

OHIO E.P.A.  
AUG 12 2009

BEFORE THE  
OHIO ENVIRONMENTAL PROTECTION AGENCY ENTERED DIRECTOR'S JOURNAL

In the Matter of:

Kirtland Hills Village  
8026 Chillicothe Road  
Kirtland Hills, Ohio 44060

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Director's Final Findings and Orders

Respondent

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

PREAMBLE

It is agreed by the parties hereto as follows:

By: [Signature] Date: 8-12-09

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to Kirtland Hills Village ("Respondent") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") §§ 6111.03 and 3745.01.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of the Sites shall in any way alter Respondent's obligations under these Orders.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 6111 and the rules promulgated thereunder.

IV. FINDINGS

The Director of Ohio EPA has made the following findings:

1. The East Branch Chagrin River was designated as a State Scenic River by the Ohio Department of Natural Resources (ODNR) on July 2, 1979. Under Ohio Administrative Code (OAC) Rule 3745-1-05, the river is designated as an Outstanding State Water for Ecological Values. Under OAC Rule 3745-1-07 the beneficial use designations are cold water habitat, seasonal salmonid habitat, primary contact recreation, and agricultural/industrial water supply.

2. The East Branch Chagrin River is one of the few remaining streams in the State supporting the Long Nose Dace (*Rhinichthys cataractae*), and is listed as a State Species of Concern by the ODNR Division of Wildlife.
3. Respondent has entered into agreements with Jerome T. Osborne in April 1983 and June 1990 for maintenance of the river bank, by dredging from and depositing fill material in, within and along the East Branch Chagrin River in Kirtland Hills Village, Lake County, Ohio in violation of Chapter 6111 of the Ohio Revised Code (ORC) and the Clean Water Act.
4. On July 13, 2007, Ohio EPA became aware of the violations regarding the stream channel alterations. A track hoe, positioned in the river, was observed conducting channel modification activities. These unauthorized activities were the subject of a notice of violation (NOV) letter that was issued to Respondent on August 30, 2007.
5. From July 13, 2007 through October 17, 2007, Ohio EPA has conducted studies in the channelized area and the findings are located in a report entitled "East Branch Chagrin River: Results of Investigations to date and Recommendations for Interim Corrective Measures" ("Report"), dated October 29, 2007.
6. The August 30, 2007 NOV and the October 29, 2007 report identify an "Area of Concern" along the East Branch of the Chagrin River the extends from the Village of Kirtland Hills – Village of Kirtland corporate boundary at River Mile (RM) 4.30 upstream to RM 6.25. This reach of the river was directly impacted by unauthorized dredging and filling operations.
7. Investigations performed subsequent to the October 29, 2007 Report, revealed that there have been additional historic activities that have also contributed to constriction of the floodplain and the bank erosion effects observed in the river. These actions included the filling of approximately 898 feet of stream channel in the vicinity of the present location of the Village of Kirtland Hills Road Department maintenance area and Police Department shooting range (River Mile 4.93 to 5.10) sometime between the dates of August 13, 1978 and November 17, 1991 as well as other activities that may or may not have been under the control of the Respondent. Ohio EPA has determined that these actions have contributed to the damage to the aquatic habitat, the non-attainment of biological water quality criteria, and the flood storage capacity of the river within the Area of Concern.
8. The constriction of the floodplain within the area of direct impact in Kirtland Hills Village remains a significant concern. The lowering of the stream channel elevation and stockpiling of material along the stream banks significantly limit the amount of energy dissipation that can occur during flood events within this stretch of the river.
9. The placement of dredged substrates directly upon the stream bank has increased the risk of flood damage to private and public properties. For example,

in the case of St. Hubert's Church, excavated substrate was piled on an inside bend of the river immediately upstream of the church. As a result, the high flow stream channel upstream of the church has been constricted, focusing energy upon the stream bank just upstream of the church building.

10. Due to the channel bed being lowered, the river is adjusting its slope significantly within the area of concern through channel widening (i.e. bank erosion) to restore floodplain at the bankfull stage. Bank erosion problems have affected several private and public properties not owned by the Respondent.
11. On September 5, 2007, electrofishing surveys were conducted at three locations along the East Branch Chagrin River. Based upon the fish community present, the East Branch Chagrin River is not meeting the biocriteria established in OAC Rule 3745-1-07. Analysis of the fish community and habitat data as well as observations in the field lead to the conclusion that the cause of the non-attainment observed is habitat modification and disturbance.
12. These Orders seek achieve full restoration to the area of unauthorized stream channelization in the East Branch of the Chagrin River.
13. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with these Orders and to evidence relating to conditions calculated to result from compliance with these Orders, and its relation to the benefits to the people of the State to be derived from such compliance in accomplishing the purposes of ORC Chapter 6111.

