



CITY OF KENT, OHIO

DEPARTMENT OF COMMUNITY DEVELOPMENT

DATE: October 11, 2016
TO: Dave Ruller, City Manager
FROM: Bridget Susel, Community Development Director *B.Susel*
RE: Right of Access Agreement

The Ohio Environmental Protection Agency (Ohio EPA) has approved an Interim Remedial Action Plan (IRAP) for remediation and restoration activities that will be undertaken in order to address petroleum releases from the 800 Mogadore Road site, which is currently owned by Thomas & Betts Corporation. The remediation and restoration activities will be occurring primarily in a location known as the "North Ditch Area," which is a small tributary on City park land leading to the Cuyahoga River and located adjacent to the Kramer Field Ball Field Complex. Figures 1 and 2 from the IRAP have been attached separately to assist with identifying the North Ditch area and its adjacency to Kramer Field Ball Field Complex and the 800 Mogadore Road site.

The City will need to execute a "Property Right of Access Agreement" with HZW Environmental Consultants LLC., the group hired by Thomas & Betts to conduct the remediation and restoration activities, in order for the necessary work to be completed.

Included with the attached draft of the proposed access agreement are three (3) exhibits to the agreement that provide project specific details, including:

- Exhibit A: City parcels included in the access agreement;
- Exhibit B: Interim Remedial Action Plan (IRAP) approved by the Ohio EPA;
- Exhibit C: U.S. Army Corps of Engineers permit, including requested modifications.

Ed D'Amato with the Northeast District Office of the Ohio EPA Division of Environmental Response and Revitalization, will be attending the October 19th Special Committee session to discuss the proposed remediation and restoration plan in greater detail and to answer questions from members of Council.

I am respectfully requesting time at the October 19, 2016 Special Committee session to discuss the "Property Right of Access Agreement" in greater detail and seek Council authorization, with emergency, for its execution that same night in order to proceed with the needed remediation and restoration activities.

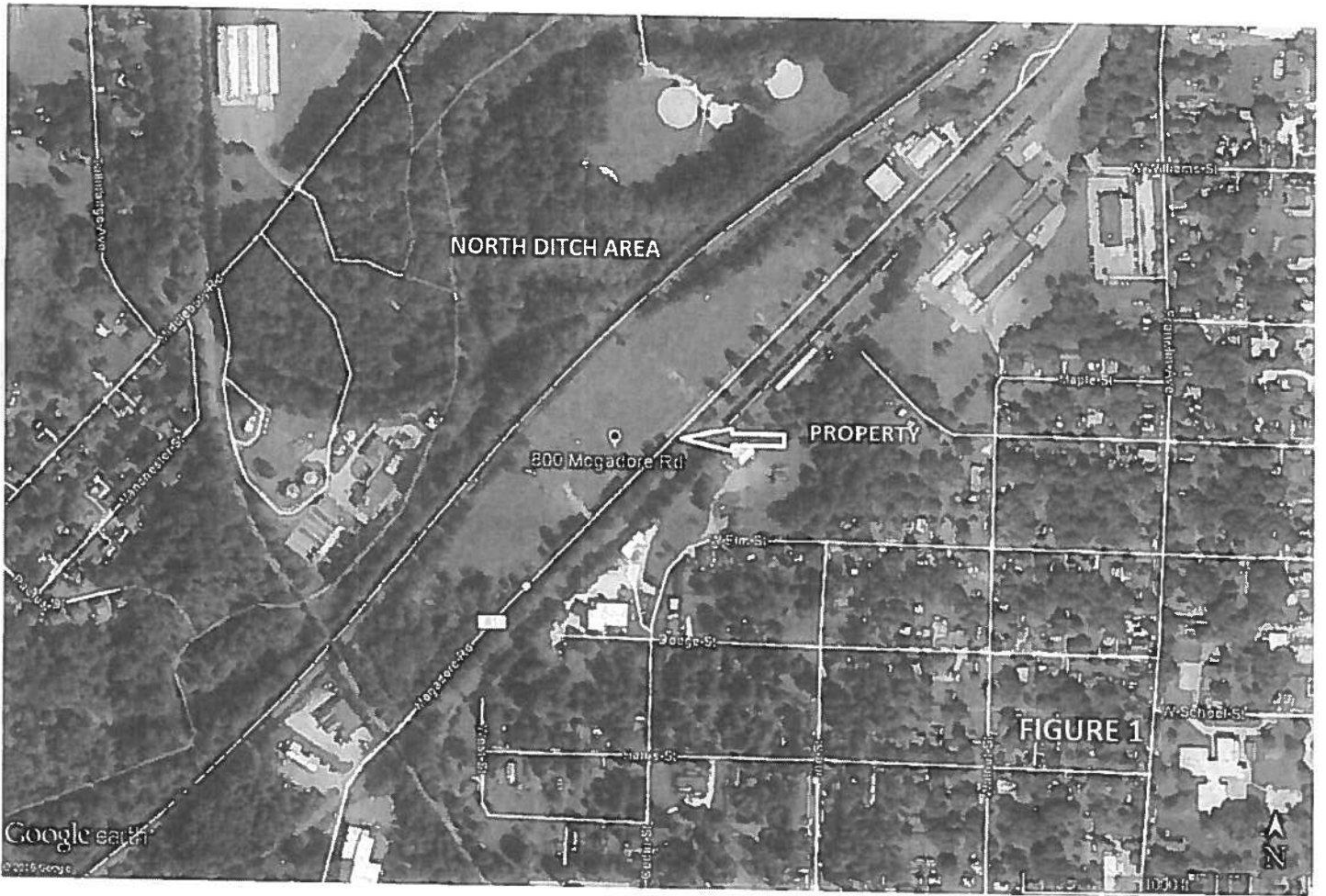
Please let me know if you need any additional information in order to add this to the agenda.

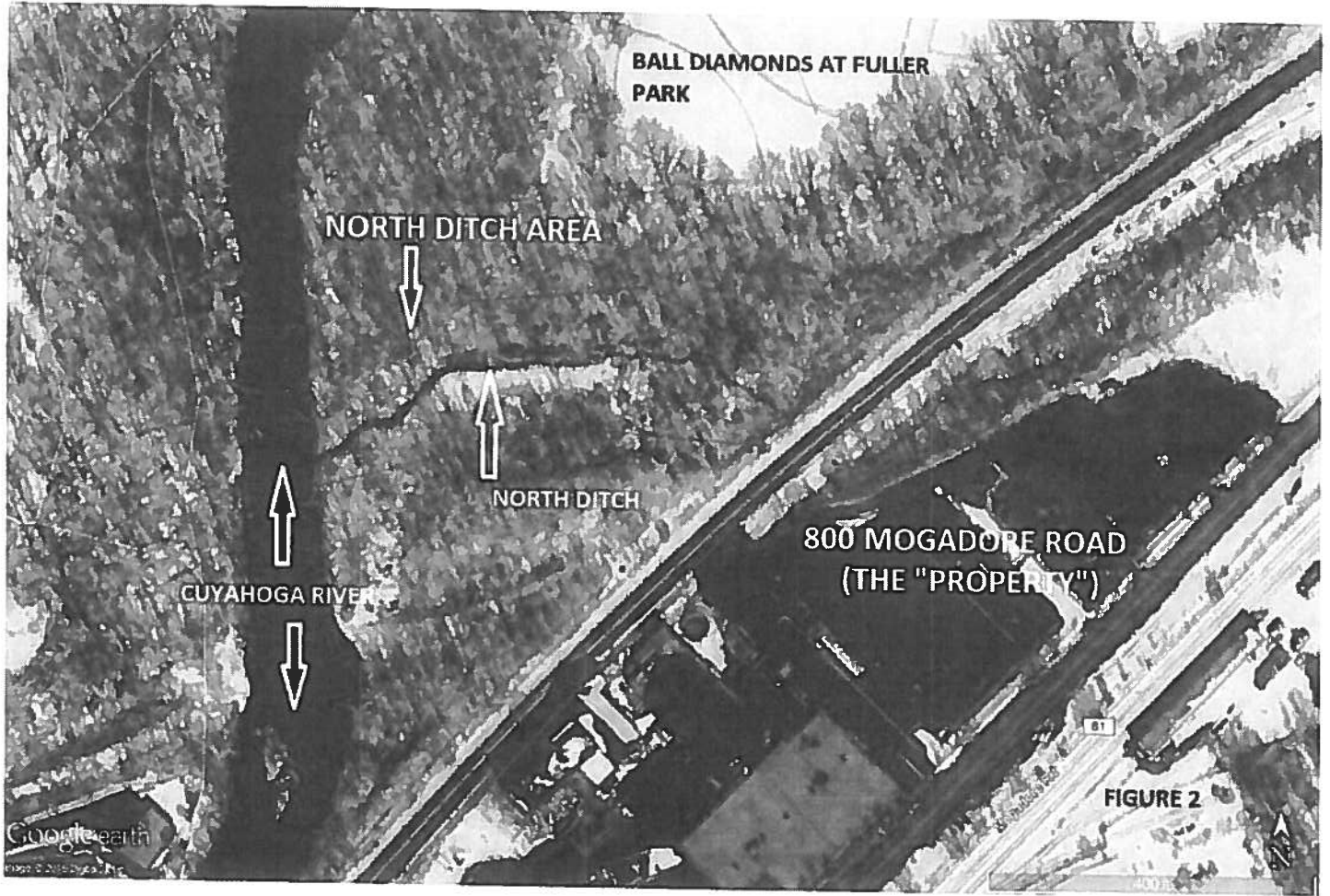
Thank you.

930 Overholt Rd., Kent, Ohio 44240 • (330) 678-8108 fax (330) 678-8030 •
www.KentOhio.org

Cc: Jim Silver, Law Director
John Idone, Parks & recreation Director
Melanie Baker, Service Director
Tara Grimm, Clerk of Council

Attachments





CITY OF KENT, OHIO

PROPERTY RIGHT OF ACCESS AGREEMENT

This CONDITIONAL PROPERTY RIGHT OF ACCESS AGREEMENT (the "Agreement") is made and entered into and shall be effective as of this _____ day of _____, 2016, by and between the CITY OF KENT, Ohio, (the "City") and HZW Environmental Consultants, LLC (the "Consultant").

WHEREAS, the City owns certain parcels of real property in the State of Ohio, County of Portage, known as the North Ditch, Kramer Field Ball Field Complex, East Bank of the Cuyahoga River, and surrounding park land known as permanent parcel numbers 17-025-20-00-014-000, 17-012-10-00-007-000, 17-011-10-00-049-000, 17-012-10-00-006-000, and 17-011-10-00-048-000 (collectively the "Property") and as depicted on the attached map as "EXHIBIT A;" and

WHEREAS, the Ohio Environmental Protection Agency (the "Ohio EPA") has approved the Interim Remedial Action Plan (the "IRAP") document for the Resource Conservation and Recovery Act (RCRA) and Voluntary Action Program (VAP) Memorandum of Agreement (MOA) for the Off-Property North Ditch Area (the "Project Area") and included as "EXHIBIT B," to complete needed soils and sediments remediation and restoration activities (the "Activities") due to petroleum releases from the 800 Mogadore Road, Kent, Ohio site (the "Site").

THEREFORE, it is agreed as follows:

1. **Grant of Access.** The City hereby conditionally grants to Consultant, its agents, employees, consultants, contractors, and subcontractors (collectively the "Consultant's Agents") a limited right of access to enter upon the Property for the sole purpose of performing the Activities as described in the IRAP, including the changes approved by the Ohio EPA in its September 27, 2016 response, and in accordance with the methodology put forth by the United States Army Corps of Engineers (the "Corps") in Nationwide Permit No. 2015-01012 dated February 12, 2016 (the "Corps Permit"), including modifications listed in the Consultant's August 26, 2016 request, as approved by the Corps.

2. **Duration and Termination of Access.** Conditional access shall be allowed upon the execution of this Agreement. The Agreement shall be in effect through March 1, 2017, at which time it will expire unless extended in writing by the City. If the Consultant continues Activities after this date without written consent from the City, the City maintains the right to issue a stop work order.

In the event the Consultant breaches any covenant or obligation under this Agreement and such breach is not cured to the reasonable satisfaction of the City within five (5) days after receipt of notice thereof, the City may terminate this Agreement and revoke the access granted herein upon delivery of notice to Consultant, and take all other action authorized by law or pursuant to this Agreement, to remedy said breach.

3. **Covenants of Consultant.** The cost of the Activities shall be borne by the Consultant or Consultant's Client. The work undertaken at the Property shall be conducted in accordance with standards customarily employed in the industry and in an expeditious, safe and diligent manner.

All work shall be performed in compliance with all applicable federal, state and local laws, ordinances, rules and regulations.

The Consultant is responsible for ensuring Consultant's Agents have knowledge of all of the terms and conditions of this Agreement, the IRAP and Corps Permit.

4. **Information Sharing.** At no cost to the City, the Consultant shall provide the City with all data collected by the Consultant and Consultant's Agents, including but not limited to laboratory analyses, monitoring reports, photographs and field notes associated with the Activities undertaken in the Project Area and/or on the Property.

The City maintains the right to provide its own representative to observe the Activities undertaken in the Project Area and/or on the Property and to obtain its own samples for analyses.

5. **Scope of Work.** Activities are limited to the Project Area only and shall be conducted as specified in the IRAP and the Corps Permit, both as modified and approved by the Ohio EPA and the Corps. All work shall be conducted in a manner that does not risk further release and migration of petroleum from the Project Area or the Site. The Consultant shall not use the Property for any other unrelated purpose or business.

6. **Local Permits, Approvals, and Conditions.** The Consultant shall secure written approval from the Parks & Recreation Director, or his designee, prior to the placement/staging of all clean fill materials, equipment and supplies; the removal of trees, shrubs and other vegetation; the expansion of existing or development of new access roads or paths to allow for ingress/egress to the Project Area; or any other activity that will alter the existing condition of any portion of the Property.

The Consultant shall obtain all permits and approvals necessary to comply with local laws prior to initiating authorized activities, including but not limited to Storm Water Pollution Prevention Plans (SWPPP) for the placement of clean fill on the Property; the expansion of existing or development of new access roads or paths to allow for ingress/egress to the Project Area; or any other activity(s) that results in ground disturbance.

The Consultant and the Consultant's Agents shall notify the City of actual start date prior to commencement of Activities, any alterations to the schedule of planned Activities, and/or any changes to the scope of the Activities.

The Consultant shall videotape the roadway entering into Kramer Field Ball Field Complex, including parking area to be utilized for staging of clean fill, Redmond Bridge, the

North Ditch area, and any area to be utilized for the Activities and the video shall be verified by the City as acceptable documentation of the present condition prior to the Consultant initiating the Activities.

The Consultant shall comply with all recommendations delineated in the *McCormick Taylor Fred Fuller Park Redmond Bridge Report*, as revised September 16, 2016, when transporting materials and equipment across Redmond Bridge.

The Consultant shall provide all control measures necessary to limit public access to the Project Area, including all material and equipment staging locations, and provide appropriate traffic control measures, including but not limited to signage and flagger personnel, when transporting materials and equipment across Redmond Bridge.

7. **Restoration.** Restoration of the Project Area and affected park lands, including but not limited to any and all temporary access roads or paths, shall be in accordance with the terms and conditions of this Agreement, the IRAP and the Corps Permit.

The Consultant shall provide the City with an inventory of all trees, shrubs and vegetation planned for removal prior to initiating Activities. Trees shall be replaced at a ratio of no less than 2:1, shall have a minimum caliper of 1.75 inch to 3 inch, and be comprised of species variety native to the northeast Ohio region, as specified in the City's Urban Forest Management Plan (the "UFMP") and as approved by the City.

The Consultant shall provide written certification detailing the composition of all fill materials to be utilized for the Activities.

The Consultant shall provide the City with the name and mobile telephone number for the representative(s) responsible for on-site management of the Activities at the Property.

8. **Materials Removed from Project Area.** Any samples, waste materials, contaminants, pollutants collected and removed from the Project Area shall be handled, stored, treated, transported and disposed of by the Consultant and/or the Consultant's Agents as necessary and in accordance with all federal, state and local environmental regulations and requirements.

At no time shall waste materials, contaminants, or pollutants collected and removed from the Project Area be stored on the Property.

9. **Tools and Equipment.** All tools, equipment or other items placed upon the Property by the Consultant and the Consultant's Agents shall remain under the ownership of the Consultant and the Consultant's Agents and shall be removed from the Property no later than March 31, 2017.

10. **Insurance.** Prior to commencing the Activities and at all times during the performance of said Activities, the Consultant and the Consultant's Agents shall maintain Workers' Compensation and Employer's Liability Insurance in the amount required by State of

Ohio law; Commercial General Liability (“CGL”) Insurance with combined single limits of One Million Dollars (\$1,000,000.00) per occurrence and Two Million Dollars (\$2,000,000.00) in the aggregate; Comprehensive Automobile Liability Insurance (owned, not owned and hired) with a combined single limit of Five Hundred Thousand Dollars (\$500,000.00); and Professional Errors and Omissions Insurance with limits of One Million Dollars (\$1,000,000.00) per incident and in the aggregate. The City shall be added as an additional insured to the CGL policy and such policy shall be considered primary insurance without recourse to or contribution from any similar insurance carried by the City.

The insurance certificate shall contain a provision that coverage afforded under the policy evidenced by such certificate will not be canceled or changed without providing at least thirty (30) days prior written notice to the City. The Consultant shall deliver certificates of insurance to City evidencing the existence of such policy prior to the commencement of the Activities.

11. **Bond.** The Consultant shall provide the City with a performance bond in the amount of \$25,000.00 to guarantee the satisfactory completion of the Activities on the Property as specified by this Agreement.

12. **Indemnity.** The Consultant shall indemnify, hold harmless and defend the City from and against any and all claims, demands, liabilities, causes of action, losses, costs, damages and expenses of any kind, including reasonable attorney fees, that may be asserted against or incurred by the City in any way relating to, arising out of, caused by or in connection with (i) the acts or omissions of Consultant or any Consultant’s Agents performance of the Activities undertaken on the Property, (ii) violations or liens that may be filed against the Property as a result of the performance of the work, (iii) personal injury, wrongful death, costs, expenses or property damage resulting from the performance of the work or contamination at the Property, and (iv) injunctive relief or other claims sought by any governmental authorities or third parties as a result of the work or contamination at the Property. Consultant shall not be required to indemnify the City for claims, liabilities, damages, losses or expenses caused by wrongful acts or omissions by the City. The provisions of this paragraph shall survive the termination of this Agreement.

13. **No Admission.** The granting of conditional property right of access herein by the City is not intended, and shall not be construed, as an admission of liability on the part of the City or the City’s successors and assigns for any contamination on the Property.

By execution of this Agreement, the City is not providing any consent or agreement to the contamination or conditions at the Property and the City does not waive any rights or remedies in connection with any contamination at the Property.

14. **Miscellaneous.**

- (a) **Entire Agreement.** This Agreement shall constitute the entire agreement between the parties regarding the granting of conditional property right of access to the Consultant for the purposes herein. No modification, amendment, or waiver of the terms and conditions of this Agreement shall

be binding upon the City or Consultant unless approved in writing by an authorized representative of the City and Consultant.

- (b) Governing Law, Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Ohio. Venue for any action or proceeding arising from or relating to this Agreement shall be in the appropriate Ohio court having jurisdiction.
- (c) Severability. Any provision of this Agreement that is prohibited or unenforceable shall be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof.
- (d) No Third Party Beneficiaries. This Agreement is solely for the benefit of the parties hereto and their respective successors and assigns and shall not be deemed to confer upon third parties any remedy, claim, liability, or reimbursement, claim of action or other right.
- (e) Representations. Each of the parties hereto represents and warrants to the other party executing this Agreement it has the authority to do so knowing that each of the other parties to this Agreement are acting in reliance upon such representation. The provisions of this Section shall survive the termination of this Agreement.
- (f) Notices. Any notice, demand, request payment or other communication which any party hereto may require or may desire to give hereunder shall be in writing and shall be deemed to have been properly given (a) if hand received, (b) if received via United States mail service or other reliable express courier service, or (c) if sent via e-mail to the addresses set forth below:

City of Kent:

Name

Address

E-mail

HZW Environmental Consultants, LLC:

Name

Address

E-mail

EXECUTED ON this ____ day of _____, 2016.

