



**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
WATER RESOURCES DIVISION  
PERMIT**

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**Issued To:**

**Washtenaw County Water Resources  
Attn: Harry Sheehan  
705 North Zeeb Road  
Ann Arbor, Michigan 48107**

**Permit No: WRP017358 v.1.1  
Submission No.: HPC-V24A-VVJ7P  
Site Name: 81-1200 Pepper Pike Road-Ann Arbor  
Issued: January 15, 2020  
Revised: November 9, 2021  
Expires: January 15, 2025**

**This permit is being issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); specifically:**

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| <input checked="" type="checkbox"/> <b>Part 301, Inland Lakes and Streams</b>                         | <input type="checkbox"/> <b>Part 323, Shorelands Protection and Management</b> |
| <input type="checkbox"/> <b>Part 303, Wetlands Protection</b>   | <input type="checkbox"/> <b>Part 325, Great Lakes Submerged Lands</b>          |
| <input type="checkbox"/> <b>Part 315, Dam Safety</b>  | <input type="checkbox"/> <b>Part 353, Sand Dunes Protection and Management</b> |
| <input type="checkbox"/> <b>Part 31, Water Resources Protection (Floodplain Regulatory Authority)</b> |  |

**Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:**

**Authorized Activity:**

Abandon 1,050 linear feet of stream by placing approximately 1,400 cubic yards of fill material within the existing channel. Enclose 111 feet of the upstream portion of the relocated stream in a 5.5-foot diameter storm water outfall pipe that will discharge directly to the relocated stream channel. Excavate approximately 284 cubic yards of material from upland to create a 766 foot long by 10-foot-wide relocated stream channel. The new stream channel will include instream structures and function as stream mitigation.

Perform the following activities in addition to the previously permitted activities: Repair damage to the previously permitted instream structures. Install 60 cubic yards of rock within the stream channel to construct four (4) new cross vane structures. Install bioengineering measures in the stream bank for stabilization. Install 20 cubic yards of riprap and cobbles within the stream channel in scour pools and voids.

All work shall be completed in accordance with the modified approved plans and the specifications of this permit.

Waterbody Affected: Millers Creek Ann Arbor Drain

Property Location: Washtenaw County, City of Ann Arbor, Town 02S, Range 06E, Section 23

**Authority granted by this permit is subject to the following limitations:**

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit by completing and forwarding the attached preaddressed postcard to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of EGLE.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
- L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
- M. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
- O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
- P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to being implemented.

- Q. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.
- R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.
- S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.
- T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).
- U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.
- W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.
- Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:
1. Prior to the initiation of any permitted construction activities, a sedimentation barrier shall be constructed immediately down gradient of the construction site. Sedimentation barriers shall be specifically designed to handle the sediment type, load, water depth, and flow conditions of each construction site throughout the anticipated time of construction and unstable site conditions. The sedimentation barrier shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland (non-wetland, non-floodplain) site and stabilized with seed and mulch. The sedimentation barrier shall then be removed in its entirety and the area restored to its original configuration and cover.
  2. All raw areas in uplands resulting from the permitted construction activity shall be effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands. Temporary stabilization measures shall be installed before or upon commencement of the permitted activity and shall be maintained until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.
  3. All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain, or non-bottomland) or used as backfill in the abandoned stream channel, prepared for stabilization, and stabilized with sod and/or seed and mulch in such a manner to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.

4. All fill/backfill shall consist of clean inert material that will not cause siltation nor contain soluble chemicals, organic matter, pollutants, or contaminants. All fill shall be contained in such a manner so as not to erode into any surface water, floodplain, or wetland. All raw areas associated with the permitted activity shall be stabilized with sod and/or seed and mulch, riprap, or other technically effective methods as necessary to prevent erosion.
5. The proposed channel relocation shall be constructed in the dry. Upstream and downstream plugs shall remain in place until the new channel is capable of handling flows without causing erosion.

