



August 2, 2011

Notice of Issuance of a Limited Environmental Review and
Finding of No Significant Impact To All Interested Citizens,
Organizations, and Government Agencies

Metropolitan Sewer District of Greater Cincinnati (Sponsor)
Hiram College (Implementer)
Eagle Creek / Silver Creek Confluence Project

The purpose of this notice is to advise the public that Ohio EPA has reviewed the referenced project and finds that neither an Environmental Assessment (EA) nor a Supplemental Study (SS) is required to complete the environmental review of the project. Instead, this project meets the criteria for a Limited Environmental Review (LER). These criteria are summarized below in this document and in the attached LER.

The purpose of the Eagle Creek / Silver Creek Confluence Project is to preserve sections of Eagle Creek and Silver Creek, as well as restore a section of Eagle Creek. Under the proposed project, Hiram College will acquire the land and restore a section of Eagle Creek, with funds made available through the Water Resource Restoration Sponsor Program (WRRSP). Acquisitions and easements will be obtained by willing sellers only. An environmental covenant will be placed on each property to permanently protect the conservation values of the properties. Management of the property will generally entail periodic control of invasive species.

The LER was completed for this project as it will not individually, cumulatively over time, or in conjunction with other Federal, State, local, or private actions have a significant adverse effect on the quality of the human environment. Consequently, a Finding of No Significant Impact can be issued now for this project.

The Water Pollution Control Loan Fund (WPCLF) program requires the inclusion of environmental factors in the decision-making process for project approval. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed action in its review and approval process. Environmental information was developed as part of the project planning process. A subsequent review by this Agency has found that the proposed action does not require the preparation of an EA or an SS.

Our environmental review concluded that because the proposed project is limited in scope and meets all applicable criteria, a Limited Environmental Review is warranted. Specifically, the project constitutes a nonpoint source pollution control project involving permanent protection of an aquatic resource. Furthermore, the proposed project:

- has no significant adverse environmental effect;
- does not require extensive specific impact mitigation;
- has no adverse effect on high value environmental resources;
- is a reasonable cost considering monetary and nonmonetary factors;
- is not a controversial action;
- does not create a new, or relocate an existing discharge to surface or ground waters;
- will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters; and
- will not provide capacity to serve a population substantially greater than the existing population.

A map depicting the location of the project is included as part of the LER. The LER presents information on the proposed project, its costs, and the basis for our decision. Further information can be obtained by calling or writing the contact person listed on the back of the LER.

Upon issuance of this determination, a loan award may proceed without being subject to further environmental review or public comment, unless information is provided which determines that environmental conditions for the proposed project have changed significantly.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory H. Smith". The signature is fluid and cursive, with the first name "Gregory" being particularly prominent.

Gregory H. Smith, Chief
Division of Environmental &
Financial Assistance

GHS/CB/DJB

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Name: Eagle Creek / Silver Creek Confluence – Protection and Restoration Project
Water Resource Restoration Sponsor Program (WRRSP) Project

Sponsor: Metropolitan Sewer District of Greater Cincinnati
1600 Gest Street
Cincinnati, OH 45204

Implementer: Hiram College
P.O. Box 67
Hiram, OH 44234

WPCLF Loan / WRRSP #: CS 391525-0089 / WR 391512-0003

Project Summary:

The Metropolitan Sewer District of Greater Cincinnati (MSDGC) is applying to the Ohio Water Pollution Control Loan Fund (WPCLF) for a \$9,650,000 low interest loan for wastewater treatment improvements (described and evaluated in a separate environmental review documents). In conjunction with the 2011 loan, the city also intends to sponsor a Water Resource Restoration Sponsor Program (WRRSP) project to acquire 152 acres for the purpose of restoring the water quality of a channelized stream, Eagle Creek, and protecting the water resources of Silver and Eagle Creeks.