City of Kent
By:

Dave Ruller, City Manager

HZW Environmental Consultants, LLC
By:

Matthew Knecht, President

Approved As To Legal Form:

Jim Silver, Law Director

[Print](#) | [Back](#)

EXHIBIT "A"

Portage County GIS



Notes

1. 17-025-20-00-014-000
2. 17-012-10-00-007-000
3. 17-012-10-00-006-000
4. 17-011-10-00-049-000
5. 17-011-10-00-048-000

EXHIBIT "B"



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

September 27, 2016

Re: **800 Mogadore Rd Kent
Remediation Response
Correspondence
Voluntary Action Program
Portage
267002330001**

Mr. Matthew Knecht
HzW Environmental
6105 Heisley Rd.
Mentor, OH 44060

Subject: Review of Interim Remedial Action Plan, North Ditch Area, 800 Mogadore Rd., Kent

Dear Mr. Knecht:

On September 2, 2016, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office received via e-mail the following document, submitted by HzW Environmental Consultants, *RCRA and VAP-MOA Track Interim Remedial Action Plan for the Off-Property North Ditch Area due to releases from The 800 Mogadore Road Site, Kent, Portage County, Ohio.*

Ohio EPA has reviewed the document, and in an e-mail exchange dated September 20, 2016, provided you with comments on the Interim Remedial Action Plan (IRAP). You responded with proposed revisions to the text of the IRAP. The comments and responses are below. Ohio EPA approves the IRAP with HzW's proposed changes:

Comment 1: As explained in Ohio EPA's September 13, 2016 email to you, confirmatory samples must be analyzed for volatile organic compounds (VOCs).

Response: Item No. 10 under Section 2.1 of the IRAP will be revised to read as follows below (new language in italics):

"Excavate, load, transport and dispose of soils/sediments from the area indicated on Figure 3 to the anticipated depths outlined above, and collect confirmatory soil samples from lateral and vertical intervals to determine residual levels of TPH DRO post-removal. The confirmatory soil sampling plan will necessarily need to remain somewhat fluid to provide flexibility in terms of the number, location and depth of samples collected based upon observations during remedial excavation. Confirmatory soil samples would be analyzed for TPH DRO (the primary COC found in soil/sediment in the North Ditch area) and VOCs on a rush basis to expedite sample turnaround

by the VAP Certified Laboratory (GeoAnalytical Laboratories, Inc. in Twinsburg, Ohio). The laboratory analytical methods (from the Certified Laboratory's current certificate) will be Method 8015B for TPH DRO, and 8260A/8260B for VOCs (both methods are listed on the Certified Laboratory's certificate)."

In addition, Section 3.3 of the IRAP will be revised to read as follows below (new language in italics):

"As stated above, confirmatory soil sampling will be conducted following excavation and removal of soil/sediment from the North Ditch area to confirm the remedy results in achievement of concentrations of TPH DRO less than soil saturation such that surface water quality aesthetic standards and soil direct contact standards are achieved. In addition, all confirmatory soil samples will also be analyzed for VOCs by EPA Method 8260A/8260B."

Comment 2: Please explain how water that may accumulate within the excavation will be managed.

Response: This issue was discussed yesterday in the field with the Professional Engineer (PE) who is preparing the Storm Water Pollution Prevention Plan (SWPPP) for the remedial work area. Two strategies, deployed either separately or in combination, are anticipated to address water management within the excavation. A new section (Section 5.1) will be added to the IRAP that will contain the following language (new language in italics):

5.1 Management of Excess Water that Accumulates in the Excavated Area

Some water is expected to accumulate in the excavation area. Provided the quantity does not impede excavation activities, water will be allowed to remain in the excavated area. Excess waters that accumulate either following a significant precipitation event, "run-in" from surrounding areas, or any other event that results in unacceptable quantities of water into the excavated area will require management. Obviously, weather conditions will be monitored during performance of the work and, if heavy or extended periods of rain are forecast, efforts will be made to cover the "working face" where contaminated materials are actively being removed in advance of predicted precipitation events. In this way, an effort will be made to either divert or otherwise sequester waters that enter the excavated area away from areas where contaminated materials are actively being removed, and toward areas where remedial efforts are already complete (i.e., contaminated soils and sediment have been removed). Consequently, it is anticipated that accumulated waters will fall into one of three categories:

- *Waters with no obvious contamination that have been sequestered from contaminated materials in the work area (Category I waters);*
- *Waters with obvious contamination (oil or sheen; Category II waters); and*
- *Waters where the contaminant level is uncertain, either due to an initial inability to sequester these waters from contaminated materials or some other determination (Category III waters).*

A turbidity meter will be maintained at the project site at all times during excavation and restoration activities. Category I waters with turbidity levels less than or equal to two times the ambient turbidity level in the Cuyahoga River, as measured in the field, will be pumped directly from the excavated area to the Cuyahoga River. Category I waters with turbidity levels greater than two times the ambient turbidity level in the Cuyahoga River, as measured in the field, will be filtered prior to being pumped directly to the Cuyahoga River. Category II waters will be sequestered (either in containers or low areas in the work limits) until any obvious free oil or sheen has been addressed through the application of sorbent materials, after which they will be considered Category III waters. All Category III waters will be sequestered (either in containers or low areas of the work area) and sampled. Category III waters will be analyzed for the presence of VOCs and oil and grease. Provided that concentrations of VOCs and oil and grease meet Ohio surface water quality standards, Category III waters may be pumped directly to the Cuyahoga River or filtered prior to pumping to address elevated turbidity. Those Category II waters where floating oil or sheen cannot be removed and/or Category III waters that contain concentrations of VOCs and/or oil and grease in excess of Ohio water quality standards will be removed from the work area via tanker truck or vacuum truck for off-site disposal.

Comment 3: More information is needed regarding the excavation process, how soil excavated for removal will be managed, whether or not it will be dewatered, intended prevention methods for keeping excavated material from being spilled/released outside the excavation area, etc.

Response: A new section (Section 5.2) will be added to the IRAP that will contain the following language (new language in italics):

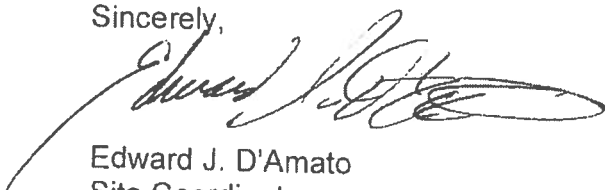
5.2 *Additional Information Related to Excavation Staging and Materials Management During Remedy Implementation*

The excavation process will progress from south to north, or from the CSX Railroad right-of-way toward the mouth of the North Ditch to the Cuyahoga

River. Maintaining the integrity of the mouth of the North Ditch, as long as possible, allows more control to contain any waters that accumulate in the excavation. Further, having the excavation progress in this direction leaves more options for controlling any unplanned "counter flows" from the Cuyahoga River to the excavation area (for example, leaving high ground to erect clean earthen diversion berms, as necessary). Soils/sediments excavated from the North Ditch area will be managed in rubber-tired dump vehicles of various sizes (given the limitations of the work area) and transported along a temporary haul road constructed parallel to the east side of the North Ditch. At the approximate mid-point of this temporary haul road is a second "exit haul road" that connects the North Ditch area to a gravel parking area in Fuller Park. The dump vehicles will transport excavated materials to a temporary ramp constructed by the contractor in the gravel parking area. The excavated materials will be placed (directly) from the rubber-tired dump vehicles to lined roll-off boxes staged beneath the ramp. As roll-off boxes are filled, they will be tarped, placarded and the excavated materials manifested for transport. There is no intent to attempt de-watering of the excavated materials. The intended contingency measures for keeping excavated materials from spilling and escaping the immediate excavation area in the North Ditch and Fuller Park will be storm water controls deployed in accordance with an approved Storm Water Pollution Prevention Plan (SWPPP). The intended contingency measures for keeping excavated materials from spilling outside the immediate work area (i.e., as trucks leave Fuller Park) are three-fold: 1) the fact that the roll-off boxes will be lined, 2) a wheel wash station to be employed in Fuller Park, and 3) use of street sweeper on all paved streets, as needed.

If you have any questions, please feel free to contact me at (330) 963-1170 or by electronic mail at:

Sincerely,



Edward J. D'Amato
Site Coordinator
Division of Environmental Response and Revitalization

ED/nvr

ec: Rod Beals, Manager, DERR, NEDO
Bob Prinic, Supervisor, DERR, NEDO
Kim Gallagher, DERR, NEDO
Kurt Kollar, DERR, NEDO

***RCRA and VAP MOA TRACK
INTERIM REMEDIAL ACTION PLAN***

**OFF-PROPERTY NORTH DITCH AREA
due to RELEASES FROM THE 800 MOGADORE
ROAD SITE, KENT, PORTAGE COUNTY, OHIO**

September 2016

Prepared for:

**Thomas & Betts Corporation/ABB Group, Ltd.
Memphis, Tennessee**

Prepared by:



**HzW ENVIRONMENTAL
CONSULTANTS, LLC**

**6105 Heisley Road ♦ Mentor, Ohio 44060
440-357-1260 ♦ Fax 440-357-1510**

H15248

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Table 3: Remedial Action Summary of Planned Remedial Activities

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Figure 3: Soil/Sediment Sampling Locations in North Ditch Area
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ATTACHMENTS

Attachment 1: Portion of 1991 Plant Drainage Map of 800 Mogadore Road Site

Attachment 2: Copy of Public Notice Language

EXHIBITS

Exhibit 1: Draft Restoration Plan Submitted to U.S. ACE and City of Kent for Review

1.0 INTRODUCTION

This document serves as an Interim Remedial Action Plan (IRAP) document for the Resource Conservation and Recovery Act (RCRA) and Voluntary Action Program (VAP) Memorandum of Agreement (MOA) Track (collectively, the “RCRA and VAP MOA Track”). This IRAP identifies the remedial measures to address total petroleum hydrocarbon (TPH) contaminated soils and sediments in an off-site area (referred to as the “North Ditch”) adjacent to the 800 Mogadore Road Site located in Kent, Portage County, Ohio (the “Property”). The Property was entered in the RCRA and VAP MOA Track in December 2004. TPH-contaminated soils and sediments attributable to past on-Property releases were discovered in the off-Property North Ditch area following additional investigations conducted in 2015 and 2016. Since the Property has been entered in the RCRA and VAP MOA Track, any planned remedial activities associated with on-Property releases – regardless of whether the contaminated media addressed by the remedial activity are located on- or off-Property – must be documented in either an IRAP or a Remedial Action Plan (Plan), which is subject to a 30-day public notice, and comments from the Ohio EPA and/or the public. The general outline of this IRAP follows that set forth in Form #16 of the Ohio EPA RCRA and VAP MOA Track documents.

1.1 *Accompanying Documents*

This submittal to the Ohio EPA and the VAP MOA Track document repository (City of Kent Health Department, 414 East Main Street, Kent, Ohio) includes this IRAP document, as well as the following:

- ◆ Form #16 (Remedial Action Work Plan) of the *Ohio EPA RCRA & VAP MOA Track* documents; and
- ◆ Form #18 (Public Notice of Proposed Remedial Action Plan) of the *Ohio EPA RCRA & VAP MOA Track* documents.

While not part of this submittal, the Certified Professional (Matthew D. Knecht) of HZW Environmental Consultants, LLC (HZW) has previously placed into the document repository a copy of the 2005 VAP Phase I Property Assessment for the Property (which was reviewed and approved by Ohio EPA), two previous IRAPs (one for a slurry wall and cap system installed in 2005, and one for soil removal following demolition of the former buildings on the Property in 2009), and a document that outlined the groundwater monitoring strategy for the Property following installation of the slurry wall and cap system.

1.2 Property Description and Location of the North Ditch Area Relative to the Property

The Property comprises 17.7 acres of land located northwest (and parallel to) Mogadore Road in the City of Kent, Ohio. In an aerial view, the Property resembles an elongated rectangle oriented southwest-northeast. The Property is bordered on the southeast by the Mogadore Road right-of-way, on the northwest by an active CSX Transportation railroad right-of-way (main line), on the southwest by an active Wheeling and Lake Erie Railroad right-of-way (spur), and on the northeast by a light manufacturing operation (Advanced Displays) which makes signs and banners. The Property boundary is depicted by the red polygon on **Figure 1**, which is based upon a satellite image (Google Earth®) taken in September 2015. As noted in Figure 1, the Property is vacant, all previous buildings having been demolished in 2009. The entire Property is fenced, with several locked gates. There are no active operations on the Property, other than on-going environmental remedial activities.

The North Ditch area is situated northwest of the Property, across the CSX Transportation railroad right-of-way. The best depiction of the North Ditch area relative to the Property is depicted by the blue polygon on **Figure 2**, which is based upon a satellite image (Google Earth®) taken in March 2005, when there was snow on the ground and no vegetation on the trees. As can be seen on Figure 2, the North Ditch is a surface water drainage feature that conveys water from the CSX Transportation railroad right-of-way to the Cuyahoga River. The entire North Ditch area depicted by the polygon on Figure 2 is situated on park land (being part of Fred Fuller Park) owned by the City of Kent. Snow-covered baseball diamonds are evident in Figure 2, and the primary “planned” recreational activity in Fred Fuller Park is baseball/softball, although City residents use the park as green space year round. The North Ditch area is overgrown with vegetation, and the ditch and its floodplain are (largely) wetlands under the jurisdiction of the United States Army Corps of Engineers (U.S. ACE).

1.3 Brief History of On-Property Operations and the Presumed Connection between these Operations and Soil/Sediment Contamination in the North Ditch Area

The first documented industrial use of the Property was by the Falls Rivet and Machining Company (Falls Rivet) in 1889. Falls Rivet was engaged in the manufacture of metal fasteners, primarily rivets and bolts. While there were several other early manufacturing operations on portions of the Property (a cut glass manufacturer and a manufacturer of rasps and files), Falls Rivet’s operations expanded on the Property between 1889 and 1919, eventually outgrowing and “forcing out” other industrial operations in favor of metal fastener manufacture being the exclusive activity conducted on-site at the end of World War I.

In 1921, the Cleveland, Ohio-based Lamson & Sessions Company (Lamson & Sessions) acquired Falls Rivet, and expanded metal fastener manufacture to include nuts, screws and cotter pins. Lamson & Sessions continued metal fastener manufacture on the Property through the 1970s. In 1981, Lamson & Sessions divested itself of the metal fastener manufacturing, and sold the Property and its operations to the Russell, Burdsall and Ward Corporation (RB&W). RB&W continued metal fastener manufacture on the Property until 2009, when it ceased operations. Lamson & Sessions had re-acquired the Property from RB&W in 1999, although RB&W remained a tenant until 2009. Following RB&W's vacating the Property in 2009, all former buildings on-site were demolished by the Thomas & Betts Corporation (T&B), which had acquired Lamson & Sessions in 2007. T&B was, in turn, acquired by ABB Group, Ltd. (ABB) in 2012. Both T&B and ABB are successors to the operations of Lamson & Sessions.

Lamson & Sessions historically used considerable quantities of oil in metal fastener manufacture. The available evidence is that prior to 1950, much of the waste oils generated at the facility were discharged (intentionally) to the Cuyahoga River via one of two conveyances: the North Ditch, and a similar conveyance referred to as the South Ditch. In approximately 1950, Lamson & Sessions installed a series of engineered (i.e., the drawings were stamped by a Professional Engineer) lagoons or surface impoundments in the southern portion of the Property to manage used oils generated on-site. In 1952, two such lagoons (along with a storm water management pond and a pickling waste pond) were in use for oil management according to historical facility drawings and aerial photographs. The number of lagoons committed to management of used oil increased to four between 1960 and 1970. After 1970, Lamson & Sessions' operations began broader use of aqueous coolants/lubricants that could be disposed via the sanitary sewer system. By 1975, historical aerial photographs suggest that all lagoons used for oil management had been closed, and the only lagoon which remained was used for storm water management. After it acquired the Property in 1981, RB&W used aqueous coolants/lubricants exclusively, and by 1990 RB&W had closed the last remaining storm water lagoon in the south portion of the Property.

Despite the transition to aqueous lubricants/coolants in the mid-1970s and RB&W's closure of the remaining storm water lagoon in 1990, it is apparent from the public record that the facility struggled with oil management following formation of the Ohio EPA in 1972. Agency correspondence from the 1979 through 1992 includes several letters to Lamson & Sessions and/or RB&W related to oil "sheens" or "slicks" on the Cuyahoga River. Two of these (from February 1987 and February 1988, both prepared by Bob Davic of Ohio EPA) reference a "discharge point" that apparently coincides with three drain lines that discharged to the headwaters or what

would be the North Ditch. Further, a somewhat comprehensive facility drainage map was prepared by Environmental Design Group in 1990 at the request of RB&W in order to address recurring concerns from Ohio EPA regarding discharges of oil to the Cuyahoga River. A highlighted copy of a portion of this map is included as **Attachment 1**.

In Attachment 1, four historic pipes are shown flowing to an “outfall” that proceed under the CSX Transportation railroad right-of-way and are shown entering the North Ditch. These four pipes are associated with floor drains and trench drains (which some downspout contributions) in Building 3 (constructed in 1918 by Falls Rivet), Building 6 (constructed in 1895 by Falls Rivet) and Building 18 (constructed in 1948 by Lamson & Sessions). Note the location of four historic “oil pits” in Building 18. It is instructive to note that an “oil separation pit” was constructed on the drainage line from Building 6, but not on any of the three drainage lines that originated from the Cold Forge in Building 18, despite the presence of the four historic oil pits shown on Attachment 1.

The purpose of the above narrative is to present the presumed connection between what is observed in soils/sediment in the North Ditch area (TPH levels in excess of soil saturation) and historical operations on the Property. There is no indication of what oil management practices may have been on the Property prior to 1950. Therefore, it seems reasonable to presume that prior to 1950 oil was discharged intentionally – at least periodically, if not regularly – from operations on the Property to the Cuyahoga River via the North Ditch. This is presumed likely since conveyances existed and there is no evidence of other oil management practices. After 1950, efforts were made to manage waste oil on-Property via the oil lagoons. However, as shown in Attachment 1, as late as 1991 there were drains that may have conveyed oil from manufacturing buildings on the northern portion of the Property to the North Ditch. Documents from the Ohio EPA in 1987 and 1988 suggest “pooled oil” at the discharge point from the Property to the North Ditch. (Ohio EPA demonstrated in 2015 that a sheen can be generated on surface water by agitating soils/sediments on the east side of the CSX Transportation right-of-way at the location of this previous discharge point.) The existence of an “oil separation pit” on one of the discharge lines leading to the North Ditch would suggest that oils were present on waters conveyed to the North Ditch such that physical separation was necessary. Finally, the proximity of four oil pits in former Building 18 to floor drains to the storm water system (and, by extension, the North Ditch) would suggest that oil had a mechanism by which to enter lines/conveyances to the North Ditch that had no means of physical oil separation. Thus, it is presumed that the TPH saturated soils/sediments in the North Ditch area are a legacy of historic operations on the Property and past oil management practices (or the lack thereof).

1.4 Environmental Investigation of the North Ditch Area

Prior to late 2015, T&B/ABB and HZW were not aware of any impacts to soils/sediments off-Property in the North Ditch area. (There have been allusions to some previous sampling of soils/sediments in the North Ditch area by others, but the data from any such investigation were never communicated, conveyed or provided to T&B/ABB or HZW.) The VAP Phase I Property Assessment for the 800 Mogadore Road Site (which was reviewed by Ohio EPA as part of the RCRA and VAP MOA Track process) did not specify the North Ditch area as an identified area associated with previous releases on-Property. Therefore, the only known data for soil/sediment in the North Ditch area are from soil/sediment sampling conducted in 2015 and 2016 by HZW.

To assess environmental conditions in the North Ditch area, soil/sediment surface water sampling activities were conducted in accordance with the provisions of the VAP (Chapter 3745-300-07 of the Ohio Administrative Code [OAC]). These activities were initiated by HZW in September 2015 and completed in late May 2016. The methods used and findings of soil/sediment sampling in the North Ditch area are summarized in this section.