### **Stream Restoration**

6. The permittee shall, as a primary condition of this permit, replace the loss of stream functions and services due to the enclosure of 111 feet of stream and the relocation of 1,050 feet of stream. The authorization granted by this permit is contingent upon the completion of restoration as follows:
  - a. The permittee is required to provide 766 feet of stream restoration, measured along the centerline of the stream, using natural channel design principles in accordance with plans approved by EGLE. If the permit conditions modify the restoration plan, the permit conditions shall take precedence over the restoration plan.
  - b. The restoration grading, planting, and introduction of hydrology shall be constructed prior to or concurrent with initiating any other permitted activities.
  - c. The permittee shall provide a surety bond or letter of credit to EGLE in a form identical to the financial assurance models on EGLE's Web site at [www.michigan.gov/deqwetlands](http://www.michigan.gov/deqwetlands) in the amount of \$191,500 to ensure that the stream restoration is constructed, the drain agreement is recorded, monitoring is completed, and corrective actions are performed as required to comply with the restoration requirements and conditions of this permit. The financial assurance document will be provided and accepted by EGLE prior to signature of this permit by EGLE.

Prior to the transfer of this permit to another person, the new person must obtain and provide a financial instrument acceptable to EGLE in the name of the new person and in the amount required by this permit.

Upon request of the permittee and with the submittal of adequate proofs, EGLE may release portions of the financial instrument in accordance with the following guidelines:

Fifty (50) percent of the financial instrument may be released after the permittee demonstrates substantial compliance with Performance Standards a. through m., in this permit, for a minimum of two years after construction of the stream restoration, EGLE concurs that the restoration grading and planting have been completed, and a pattern, dimension, and profile indicative of a stable stream channel have been maintained after a minimum of two stream flow events that are equal to or greater than the bankfull flow.

The remaining 50 percent of the financial instrument will be released upon all of the following:

- i. Submittal of all the required monitoring reports,
- ii. Substantial compliance with the performance standards as outlined in this permit,
- iii. Demonstration that a stable stream pattern, dimension, and profile have been maintained for five years and at least two bankfull flow events to demonstrate long-term stability of the restored stream channel, and
- iv. Final approval by EGLE.

- d. The permittee shall execute a drain agreement over the stream restoration area, including the associated riparian buffer as shown on the permit plans.<sup>1</sup> The original executed drain agreement and associated exhibits must be sent to EGLE for review and recording within 60 days of the issuance of this permit. Send to: Conservation Easement Coordinator, EGLE, Water Resources Division, P.O. Box 30458, Lansing, Michigan, 48909, with a copy of the executed drain agreement mailed to the District Office's address above.

**An acceptable executed drain agreement must be submitted to EGLE by the permittee prior to commencement of any permitted work within regulated areas.**

- e. Any planting or seeding of the restoration site must consist of native Michigan plant materials according to the Floristic Quality Assessment for the State of Michigan, except for an annual cover crop for initial site stabilization upon approval of EGLE. Engineered plant material, such as jute and coconut fabric, shall be comprised of inert plant fiber that may be nonnative.
- f. The permittee shall notify EGLE's Jackson District Office, in writing and within 20 days of completion of each of the following items:
- i. final grading and construction
  - ii. seeding and plant installation
- g. In the event the permitted activity is begun but not completed, the permittee or owner of record shall remain responsible for completion of the stream restoration, as determined by EGLE. Such determinations shall be based upon the extent of the disturbance to the existing stream.
- h. Should the restored stream and associated riparian buffer area fail to become stable after two bankfull (or greater) flow events, including at least one flow event that results in over-bank flooding, and two complete growing seasons, or fail to progress satisfactorily towards a self-sustaining stream system as required by this permit, the permittee shall:
- i. Assess the problem and its probable causes;
  - ii. Assess upstream and downstream impacts of the restoration;
  - iii. Develop reasonable and necessary corrective measures as a revision to original plans;
  - iv. Submit proposed corrective measures, including a schedule for implementation, to EGLE for confirmation and approval within 60 days of identification of the problem; and
  - v. Upon EGLE approval, implement corrective measures according to the approved schedule.

Additional restoration monitoring may be required to evaluate the success of the corrective measures.