## **V. ORDERS**

1. Within sixty (60) days from the effective date of these Orders, Respondent shall submit a Stream Restoration Plan (Plan) to Ohio EPA for review and approval. The Plan shall focus on facilitating the natural recovery of the river. Where appropriate, the plan may include replacement of the stockpiled substrates within the stream channel to provide enhanced habitat, to expedite the stream channel recovery process or to stabilize streambanks at specified locations. The Plan must include the following elements:
  - a) A plan to redistribute or remove the spoil piles placed on the floodplain down to an appropriate floodplain elevation. Removed material shall be utilized to facilitate stream restoration activities in accordance with the stream restoration plan or otherwise placed in order to not impede water conveyance. The removal activities shall also include the removal of all structures, debris piles, and other stockpiled material located within the Village of Kirtland Hills road maintenance area located in parcel 24-A-008-0-00-004-0. The plan shall include locations for equipment access,

stream crossings, methods for excavation and hauling of the material, and the location for stockpiling. The plan must include the redistribution or removal of excavated stream substrate stockpiles located along the river within all of the parcels listed:

- i) 20-A-002-0-00-021-0 (Jerome T. Osborne)
  - ii) 24-A-009-0-00-010-0 (Village of Kirtland Hills)
  - iii) 24-A-009-0-00-011-0 (Jerome T. Osborne)
  - iv) 24-A-008-0-00-003-0 (Village of Kirtland Hills)
  - v) 24-A-008-0-00-023-0 (Village of Kirtland Hills)
  - vi) 24-A-008-B-00-019-0 (Village of Kirtland Hills)
  - vii) 24-A-008-0-00-004-0 (Village of Kirtland Hills)
  - viii) 24-A-008-B-00-020-0 (Village of Kirtland Hills)
  - ix) 24-A-008-0-00-028-0 (Village of Kirtland Hills)
  - x) 24-A-008-A-00-040-0 (Kori Smith)
  - xi) 24-A-008-0-00-025-0 (Village of Kirtland Hills)
  - xii) 24-A-007-0-00-012-0 (George Olivia Jr.)
- b) To the extent that the parcel or any other property to which access is required for the implementation of these Orders is owned or controlled by persons other than Respondent, Respondent shall use its reasonable best efforts to secure from such persons access for Respondent and Ohio EPA as may be necessary to effectuate these Orders. Copies of all access agreements obtained by Respondent shall be provided to Ohio EPA upon request. If any access required to implement these Orders is not obtained within thirty (30) days after the date Ohio EPA notifies Respondents in writing that additional access beyond that previously secured is necessary, Respondent shall promptly notify Ohio EPA in writing of the steps Respondent has taken to attempt to obtain access. Ohio EPA may, as it deems appropriate, assist Respondent in obtaining access.
- c) All of the spoil pile material placed in the floodplain within Parcel 24-A-007-0-00-012-0 (Olivia property) shall be redistributed back into and along the river channel downstream of this location to a thickness of no greater than 24 inches. The plan shall describe how the material will be placed in order to facilitate habitat recovery.
- d) Provide a plan to construct bank stabilization where appropriate within the disturbed area to reduce the bank erosion hazard, reduce near bank stresses, and to promote deposition along these banks. These structures must be properly anchored and vegetated to prevent failure. The plan

shall propose specific locations for bank stabilization activities as well as the methods to be used in each location. The locations where bank stabilization will be installed shall be selected in consultation with Ohio EPA based upon a site visit.