Figure 3 is a schematic map of sampling locations in the North Ditch area. To orient the reader, north is to the top of the page on Figure 3. The 800 Mogadore Road site (the Property) is denoted in the lower right hand corner (southeastern corner) of Figure 3. The CSX Transportation railroad right-of-way is denoted, separating the Property (to the southeast) from the North Ditch area (to the northwest). The blue shaded portion of the North Ditch area is a U.S. ACE jurisdictional emergent wetland, while the green shaded portion of the North Ditch area is a U.S. ACE jurisdictional forested wetland. Upland (non-wetland) areas are unshaded.

Sampling was conducted by constructing twelve (12) transects perpendicular to the channel of the North Ditch. These transects were designated “N. Ditch-05” (located near the mouth of the North Ditch to the Cuyahoga River) through “N. Ditch-13” (located adjacent to the CSX Transportation right-of-way). In addition, two transects (“N. Ditch-14” and “N. Ditch-15”) were situated in the drainage ditch between the Property and the CSX Transportation right-of-way, as shown on Figure 3.

The center point of each transect was situated in the channel of the North Ditch, and that location was considered to be the “0.0 foot” location for each transect. In other words, the soil/sediment sample collected in the channel of the North Ditch at Transect N. Ditch-05 was designated “N.

Ditch-05, 0.0 [feet]”. From this center point of the channel of the North Ditch area, each transect extended to the north and south of the main channel a minimum distance of 40 feet, and in some cases extended to 80 feet as warranted based upon initial sampling results. At 20-foot intervals north and south of the channel of the north ditch, soil/sediment samples were collected. Soil/sediment samples collected to the north of the main channel were assigned “positive” distances (i.e., +20 and +40 [feet]), while soil/sediment samples collected to the south of the main channel were assigned “negative” distances (i.e., -20 and -40 [feet]). This is the meaning of the indicated sampling locations on Figure 3. It should be noted that outside of the North Ditch area at Transect N. Ditch-14, samples could only be collected to the north (hence, the designations +20, +40 and +60 for this transect), and that at Transect N. Ditch-15, samples could only be collected to the south (hence, the designation -20 for this transect). This was due to the configuration of the two ditches in the CSX Transportation railroad right-of-way before these two ditches converge and flow into the North Ditch area.

In 2015, soil/sediment sampling was conducted to a depth of 6 inches at each transect in the North Ditch area at the channel (i.e., at the “0.0” location) and 40 feet north and south of the channel (i.e., at the +20 and +40 locations, and the -20 and -40 locations). At the two transects not located in the North Ditch area (Transects N. Ditch 14 and 15), samples were collected at the 0.0 location and the +20 location (Transect N. Ditch 14) or the -20 location (Transect N. Ditch 15). Each sample was submitted to an Ohio VAP Certified Laboratory for analysis of TPH diesel range organics (DRO) and gasoline range organics (GRO) by EPA Method 8015 (modified). In addition, soil/sediment samples collected from the 0.0 location (in the channel of the North Ditch) were analyzed for volatile organic compounds (VOCs) by EPA Method 8260 and polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270. Following receipt of initial analytical results:

- Transect N. Ditch 9A was extended 40 feet to the north (adding sampling locations +60 and +80) due to concentrations of TPH DRO exceeding soil saturation values referenced under the VAP for Soil Class I (sands and gravels) at the +40 location. Additional soil/sediment samples were collected from the 0-6 inch depth interval at locations +60 and +80 at Transect N. Ditch 9A in October 2015.
- Transect N. Ditch 11 was extended 40 feet to the south (adding sampling locations -60 and -80) due to concentrations of TPH DRO exceeding soil saturation values referenced under the VAP for Soil Class I (sands and gravels) at the -40 location. Additional soil/sediment samples were collected from the 0-6 inch depth interval at locations -60 and -80 at Transect N. Ditch 11 in October 2015.
- Transect N. Ditch 13 was extended 40 feet to the north (adding sampling locations +60 and +80) due to concentrations of TPH DRO exceeding soil saturation values referenced under the VAP for Soil Class I (sands and gravels) at the +40 location. Additional

soil/sediment samples were collected from the 0-6 inch depth interval at locations +60 and +80 at Transect N. Ditch 13 in October 2015.

- Transect N. Ditch 14 was extended 40 feet to the north (adding sampling locations +40 and +60) due to concentrations of TPH DRO exceeding soil saturation values referenced under the VAP for Soil Class I (sands and gravels) at the +20 location. Additional soil/sediment samples were collected from the 0-6 inch depth interval at locations +40 and +60 at Transect N. Ditch 14 in October 2015.

It should be noted that the soil/sediment sample from the 0-6 inch depth interval at location -20 at Transect N. Ditch 15 also contained a concentration of TPH DRO that exceeded soil saturation values referenced under the VAP for Soil Class I (sands and gravels). However, this transect could not be extended further to the south since the drainage feature that eventually leads to the North Ditch essentially ends at this point.

Low levels of the VOC cis-1,2-dichloroethene (cis-1,2-DCE) were detected in the soil/sediment samples collected at the 0.0 location of transects N. Ditch 10, N. Ditch 11 and N. Ditch 13. The highest detected concentration was 0.019 mg/kg at the 0.0 location of Transect N. Ditch 13. Finally, it should be noted that concentrations of PAHs that exceeded ecological screening levels for sediment were detected in several of the samples collected from the 0.0 locations along the centerline of the channel of the North Ditch. However, in most cases the elevated levels of TPH DRO in these samples resulted in elevated detection limits for PAHs, making any meaningful evaluation of PAH concentrations relative to ecological screening levels difficult (if not impossible).

After this initial sampling in the fall of 2015, HZW conducted additional soil/sediment sampling at depth in late May 2016. At each transect, the North Ditch channel location (the 0.0 location) was sampled at 6-inch intervals to a depth of three (3) feet, or 36 inches. Similarly, at any transect where any initial lateral sampling location exhibited (or was "bracketed by" a further outlying lateral location along the transect) a concentration of TPH DRO ($C_{20} - C_{34}$ fraction) in the 0-6 inch depth interval in excess of 2,500 milligrams per kilogram (mg/kg). This was deemed to be a conservative sampling of concentrations at depth, since the soil saturation value for TPH DRO ($C_{20} - C_{34}$ fraction) referenced under the VAP for Soil Class I is 5,000 mg/kg. This sampling involved collecting soil/sediment samples at 6 inch intervals to a depth of 36 inches (i.e., 6-12 inches, 12-18 inches, 18-24 inches, 24-30 inches and 30-36 inches). As above, all soil/sediment samples were submitted to a VAP Certified Laboratory for analysis of TPH DRO by EPA Method 8015 (modified). In addition, select samples collected in 2016 were screened by the Certified Laboratory for the presence of polychlorinated biphenyls (PCBs).

The TPH DRO results of soil/sediment sampling conducted in the North Ditch area (and the two transects located on the southeast side of the CSX Transportation railroad right-of-way) are presented in **Table 1**. A summary of HZW's interpretation of the results are:

- Transect N. Ditch 5: At the 0.0 location (the channel of the North Ditch), soil/sediments require removal to a depth of 24 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 6: At the 0.0 location (the channel of the North Ditch) and the -20 location (20 feet south of the channel), soil/sediments require removal to depths of between 6 and 12 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 7: At the 0.0 location (the channel of the North Ditch), soil/sediments require removal to a depth of 30 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 8: at the 0.0 location (the channel of the North Ditch) and the +20 location (20 feet north of the channel), soil/sediments require removal to depths of between 18 and 24 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 9: At the 0.0 location (the channel of the North Ditch) and the -20 location (20 feet south of the channel), soil/sediments require removal to depths of between 30 and 36 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 9A: at the 0.0 location (the channel of the North Ditch), the +20 location (20 feet north of the channel) and the +40 location (40 feet north of the channel), soil/sediments require removal to depths of between 24 and 30 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 10: At the 0.0 location (the channel of the North Ditch), soil/sediments require removal to a depth of at least 36 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 11: at the +20 location (20 feet north of the channel), the -20 location (20 feet south of the channel), and the -40 location (40 feet south of the channel), soil/sediments require removal to depths of 24 inches to address TPH DRO concentrations that exceed soil saturation. This will also necessitate removal of soil/sediments at the 0.0 location of this transect.
- Transect N. Ditch 12: at the 0.0 location (the channel of the North Ditch) and the +20 location (20 feet north of the channel), soil/sediments require removal to depths of between 24 and 30 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 13: between the 0.0 location (the channel of the North Ditch) and the +40 location (40 feet north of the channel), soils/sediments require removal to a depth of 30 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 14 (outside the North Ditch area but covered by this IRAP): between the 0.0 location and the +20 location, soils/sediments require removal to depths between 12 and 30 inches to address TPH DRO concentrations that exceed soil saturation.
- Transect N. Ditch 15 (outside the North Ditch area but covered by this IRAP): between the 0.0 location and the -20 location, soils/sediments require removal to depths between 24 and 30 inches to address TPH DRO concentrations that exceed soil saturation.

Concentrations of PCBs were not detected in soil/sediment samples screened for the presence of these constituents by the Certified Laboratory in 2016.

What is notable in Table 1 is the depth of TPH DRO contamination in soils/sediments in the North Ditch area (up to 36 inches in places), and the degree to which TPH DRO contamination extends laterally from the channel of the North Ditch at certain locations. At three transects, TPH DRO concentrations exceeded soil saturation for distances of 40 feet or more from the main channel. This provides further support for the conclusion that the presence of TPH DRO-contaminated soils/sediments in the North Ditch area is related to historic/legacy releases from the Property. In the event of historic releases (pre-1950), subsequent infiltration and sedimentation within the floodplain of the Cuyahoga River (which includes the North Ditch area would explain) the depth to which TPH DRO contamination is encountered. Also, if intentional releases of oil from the Property to the Cuyahoga River via the North Ditch was a regular practice, this practice would have occurred without regard to the stage of the Cuyahoga River (i.e., the releases would have been a matter of the operational routine, and not weather dependent). It is not unimaginable that during periods of high stage in the Cuyahoga River between 1920 and 1950 that oils released via the North Ditch would be effectively “dammed” due to the high stage of the river, and that the oils would have had opportunity to spread laterally (as is seen at the three transects noted in Table 1).

1.5 Complete Exposure Pathways in North Ditch Area from Previous Releases from the Property

Table 2 indicates the concentrations of constituents of concern (COCs) in the North Ditch area, the affected media, the applicable standards, proposed remedy and pathways addressed through remedy implementation. In summary, historic releases of petroleum from the Property to the North Ditch area have resulted in the following exposure pathways to be complete, therefore requiring corrective action as part of this IRAP:

- Implementation of this IRAP is intended to address soils containing TPH DRO in excess of soil saturation. On-going monitoring indicates that a petroleum sheen may be generated on surface water in the North Ditch area when TPH DRO-impacted soils/sediments are disturbed. Petroleum sheens on surface water are a *de facto* exceedance of Ohio surface water quality standards. The VAP requires that remedies address releases that cause an exceedance of Ohio water quality standards, whether numeric or aesthetic in nature.
- Certain concentrations of TPH DRO detected in the North Ditch area exceed VAP applicable direct contact standards (soil saturation) within the 0-2 foot soil direct contact point of compliance interval. Implementation of this IRAP is intended to address soils containing TPH DRO in excess of soil direct contact standards. While this goal is, in

essence, the same as the first objective – addressing materials that may create a sheen on surface water due to soil saturation by TPH DRO – in the context of the VAP, the receptor populations and exposure mechanisms are different. To be clear, it is intended that during implementation of this IRAP soils/sediments that exceed applicable direct contact standards (soil saturation by TPH DRO) will be removed to the lateral extent and depth practical given site conditions (vegetation, depth to groundwater, etc.). It is not intended to remove only soils/sediments that contain TPH DRO in excess of soil saturation within the 0-2 foot soil direct contact point of compliance interval unless 2 feet is the practical depth to which soil/sediments may be removed before groundwater is encountered (as an example).

- The analytical data would imply that concentrations of PAHs within the main channel of the North Ditch (and adjoining wetland areas) exceed threshold concentrations for ecological risk to fish and/or macroinvertebrates. A third objective of IRAP implementation will be removal of those sediments in the North Ditch area that exceed ecotoxicological thresholds due to PAH concentrations. Attainment of this objective is limited to the North Ditch area only. Sediment sampling conducted in 2015 in the Cuyahoga River upstream of the North Ditch's outlet to the river indicated that PAH concentrations upstream of the outlet also exceed ecotoxicological thresholds. There is no indication that previous releases from the Property would have impacted stretches of the Cuyahoga River upstream of River Mile 54.1 (shown on Figure 3), where the North Ditch empties into the river.

The lateral extent of anticipated removal activities as part of this IRAP is shown in red on Figure 3. This area is also overlain on a recent topographic map of the North Ditch area that is included as **Figure 4**. The *planned* depth of soil/sediment removal in the North Ditch area will be to the depths indicated in Section 1.4 at the various transects, although the *actual* or final depth of soil/sediment removal will be dependent upon confirmatory analytical results.

2.0 GENERAL INFORMATION ABOUT REMEDIAL ACTIVITIES

2.1 *Specific Remedies that will be Employed (Question 1a of Form #16)*

The remedial action will involve soil/sediment excavation, transport and off-Property disposal within (and perhaps beyond) the lateral limits depicted in red on Figure 3, and to the depths at the various transects (and perhaps deeper) indicated in Section 1.4, and reiterated below:

- Transect N. Ditch 5: At the 0.0 location (the channel of the North Ditch), removal to a depth of 24 inches.
- Transect N. Ditch 6: At the 0.0 location (the channel of the North Ditch) and the -20 location (20 feet south of the channel), removal to depths of between 6 and 12 inches.
- Transect N. Ditch 7: At the 0.0 location (the channel of the North Ditch), removal to a depth of 30 inches.
- Transect N. Ditch 8: at the 0.0 location (the channel of the North Ditch) and the +20 location (20 feet north of the channel), removal to depths of between 18 and 24 inches.

- Transect N. Ditch 9: At the 0.0 location (the channel of the North Ditch) and the -20 location (20 feet south of the channel), removal to depths of between 30 and 36 inches.
- Transect N. Ditch 9A: at the 0.0 location (the channel of the North Ditch), the +20 location (20 feet north of the channel) and the +40 location (40 feet north of the channel), removal to depths of between 24 and 30 inches.
- Transect N. Ditch 10: At the 0.0 location (the channel of the North Ditch), removal to a depth of at least 36 inches.
- Transect N. Ditch 11: at the +20 location (20 feet north of the channel), the -20 location (20 feet south of the channel), and the -40 location (40 feet south of the channel), removal to depths of 24 inches. This will also necessitate removal of soil/sediments at the 0.0 location of this transect to a similar depth.
- Transect N. Ditch 12: at the 0.0 location (the channel of the North Ditch) and the +20 location (20 feet north of the channel), removal to depths of between 24 and 30 inches.
- Transect N. Ditch 13: between the 0.0 location (the channel of the North Ditch) and the +40 location (40 feet north of the channel), removal to a depth of 30 inches.
- Transect N. Ditch 14 (outside the North Ditch area but covered by this IRAP): between the 0.0 location and the +20 location, removal to depths between 12 and 30 inches.
- Transect N. Ditch 15 (outside the North Ditch area but covered by this IRAP): between the 0.0 location and the -20 location, removal to depths between 24 and 30 inches.

Soils/sediments in these locations have already been pre-characterized for disposal as petroleum-contaminated soil (PCS). Further, all transects and previous sampling locations have been located through use of global positioning system (GPS) equipment.

The planned remedy will follow the general outline below in terms of events. Specific details (such as the “pump around”) are still being formulated between HZW and the remedial contractor. But the general elements of the remedy (with as much specificity as possible) are as follow:

1. Obtain U.S. ACE amended permit to place fill back into the wetland area following soil/sediment removal (current permit does not permit fill re-placement which is not acceptable given depth of soil/sediment removal).
2. Incorporate comments from and obtain Ohio EPA and City of Kent concurrence with this IRAP prior to implementation.
3. Identify a source of suitable backfill for excavated areas and characterize this material (i.e., confirm the concentrations of potential COCs in this material).
4. Remove remaining trees whose root balls will be compromised through excavation to the prescribed depths (this can only occur after October 1).
5. Complete execution of an access agreement with CSX Transportation, and coordinate the details of what will be required/allowed to be conducted in their right-of-way for the pump around, etc.
6. Establish a “pump-around” to remove surface water from entering the North Ditch area by pumping it overland to the Cuyahoga River. The details of the pump around are still

being developed, and will be dependent upon weather patterns and precipitation. Conceptually, this will involve a sand bag coffer dam to prevent water from entering the North Ditch area and staging a large pump upstream of the coffer dam to pump accumulated water via a flexible hose or pipe overland via the shortest route available to the Cuyahoga River. If necessary, secondary storage (a frac tank) to address peak precipitation events and provide temporary water storage. Since the pump around is merely re-routing water that would otherwise enter the Cuyahoga River, no treatment or other special handling of the diverted water is anticipated.

7. Establish a sandbag coffer dam at the mouth of the North Ditch to prevent surface water from the Cuyahoga River “back-flowing” into the North Ditch work area. This will also involve direct coordination with the City of Akron related to releases of water from storage from Lake Rockwell upstream of the work area. HZW has already established communication with the City of Akron personnel directly responsible for releases from storage from Lake Rockwell, and they have indicated that they understand the need for close coordination and controlled releases from the reservoir.
8. Locate and mark the original sampling transects, and the anticipated boundaries of excavation shown on Figure 3.
9. Complete construction of haul roads within the work area.
10. Excavate, load, transport and dispose of soils/sediments from the area indicated on Figure 3 to the anticipated depths outlined above, and collect confirmatory soil samples from lateral and vertical intervals to determine residual levels of TPH DRO post-removal. The confirmatory soil sampling plan will necessarily need to remain somewhat fluid to provide flexibility in terms of the number, location and depth of samples collected based upon observations during remedial excavation. Confirmatory soil samples would be analyzed for TPH DRO (the primary COC found in soil/sediment in the North Ditch area) on a rush basis to expedite sample turnaround by the VAP Certified Laboratory (GeoAnalytical Laboratories, Inc. in Twinsburg, Ohio). The laboratory analytical method (from the Certified Laboratory’s current certificate) will be Method 8015B.
11. The limits of the remedial excavation will be expanded laterally and/or deepened, as needed, based upon the results of confirmatory soil samples. To the extent practical (given anticipated vertical constraints posed by groundwater or lateral constraints posed by trees, the Cuyahoga River bank, etc.), the excavation will proceed until concentrations of TPH DRO are below soil saturation levels.
12. Upon completion, backfill, seed and restore the North Ditch area in accordance with the proposed restoration plan submitted to the U.S. ACE (and provided to the City of Kent for review and comment). The draft restoration plan is included as **Exhibit 1**.

2.2 Summary of Planned Remedial Activities (Question 1b of Form #16)

Table 3 of this RAP is a table which outlines the pathways/potential receptors to be addressed and the affected environmental media to be addressed through IRAP implementation, the points of compliance, as well as the timing of the remedial activities relative to the VAP NFA Letter, whether interim measures are/were needed, and whether or not a VAP O&M Plan will be

needed. Table 3 should be viewed in conjunction with Figure 3, which highlights in red the anticipated area of soil/sediment removal in the North Ditch area.

3.0 DESCRIPTION OF REMEDIAL ACTIVITIES

3.1 *Remedy Implementation Timing Relative to VAP NFA (Question 2a of Form #16)*

T&B/ABB plans to implement all remedial activities in the North Ditch area (including the ditches on the CSX Transportation right-of-way) prior to the issuance of the VAP NFA Letter for the Property. Whether or not the North Ditch area and/or the portion of the CSX Transportation right-of-way that will be remediated as part of this IRAP is included as part of the legally described VAP “Property” at the time of NFA Letter issuance has not been decided between T&B/ABB, the City of Kent and CSX Transportation. It is further anticipated that an environmental covenant will **not** be required for either the City of Kent’s North Ditch area or a portion of CSX Transportation’s right-of-way based upon the remedy contemplated in this IRAP.