### **Stream Restoration Performance Standards**

7. The following performance standards will be used to evaluate the stream restoration project:
- a. Construction has been completed in accordance with EGLE's approved plans and specifications included in the permit and restoration plan.
  - b. Restoration of the stream channel to a stable pattern, dimension, and profile based on reference stream parameters and the restoration plan. Maintenance of stable stream parameters for two bankfull (or greater) flow events and at least one flow event that results in over-bank flooding.

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<sup>1</sup>For stream restoration on county drains, an agreement from the drain commissioner requiring approval by EGLE for maintenance activities may be accepted in some cases in lieu of a conservation easement.



- c. The stream and riparian buffer restoration area shall be free of oil, grease, debris, and all other contaminants.
- d. Any in-stream structures (i.e., cross-vanes, wood, constructed riffles, etc.) shall perform as designed. The structures shall stay in place and there shall be no bank erosion, piping, undermining, end around, or other indication of instability associated with the in-stream structures including no buoyancy issues with wood structures.
- e. At the end of the monitoring period, the restored stream shall exhibit **floodplain connectivity** appropriate for proper stream functioning as evidenced by a weighted Bank Height Ratio of 1.0-1.1, and a weighted Entrenchment Ratio of >2.2.
- f. At the end of the monitoring period, the restored stream shall exhibit **bedform diversity** appropriate for proper stream functioning. Appropriate bedform diversity shall be demonstrated by the pool to pool spacing ratio and pool max depth ratio. The pool to pool spacing ratio shall be 5-8 bankfull widths. The pool max depth ratio shall be >2.
- g. At the end of the monitoring period, the restored stream shall exhibit **bank migration** appropriate for proper stream functioning as evidenced by a dominant Bank Erosion Hazard Index (BEHI) score and a Near Bank Stress (NBS) score combination (BEHI/NBS) of Moderate/Very Low; Low/Very Low; Low/Low; Low/Moderate; or Low/High.
- h. At the end of the monitoring period, the restored stream shall exhibit a vegetated **Riparian Buffer**, measured horizontally from the water's edge, equal to or greater than 50 feet on each side of the channel.
- i. The mean percent cover of invasive species in the stream channel and associated riparian buffer including, but not limited to, *Phragmites australis* (Common Reed), *Lythrum salicaria* (Purple Loosestrife), *Frangula alnus* (Glossy Buckthorn), *Rhamnus cathartica* (Common Buckthorn), *Alliaria petiolata* (Garlic Mustard), *Phalaris arundinacea* (Reed Canary Grass), and *Lonicera maackii* (Amur Honeysuckle) shall in combination be limited to no more than ten (10) percent within the vegetated riparian buffer. Invasive species shall not dominate the vegetation in any extensive area of the stream channel and associated riparian buffer during the first two growing seasons to allow native vegetation to become established.

During the first two growing seasons, if the mean percent cover of invasive species in the stream channel and associated riparian buffer is more than ten (10) percent or if there are extensive areas of the stream channel or associated riparian buffer in which an invasive species is one of the dominant plant species, the permittee shall submit an evaluation of the problem to EGLE. If the permittee determines that it is infeasible to reduce the cover of invasive species to meet the above performance standard, the permittee must submit an assessment of the problem, a control plan, and the projected percent cover that can be achieved for review by EGLE. Based on this information, EGLE may approve an alternative invasive species standard. Any alternative invasive species standard must be approved in writing by EGLE.

- 8. If the stream restoration does not satisfactorily meet standards a. through h. by the end of the monitoring period, standard i. by the end of two growing seasons, or is not satisfactorily progressing during the monitoring period, the permittee will be required to take corrective actions.