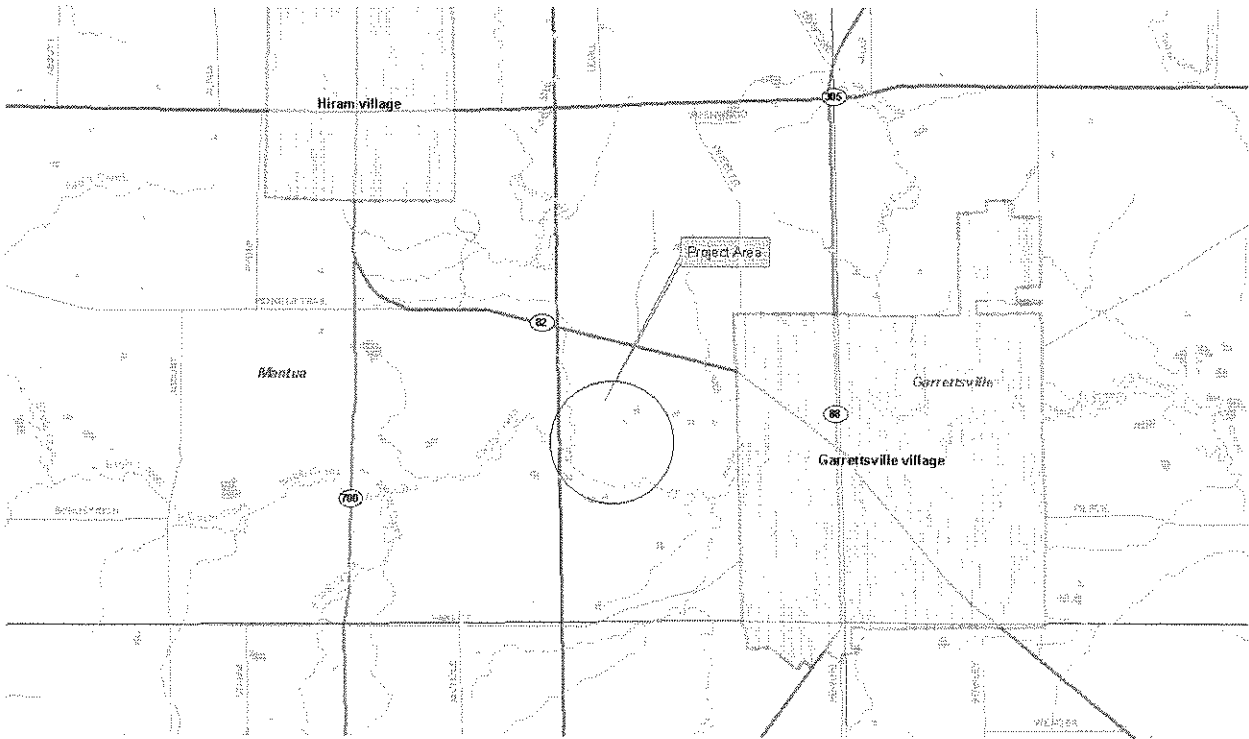
The Water Resource Restoration Sponsor Program is an Ohio EPA initiative that provides funds, through WPCLF loans for publicly-owned treatment works, to counter the loss of ecological function and biological diversity that jeopardizes the health of Ohio's water resources. Funds for WRRSP projects are made available by advancing a portion of the estimated amount of interest to be repaid by the sponsor over the life of the loan, and is based upon the initial principal amount (less project contingency), the term of the loan, and the interest rate. WRRSP projects address the protection or restoration of high quality aquatic habitat in Ohio streams, rivers, and/or wetlands. The sponsoring community also benefits from sponsoring a WRRSP project by receiving a small interest reduction in its already lower-than-market rate WPCLF loan.