3.2 *Remedy Implementation Schedule (Question 2b of Form #16)*

The following tentative schedule is anticipated for remedy implementation (assuming no public meeting is required, and subject to favorable weather conditions):

◆ Electronic Submittal of RAP to Ohio EPA and City of Kent:	September 2, 2016
◆ Submittal of Paper Copy of RAP to Document Repository:	September 6, 2016
◆ Initial public notice publication (will be published six times):	September 7, 2016
◆ Identify and characterize backfill source(s):	September 6-30, 2016
◆ Complete details of pump around system/prepare to deploy:	September 6-30, 2016
◆ Complete access agreement with CSX and coordinate:	September 6-30, 2016
◆ Complete coordination with the City of Kent:	September 6-30, 2016
◆ Obtain amended U.S. ACE permit:	September 30, 2016
◆ Remove remaining trees and work on access roads:	October 3-4, 2016
◆ Deploy pump around equipment and coffer dam supplies	October 4-5, 2016
◆ Receipt of comments from Ohio EPA and City of Kent:	October 5, 2016
◆ Response to Ohio EPA comments:	October 7, 2016
◆ Approval of RAP from Ohio EPA:	October 10, 2016
◆ Deploy coffer dams and initiate pump around:	October 11-12, 2016
◆ Deploy contingency measures (boom in river/mouth of ditch):	October 11-12, 2016
◆ Implementation of RAP (excavation):	October 17, 2016
◆ Receipt of final confirmatory results/completion of excavation:	October 28, 2016
◆ Restoration:	October 31 – November 11, 2016
◆ Submittal of report to Ohio EPA documenting activities:	December 1, 2016

3.3 Confirmation that Remedy Meets Applicable Standards (Question 2c of Form #16)

As stated above, confirmatory soil sampling will be conducted following excavation and removal of soil/sediment from the North Ditch area to confirm the remedy results in achievement of concentrations of TPH DRO less than soil saturation such that surface water quality aesthetic standards and soil direct contact standards are achieved. Further, the remedial activities and subsequent restoration of the channel of the North Ditch will result in a stream bed that is free of PAHs in excess of ecotoxicological threshold levels through the importation of clean fill for restoration purposes.

3.4 Remedial Activities to be Undertaken (Question 2d of Form #16)

Refer to Table 3 for a description of the remedial activities to be undertaken in the North Ditch area.

3.5 COCs in Soil and/or Sediment that Exceed Applicable Standards (Question 2e of Form #16)

Refer to Table 2 for a description of COCs in soil/sediment that exceed applicable standards.

3.6 Groundwater COCs and Groundwater Response Requirements (Questions 2g through 2i of Form #16)

This IRAP contemplates remedial activities to a) address aesthetic surface water quality issues (sheens) in the North Ditch, b) remove (to the extent practical) soil/sediments that contain concentrations of TPH DRO in excess of soil saturation to address soil direct contact issues in a park, and c) remove sediments that contain concentrations of PAHs in excess of ecotoxicological thresholds. This IRAP for the North Ditch area does not intend to address COCs in groundwater or VAP groundwater response requirements as they may relate to the North Ditch area. That said, T&B/ABB is prepared to address any obvious groundwater issues that may come to light during implementation of this IRAP. However, any groundwater issues in the North Ditch area are unknown to T&B/ABB at this time, and this IRAP does not particularly address any "groundwater remedy" in the North Ditch area. Any necessary remedy for groundwater in the North Ditch area that is attributable to previous releases from the 800 Mogadore Road Site would be part of a subsequent RAP/IRAP.

3.7 O&M Plan (Question 2j of Form #16)

At this time, no VAP O&M Plan activities are anticipated following implementation of this IRAP in the North Ditch area. Obviously, it is anticipated there will be a five (5) year period of monitoring the restoration of the North Ditch channel and vegetative plantings in the North Ditch area in accordance with the U.S. ACE permit. Further, it is anticipated that T&B/ABB will monitor water quality in the North Ditch post-IRAP implementation to demonstrate achievement of numeric and aesthetic surface water quality standards. However, it is anticipated that these activities will be conducted outside the context of a formal VAP O&M Plan **unless** circumstances (or the Ohio EPA would) dictate that certain activities be included as part of an O&M Plan.

3.8 Interim Measures (Question 2k of Form #16)

As indicated in Table 3, no interim measures were conducted or are anticipated to protect public health, safety, and the environment prior to implementation of the remedial activities contemplated in this IRAP. Certain measures are planned on a prophylactic basis as part of the remedy contemplated as part of this IRAP, but these are part of the remedy and are not part of any interim measure.

4.0 PUBLIC NOTICE/PUBLIC PARTICIPATION

4.1 Public Notice (Question 4a of Form #16)

A public notice of this IRAP (and the public's ability to review same) will occur simultaneously with submittal of the IRAP to Ohio EPA, the City of Kent and the document repository. The text of the public notice is included in **Attachment 2**. The public notice will be published in print and electronically with the *Record Courier*, which provides coverage to Ravenna, Kent and Portage County.

4.2 Documentation of Public Notice Publication (Question 4b of Form #16)

Documentation of public notice publication in the *Record Courier* will be provided to the Ohio EPA upon receipt of a certified and notarized copy of the actual public notice.

4.3 Known Public Interest in the Project (Question 4c of Form #16)

T&B/ABB is aware that the City of Kent has an interest in the project since a) the North Ditch area is owned by the City of Kent and is part of the City's park system, and b) vehicle access to the North Ditch work area is provided via a one-lane bridge owned by the City of Kent. T&B/ABB has attempted to work closely with the City of Kent, providing the City a copy of the proposed restoration plan for the wetland area to be disturbed at the same time the plan was provided to the U.S. ACE, and communicating openness and flexibility in making modifications to the restoration plan to accommodate the City's desires as to the restored state of the North Ditch area. Further, T&B/ABB retained an independent third-party structural engineer (McCormack Taylor, based out of Philadelphia) to evaluate the structural integrity of the bridge and make recommendations regarding its safe use during loaded vehicle crossings. McCormack Taylor's report was provided to the City of Kent in early August, immediately after it was received by T&B/ABB. Finally, T&B/ABB has been sensitive to the usage of the area as a park, and deferred work during the summer months of 2016 at the request of the City. In short, while the historic contamination of soil/sediments in the North Ditch area is an unfortunate situation, T&B/ABB has attempted to be transparent regarding remediation and restoration plans for the North Ditch area with the City of Kent and the Ohio EPA.

Historic releases from the Property have also impacted soil/sediments in a portion of drainage ditches on the CSX Transportation railroad right-of-way. This situation is somewhat less sensitive, involving non-park and non-wetland drainage features that are routinely maintained by CSX Transportation. T&B/ABB is engaged with CSX Transportation to provide access to their right-of-way for a variety of reasons (e.g., installation of groundwater monitoring wells and providing better access to other portions of the Cuyahoga River not associated with the North Ditch area). As part of that access, T&B/ABB is also committed to addressing contaminated soil/sediment in the ditches in the CSX Transportation right-of-way at Transects N. Ditch 14 and N. Ditch 15. T&B/ABB is in discussions with CSX Transportation regarding this targeted remedial work, and all indications are that CSX Transportation will cooperate and assist with the removal of impacted soil/sediments at these locations provided it does not hinder their ability to transport freight along the two main lines in a safe manner. However, the work may not be concurrent with soil/sediment removal in the North Ditch area (i.e., while both activities are covered by this IRAP, the timing of the removal activity in the North Ditch area and the CSX Transportation right-of-way may be independent of each other).

Beyond the City of Kent's and CSX Transportation's interest in the project, T&B/ABB is aware that the U.S. ACE has been aware of the project from a wetland permitting and restoration standpoint, and that the Ohio EPA has an on-going interest in the removal/remediation of contaminated soil/sediments in the North Ditch area. T&B/ABB is also aware that the 800 Mogadore Road Site has been the subject of several articles in the local news media. However, these articles have focused on the 17.7 acres of the 800 Mogadore Road Site itself, and not the North Ditch area.

4.4 Public Meeting (Questions 4d and 4e of Form #16)

T&B/ABB has not scheduled a public meeting relative to this RAP. Should there be significant public comments relative to the RAP, a public meeting may be scheduled in coordination with the Ohio EPA.

5.0 OTHER INFORMATION

There are three tables, one figure, and one exhibit to this RAP. These were either introduced in the text of this document, or are included following the text portion of this document.

TABLES

TABLE I: RESULTS OF SOIL/SEDIMENT SAMPLING ALONG TRANSECTS IN NORTH DITCH AREA (all results expressed in mg/kg)

Sample ID:	North		South		North		South		North		South	
	N. Ditch 03	N. Ditch 05	N. Ditch 05	N. Ditch 05	N. Ditch 05	N. Ditch 05	N. Ditch 05	N. Ditch 05	N. Ditch 07	N. Ditch 07	N. Ditch 07	N. Ditch 07
C ₁₈ C ₂₀	32.5	13.1		36.1	15.8	17.1	81.4	1,620.0	298.0	78.0	10.1	103.0
C ₂₀ C ₂₂	278.0	136.0		257.0	164.0	118.0	1,290.0		2,716.0	454.0	112.0	1,400.0
C ₁₈ C ₂₀			141.0					67.9	587.0			18.5
C ₂₀ C ₂₂			1,560.0					617.0				1,551.0
C ₁₈ C ₂₀			719.0				ND	488.0				48.7
C ₂₀ C ₂₂							77.6	4,630.0				1,780.0
C ₁₈ C ₂₀			775.0				ND	16.0				268.0
C ₂₀ C ₂₂							49.1	172.0				1,780.0
C ₁₈ C ₂₀			400.0				28.2	25.6				975.0
C ₂₀ C ₂₂			1,830.0				155.0	135.0				
C ₁₈ C ₂₀			12.9				10.5	ND				450.0
C ₂₀ C ₂₂			249.0				63.5	117.0				3,100.0

Sample ID:	North		South		North		South		North		South	
	N. Ditch 08	N. Ditch 08	N. Ditch 08	N. Ditch 08	N. Ditch 09	N. Ditch 09	N. Ditch 09	N. Ditch 09	N. Ditch 9A	N. Ditch 9A	N. Ditch 9A	N. Ditch 9A
C ₁₈ C ₂₀	99.7	250.0		26.3	15.0	14.8	140.0	241.0	1,030.0	63.9	47.57	47.2
C ₂₀ C ₂₂	1,330.0	4,620.0		280.0	47.5	325.0	2,440.0	2,030.0		564.0	99.2	445.0
C ₁₈ C ₂₀			326.0	311.0				1,890.0				186.0
C ₂₀ C ₂₂			3,570.0	2,960.0								1,890.0
C ₁₈ C ₂₀			29.5					1,840.0				
C ₂₀ C ₂₂			128.0									
C ₁₈ C ₂₀			29.6	1,370.0				1,760.0				
C ₂₀ C ₂₂			249.0									
C ₁₈ C ₂₀			51.6	23.3								192.0
C ₂₀ C ₂₂			829.0	167.0								1,450.0
C ₁₈ C ₂₀			460.0	88.6				104.0				338.0
C ₂₀ C ₂₂			4,150.0	829.0				925.0				462.0

Sample ID:	North		South		North		South		North		South	
	N. Ditch 10	N. Ditch 10	N. Ditch 10	N. Ditch 10	N. Ditch 11	N. Ditch 11	N. Ditch 11	N. Ditch 11	N. Ditch 11	N. Ditch 11	N. Ditch 11	N. Ditch 11
C ₁₈ C ₂₀	43.28	48.5	275.0	74.0	78.1	21.1	1,230.0	209.0	138.0		15.8	5.8
C ₂₀ C ₂₂	38.5	154.0	2,190.0	792.0	792.0	21.4		2,130.0	1,530.0		40.1	36.2
C ₁₈ C ₂₀			211.0					135.0	1,760.0		21.7	
C ₂₀ C ₂₂			1,570.0					1,060.0	189.0			
C ₁₈ C ₂₀			294.0					308.0			22.4	
C ₂₀ C ₂₂			2,420.0					2,070.0			184.0	
C ₁₈ C ₂₀								167.0			6.5	
C ₂₀ C ₂₂								1,340.0			88.4	
C ₁₈ C ₂₀								103.0	104.0	109.0	ND	
C ₂₀ C ₂₂								952.0	898.0	986.0	44.0	
C ₁₈ C ₂₀								15.0	144.0	78.7	ND	
C ₂₀ C ₂₂								178.0	1,110.0	716.0	40.1	

Sample ID:	North		South		North		South	
	N. Ditch 13	N. Ditch 13	N. Ditch 13	N. Ditch 13	N. Ditch 14	N. Ditch 14	N. Ditch 14	N. Ditch 14
C ₁₈ C ₂₀	24.9	19.1	374.0	96.7	8.7	207.0	32.4	390.0
C ₂₀ C ₂₂	207.0	134.0	1,040.0	876.0	100	2,130.0	243.0	3,791.0
C ₁₈ C ₂₀								1,991.0
C ₂₀ C ₂₂								478.0
C ₁₈ C ₂₀								952.0
C ₂₀ C ₂₂								362.0
C ₁₈ C ₂₀			91.1					1,590.0
C ₂₀ C ₂₂			916.0					715.0
C ₁₈ C ₂₀								514.0
C ₂₀ C ₂₂								4,850.0
C ₁₈ C ₂₀								512.0
C ₂₀ C ₂₂								791.0
C ₁₈ C ₂₀								4,848.0
C ₂₀ C ₂₂								4,850.0
C ₁₈ C ₂₀			952.0					1,450.0
C ₂₀ C ₂₂								355.0
C ₁₈ C ₂₀								1,271.0
C ₂₀ C ₂₂								2,406.0
C ₁₈ C ₂₀			25.9					111.0
C ₂₀ C ₂₂			317.0					1,071.0

Detected concentration of one or both THFRO hexachlorocyclohexane (VAP) applicable standard (1,991 mg/kg for (10 x 30) fraction, 5,000 mg/kg for (20 x 14) fraction)

Interval Not Sampled

TABLE 3
VAP MOA Interim Remedial Action Plan
Summary of Planned Remedial Activities Table

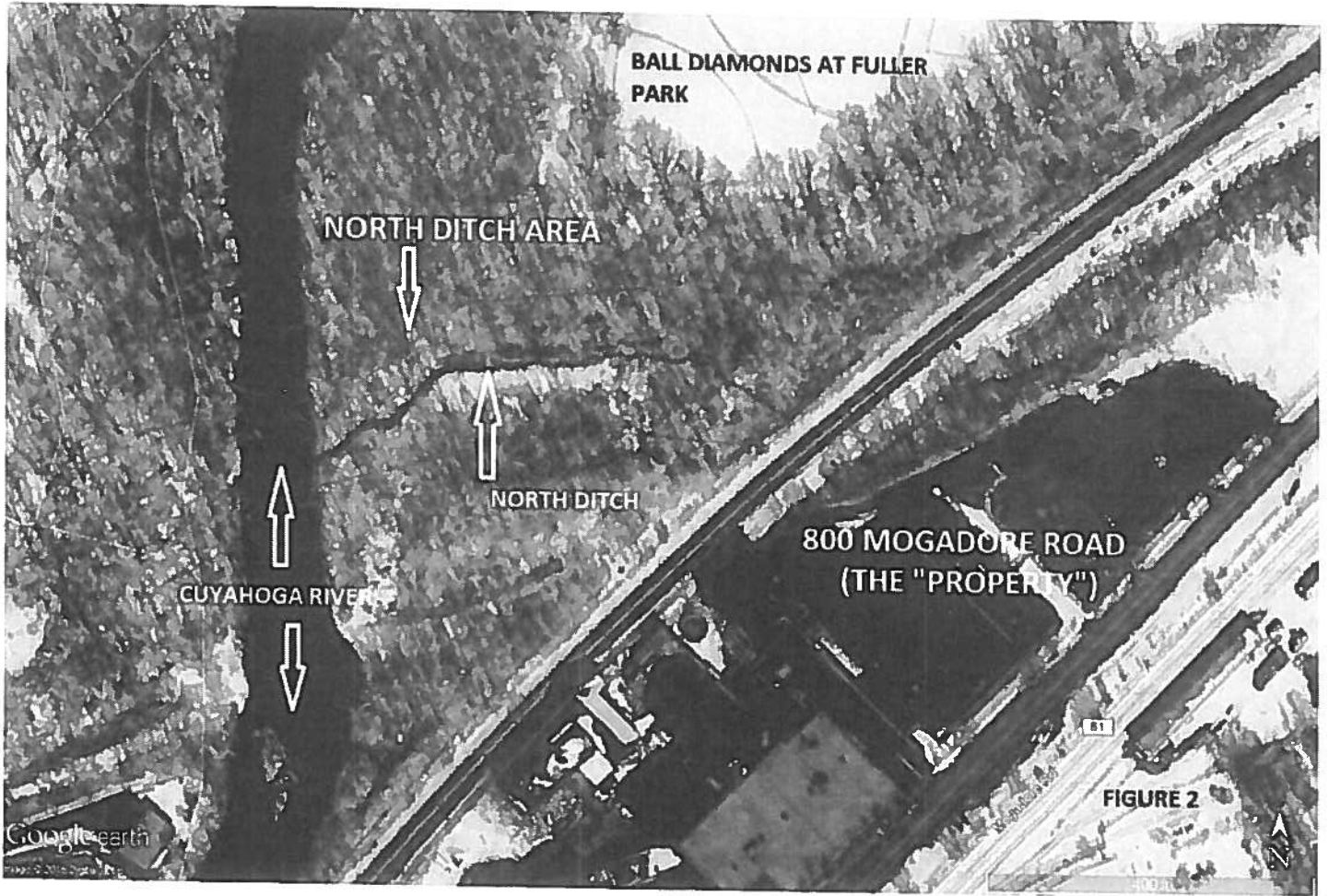
Area	Affected Medium	Exposure Pathway or Receptor	Point of Compliance	Type of Remedy	Will Remedy be Complete Prior to NFA?	Interim Measure Necessary?	VAP O&M Plan Anticipated?
North Ditch Area	Soil/Sediment	Soil/Sediment to Surface Water (Aesthetic - Sheen)	Surface Water	Soil/sediment excavation to at least the lateral limits shown in Figure 3, and to at least the depths indicated in Section 1.4. Remedial activities are anticipated to proceed until confirmatory soil samples indicate TPH/DRO concentrations are less than soil saturation, unless horizontal or vertical constraints are encountered. In the process, ecological risk will be addressed in the channel of the North Ditch.	Yes	No*	No**
	Soil/Sediment	Direct Contact	2+ feet				
	Sediment	Ecological	Channel of North Ditch				

* - A boom was deployed in the Cuyahoga River downstream at the mouth of the North Ditch since September 2015, no measurable oil captured. This was a prophylactic measure, and not an interim measure. Cofferdams will be used to segregate the North Ditch from the Cuyahoga River during excavation and removal, but this is part of the remedy and not an interim measure. Similarly, surface water that would enter the North Ditch will be diverted via a "pump around" during remedial activities, but this is - again - part of the remedy, and not an interim measure. Finally, it is planned to deploy boom across the entire channel of the Cuyahoga River at several locations downstream of the North Ditch while soil removal is being conducted as a prophylactic measure. Again, this is part of the remedy and not an interim measure.

