich Creek

**Project Description:** proposed straightening of 618 linear feet of Dieterich Creek from Railroad Street to Planters Street

**Construction Schedule:** The Project is expected to take approximately 3 months to complete.

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-0239-21-12132021-PublicNoticeAndFactSheet.pdf

The Village of Dieterich (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with straightening Dieterich Creek in Section 13, Range 7 East, Township 7 North, Effingham County, Illinois. The project site is located along South Loda Street between Planters Street and East Virginia Street extending just north of East Virginia Street in Dieterich. The project will involve excavation of 391 linear feet (LF) to connect upstream and downstream points of Dieterich Creek and fill in the existing meandering creek to reduce flooding during heavy rain events in the area. Additionally, 225 LF downstream of the connection will be shifted five feet to the west away from South Loda Street. The newly excavated creek will be graded, stabilized with rip rap and seeded. The left descending bank will be stabilized and sloped with rip rap while the right descending bank will be excavated five feet to the west. Three rock cross vanes will also be constructed as part of the project. One will be within the new channel, a second will be placed at the downstream connection point and a third will be at the most downstream point where the project terminates. 929 feet (0.71 acres) of the existing meandering portion of the creek will be filled with 363 cubic yards (CY) of fill from the newly excavated channel and 6097 CY of common fill dirt (hauled from an offsite location). 95 LF (0.02 acres) of the Unnamed Tributary to Dieterich Creek will also be filled with 154 CY of hauled in fill dirt while a new unnamed tributary is excavated to connect the upstream section to the new main channel of Dieterich Creek. This new section of the unnamed tributary will be 157 feet long and roughly 20 feet wide with similar construction and stabilization as the main channel. Once the existing creek and tributary are filled, those areas will be graded and seeded for use as green space. Overall expected impacted length of filled stream is approximately 929 LF with a net loss of stream length to be 537 LF. The expected area to be impacted will be 1.06 Acres. Mitigation is proposed both on and offsite. Onsite mitigation will consist of creation of a riparian zone along the newly created channel, and offsite mitigation will include preservation and enhancement of 1384 LF of Dieterich Creek north of the project site. The applicant has also proposed two rip rap bank stabilization areas upstream of the stream straightening project area in order to alleviate or diminish further erosion and scour downstream. Riprap Site 1 would be located directly north of the stream straightening area and provide stabilization of 517 LF per side by excavation of the slopes and placing 402 CY of riprap per side. Riprap Site 2 would be directly north and south of IL 33. Stabilization north of IL 33 would include 204 LF per side by excavating slopes and placing 137 CY of riprap per side, and stabilization south of IL 33 would include 64 LF with placement of 40 CY of riprap per side.

Information used in this review was obtained from the application documents dated April 30, 2019, April 1, 2019 and January 18, 2019, December 9, 2020 and November 9, 2021.

### **Identification and Characterization of the Affected Water Body.**

Dieterich Creek has 0 cfs of flow during critical 7Q10 low-flow conditions. Dieterich Creek is classified as General Use Water. Dieterich 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. Dieterich Creek, Waterbody Segment IL\_COC-10, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for Aquatic Life Use with cause listed as unknown. Dieterich Creek is not subject to enhanced dissolved oxygen standards.

The unnamed tributary of Dieterich Creek has 0 cfs of flow during critical 7Q10 low-flow conditions and is classified as General Use Water. The unnamed tributary to Dieterich 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 Dieterich Creek, tributary to Waterbody Segment, IL\_COC-10, is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. The unnamed tributary to Dieterich Creek is not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.14 square miles for the unnamed tributary of Dieterich Creek. According to the Illinois State Water Survey, the unnamed tributaries of Dieterich Creek in the area of the proposed stream realignment discharge is 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 3 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 is required.

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

The pollutant load increases that would occur from this project include some possible increases in total suspended solids. These increases, a normal and unavoidable result of straightening Dieterich Creek, is expected to occur in 0.73 acres of the existing channels. Impacts are expected to be short-term and temporary due to relocation and associated improvements. The existing waterway would be permanently filled once the channel is relocated. Impacts are expected to recover and improve with the proposed realignment of the waterway. The proposed project will improve flood storage and reduce flooding in the area.

The existing meandering portion of Dieterich Creek will be filled with approximately 363 CY of material from the newly excavated channel, while the remaining 6097 CY will be supplied by clean fill dirt hauled in from off-site. Additionally, three rock cross veins and rip rap slope stabilization areas consisting of RR4 riprap will be placed. 95 LF of the unnamed tributary will be filled with 154 CY of clean fill hauled from offsite.

### **Fate and Effect of Parameters Proposed for Increased Loading.**

The increase in total suspended solids would be temporary and short-term increases. Although the existing stream is to be filled in, it is expected that the relocated stream will provide better flood control to the area due to the proposed improvements. Proposed impacts have been minimized to the maximum extent possible for the applicant to achieve their purpose. Banks will be stabilized and sloped with rip rap and seeded, and rock cross vanes will be constructed at various points within the water way. Additionally, the right banks along South Loda Road will be shifted five feet away from the road.