The sponsor of this project is MSDGC, which will use its anticipated 2011 WPCLF loan to provide up to \$862,100 in WRRSP funds to Hiram College. In return, Hiram College will be responsible for the restoration of Eagle Creek converting 1,630 linear feet (lf) of channelized stream to 2,215 lf of sinuous stream channel, as well as the protection of Silver Creek and two of the highest

quality wetlands, known as Category 3 wetlands. Hiram College will partner with Western Reserve Land Conservancy (WRLC) for perpetual management of the stream and stream-side property once it's restored.

Existing Conditions:

The 152-acre project site includes two State Resource Waters, Silver Creek and Eagle Creek, of the Mahoning River watershed. It is located in Hiram Township south of State Route 82, just west of Garrettsville in Portage County (see map below).



The property sits south of the Hiram College Field Station, of which, 132 acres were acquired and protected through a previous WRRSP. The additional 152 acres will expand Hiram College's Field Station, a center of research and environmental studies, to nearly 550 acres. The expansion will enhance the Field Station's natural amenities and existing trail system, providing expanded research, educational, and recreation opportunities for students and the general public.

The project site contains 1,625 lf of Silver Creek, a Cold Water Habitat tributary, which is in full attainment of its Ohio Environmental Protection Agency's (EPA) water quality designation.¹ The confluence of Silver Creek and Eagle Creek is located in the southwest corner of the property.

¹ Cold Water Habitat is a term used to describe the designation for the protection of aquatic life. The key attributes for Cold Water Habitat are native cool or cold water species.

The property also includes 3,444 lf of Eagle Creek, a Warm Water Habitat stream.² This stretch of Eagle Creek is entrenched and unable to access the floodplain. The stream has developed many significant water quality problems due to silt deposition, flow alterations, and loss of aquatic and riparian habitat, which are exacerbated by its lack of floodplain interaction because of channelization.

An entrenched stream does not function the same way as a natural aquatic ecosystem. In a natural stream, flooding occurs periodically and sediment is deposited in the floodplain, affecting the stream shape, near stream vegetation, and in-stream sediment concentrations. However, because frequent flood flows are confined to the entrenched channel in Eagle Creek, there is no opportunity for the silts to be deposited in an active floodplain. The sediments are trapped in the channel system and settle in the bottom of the channel due to the long stretches of slow moving or stagnant water. The sediment that doesn't settle out is transported further downstream. Typical natural stream channels have riffles, pools, and runs. The varying depths, water speed, and oxygenation levels provide habitat for a variety of aquatic life and assimilate pollutants to a much greater degree than a channelized stream.

Through this WRRSP project, Hiram College intends to address the following impairments using the following measures (see table below):

Table 1: Impairments and Proposed Project Actions

Site Specific Impairment	Proposed Project Action
Habitat Alterations	Prevent future land use conversions by permanently preserving 152 acres of land including cold water tributaries, warm water riparian floodplains, high quality wetlands, as well as stop all future silviculture practices
Flow Alterations	Restore the natural flow regime of Eagle Creek by mimicking the sinuosity seen both upstream and downstream of the project site
Thermal Modifications	Reforest the banks of the restored stream channel
Siltation	Address erosion issues with natural

² Warm Water Habitat is a term used to describe the designation for the protection of aquatic life. The key attributes for Warm Water Habitat are typical assemblages of fish and invertebrates, similar to least impacted reference conditions.

The WRRSP project site is located in an area of high quality wetlands and woodlands. There are approximately 6.7 acres of wetlands, and the two largest wetlands on the project site were scored as Category 3, the highest quality. Historically, the property was characterized as a once completely forested stand, but has changed from the recent timber and clear cutting on the property. Undeveloped land (forested and cropland) borders the majority of the property, and residential lots are located along State Route 82.

Acquisition of this property is identified as a priority in Portage Park District's draft Parks, Trails, and Greenway Master Plan (2008). The property is also recognized in the Northeast Ohio Regional Parks Consortium Plan (2001), as well as the Portage County Watersheds Plan (2006). This WRRSP project will directly address several goals of the county watershed plan and implement specific strategies included in the plan.