** - Refer to narrative in Section 3.7 of IRAP document.

FIGURES





BALL DIAMONDS AT FULLER PARK

NORTH DITCH AREA



NORTH DITCH



CUYAHOGA RIVER



800 MOGADORE ROAD
(THE "PROPERTY")

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FIGURE 2

Google earth

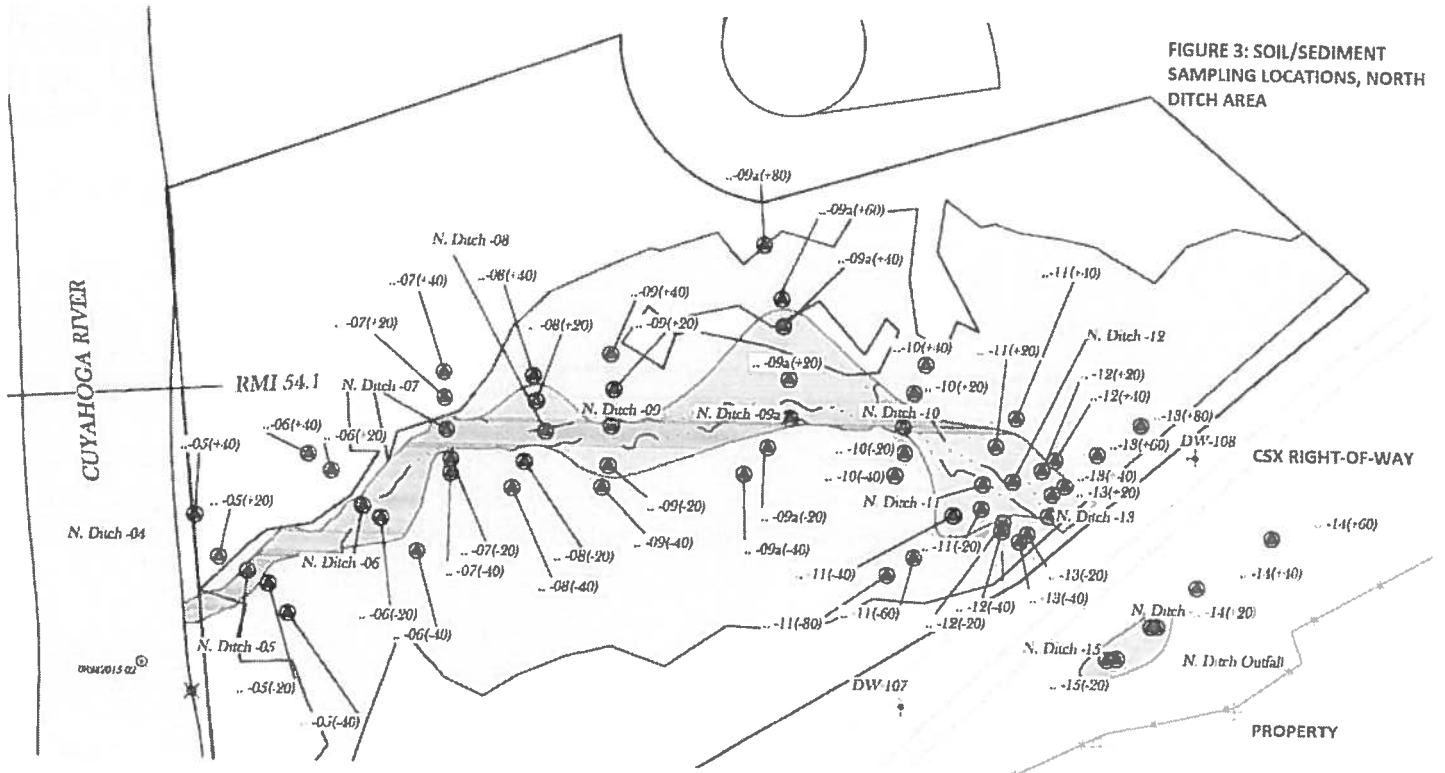


FIGURE 3: SOIL/SEDIMENT SAMPLING LOCATIONS, NORTH DITCH AREA

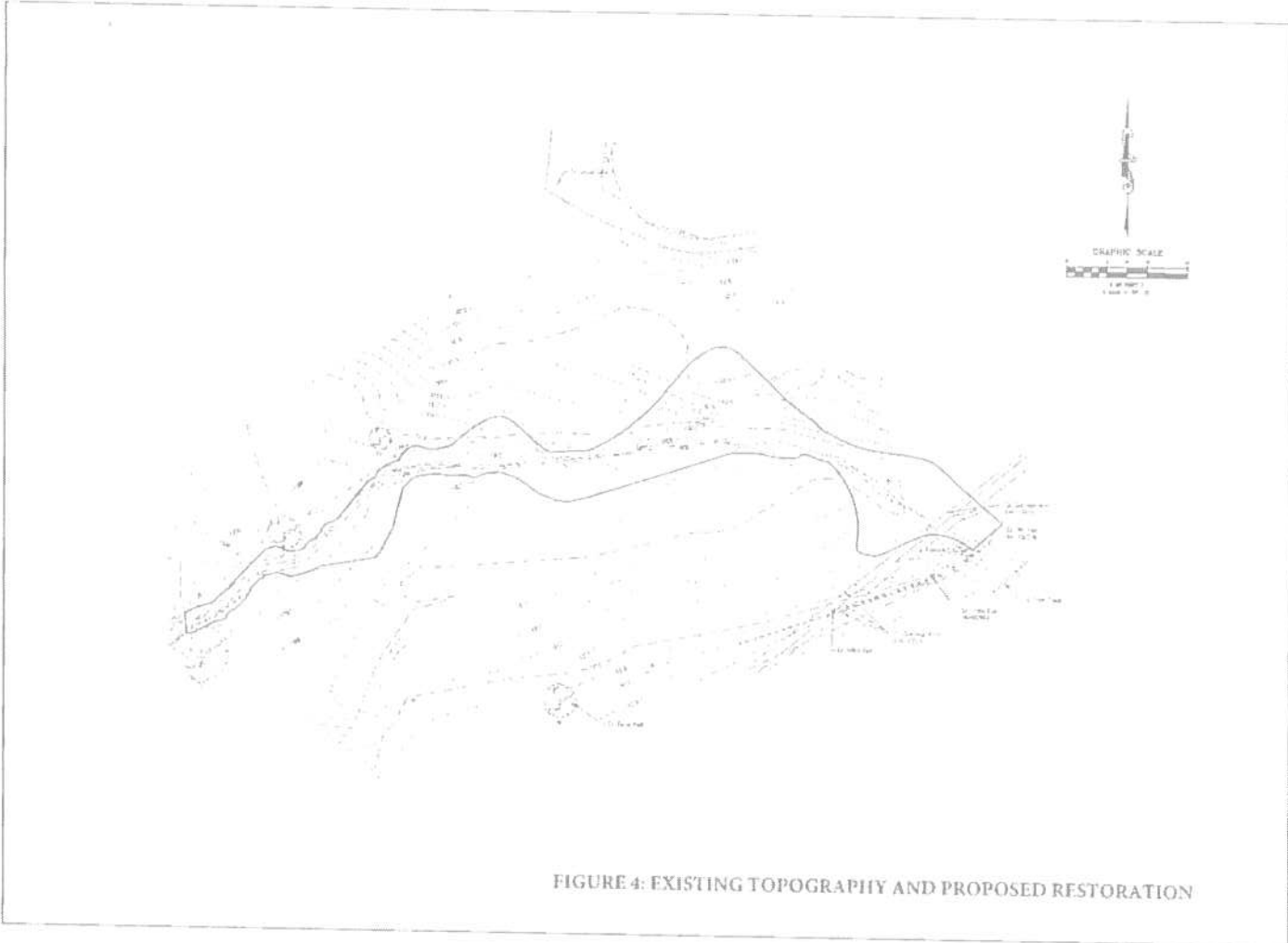


FIGURE 4: EXISTING TOPOGRAPHY AND PROPOSED RESTORATION

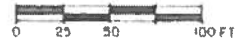
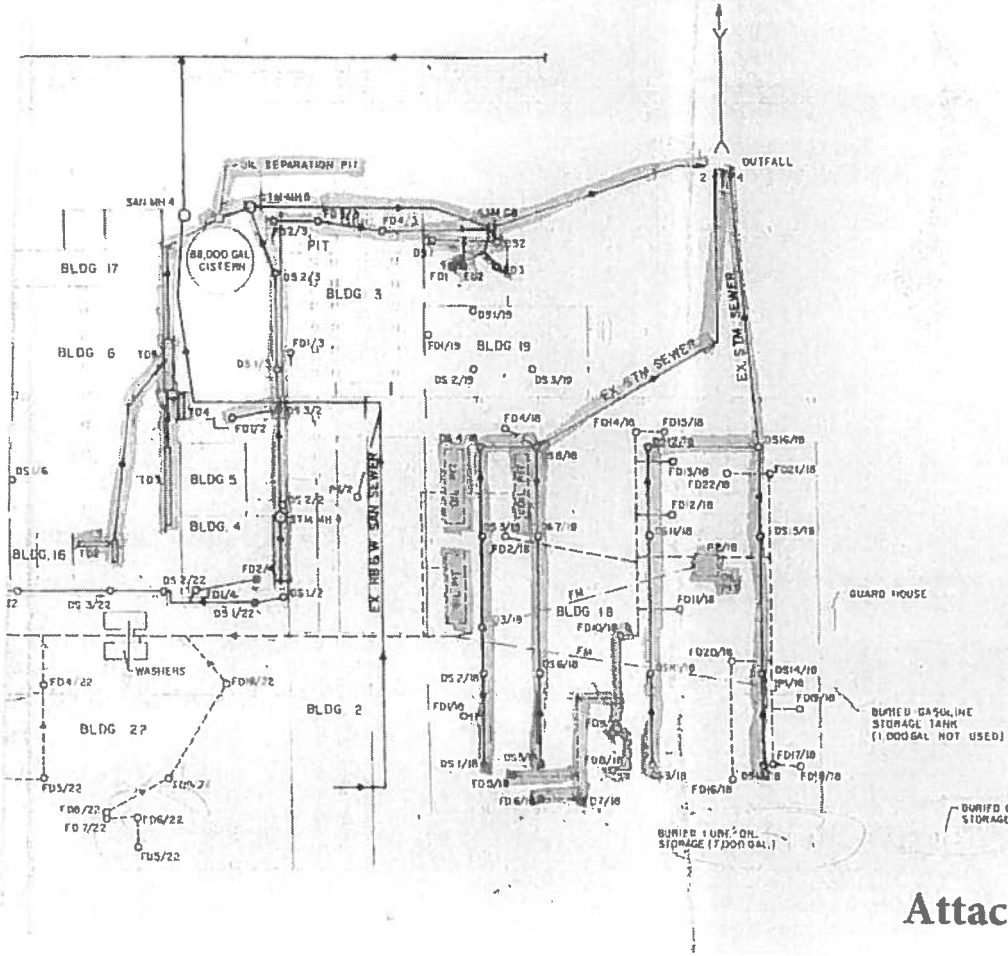

GVE CHAGRIN VALLEY
 ENGINEERING, LTD.
INCORPORATED IN OHIO

EXISTING SITE CONDITIONS
NORTH DITCH RESTORATION PROJECT
 CITY OF PORTAGE
 COUNTY OF PORTAGE

SHEET NO. 16324
 DATE: 11/11/11
 DRAWN BY: J.L.S.
 CHECKED BY: J.L.S.
 PROJECT NUMBER: 16324
 Drawing Name:

ATTACHMENTS

TO CUYAHOGA RIVER



NOTE:

1. ROUTING & LOCATIONS OF DRAIN LINES SHOWN ARE SCHEMATIC REPRESENTATIONS OF THE DRAINAGE SYSTEMS EXCEPT WHERE RECORD PLANS ARE AVAILABLE (SEE TEXT)

Attachment 1

PUBLIC NOTICE
Proposed Interim Remedial Action Plan Submitted under Ohio EPA's "RCRA AND VAP MOA Track", Thomas & Betts Corporation, a Member of ABB Group, Ltd. ("Volunteer"), 800 Mogadore Road Site, City of Kent, Portage County, Ohio

The Volunteer, Thomas & Betts Corporation (T&B), a member of ABB Group, Ltd. (ABB) is the owner of 17.7 acres of real property which formerly had the address of 800 Mogadore Road, Kent, Portage County, Ohio (the "Property"). The Volunteer is conducting a voluntary action at the Property under the Resource Conservation and Recovery Act and Voluntary Action Program Memorandum of Agreement Track (the "RCRA and VAP MOA Track"). **Notice is hereby given** that on September 2, 2016, the Volunteer submitted to the Ohio Environmental Protection Agency ("Ohio EPA") and the City of Kent ("the City") a Proposed Interim Remedial Action Plan ("IRAP") for an off-Property location referred to as "the North Ditch area" that exhibits environmental contamination of soil/sediments related to historic operations on the Property (the 800 Mogadore Road Site). The North Ditch area encompasses approximately 4 undeveloped acres of Fred Fuller Park, which is operated by the City. The North Ditch area also includes a small portion of the CSX Transportation railroad right-of-way that separates the 800 Mogadore Road Site from the North Ditch area. The IRAP identifies the environmental remedial activities the Volunteer proposes to conduct to comply with VAP applicable standards in the off-Property North Ditch area due to historic releases from the Property.

The IRAP is available for public review and comment for 30 days from September 6, 2016. Comments may be provided in writing to Ohio EPA, to the attention of: Mr. Ed D'Amato, Site Coordinator, Ohio EPA, Division of Environmental Response and Revitalization, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

In accordance with the RCRA and VAP MOA Track, the IRAP and other documents regarding the voluntary action at the Property are available for public inspection at the City of Kent Health Department, 414 East Main Street, Kent, Ohio 44240, phone number 330-678-8109. If you have questions concerning the Remedial Action Plan, you may contact Matthew Knecht with HzW Environmental Consultants, LLC, at 440-357-1260 or Mr. Ed D'Amato of Ohio EPA at 330-963-1170. Questions regarding the RCRA and VAP MOA Track may be directed to the Voluntary Action Program at (614) 644-2924.

ATTACHMENT 2

EXHIBITS



HzW ENVIRONMENTAL
CONSULTANTS, LLC

August 26, 2016

Mr. Mark Scalabrino
United States Army Corps of Engineers
Buffalo District
1776 Niagara Street
Buffalo, New York 14207-3199

Subject: *Request for Modification of a Section 404 Nationwide Permit for Temporary Wetland and Stream Impacts Associated with the Proposed North Ditch/Cuyahoga River Clean-Up Operation in the City of Kent, Portage County, Ohio (DA No. 2015-01012) (H15248)*

Dear Mr. Scalabrino

On behalf of Thomas & Betts Corporation (Applicant), HzW Environmental Consultants, LLC (HzW) respectfully requests that this letter serve as a request for modification of a Section 404 Nationwide Permit (NWP) or temporary wetland and stream impacts associated with the proposed North Ditch/Cuyahoga River clean-up operation (the Project) located in the City of Kent, Portage County, Ohio (Project Area).

Project Background

In September 2015, environmental scientists from HzW conducted a wetland delineation of a portion of the Project Area in accordance with the methodology put forth by the United States Army Corps of Engineers (the Corps). The subsequent report and a letter requesting a jurisdictional determination was then submitted to the Corps in order to arrange a site visit to review the identified resources. This visit took place on December 2, 2015. However, shortly before the meeting, it was determined by the project engineer that work would need to be performed within the boundaries of the adjacent Cuyahoga River, which was outside of the originally-delineated portion of the Project Area. While representatives of the Corps were able to review North Ditch and its abutting wetland, they recommended HzW perform further studies in areas where work was proposed. On December 10, 2015, representatives from HzW returned to the Project Area in order to expand the delineation study area. HzW identified two (2) wetlands and two (2) streams within the revised area. A copy of the January 21, 2016 Preliminary Jurisdictional Determination is included as **Attachment I**.

Mr. Mark Scalabrino
August 26, 2016
Page 2

On January 5, 2016, HzW submitted an application for wetland and stream impacts under Nationwide Permit Number 20 (Response Operations for Oil and Hazardous Substances). The Applicant sought to rectify the inadvertent release of abandoned petroleum products to the North Ditch waterway, adjacent wetland, and the Cuyahoga River. In order to do so, the Applicant must dredge contaminated sediments and soils and haul them away for proper disposal. The Applicant proposed the following impacts:

Type of Impact	Resource Impacted	Amount of Impact
Dredging-Mechanical Excavation	Wetland A-Emergent	0.16 acres
Dredging-Mechanical Excavation	Wetland A-Forested	0.32 acres
Temporary Fill-Road/Riprap	Wetland A-Forested	0.03 acres
Dredging-Mechanical Excavation	North Ditch	695 linear feet (0.04 acres)
Dredging-Shovel Excavation	Cuyahoga River	597 linear feet (0.01 acres)

The Corps issued the permit (DA No. 2015-01012) on February 12, 2016 for the above listed impacts. The permit is included as **Attachment 2**. After issuance of the permit, work began on-site and the true extent of the contamination was discovered. At this time, it was determined that additional work would be required beyond the impacts covered in the permit. After additional soil sampling and analysis was conducted, it was discovered that the extent of the contamination was in excess of three (3) foot deep. The dredging of the Project Area, in excess of three (3) feet, will require replacing soil to return the area back to the original grade, which was not included in the original permit application.

Application for Coverage under Nationwide Permit, Number 27

Currently, the Project Area consists of undeveloped forested upland, forested and emergent wetland, mixed vegetation riparian areas, and perennial stream habitats located within, and adjacent to, the City of Kent's Fuller Park. The forested upland lies primarily within the northernmost portion of the Project Area and abuts a ballfield complex that contains roads through which the personnel and equipment will access the site. South of this area is the forested portion of Wetland A which drains further southward toward the emergent portion of Wetland A as well as one (1) perennial stream (North Ditch) which flows into another (Cuyahoga River). The emergent portion of Wetland A is dominated by the highly invasive *Phragmites australis*. In March 2016, several trees were removed in order to access the Project Area with the proper equipment.

The Applicant proposes to expand the excavation area to include the entire emergent portion of Wetland A. Expansion of the excavation area will allow the Applicant to not only remove the contaminated soil but also the invasive *Phragmites australis*. Project details include diverting the water from North Ditch around the excavation areas during construction. Soils would be excavated and removed from the site and transported to a proper disposal site. The area will then be returned to original grade (with soil of similar texture of original soil if available). In August 2016, a survey of the topography of the excavation area was completed and is included as **Attachment 3**. Details for the complete project scope, including site preparation, water diversion, excavation, transportation and disposal, and restoration are included as **Attachment 4**.

The area (including the excavation area and areas where trees were removed for access roadways) would then be re-vegetated with various-sized native plantings (woody and emergent). Since the stream banks will be planted with shrub species, it is not anticipated that a high number of volunteer native vegetation will appear; however, herbaceous species will likely vegetate the open spots between the woody vegetation. A transplanting plan will be implemented if desired species are located in other portions of the site that will be developed in later phases. The plan will consist of harvesting entire shrubs or branches (for use as live stake plantings or in fascine bundles). After construction a native riparian seed mix will be spread per the seed mix specifications ideal density. Shrubs and trees will be planted so that to ensure ideal coverage and shade for the stream and surrounding area. The initial planting density of the buffer area will be 200 shrubs per acre. The seed mix and shrub planting list is included below:

Plant List*

Scientific Name	Common Name
<i>Carex comosa</i>	Bristly Sedge
<i>Carex cranita</i>	Fringed Sedge
<i>Carex grayi</i>	Gray's Sedge
<i>Carex lurida</i>	Lurid Sedge
<i>Carex stipata</i>	Awl Sedge
<i>Carex stricta</i>	Tussock Sedge
<i>Elymus virginicus</i>	Virginia Wild Rye
<i>Scirpus atrovirens</i>	Dark Green Bulrush
<i>Scirpus validus</i>	Soft-stemmed Bulrush
<i>Asclepias incarnata</i>	Swamp Milkweed
<i>Lobelia Cardinalis</i>	Cardinal Flower
<i>Lobelia siphilitica</i>	Great Lobelia
<i>Mimulus ringens</i>	Monkey Flower
<i>Verbena hastate</i>	Blue Vervain
<i>Cephalanthus occidentalis</i>	Buttonbush
<i>Salix exigua</i>	Sandbar Willow
<i>Cornus amomum</i>	Silky Dogwood
<i>Cornus stolonifera</i>	Red Osier Dogwood
<i>Sambucus canadensis</i>	Common Elderberry
<i>Viburnum dentatum</i>	Northern Arrowwood
<i>Viburnum prunifolium</i>	Blackhaw

*Based on availability at time of acquisition. If not reasonably available, a similar native species will be planted.

While the Applicant acknowledges these activities will provide a temporary disturbance for the local aquatic habitat, an overall improvement in the watershed is fully anticipated with time. Since the contamination and *Phragmites australis* would be removed and the area would be returned to original grade, no loss of aquatic resources or loss of function will occur. Additionally, the water quality of the entire wetland area and downstream Cuyahoga River would be improved. The Project will encourage the development of emergent, shrub, and forested communities increasing both diversity and potentially biological production. Overall, the Project will produce significant improvement in both wetland and stream functions as well as quality.

Mr. Mark Scalabrino
August 26, 2016
Page 4

In order to access the emergent area in question, temporary access roads through forested upland and wetland will need to be installed. These roads are designed to have as minimal an impact on these resources as possible. After construction is completed, these roads will be restored in accordance with the reforestation plan previously submitted and also included as **Attachment 5**.

