DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT PERMIT

ISSUED TO:

JR Hartman Schrems West Michigan Trout P O Box 230094 Grand Rapids, MI 49523 Permit No.10-41-0038-PIssuedJune 3, 2010ExtendedRevisedExpiresJune 3, 2015

This permit is being issued by the Michigan Department of Natural Resources and Environment (MDNRE) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and specifically:

Part 301 Inland Lakes and Streams

Part 303 Wetlands Protection

Part 315 Dam Safety

Part 325 Great Lakes Submerged Lands

Part 323 Shorelands Protection and Management
Part 353 Sand Dune Protection and Management

Part 31 Floodplain/Water Resources Protection

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

Permitted Activity: Temporarily excavate a total of 228 cubic yards of material from the bottomlands of Coldwater Creek and install 35 log vane structures along 2,700 linear feet of shoreline. All work to be performed according to the attached drawings. Monitoring of the permitted activities to be performed for a period of 5-years.

Water Course Affected: Coldwater River

Property Location: Kent County, Bowne Township, Section 34

Subdivision, Lot Town/Range 5N, 9W Property Tax No.

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, Floodplain/Water Resources Protection 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 plans and specifications attached hereto and on file with the Department of Natural Resources and Environment.
- 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 herein.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
- 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 the MDNRE within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of the MDNRE.
- 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. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

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- 1. All activities permitted herein shall be within the riparian interest area of the subject property.
- 2. To protect fisheries, no work shall occur between the dates of October 01 and April 30 of any given year for the duration of this permit
- 3. To document the long term effects of the project, a monitoring report based on the attached Monitoring Plan shall be submitted to the DNRE Fisheries Division and Land and Water Management Division on an annual basis for five full years. The permittee and/or agents agree to make modifications to the project to rectify any negative impacts to the creek created by the project.
- 4. No tree removal shall take place within a 25-foot setback from the ordinary high water mark of the creek.
- 5. Dewatering is not authorized by this permit.
- 6. Best Management Practices shall be used to prevent soil or sedimentation entering the creek.
- 7. Equipment use in the water shall be minimized to the greatest extent possible. Equipment shall only be in the creek when in use. Overnight storage of the equipment must above the ordinary high water mark of the creek and outside of any wetland area.
- 8. Equipment used in the water must be clean and properly maintained to minimize gas, oil, or grease release into the water. A release of petroleum materials to the watercourse may result in enforcement action by the DNRE in accordance with Part 31, Water Resources Protection, of PA 451, as amended.
- 9. Unless specifically stated under the "Permitted Activity" of this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed on or over bottomlands and/or wetlands are not authorized by this permit and shall not be constructed unless authorized by separate permit or permit revision granted in accordance with applicable law.
- 10. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, Public Act 451 of 1994 or the Kent County Drain Commissioner. This permit does not preclude the need for approvals or permits from other federal, state, county or local authorities as may be required by law.
- 11. In issuing this permit, the Department of Environmental Quality has relied upon the information and data which permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the Department may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- 12. The property owner, contractor, and any agent in obtaining this permit are held responsible to ensure the project is constructed in accordance with all drawings and specifications contained in this permit.
- 13. 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 representatives of the permittee, undertaken in connection with this 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.
- 14. This permit is being issued for the maximum time allowed under Part 301, Inland Lakes and Streams and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, including all permit extensions allowed under the administrative rules R 281.813 and R 281.923. Therefore, 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 the MDEQ, will be for a five-year period beginning at the date of issuance.

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> Rebecca A. Humphries, Director Michigan Department of Natural Resources and Environment

By Robert C. Day Land and Water Management Division

cc: Kent County Drain Commission, Mr. Doug Sporte Kent CEA, Mr. Dave Beck Bowne Township Schrems West Michigan Trout Unlimited, Mr. Aaron Snell DNRE Fisheries Division, Mr. Scott Hanshue









DOLAN/COLDWATER RIVER HABITAT RESTORATION

MONITORING PLAN

To document physical effects of the project on streambank and streambed erosion, monitoring will focus on results of erosion pin and scour chain analyses. Sets of erosion pins will be installed at five locations within and adjacent the project area. Each location will include three four-foot sections of rebar driven horizontally into the bank, in a three foot vertical profile. As the streambank erodes, the ends of the pins will be exposed, indicating the lateral recession during that monitoring period. Erosion at these pins will be measured annually for five years, and the pins will be reset as necessary.

Scour chains will be installed in the streambed at three locations. These chains are used to determine the degree of aggradation or degradation in the monitored reach. Chains are driven vertically into the streambed; the amount of chain exposed or the depth of fill over the chain at the end of a monitoring period indicates the channel's tendency to aggrade or degrade. Each monitoring location will include three scour chains approximately evenly spaced across the channel cross section. The chains will be measured on an annual basis for five years.

Erosion pins and scour chains will not only be installed within the project area, but also at a control site upstream of the project. This will allow for comparison of project monitoring results to what is "natural" within this stream reach.

Each of the log structures that are installed in the stream will be "branded" with a unique identifier and their location surveyed with GPS. This branding, which is being requested by the County Drain Commissioner's, will likely be done with a chainsaw on the end of each log. The purpose is to identify if any of the logs break loose from their position and result in erosion, debris jams, or other problems that are considered to be unacceptable to the drain board. Six of the structures will include be set with benchmarks to be surveyed annually to determine if they have moved vertically.

Biological monitoring will focus on the results of fish, macroinvertebrate and physical habitat assessments. P51 macroinvertebrate assessment will take place prior to construction, and for five years following construction, to document changes to the macroinvertebrate community. Similarly, electrofishing studies will be used to document the effects of habitat improvement work on the fish community. These electrofishing studies will be coordinated with MDNRE – Fisheries. In addition, P51 metrics for physical habitat will be monitored to measure the success of habitat improvement work in stabilizing the streambanks and creating more diverse instream habitat.

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