**Stream Restoration Monitoring**

9. The permittee shall monitor the stream restoration for a minimum of five (5) years following grading, planting, and introduction of hydrology. A monitoring report, which compiles and summarizes all data collected during the monitoring period, shall be submitted annually by the permittee. Monitoring reports shall cover the period of January 1 through December 31 and be submitted to EGLE prior to January 31 of the following year. The permittee shall conduct the following activities and provide the information collected in the monitoring reports:
  - a. Provide annual photographic documentation of the development of the restored stream channel and the associated riparian buffer from permanent photo stations located within the restored stream channel. At a minimum, photo stations shall be located at each cross-section and include each in-stream structure (i.e., cross-vanes, wood, or constructed riffles, etc.), if applicable. Photos must be labeled with the location, date photographed, and direction. A map of the locations of the photo stations shall be included.
  - b. Stream dimensions should be measured on an annual basis by conducting cross-section surveys. A minimum of three riffles and three pool cross-sections shall be permanently monumented and each cross-section shall be surveyed annually. Spacing of pools, maximum pool depths, and riffle/run lengths should also be determined. Bankfull width, mean and max depth and cross-sectional area, as well as width to depth ratio, percent riffle, pool to pool spacing ratio, pool max depth ratio, bank height ratio, and entrenchment ratio should all be reported. Current year cross-sections should be presented overlaid with survey results from all previous monitoring years and as-built surveys.
  - c. Delineate any extensive (greater than 0.01 acre in size) bare soil areas, areas dominated by invasive species, and areas without a predominance of native vegetation, and provide their location on a plan view.
  - d. Inspect the site, during all monitoring visits and inspections, for oil, grease, man-made debris, and all other contaminants and report findings. Rate (e.g., poor, fair, good, excellent) and describe the water clarity in the stream channel.
  - e. Document substrate characteristics and any areas of erosion and/or deposition within the stream channel.
  - f. Assess the stability and performance of any in-stream structures or large woody debris features.
  - g. Provide a written summary of data from previous monitoring periods and a discussion of changes or trends based on all monitoring results. This summary shall include identification of all performance standards and whether each standard has been met. A table containing this information shall be included and shall compare current year monitoring data to data from previous years' surveys.
  - h. Provide a written summary, including a map, of all the problem areas that have been identified and potential corrective measures to address them.
  - i. Provide documentation that the mitigated stream channel has experienced two flow events equal to or greater than bankfull flow, and that at least one flow event during the five-year monitoring period has resulted in over-bank flooding (i.e., a flow event greater than bankfull flow).
  - j. The Permittee shall conduct all other measurements needed to document that performance standards are met.

10. EGLE will determine if the performance standards have been met. If the performance standards have not been met, EGLE may require corrective actions and subsequent annual monitoring until final approval from EGLE can be granted.
11. Prior to final written approval of the restoration by EGLE, the permittee shall submit the following:
  - i. A written statement that the restoration is complete and request for final approval of the restoration.
  - ii. A copy of the permit.
  - iii. "As-built" plans and specifications signed and sealed by a registered surveyor or licensed engineer.
  - iv. Complete all monitoring requirements including the submittal of all required monitoring reports.
12. Authority granted by this permit does not waive permit or program requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit [www.mi.gov/degstormwater](http://www.mi.gov/degstormwater) and select "Soil Erosion and Sedimentation Control Program" under "Related Links."
13. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state, or federal approval or authorization necessary to conduct the activity.
14. No fill, excess soil, or other material shall be placed in any wetland, floodplain, or surface water area not specifically authorized by this permit, its plans, and specifications.
15. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
16. The permit placard shall be kept posted at the work site in a prominent location at all times for the duration of the project or until permit expiration.
17. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning on the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.

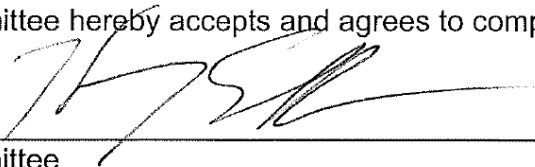
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18. Upon signing by the permittee named herein, this permit must be returned to EGLE's Water Resources Division, Jackson District Office for final execution. This permit shall become effective on the date of the EGLE representative's signature.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

X



Permittee

11/9/2021

Date

X

HARRY SHEEHAN DEPUTY WATER RESOURCES COMMISSIONER

Printed Name and Title of Permittee



Issued By:

Melissa Letosky  
Jackson District Office  
Water Resources Division  
517-416-7001

cc: City of Ann Arbor Clerk  
Washtenaw County Clerk  
Ms. Valerie Novaes, OHM Advisors  
John Deslippe, OHM Advisors  
Anne Garwood, EGLE, WRD  
Bethany Matousek, EGLE, WRD