Other Pertinent Details

Information regarding the quality of wetlands and streams to be impacted, the Endangered Species Act, the National Historic Preservation Act, and Federal Flood Insurance Rate Mapping can be referenced from the January 5, 2016 submittal to your office. Since the scope of the Project has only slightly changed, these particular details remain unchanged.

Closing

Please review this information at your earliest convenience and notify HzW as soon as possible if additional information is needed to complete the permit application. If the permit application is considered complete, please provide HzW with written documentation identifying the permit decision for the proposed federal wetland impacts within the Project Area boundaries.

Should you have any questions or require additional information please do not hesitate to contact our office. Thank you for your assistance.

Sincerely,

HzW ENVIRONMENTAL CONSULTANTS, LLC



Benjamin Latoche
Environmental Scientist II

RMD:rmd\jam\js
Attachments (5)

Attachment 1

January 21, 2016, Preliminary Jurisdictional Determination Letter



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

January 21, 2016

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application
No. 2015-01012

Mr. Om Chopra
Thomas & Betts Corporation
8155 T&B Boulevard, 4B-35
Memphis, Tennessee 38125

Dear Mr. Chopra:

I have reviewed the wetland delineation map you submitted for your proposal to dredge and remove petroleum-contaminated soils and sediments in North Ditch, un-named wetlands, and the Cuyahoga River located northwest of Mogadore Road and south of Stow Street in the City of Kent, Portage County, Ohio.

I have evaluated your submitted wetland delineation map and have determined that the wetland and water boundaries shown on the map accurately represent on-site conditions. Please note that this is a Preliminary Jurisdictional Determination (JD). Preliminary JDs are non-binding written indications that there may be Waters of the United States (WOUS) on your parcel and approximate locations of those waters. Preliminary JDs are advisory in nature and may not be appealed.

Pursuant to Regulatory Guidance Letter 08-02, any permit application made in reliance on this Preliminary JD will be evaluated as though all wetlands or waters on the site are regulated by the Corps. Further, all waters, including wetlands will be used for purposes of assessing the area of project related impacts and compensatory mitigation. If you require a definitive response regarding Department of the Army jurisdiction for any or all of the waters identified on the submitted drawings, you may request an approved jurisdictional determination from this office. If an approved JD is requested, please be aware that this is often a lengthy process and we may require the submittal of additional information.

I have enclosed the Preliminary JD Form with this letter. The form and attached table identifies the extent of waters on the site and specific terms and conditions of the Preliminary JD. Please sign and return a copy of this form to my attention so that I may complete my evaluation of your file. If you do not respond within fifteen days of this letter, I will assume you no longer wish to pursue the jurisdictional determination and will withdraw your application.

In accordance with Regulatory Guidance Letter 05-02, "Preliminary JDs are not definitive determinations of areas within regulatory jurisdiction and do not have expirations dates." However, I strongly recommend that the boundaries of WOUS be re-evaluated by a qualified

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

wetland biologist after five years of the date of this letter. This will ensure that any changes are appropriately identified and you do not inadvertently incur a violation of Federal law while constructing your project or working on your project site.

Lastly, this determination has been conducted only to identify the limits of waters that may be subject to Corps Clean Water Act or Rivers and Harbors Act jurisdiction. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resource Conservation Service prior to starting work.

Questions pertaining to this matter should be directed to me at 716-879-4159, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: melissa.j.tarasiewicz@usace.army.mil

Sincerely,



Melissa Tarasiewicz
Biologist

Enclosures

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): January 21, 2016

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Mr. Om Chopra
Thomas & Betts Corporation
8155 T&B Boulevard, 4B-35
Memphis, Tennessee 38125

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Buffalo, Thomas & Betts Corporation, 2015-01012

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)**

State: Ohio County: Portage City: Kent
Center coordinates of site (lat/long in degree decimal format): Lat. 41.14777° N, Long. -81.36907° W.

Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Cuyahoga River

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 1,292 linear feet: North Ditch, 3 ft. width; Cuyahoga River, 80 ft. width

Cowardin Class: Riverine

Stream Flow: perennial

Wetlands: 3.27 acres.

Cowardin Class: Palustrine forested/emergent

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: N/A

Non-Tidal: N/A

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: January 21, 2016

Field Determination. Date(s): December 2, 2015

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: HzW Environmental Consultants, LLC.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute, Kent, OH.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey of Portage County.
- National wetlands inventory map(s). Cite name: Kent, OH.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Bing Maps and Google Earth recent aerial imagery.
or Other (Name & Date): Site photos received with the wetland delineation report dated September 2015 and January 2016, Corps site visit photos December 2015.
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Melissa J. Tarasim 1/24/2016

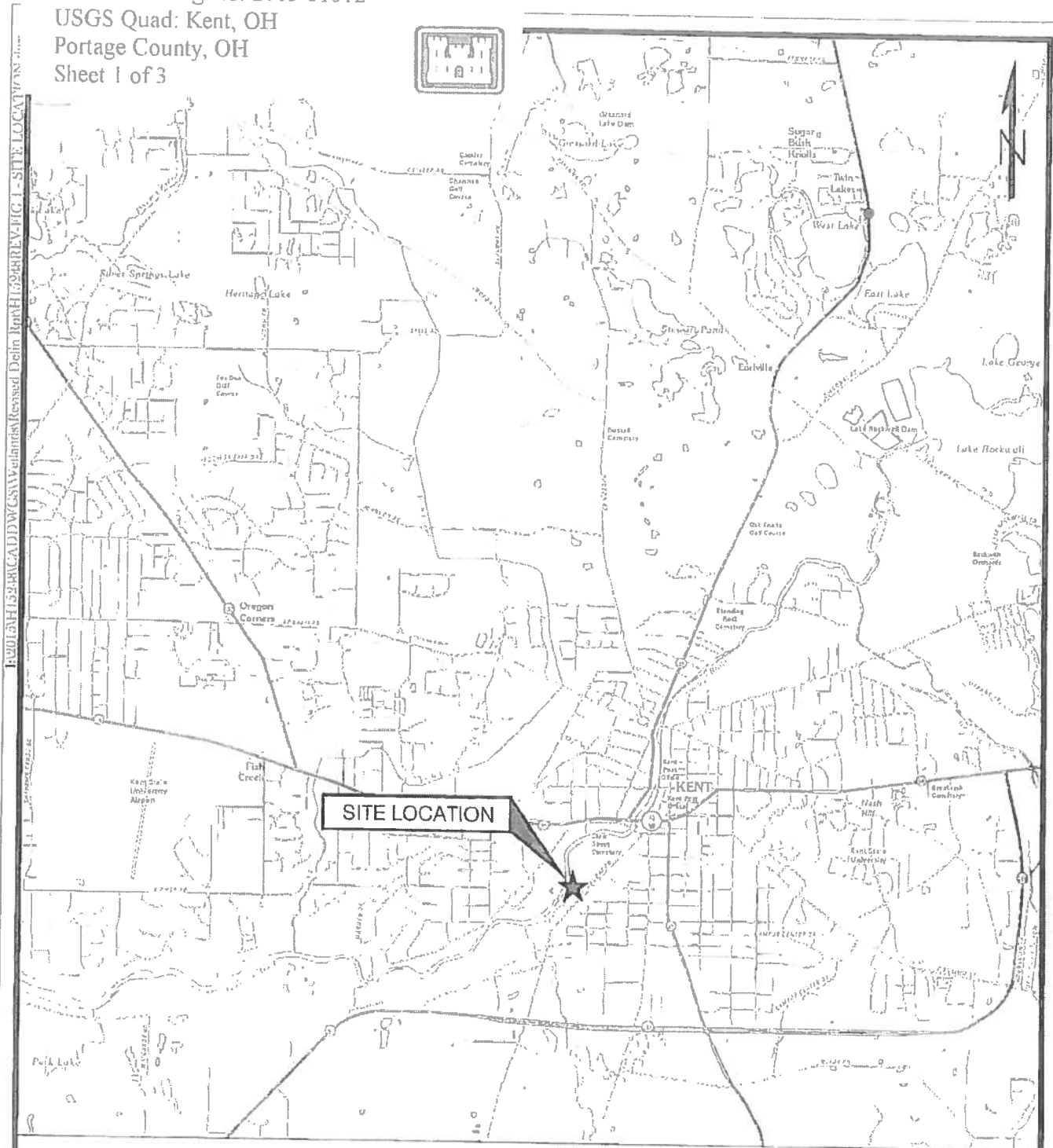
Signature and date of
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

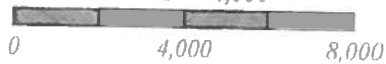
E

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Wetland A	41.14743	-81.36823	Palustrine forested/emergent	3.24 acres	wetland
Wetland B	41.14662	-81.36889	Palustrine emergent	0.03 acre	wetland
North Ditch	41.14713	-81.36848	Riverine perennial	695 linear feet	stream
Cuyahoga River	41.14649	-81.36907	Riverine perennial	1,869 linear feet	stream



SITE LOCATION

Scale: 1" = 4,000'

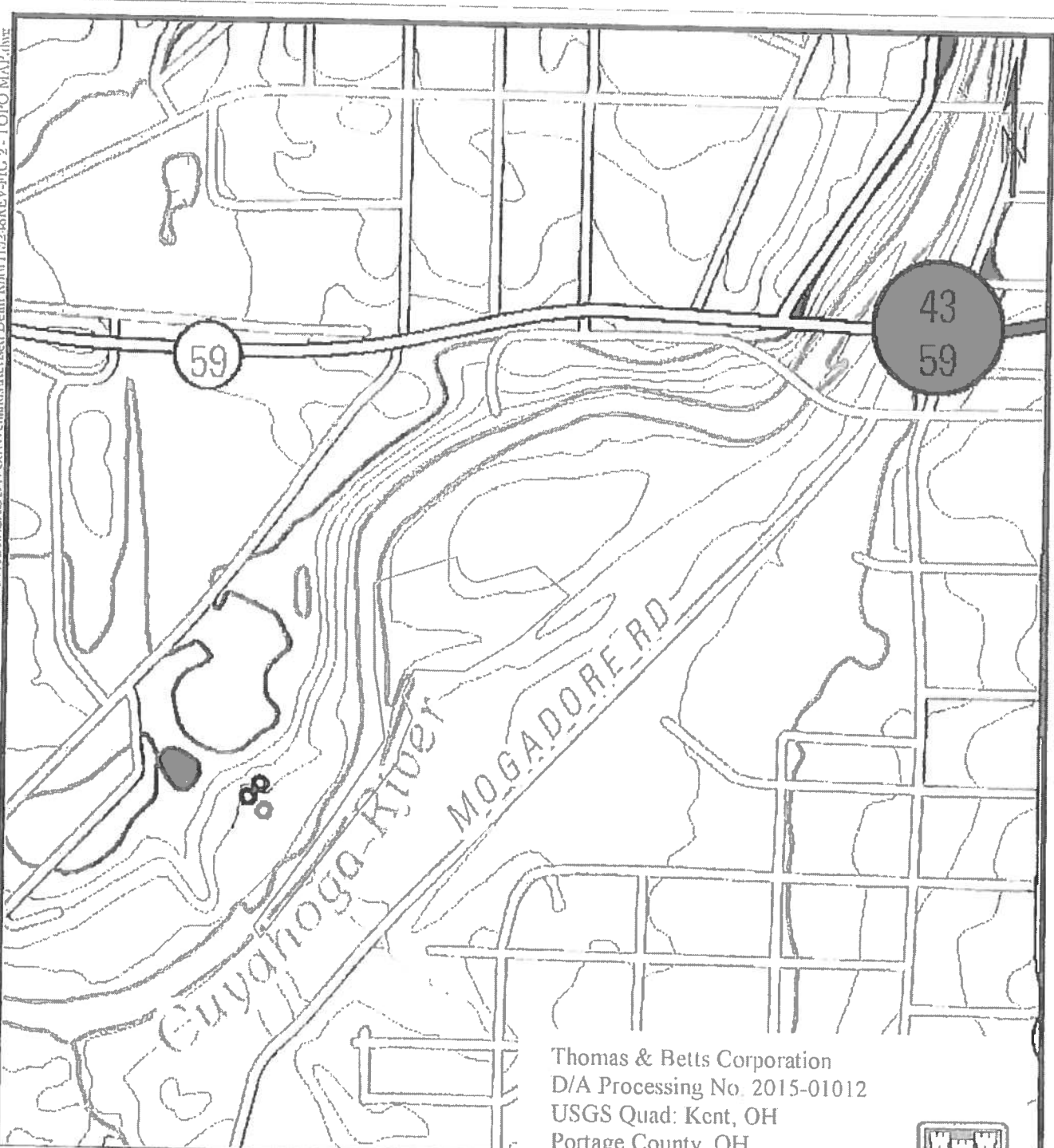


**HWZ ENVIRONMENTAL
 CONSULTANTS, LLC**

6105 Hebley Road, Mentor, Ohio 44060
 Phone: (440) 357-1260 • Fax: (440) 357-1510

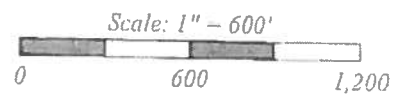
FIGURE 1
 SITE LOCATION MAP
 NORTH DITCH/CUYAHOGA RIVER STUDY AREA
 CITY OF KENT, PORTAGE COUNTY, OHIO

I:\2014\116248\CADD\DWG\SW\Vegetation\Revised Defn_Rot\116248REV-FIG 2 - TOPO MAP.dwg



 - STUDY AREA

Thomas & Betts Corporation
D/A Processing No. 2015-01012
USGS Quad: Kent, OH
Portage County, OH
Sheet 2 of 3



HZW ENVIRONMENTAL
CONSULTANTS LLC
6105 Holsby Road, Mentor, Ohio 44060
Phone: (440) 357-1260 • Fax: (440) 357-1510

FIGURE 2
TOPOGRAPHIC MAP
NORTH DITCH/CUYAHOGA RIVER STUDY AREA
CITY OF KENT, PORTAGE COUNTY, OHIO

Thomas & Betts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 3 of 3

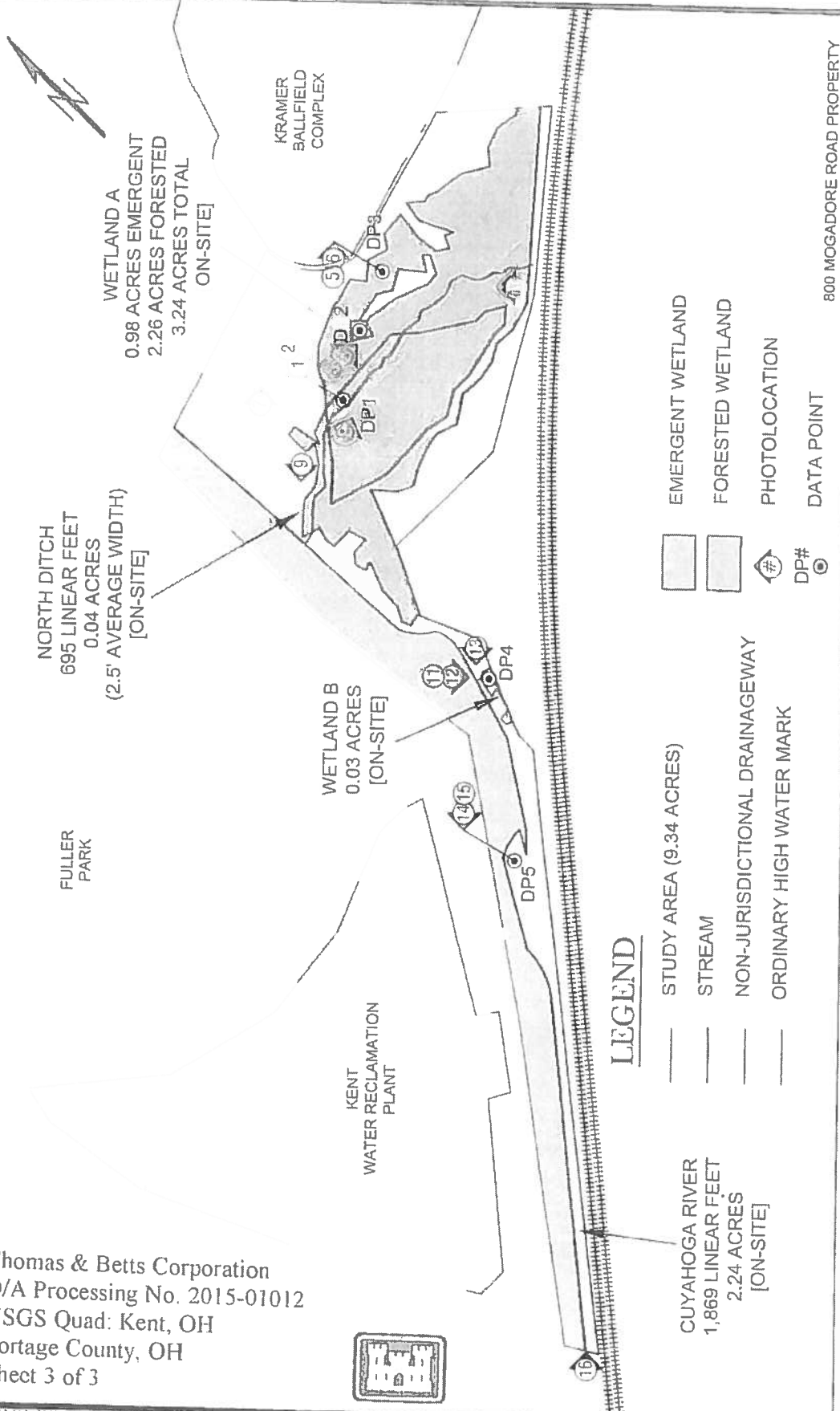


FIGURE 3A
 AQUATIC RESOURCE MAP (WHITE)
 NORTH DITCH/CUYAHOGA RIVER STUDY AREA
 CITY OF KENT, PORTAGE COUNTY, OHIO

HZW ENVIRONMENTAL
 CONSULTANTS, LLC
 6105 Heuley Road, Mentor, Ohio 44060
 Phone: (440) 357-1260 • Fax: (440) 357-1510

Attachment 2

DA No. 2015-01012 NWP Permit 20



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

PLEASE SIGN AND SUBMIT
THE COMPLETION FORM
ATTACHED TO THIS PERMIT

February 12, 2016

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2015-01012, Nationwide Permit No. 20 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

Mr. Om Chopra
Thomas & Betts Corporation
8155 T&B Boulevard, 4B-35
Memphis, TN 38125

Dear Mr. Chopra:

This pertains to your application for a Department of the Army permit to dredge and remove petroleum-contaminated soils and sediments in North Ditch, un-named wetlands, and the Cuyahoga River located northwest of Mogadore Road and south of Stow Street in the City of Kent, Portage County, Ohio (Sheet 1 of 3).

Specifically, the project will include construction of a temporary access/haul road resulting in the temporary placement of fill in 0.03 acre (ac.) of Wetland A. The project will also include dredging approximately 567 linear feet (0.01 ac.) of the Cuyahoga River (Sheet 2 of 3).

I have evaluated the impacts associated with your proposal, and have concluded that they are authorized by the enclosed Nationwide Permit (NWP) provided that the attached conditions are satisfied.

Verification of the applicability of this NWP is valid until March 18, 2017 unless the NWP is modified, suspended, revoked, or the activity complies with any subsequent permit modification. Please note in accordance with 33 CFR part 330.6(b), that if you commence or are under contract to commence an activity in reliance of the permit prior to the date this Nationwide permit expires, is suspended or revoked, or is modified such that the activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of the permit, unless the permit has been subject to the provisions of discretionary authority.

It is your responsibility to remain informed of changes to the NWP program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: <http://www.lrb.usace.army.mil/Missions/Regulatory.aspx>. Finally, note that if your activity is not undertaken within the defined period or the project specifications have changed, you must immediately notify this office to determine the need for further approval or reverification.