- e) A planting plan for re-vegetating exposed areas following excavation and construction activities associated with the stream restoration plan. The planting plan should include seeding with herbaceous cover to provide immediate stabilization as well as woody vegetation for long-term riparian re-establishment. Only Ohio native plants should be used. The planting plan must meet the approval of the ODNR Scenic Rivers program.
  - f) The plan shall include a list of performance criteria for the stream restoration project sufficient to ensure that the activities conducted to fulfill the requirements of these Orders have been successful. The performance criteria shall be based upon the monitoring data collected in accordance with Order number 4 below. The stream restoration plan shall include contingencies to conduct additional work, to extend the monitoring period, or both as required to meet the established performance criteria should the monitoring data reveal that the criteria have not been met.
  - g) The plan must include provisions for the development of a stormwater pollution prevention plan. The stormwater pollution prevention plan must include a description of erosion and sediment control measures that will be implemented to meet stormwater pollution control requirements. The implementation schedule for the project should include a schedule for the submission of a Notice of Intent to Ohio EPA, and an implementation schedule for the installation of stormwater controls.
  - h) A schedule for implementation of the plan that commences upon approval by the Ohio EPA.
  - i) An outline for the report or reports to be submitted to Ohio EPA as required by Order 8 below.
2. Within fourteen (14) days of Ohio EPA's approval of the Plan, Respondent shall implement the Plan in accordance with the approved schedule.
  3. Within thirty (30) days from the effective date of these Orders, Respondent shall purchase a continuous water level recorder and ancillary equipment necessary for use and operation for purposes of collecting continuous water elevation data for the East Branch of the Chagrin River in the vicinity of the Area of Concern.

The equipment to be purchased shall meet specifications set by the Ohio EPA Northeast District Office. Ohio EPA will install and monitor the recorder for purposes of evaluating flow levels in relation to restoration activities conducted under these Orders and shall take on responsibility for routine maintenance of the equipment. In the event of damage or malfunction of the equipment beyond the control of Ohio EPA that may occur within the period of five years following the completion of restoration activities, the Respondent shall replace the equipment with an equivalent device unless written permission is granted by the Ohio EPA to discontinue the monitoring prior to that time. The Respondent shall have the opportunity to inspect the installation of the device to insure that it has been properly secured.

4. Within sixty (60) days from the effective date of these Orders, Respondent shall submit a monitoring plan for approval by Ohio EPA sufficient to characterize current channel morphology, the restored channel morphology, habitat quality, and the biological water quality within the remediation area, and at upstream and downstream locations in order to document the results of the stream restoration efforts.

a) Current channel morphology characterization:

- i) Prior to the initiation of any of the work specified in Order Nos. 1 and 2 above, a longitudinal profile of the stream along the area of impact shall be surveyed to characterize the middle of the channel bottom or thalweg (where visible), the water surface elevation, existing bankfull elevation indicators, and top of bank.
- ii) Three cross-sections shall be taken at riffle locations along the area of impact to describe the current channel and floodplain cross-sectional conditions including, water surface elevation, bankfull elevation, top of bank and "historic" floodplain width.

b) Upstream and downstream stream channel characterization and monitoring:

- i) Prior to the initiation of any work, upstream and downstream monitoring reaches for the collection of geomorphic data must be established along 1.5 meander wavelengths (four riffle crests) of stream upstream and downstream of the remediation area. In each of these reaches, two permanent stream channel cross-section locations must be established, one at a riffle location and one at a pool location (for a total of four permanent cross section locations).

- ii) A survey of the longitudinal profile of both the upstream and downstream 1.5 meander wavelengths (four riffle crests) monitoring reaches shall be conducted to characterize the thalweg, water surface elevation, bankfull elevation and top of bank elevation so that profiles can be compared (i.e. overlaid) at required time increments.
- c) Channel morphology characterization and monitoring within the stream restoration area following the completion of work:
  - i) The permanent cross-section survey locations established at three (3) locations in accordance with Order 4.a.ii above within the Area of Concern shall be surveyed within six (6) months following the completion of construction and annually for a period of five (5) years following the completion of construction.
  - ii) A longitudinal profile shall be surveyed along the restored reach of stream and tied to each of the permanent cross-section locations. This survey shall document the channel bottom along the thalweg, the water surface elevation, bankfull elevation (i.e. reconnected at floodplain elevation), and top of bank where necessary so that the profile can be compared (i.e. overlaid) at required time intervals.
  - iii) Substrate measurements in the form of pebble counts shall be obtained at the riffle, glide, pool and run lengths associated with each of the permanent cross-section locations from item i above. A particle distribution curve shall be prepared for each set of pebble count data.
- d) Each permanent cross section location surveyed to comply with Orders 4.a through 4.c above shall be referenced to a permanent on-site benchmark location or demarcated by the installation of permanent monuments to facilitate the collection of data prior to and following the completion of construction of the interim measures outlined in this document.
- e) Each permanent cross-section location surveyed to comply with Orders 4.a through 4.c above shall be surveyed in sufficient detail to describe the channel cross-section, including water surface elevation, bankfull elevation, top of bank elevation, and the "historic" floodplain width and be compared (i.e. overlaid) at required time increments.