A mitigation plan was developed that would provide improvements to Dieterich Creek both onsite and off-site. Off -site mitigation proposed by the applicant includes enhancement of a Riparian Buffer Zone and riprap bank stabilization upstream of the impact area. Onsite mitigation proposed includes, creation of a riparian buffer zone and tree planting on stream banks within the permanent footprint of the project, rock cross vein construction within the permanent footprint, and riprap bank stabilization. Additionally, the applicant will grade and seed filled areas.

Preservation of a 1384 LF section of Dieterich Creek within a documented wetland will be set aside as part of the mitigation plan. The proposed work will involve clearing of debris on the streambanks that is causing any erosion and impairing the stream. Existing damage to the stream banks will be repaired and planted with new vegetation. Buffer zones will be created or expanded to 25 feet in width on the East and

West boundaries of the wetland. Four locations within the preservation area were identified as having significant obstructions or evidence of substantial erosion. Obstructions will be removed and stream banks will be restored by excavating sediment to reshape stream beds and planting native vegetation to provide bank stabilization. The expanded riparian zone will be planted with trees and bushes consistent with *Planting Requirements and Success Criteria for Forested Portion of Riparian Mitigation*, with progress being monitored for a minimum of 5 years or until successful completion of goals is documented and approved by USACE.

The placement of riprap in 3 locations north of the project area will be required to alleviate or diminish further erosion and scour downstream. Following excavation of the slopes, approximately 1158.46 CY of riprap will be placed at Rip Rap Sites 1 and 2 in order to achieve this. Rip Rap Site 1 is the area directly north of the project site and will require placement of 401.75 CY of rip rap on each bank at a thickness of 16 inches. Rip Rap Site 2 is the area north of IL 33 which will require placement of 137.03 CY of riprap and the area south of IL33 which will require placement of 40.45 CY, both of which will be placed at a thickness of 16 inches.

The Riparian Buffer Zone creation within the project footprint is designed to restore the area to as near as possible to its original riparian condition before the implementation of the straightening project. The buffer zone on the east bank will be a minimum of 25 feet wide and 385 feet long with a 50-foot long transition zone to widen the buffer zone to 50 feet, adding 133 feet of length. The west bank will undergo creation of a 75-foot wide, 350-foot long Riparian Buffer Zone.

Rock cross veins will reduce the increased velocity of the newly constructed stream causing advanced onsite erosion and downstream sedimentation. These structures will slow waters and promote pool creation that could provide habitats for native fish and wildlife species. Proposed placement for these structures will be within the new channel, a second will be placed at the downstream connection point of the unnamed tributary to Dieterich Creek, and a third will be at the most downstream point where the project terminates. Adjacent to these structures, riprap will be installed for 25-foot sections both upstream and downstream at each cross vein as well as along the banks of the unnamed tributary.

#### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The purpose of this project is to alleviate flooding issues and prevent damage to private and public property as a result of these flooding issues.

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

The option to do nothing is not a feasible long-term solution for alleviating the issue of flooding within the Village of Dieterich and does not serve the purpose and need of the project.

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

An EcoCAT endangered species consultation was submitted to the Illinois Department of Natural Resources on April 1, 2019 and found no record of State-listed threatened or endangered species in the vicinity of the project location. There is also no record of INAI sites, dedicated Illinois Nature Preserves or registered Land and Water Reserves. IDNR has concluded that adverse effects are unlikely, and the consultation has been terminated provided the following recommendations are followed:

- Avoid in-stream modifications that will increase flow velocities within Dieterich Creek; increased velocities have adverse effects on aquatic communities including habitat loss, increased water

temperature from loss of shading, increased turbidity, increased erosion and scour and restricted fish migration due to increased water velocities.

- Execute a salvage authorization the Department's Fisheries Division to salvage imperiled aquatic life from the abandoned portion of the stream pursuant to Fish and Aquatic Life Code [515 ILCS 5/1-150] and 17 ILL. Adm. Code 860. The request for a salvage authorization should be made at least 30 days prior to project implementation. The project should be implemented in a way as to avoid and minimize the taking of aquatic life.

The project was reviewed for cultural resources and determined to be in compliance with the Illinois State Agency Historic Resources Preservation Act.

The previously referenced EcoCAT consultation expired on April 1, 2021 and a new consultation was submitted by the USACE on November 8, 2021. Project # 2206888 resulted in a consultation termination stating that no record of State-listed threatened or endangered species, INAI sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location is contained in the Illinois Natural Heritage Database.

#### **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 would 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 would benefit the Village of Dieterich by providing a long-term solution to alleviate flooding during heavy rain events. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.