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2015-01012, Nationwide Permit No. 20 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

In addition to the general conditions attached to the NWP, your attention is directed to the following Special Conditions which are also appended at the end of the NWP General Conditions:

1. To reduce any potential adverse effects on the Federally endangered Indiana bat (*Myotis sodalis*), trees (woody stems greater than 5 inches Diameter at Breast Height) must not be cut between April 1 and September 30, of any year.
2. To reduce any potential adverse effects on the Federally threatened Northern long-eared bat (*Myotis septentrionalis*), trees (woody stems greater than 3 inches Diameter at Breast Height) must not be cut between April 1 and September 30, of any year.
3. The permittee must seed and mulch all exposed banks and slopes to prevent erosion within 24 hours of final grade. The mulch must be maintained until the vegetation becomes re-established. Only plant species native to Ohio shall be planted.
4. Prior to tree removal the permittee shall provide the Corps an estimate of the number, diameter at breast height (dbh), and species of trees to be removed.
5. Within 30 days following completion of the work authorized by this permit, the permittee shall re-plant 0.63 acre trees as indicated in the area shown on the Reforestation Plan (Sheet 3 of 3). The quantity of trees planted shall be commensurate with trees removed to restore the area to preconstruction conditions and shall be approved by the Corps prior to planting. A draft planting plan (number of trees, dbh, and species to be removed and number of trees, dbh, and species to be planted) shall be provided to the Corps within 30 days of the date of this permit authorization transmittal. Only tree species native to Ohio shall be planted.
6. You are responsible for ensuring that all contractors and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document is at the project site throughout the period that the authorized work is underway.
7. At the request of an authorized representative of the Buffalo District, U.S. Army Corps of Engineers, the permittee must allow access to the project site to determine compliance with the conditions of this permit.

This affirmation is limited to the attached NWP and associated Water Quality Certification, and does not obviate the need to obtain any other project specific Federal, state, or local authorization.

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2015-01012, Nationwide Permit No. 20 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

A copy of this letter has been sent to HzW Environmental Consultants, LLC, and to the Ohio Environmental Protection Agency.

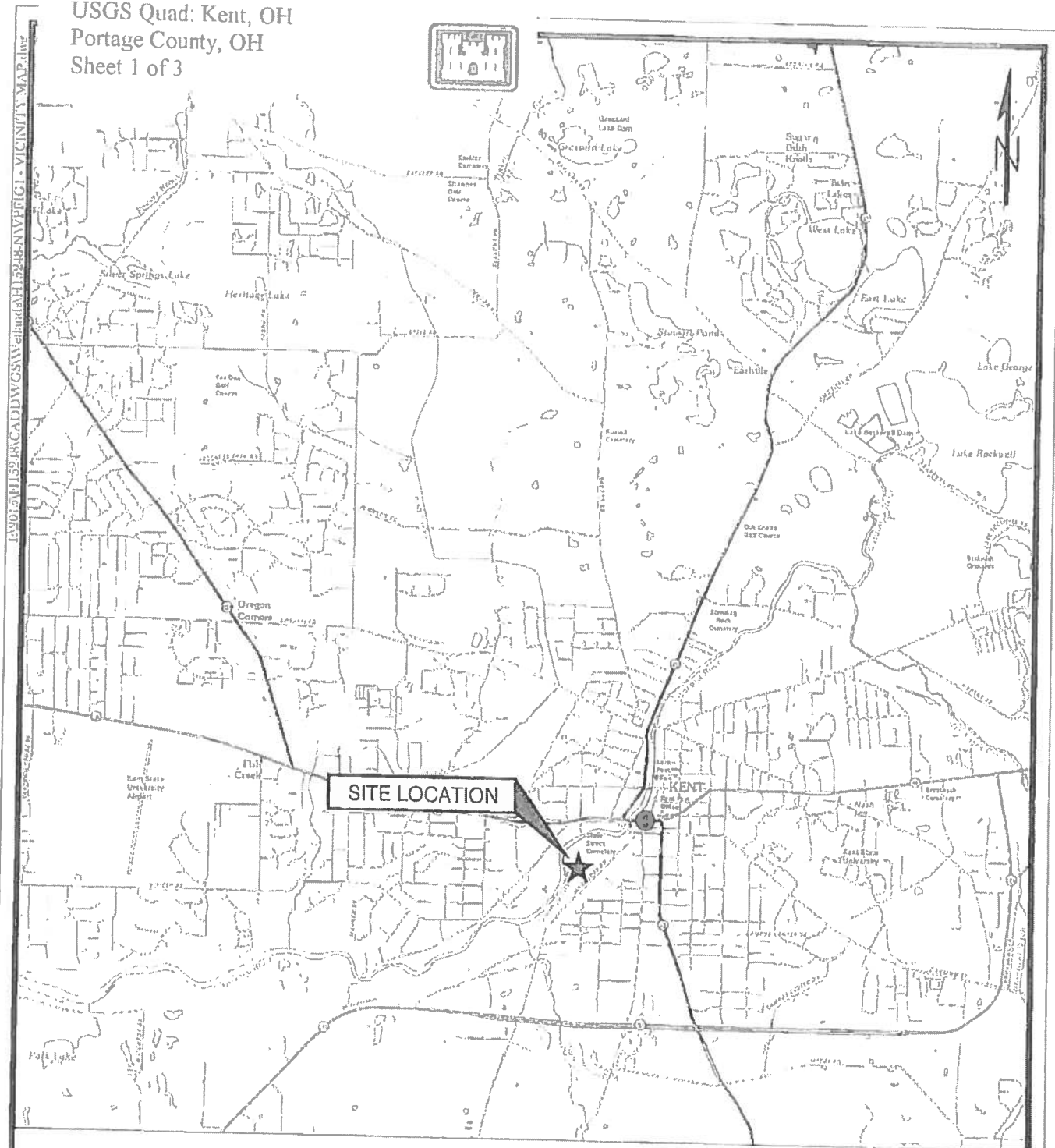
Questions pertaining to this matter should be directed to me at 716-879-4159, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: melissa.j.tarasiewicz@usace.army.mil

Sincerely,

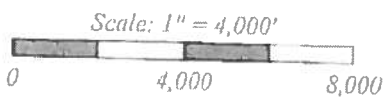
A handwritten signature in black ink that reads "Melissa J. Tarasiewicz" with a long horizontal flourish extending to the right.

Melissa Tarasiewicz
Biologist

Enclosures



SITE LOCATION



HZW ENVIRONMENTAL
CONSULTANTS, LLC
6105 Heitley Road, Mentor, Ohio 44060
Phone: (440) 357-1260 • Fax: (440) 357-1510

NWP FIGURE 1
VICINITY MAP
NORTH DITCH/CUYAHOGA RIVER CLEAN-UP OPERATION
CITY OF KENT, PORTAGE COUNTY, OHIO

Thomas & Betts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 2 of 3

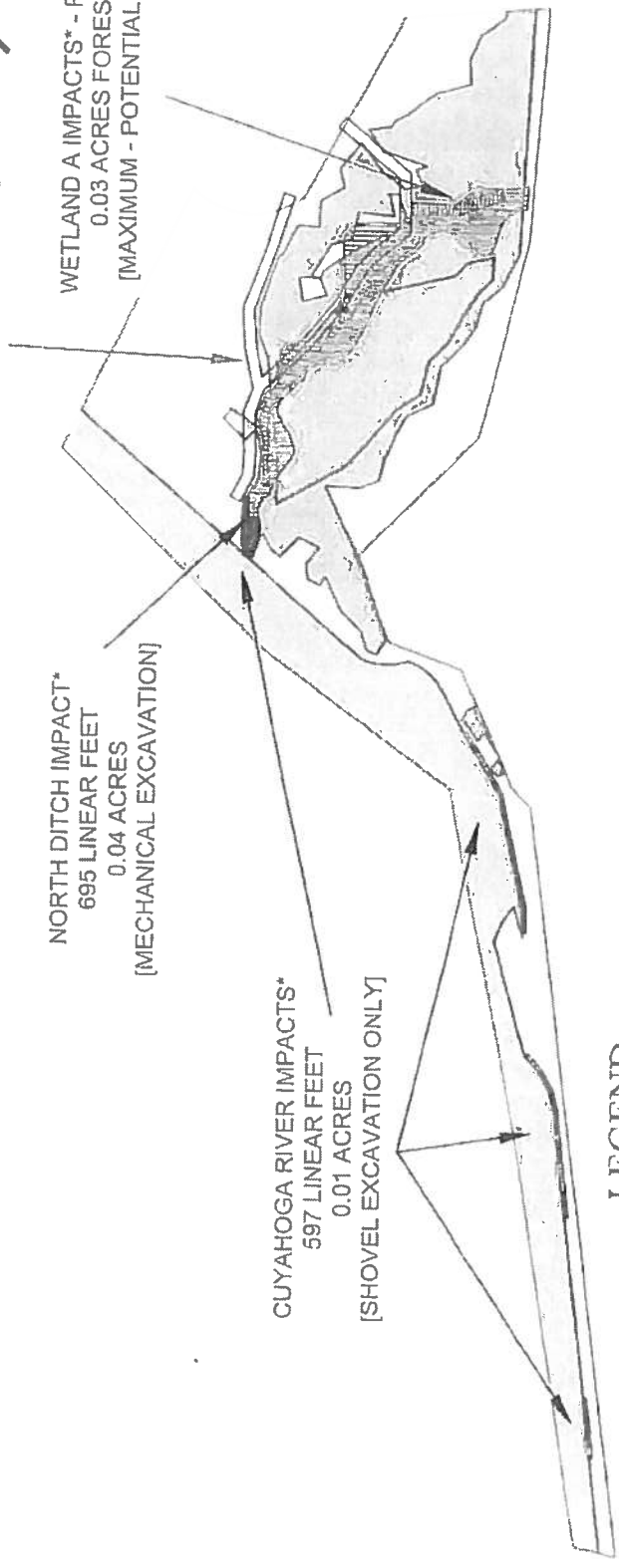


WETLAND A IMPACTS* - DREDGING
 0.16 ACRES EMERGENT
 0.32 ACRES FORESTED
 [MECHANICAL EXCAVATION]

NORTH DITCH IMPACT*
 695 LINEAR FEET
 0.04 ACRES
 [MECHANICAL EXCAVATION]

CUYAHOGA RIVER IMPACTS*
 597 LINEAR FEET
 0.01 ACRES
 [SHOVEL EXCAVATION ONLY]

WETLAND A IMPACTS* - ROADWAY
 0.03 ACRES FORESTED
 [MAXIMUM - POTENTIAL RIPRAP]



LEGEND

- STUDY AREA (9.34 ACRES)
- STREAM
- NON-JURISDICTIONAL DRAINAGEWAY
- ORDINARY HIGH WATER MARK
- CUYAHOGA RIVER
- EMERGENT WETLAND
- FORESTED WETLAND
- AREA TO BE DREDGED
- TEMPORARY ROAD (WETLAND MATS)
- TEMPORARY ROAD (POTENTIAL RIPRAP)

*ALL IMPACTS PROPOSED AS TEMPORARY



HWZ ENVIRONMENTAL
 CONSULTANTS, LLC
 4185 Halsey Road, Mentor, Ohio 44868
 Phone: (440) 337-1240 • Fax: (440) 337-1518

NWP FIGURE 2
 PLAN VIEW IMPACT MAP
 NORTH DITCH/CUYAHOGA RIVER CLEAN-UP OPERATION
 CITY OF KENT, PORTAGE COUNTY, OHIO

I:\2015\11\13\248\CAD\DWGS\Wetlands\11248_NWPFIG2 - PLAN VIEW IMPACT MAP.dwg

Thomas & Betts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 3 of 3



TREE SPECIES TO BE PLANTED*:

UPLAND

- Aesculus glabra* [FAC]
- Betula lenta* [FACU]
- Carpinus caroliniana* [FAC]
- Prunus serotina* [FACU]
- Quercus alba* [FACU]

WETLAND

- Acer negundo* [FAC]
- Acer saccharinum* [FACW]
- Nyssa sylvatica* [FAC]
- Quercus bicolor* [FACW]
- Salix nigra* [OBL]

* Based on availability at time of acquisition. If not available, an alternate list will be provided to the Corps for approval before purchase.



LEGEND

- STUDY AREA
- STREAM
- WETLAND BOUNDARY
- CUYAHOGA RIVER
- CLEARING/REFORESTATION AREA (0.63 ACRES)
- TEMPORARY ROAD (WETLAND MATS)

NOTE: Up to 100 one (1) - two (2) foot seedlings of various species will be planted. Final number will be based upon post-project assessment of number of trees felled.

Scale: 1" = 100'



HWZ ENVIRONMENTAL
 CONSULTANTS, LLC
 6105 Heitley Road, Mentor, Ohio 44060
 Phone: (440) 357-1260 • Fax: (440) 357-1510

NWP FIGURE 4
 REFORESTATION PLAN
 NORTH DITCH/CUYAHOGA RIVER CLEAN-UP OPERATION
 CITY OF KENT, PORTAGE COUNTY, OHIO

Attachment 3

August 2016 Topographic Survey



EVE CAGREIN VALLEY ENGINEERING, LTD.

NO.	DATE

EXISTING SITE CONDITIONS
 NORTH DITCH REMEDIATION PROJECT
 CITY OF KENT

PROJECT NO.
1632
 SHEET NO.
 1 OF 1

Attachment 4

Project Scope

HZW – Kent – North Ditch

Mobilization

EMS will mobilize labor, equipment, and materials to the Site.

Site Prep

The project team will establish access routes to the North Ditch work area as identified and marked in the Site walk with the City of Kent and HZW on February 16, 2016. Trees and other vegetation will be removed as necessary to allow for equipment to move without hindrance from the designated staging area to the North Ditch work area. EMS will utilize chain saws to clear vegetation/trees, and a CAT 308 excavator and CAT 279 skid steer to place material in the appropriate designated area. Trees will be cut into manageable sizes and removed from the Site by EMS. Brush will be chipped and broadcasted on Site into non-wetland wooded areas. Tree removal will be completed prior to April 1, 2016 pursuant to the permit issued by the Army Corps of Engineers.

A staging area will be constructed in the parking lot adjacent to Kramer Field #4. Temporary chain link fencing and gates will be installed adjacent to the Left Field Corner and Right Field Corner of Kramer Field #3 to block road access to the staging area. Orange construction fencing will be extended into the woods as an extension of the chain link. The staging area will be used for parking equipment and storing construction materials. A spotter will be utilized to assist highway trucks in crossing the bridge leading into the park.

Water Diversion

Prior to excavation, EMS will use plywood to construct a small dam upstream of the work area. Pooled water will be diverted around the work area with a trash pump. Water will be discharged downstream of work area.

Excavation

EMS will excavate soil as directed by HZW. EMS will use a CAT 308 excavator to remove contaminated soil. Swamp mats will be utilized to access saturated parts of the work area. The Cat 308 excavator will have a ditch bucket (one that has a flat edge instead of teeth) which will allow for more precise excavation depths. Excavation will start on the east side of the project Site where the North Ditch originates. The excavation crew will then move west along the North Ditch toward the discharge point into the Cuyahoga River.

Soil will be loaded into a tracked haul truck and transported to the designated offloading area. A gravel ramp will be constructed and utilized to assist in the direct loading of the roll-off boxes. Impacted soil will be dumped into roll-off boxes and prepared for transportation. If necessary, solidification will occur by using an excavator to mix sawdust with the soil.

EMS will have a rotating stock of approximately six (6) roll-off boxes that will be staged at the 800 Mogadore Road Site. On average, two (2) roll-off boxes will be at the North Ditch staging area at a time. A dedicated roll-off truck will be on-Site to move boxes around the North Ditch staging area and to/from the 800 Mogadore Road Site. At the end of each shift roll-off containers containing waste will be delivered to the disposal facility or staged at the 800 Mogadore Road Site.

Confirmation sampling will be completed by HZW as contaminated soil is removed. Based on analytical results, EMS will continue to remove soil in six (6) inch increments until analytical testing indicates acceptable TPH DRO concentrations.

Transportation & Disposal

Impacted soil will be transported in roll-off boxes to Petro Environmental for disposal. Depending on the desired production rate, 1-3 roll-off trucks will be utilized to transport the full roll-off boxes for disposal and return the empty boxes to the Site.

Restoration

Restoration of the staging area, haul routes out of the park, and Mogadore Road Site will be addressed upon completion of soil excavation and waste transportation and disposal activities.

* Project Area will be restored to pre-construction grade using clean fill of a soil type closest to what is removed as reasonably possible. Native vegetation will then be planted and monitored for success.

Attachment 5
Reforestation Plan

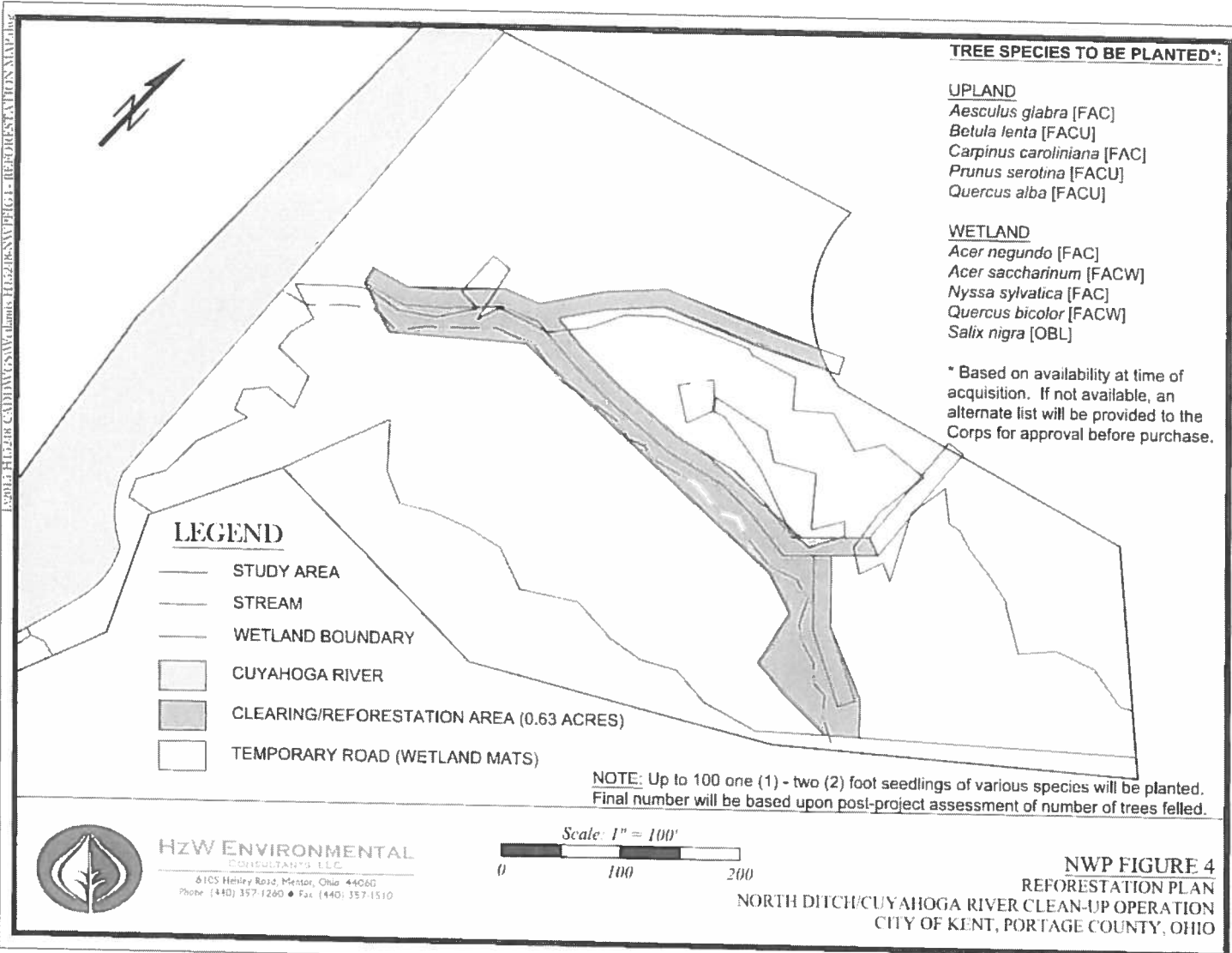




EXHIBIT "C"

HZW ENVIRONMENTAL
CONSULTANTS LLC

August 26, 2016

Mr. Mark Scalabrino
United States Army Corps of Engineers
Buffalo District
1776 Niagara Street
Buffalo, New York 14207-3199

Subject: Request for Modification of a Section 404 Nationwide Permit for Temporary Wetland and Stream Impacts Associated with the Proposed North Ditch/Cuyahoga River Clean-Up Operation in the City of Kent, Portage County, Ohio (DA No. 2015-01012) (H15248)

Dear Mr. Scalabrino

On behalf of Thomas & Betts Corporation (Applicant), HzW Environmental Consultants, LLC (HzW) respectfully requests that this letter serve as a request for modification of a Section 404 Nationwide Permit (NWP) or temporary wetland and stream impacts associated with the proposed North Ditch/Cuyahoga River clean-up operation (the Project) located in the City of Kent, Portage County, Ohio (Project Area).