Project:

Hiram College will purchase 152 acres to protect and restore valuable habitat and water resources. Hiram College is partnering with WRLC to undertake this water resource protection and ecological restoration project. Once Hiram College acquires the property, it will grant a permanent conservation easement to WRLC to ensure that it is preserved in perpetuity.

The project consists of four main goals that focus on restoration and preservation of high quality aquatic habitat. The first goal for the project is to permanently preserve 1,625 lf of Silver Creek; 4,030 lf of Eagle Creek (post restoration), 6.7 acres of wetlands, and associated riparian and upland habitat. Hiram College plans to acquire the property and grant a permanent conservation easement on 152 acres to WRLC to ensure that it is protected in perpetuity.

The second goal is to restore approximately 1,630 lf of Eagle Creek from an entrenched channel, currently disconnected from its floodplain, to approximately 2,215 lf of sinuous stream that is connected to the floodplain, and mimics the meandering found both upstream and downstream of the project. Reconnecting the stream to the floodplain will address erosion, siltation, headcutting, and habitat alteration. Stone riffle grade control structures will be used to elevate the creek channel to access the floodplain. Habitat modifications will be addressed by planting trees and vegetation along the restored stream channel. The proposed stream restoration will divert and relocate a portion of Eagle Creek from its presently entrenched channel in order to reconnect the stream to its floodplain and add sinuosity to improve the water quality of Eagle Creek.

The third goal is to address erosion and siltation issues. Hiram College will reforest the project site through active plantings along the newly installed stream channel, as well as allow natural succession to reforest the project site.

The final goal is to preserve 5.6 acres of Category 3 wetlands and potentially improve 1.03 acres of Category 2 wetlands through protection and reforestation of the project site. Hiram College will reverse the habitat modification by planting trees and vegetation as well as allow natural succession to occur.

The results of this project will be protection of high quality habitat, and restoration of an entrenched stream to a stable stream with a functional floodplain. The proposed actions will increase the natural filtering of pollutants, provide in-stream habitat and shading, increase the assimilative capacity of the system, and provide a floodplain where sediment loads can be deposited and stream flow energy dissipated. The water quality benefits of this project will extend downstream to the Mahoning River.

Unless otherwise agreed upon in the restoration and management plan, the following type of use restrictions will be imposed in perpetuity upon the *restored* project area through an environmental covenant:

- a. **Conservation.** Restoration, maintenance, and protection of the conservation values of the property shall be carried out and maintained as approved in the maintenance and management plan that was developed for the WRRSP project.
- b. **Natural Area.** The restored area (referred to as the Property) shall be maintained in perpetuity as a natural area. The Property shall be managed to accomplish the purpose of the WRRSP project, and shall not be managed for the purpose of benefiting any other human activity. In order to maintain the ecological balance of the Property or to protect human health and safety, hunting and trapping may be permitted by the Owner in consultation with the Ohio Department of Natural Resources, Division of Wildlife.
- c. **Division.** The Property may not be divided, partitioned, subdivided, or conveyed except in its current configuration; i.e., the Property must be conveyed in its entirety.
- d. **Uses of Land.** There shall be no agricultural, industrial, commercial, or residential activity in the restoration area.
- e. **Structures.** No buildings, or other structures including, but not limited to, billboards or advertising of any kind, camping accommodations, and mobile homes shall be erected or placed in the restoration area.