- f) All survey data shall be vertically referenced to mean sea level and horizontally referenced to the state plane coordinate system or a common local coordinate system.
- g) The frequency of stream channel morphology monitoring required in items 4.b and 4.c of these Orders shall be conducted within 6 months following completion of construction activities, and on an annual basis for a period of five (5) years.
- h) Stream morphology survey techniques to be used shall follow those described by Harrelson, Rawlins, and Potyondy, 1994, Stream Channel Reference Sites: An Illustrated Guide to Field Technique, General Technical Report RM-245, Fort Collins, CO, U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, 61 p. or other methodology as approved by Ohio EPA.
- j) Habitat and biological monitoring:
  - i) The Respondent shall assess the habitat quality and the fish and macroinvertebrate communities at three (3) locations following the completion of the stream restoration activities. Sampling locations shall mimic those used by Ohio EPA (river miles 6.60, 5.10, and 4.30) as reported in the October 29, 2007 Report . The Respondent shall conduct sampling capable of calculating the Index of Biotic Integrity (IBI) and the Modified Index of Well Being (MIwb) for the fish communities, and the Invertebrate Community Index (ICI) at all three locations. Habitat quality shall be assessed using the Qualitative Habitat Evaluation Index (QHEI).
  - ii) A baseline habitat evaluation using the QHEI shall be conducted at each location within 90 days to 120 days of the completion of construction activities Habitat and biological monitoring shall be conducted in the third and fifth years following the completion of construction activities.
  - iii) All sampling methods and data calculations shall be in accordance with those specified in Chapter 3745-1 of the Ohio Administrative Code. The biological data shall meet the requirements of Level 3 Credible data in accordance with OAC Rule 3745-4-06.

7. Within one hundred and twenty (120) days of the effective date of these Orders,

the Respondent shall submit a plan for the creation of a riparian buffer along the East Branch of the Chagrin River extending from Kirtland Hills Village's corporate boundary (River Mile 4.30) to the Sanctuary Drive bridge (River Mile 5.45). The riparian buffer shall be delineated in accordance with the guidance provided as Attachment A of these Orders and the limits of the zone shall be subject to approval by Ohio EPA. The Respondent shall provide for permanent protection through a conservation easement or environmental covenant of the riparian buffer from construction activities, the placement of fill, the removal of riparian vegetation, and stream channel modifications, except under conditions authorized by the Ohio EPA. The provisions of said easement or covenant shall be approved by Ohio EPA in writing prior to enactment by the Respondent.

8. Respondent shall submit a post-construction report to Ohio EPA that includes a summary of the implementation of construction measures and the results of all post-construction monitoring data required by these Orders and the plans developed and approved under these Orders within six (6) months of the completion of construction activities. Thereafter, Respondent shall submit monitoring reports to Ohio EPA on an annual basis.

## **VI. TERMINATION**

Respondents' obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondents has performed all obligations under these Orders and Ohio EPA's Division of Surface Water acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondents.

## **VII. OTHER CLAIMS**

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to the Sites.

## **VIII. OTHER APPLICABLE LAWS**

All actions required to be taken pursuant to these Orders shall be undertaken in

accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

#### **IX. MODIFICATIONS**

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

#### **X. NOTICE**

All documents required to be submitted by Respondents pursuant to these Orders shall be addressed to:

Ohio Environmental Protection Agency  
Northeast District Office  
Attn: Enforcement Supervisor  
Division of Surface Water  
2110 East Aurora Road  
Twinsburg, Ohio 44087

#### **XI. RESERVATION OF RIGHTS**

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XI. of these Orders.

#### **XII. WAIVER**

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Compliance with these Orders shall be a full accord and satisfaction for Respondent's liability for the violations specifically cited herein.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in

such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

**XIII. EFFECTIVE DATE**

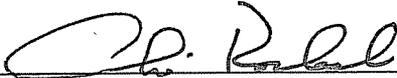
The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

**XIV. SIGNATORY AUTHORITY**

Each undersigned representative of a Party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such Party to these orders.

**IT IS SO ORDERED AND AGREED:**

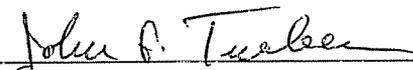
**Ohio Environmental Protection Agency**

  
\_\_\_\_\_  
Chris Korleski  
Director

8/11/09  
Date

**IT IS SO AGREED:**

**Village of Kirtland Hills**

By   
\_\_\_\_\_  
John F. Turben

July 27, 2009  
Date

\_\_\_\_\_  
Printed or Typed Name

Mayor  
Title