- f. **Resource Extraction.** There shall be no mining, drilling, exploring for or removal of, water, minerals, oil, or gas, or other resources from the Property.
- g. **Earth Moving and Land Surface Alteration.** There shall be no ditching, draining, diking, filling, excavating, or removal or disturbance of topsoil, sand, gravel, rock, or other materials.
- h. **Drainage Alterations.** There shall be no manipulation or alteration of wetlands, creeks, streams, surface or subsurface springs or other bodies of water, or any activities on, or uses of, the Property that may be detrimental to the aquatic or terrestrial ecosystems of the Property. There shall be no activity that disturbs water bodies, riparian zones, or drainage ways without prior approval of Ohio EPA, consistent with the purposes of this project.
- i. **Roads.** Except as may be necessary for environmental preservation, management, or restoration purposes, there shall be no building of roads or other rights-of-way. Existing roads may be maintained, but shall not be widened or improved. The Owner shall construct no road without submitting a plan for the proposed construction to Ohio EPA and receiving prior approval from Ohio EPA.
- j. **Trails.** Limited development of foot trails for hiking, photography, or nature observation may be permitted upon the condition that their construction and use will produce minimum levels of disturbance to the environment, and that they shall not be detrimental to the conservation values of the project. The Owner shall construct no trail without submitting a plan for the proposed construction to Ohio EPA and receiving prior approval from Ohio EPA.
- k. **Vehicles.** There shall be no operation of automobiles, trucks, snowmobiles, dune buggies, motorcycles, all-terrain vehicles, or any recreational motorized vehicles on the Property, except (i) law enforcement vehicles, (ii) emergency vehicles, (iii) equipment of Owner used by Owner, or of an agent or contractor of Owner, used for the purpose of maintaining the Property.
- l. **Dumping.** There shall be no dumping of trash, garbage, or hazardous or toxic substances on the Property. All trash or nonconforming material that is dumped or placed on the Property shall be removed by the Owner from the Property within thirty (30) days of its discovery.
- m. **Plants and Animals.** The Owner shall allow no purposeful introduction of domestic livestock or non-native plants or animals.

There shall be no feedlots permitted on the Property. No plants or animals shall be removed from the Property except as permitted by the owner and State law.

- n. **Vegetation Controls.** Except as may be necessary for reasonable environmental preservation, management or restoration purposes, for the protection of human health and safety, or for the maintenance of a diversity of naturally-occurring habitat types and control of exotic species of plants, there shall be no removal, destruction, cutting, trimming, or mowing of any trees or other vegetation.
- o. **Chemical Control of Invasive Species.** Except as may be necessary for environmental preservation, management, or restoration purposes, for the protection of human health and safety, or for the prevention of the spread of a non-native species, there shall be no use of fertilizers, insecticides, fungicides, or rodenticides. Herbicides may be used for the control of state-designated noxious weeds and for the control of other invasive exotic plant species consistent with best ecosystem management practices.
- p. **Other Interests in Property.** No new power lines, transmission lines, utility lines, nor communications towers may be constructed on the Property, nor shall any easements or other interests in the Property be granted for this purpose.

Implementation:

1. Agreements: Property that has been purchased or restored with WRRSP assistance must have an environmental covenant(s) recorded which permanently restrict the future uses of the property to those consistent with the intent of the WRRSP program. At the current time, Ohio EPA and Hiram College do not have a signed environmental covenant for this project, which is a prerequisite to dispersing WRRSP funds.

2. Schedule: Following programmatic approval by Ohio EPA, and with an approved Environmental Covenant, Hiram College can undertake the proposed land acquisition and restoration efforts using WRRSP funds at any time between the date of the WPCLF loan award for MSDGC's Little Miami and Muddy Creek Wastewater Treatment Plants Blower Upgrade loan, and the end of the performance certification period for these improvements, during which time the city will begin WPCLF loan repayments. This loan is expected to be awarded in summer of this year.

Public Participation:

Hiram College will utilize the property as an extension of their Field Station serving as a "living classroom" providing opportunities to conduct long-term

monitoring of the physical, chemical, and biological responses to stream restoration. The restoration work itself may serve as a central laboratory experience for a course focused on wetlands and streams. In addition, there are 17 core faculty comprising Hiram's Biological and Environmental Studies Programs that could utilize the project site for their programs. Hiram College can offer seasonal guided hikes for the general public to access the property. Public involvement will include showcasing the restoration process to provide a greater understanding of watersheds and human impact. These guided educational programs will expand on existing programs at the Field Station, including watershed structure and function, erosion, impacts of land use on watersheds, succession, habitat enhancement, stream ecology, vernal pool monitoring, frog and toad calling surveys and more. Additionally, Hiram College is in the process of installing signage at the existing Field Station property that details the importance of watersheds in our natural landscape. This location is open to the public and serves more than 2,500 school children each year. In addition to the guided hikes, future use of the WRRSP property would allow limited public access since the potential exists for a future connection of the existing Headwaters Bike/Hike Trail with this property and the rest of the Field Station.

Ohio EPA will issue a copy of its Limited Environmental Review (LER) decision and Finding of No Significant Impact to interested parties. Supporting documentation for the LER decision is available for public inspection, upon request, from Hiram College and this Ohio EPA office. Ohio EPA is unaware of any opposition to this project.

The following agencies have been provided information regarding the proposed project:

Northeast Ohio Four County Regional Planning and Development
Organization (NEFCO)
Ohio Environmental Protection Agency
Ohio Department of Natural Resources
Ohio Historical Preservation Office

Conclusion:

The proposed acquisition and restoration of Silver Creek and Eagle Creek constitutes a project type that qualifies for a Limited Environmental Review because it meets the following criteria:

- *It is expected to have no adverse environmental effect.* The goal of this project is restoration of an impaired water quality condition. Project design and construction practices will be geared towards this purpose. Significant environmental benefit is expected upon completion of this project, with no adverse environmental impacts.

- *It will have no adverse effect on high value environmental resources.* Eagle Creek is an impaired water resource that will be restored, in part, by the proposed actions. The planning activities for the project identified no potentially-significant adverse impacts on the quality of the human environment or on sensitive resources such as floodplains, wetlands, riparian areas, prime or unique agricultural lands, aquifer recharge zones, archaeological or historically significant sites, or threatened or endangered species. While impacts to known or unknown archeological or historical sites are not expected, if during any minor restoration activity evidence of deposits of historical and/or archeological interest are found, operations affecting the find will cease, and Ohio EPA and the Ohio Historic Preservation Office will be notified. Work will not resume until a survey of the find and a determination of its value and effect has been made.
- *It will require no specific impact mitigation.* The performance specifications are strict and specific to the restoration goals. Required permits for stream restoration work of this nature are not controversial, and such work is encouraged by public agencies. The project area will be covered by an Environmental Covenant, which will protect the restored environmental resource in perpetuity.
- *The cost of the activity is reasonable considering monetary and nonmonetary factors.* A natural channel design approach has been shown to be the most sustainable solution to addressing the existing targeted water quality impairments, while also restoring the aquatic habitat.
- *It is not controversial.* All restoration activities are taking place on properties owned by the implementer. Restoration activities funded through the WRRSP involve no additional cost to ratepayers. In fact, the WRRSP discount will result in a slight decrease in the City of Solon's total loan repayment.
- *It will not create a new or relocate an existing discharge to surface or ground waters, nor will it result in any increase in the volume of discharge or loading of pollutants to the receiving water.* This is not a wastewater project and therefore has no discharge associated with it.
- *It will not provide capacity to serve a population substantially greater than the existing population.* This project does not involve the upgrade or extension of any drinking water or wastewater facilities that might serve a growing population.

The planning activities for the proposed project have identified no potentially significant adverse impacts. The project is expected to have no short- or long-term adverse impacts on the quality of the human environment or on sensitive resources such as floodplains, wetlands, riparian areas, prime or unique

agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species. Water quality and aquatic habitat will be enhanced in Eagle Creek and Silver Creek by this project. The proposed project should result in transforming the targeted portion of Eagle Creek from an entrenched, impaired channel into a functional stream, providing environmental, educational, and aesthetic benefits with no adverse environmental impacts.

For further information, please contact:

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