Project Background

In September 2015, environmental scientists from HzW conducted a wetland delineation of a portion of the Project Area in accordance with the methodology put forth by the United States Army Corps of Engineers (the Corps). The subsequent report and a letter requesting a jurisdictional determination was then submitted to the Corps in order to arrange a site visit to review the identified resources. This visit took place on December 2, 2015. However, shortly before the meeting, it was determined by the project engineer that work would need to be performed within the boundaries of the adjacent Cuyahoga River, which was outside of the originally-delineated portion of the Project Area. While representatives of the Corps were able to review North Ditch and its abutting wetland, they recommended HzW perform further studies in areas where work was proposed. On December 10, 2015, representatives from HzW returned to the Project Area in order to expand the delineation study area. HzW identified two (2) wetlands and two (2) streams within the revised area. A copy of the January 21, 2016 Preliminary Jurisdictional Determination is included as **Attachment 1**.

On January 5, 2016, HzW submitted an application for wetland and stream impacts under Nationwide Permit Number 20 (Response Operations for Oil and Hazardous Substances). The Applicant sought to rectify the inadvertent release of abandoned petroleum products to the North Ditch waterway, adjacent wetland, and the Cuyahoga River. In order to do so, the Applicant must dredge contaminated sediments and soils and haul them away for proper disposal. The Applicant proposed the following impacts:

Type of Impact	Resource Impacted	Amount of Impact
Dredging-Mechanical Excavation	Wetland A-Emergent	0.16 acres
Dredging-Mechanical Excavation	Wetland A-Forested	0.32 acres
Temporary Fill-Road/Riprap	Wetland A-Forested	0.03 acres
Dredging-Mechanical Excavation	North Ditch	695 linear feet (0.04 acres)
Dredging-Shovel Excavation	Cuyahoga River	597 linear feet (0.01 acres)

The Corps issued the permit (DA No. 2015-01012) on February 12, 2016 for the above listed impacts. The permit is included as **Attachment 2**. After issuance of the permit, work began on-site and the true extent of the contamination was discovered. At this time, it was determined that additional work would be required beyond the impacts covered in the permit. After additional soil sampling and analysis was conducted, it was discovered that the extent of the contamination was in excess of three (3) foot deep. The dredging of the Project Area, in excess of three (3) feet, will require replacing soil to return the area back to the original grade, which was not included in the original permit application.

Application for Coverage under Nationwide Permit, Number 27

Currently, the Project Area consists of undeveloped forested upland, forested and emergent wetland, mixed vegetation riparian areas, and perennial stream habitats located within, and adjacent to, the City of Kent's Fuller Park. The forested upland lies primarily within the northernmost portion of the Project Area and abuts a ballfield complex that contains roads through which the personnel and equipment will access the site. South of this area is the forested portion of Wetland A which drains further southward toward the emergent portion of Wetland A as well as one (1) perennial stream (North Ditch) which flows into another (Cuyahoga River). The emergent portion of Wetland A is dominated by the highly invasive *Phragmites australis*. In March 2016, several trees were removed in order to access the Project Area with the proper equipment.

The Applicant proposes to expand the excavation area to include the entire emergent portion of Wetland A. Expansion of the excavation area will allow the Applicant to not only remove the contaminated soil but also the invasive *Phragmites australis*. Project details include diverting the water from North Ditch around the excavation areas during construction. Soils would be excavated and removed from the site and transported to a proper disposal site. The area will then be returned to original grade (with soil of similar texture of original soil if available). In August 2016, a survey of the topography of the excavation area was completed and is included as **Attachment 3**. Details for the complete project scope, including site preparation, water diversion, excavation, transportation and disposal, and restoration are included as **Attachment 4**.

The area (including the excavation area and areas where trees were removed for access roadways) would then be re-vegetated with various-sized native plantings (woody and emergent). Since the stream banks will be planted with shrub species, it is not anticipated that a high number of volunteer native vegetation will appear; however, herbaceous species will likely vegetate the open spots between the woody vegetation. A transplanting plan will be implemented if desired species are located in other portions of the site that will be developed in later phases. The plan will consist of harvesting entire shrubs or branches (for use as live stake plantings or in fascine bundles). After construction a native riparian seed mix will be spread per the seed mix specifications ideal density. Shrubs and trees will be planted so that to ensure ideal coverage and shade for the stream and surrounding area. The initial planting density of the buffer area will be 200 shrubs per acre. The seed mix and shrub planting list is included below:

Plant List*

Scientific Name	Common Name
<i>Carex comosa</i>	Bristly Sedge
<i>Carex cranita</i>	Fringed Sedge
<i>Carex grayi</i>	Gray's Sedge
<i>Carex lurida</i>	Lurid Sedge
<i>Carex stipata</i>	Awl Sedge
<i>Carex stricta</i>	Tussock Sedge
<i>Elymus virginicus</i>	Virginia Wild Rye
<i>Scirpus atrovirens</i>	Dark Green Bulrush
<i>Scirpus validus</i>	Soft-stemmed Bulrush
<i>Asclepias incarnata</i>	Swamp Milkweed
<i>Lobelia Cardinalis</i>	Cardinal Flower
<i>Lobelia siphilitica</i>	Great Lobelia
<i>Mimulus ringens</i>	Monkey Flower
<i>Verbena hastate</i>	Blue Vervain
<i>Cephalanthus occidentalis</i>	Buttonbush
<i>Salix exigua</i>	Sandbar Willow
<i>Cornus amomum</i>	Silky Dogwood
<i>Cornus stolonifera</i>	Red Osier Dogwood
<i>Sambucus canadensis</i>	Common Elderberry
<i>Viburnum dentatum</i>	Northern Arrowwood
<i>Viburnum prunifolium</i>	Blackhaw

*Based on availability at time of acquisition. If not reasonably available, a similar native species will be planted.

While the Applicant acknowledges these activities will provide a temporary disturbance for the local aquatic habitat, an overall improvement in the watershed is fully anticipated with time. Since the contamination and *Phragmites australis* would be removed and the area would be returned to original grade, no loss of aquatic resources or loss of function will occur. Additionally, the water quality of the entire wetland area and downstream Cuyahoga River would be improved. The Project will encourage the development of emergent, shrub, and forested communities increasing both diversity and potentially biological production. Overall, the Project will produce significant improvement in both wetland and stream functions as well as quality.

Mr. Mark Scalabrino
August 26, 2016
Page 4

In order to access the emergent area in question, temporary access roads through forested upland and wetland will need to be installed. These roads are designed to have as minimal an impact on these resources as possible. After construction is completed, these roads will be restored in accordance with the reforestation plan previously submitted and also included as **Attachment 5**.

Other Pertinent Details

Information regarding the quality of wetlands and streams to be impacted, the Endangered Species Act, the National Historic Preservation Act, and Federal Flood Insurance Rate Mapping can be referenced from the January 5, 2016 submittal to your office. Since the scope of the Project has only slightly changed, these particular details remain unchanged.

Closing

Please review this information at your earliest convenience and notify HzW as soon as possible if additional information is needed to complete the permit application. If the permit application is considered complete, please provide HzW with written documentation identifying the permit decision for the proposed federal wetland impacts within the Project Area boundaries.

Should you have any questions or require additional information please do not hesitate to contact our office. Thank you for your assistance.

Sincerely,

HzW ENVIRONMENTAL CONSULTANTS, LLC



Benjamin Latoche
Environmental Scientist II

RMD:rmd\jam\js
Attachments (5)

Attachment 1

January 21, 2016, Preliminary Jurisdictional Determination Letter



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

January 21, 2016

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application
No. 2015-01012

Mr. Om Chopra
Thomas & Betts Corporation
8155 T&B Boulevard, 4B-35
Memphis, Tennessee 38125

Dear Mr. Chopra:

I have reviewed the wetland delineation map you submitted for your proposal to dredge and remove petroleum-contaminated soils and sediments in North Ditch, un-named wetlands, and the Cuyahoga River located northwest of Mogadore Road and south of Stow Street in the City of Kent, Portage County, Ohio.

I have evaluated your submitted wetland delineation map and have determined that the wetland and water boundaries shown on the map accurately represent on-site conditions. Please note that this is a Preliminary Jurisdictional Determination (JD). Preliminary JDs are non-binding written indications that there may be Waters of the United States (WOUS) on your parcel and approximate locations of those waters. Preliminary JDs are advisory in nature and may not be appealed.

Pursuant to Regulatory Guidance Letter 08-02, any permit application made in reliance on this Preliminary JD will be evaluated as though all wetlands or waters on the site are regulated by the Corps. Further, all waters, including wetlands will be used for purposes of assessing the area of project related impacts and compensatory mitigation. If you require a definitive response regarding Department of the Army jurisdiction for any or all of the waters identified on the submitted drawings, you may request an approved jurisdictional determination from this office. If an approved JD is requested, please be aware that this is often a lengthy process and we may require the submittal of additional information.

I have enclosed the Preliminary JD Form with this letter. The form and attached table identifies the extent of waters on the site and specific terms and conditions of the Preliminary JD. Please sign and return a copy of this form to my attention so that I may complete my evaluation of your file. If you do not respond within fifteen days of this letter, I will assume you no longer wish to pursue the jurisdictional determination and will withdraw your application.

In accordance with Regulatory Guidance Letter 05-02, "Preliminary JDs are not definitive determinations of areas within regulatory jurisdiction and do not have expiration dates." However, I strongly recommend that the boundaries of WOUS be re-evaluated by a qualified

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

wetland biologist after five years of the date of this letter. This will ensure that any changes are appropriately identified and you do not inadvertently incur a violation of Federal law while constructing your project or working on your project site.

Lastly, this determination has been conducted only to identify the limits of waters that may be subject to Corps Clean Water Act or Rivers and Harbors Act jurisdiction. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resource Conservation Service prior to starting work.

Questions pertaining to this matter should be directed to me at 716-879-4159, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: melissa.j.tarasiewicz@usace.army.mil

Sincerely,



Melissa Tarasiewicz
Biologist

Enclosures

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): January 21, 2016

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Mr. Om Chopra
Thomas & Betts Corporation
8155 T&B Boulevard, 4B-35
Memphis, Tennessee 38125

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Buffalo, Thomas & Betts Corporation, 2015-01012

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)**

State: Ohio County: Portage City: Kent
Center coordinates of site (lat/long in degree decimal format): Lat. 41.14777° N, Long. -81.36907° W.

Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Cuyahoga River

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 1,292 linear feet: North Ditch, 3 ft. width; Cuyahoga River, 80 ft. width

Cowardin Class: Riverine

Stream Flow: perennial

Wetlands: 3.27 acres.

Cowardin Class: Palustrine forested/emergent

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: N/A

Non-Tidal: N/A

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: January 21, 2016

Field Determination. Date(s): December 2, 2015

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: HzW Environmental Consultants, LLC.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute, Kent, OH.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey of Portage County.
- National wetlands inventory map(s). Cite name: Kent, OH.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Bing Maps and Google Earth recent aerial imagery.
 - or Other (Name & Date): Site photos received with the wetland delineation report dated September 2015 and January 2016, Corps site visit photos December 2015.
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Melissa J. Taras 1/24/2016

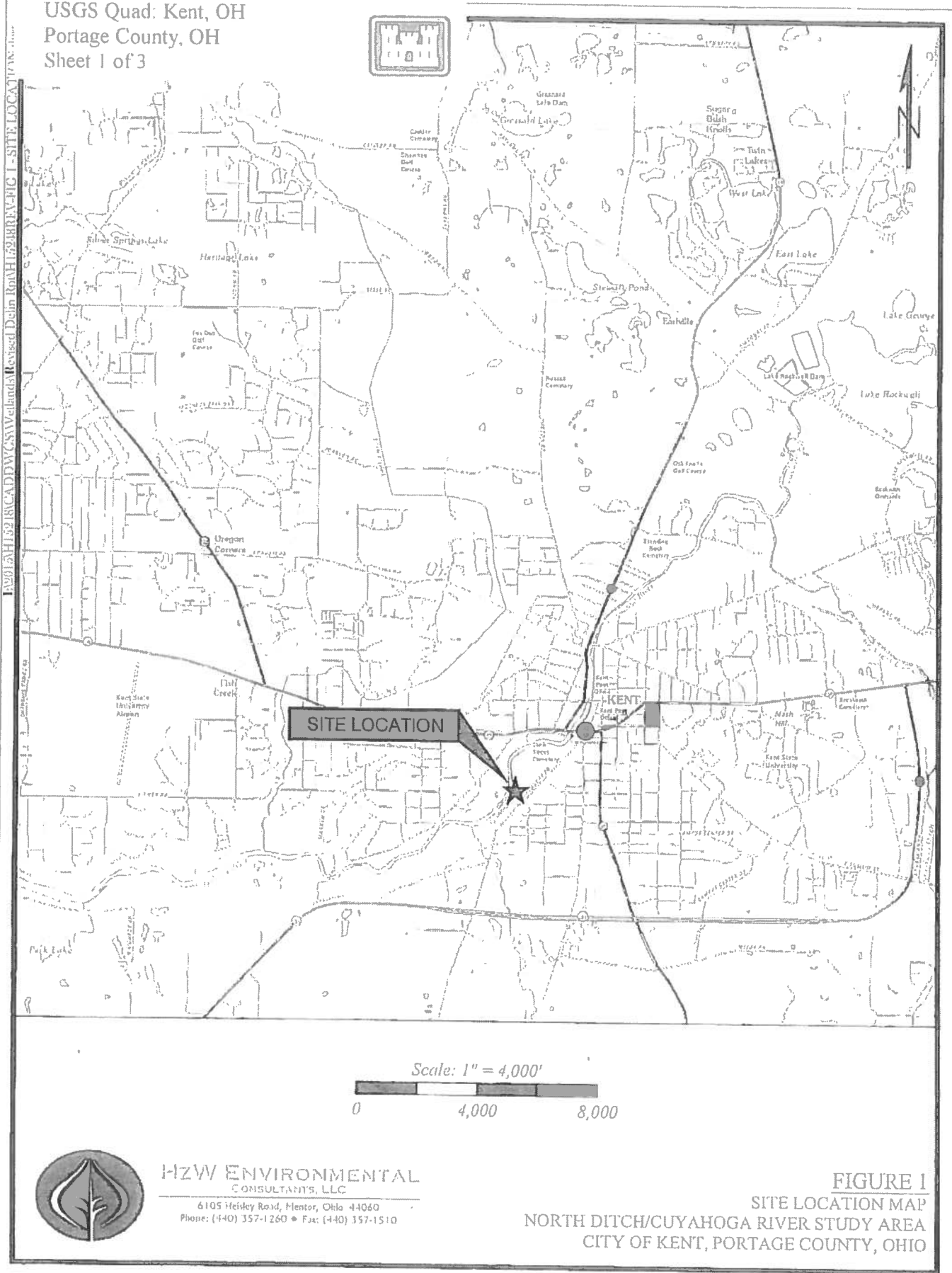
Signature and date of
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2015-01012

E

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Wetland A	41.14743	-81.36823	Palustrine forested/emergent	3.24 acres	wetland
Wetland B	41.14662	-81.36889	Palustrine emergent	0.03 acre	wetland
North Ditch	41.14713	-81.36848	Riverine perennial	695 linear feet	stream
Cuyahoga River	41.14649	-81.36907	Riverine perennial	1,869 linear feet	stream



PA20150101218KCADDWGSWlandis Revised Delin Rpt041218RRV-FIG 1 - SITE LOCATION

SITE LOCATION

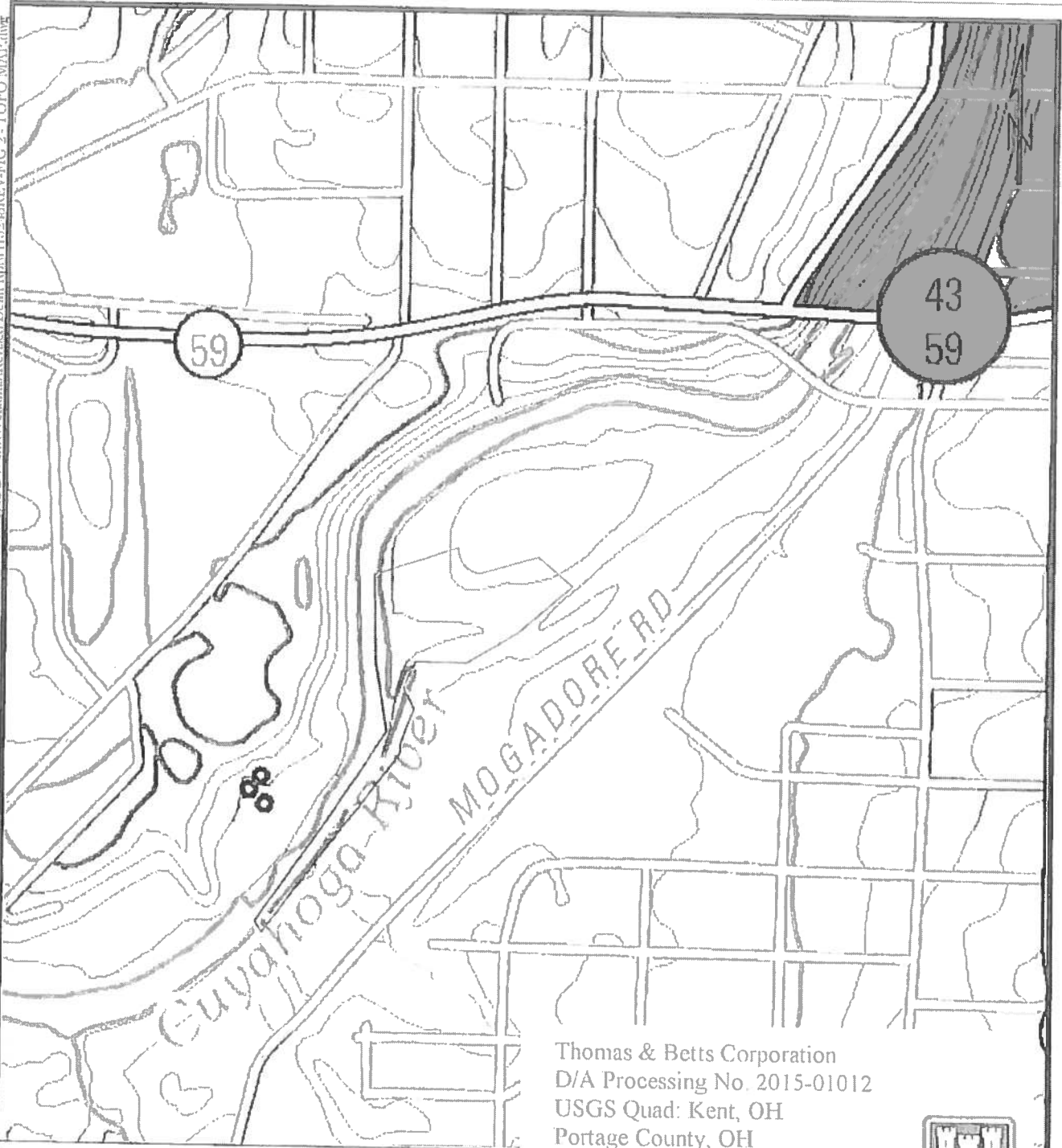
Scale: 1" = 4,000'



HWZ ENVIRONMENTAL
CONSULTANTS, LLC
6105 Heisley Road, Mentor, Ohio 44060
Phone: (440) 357-1260 • Fax: (440) 357-1510

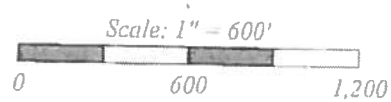
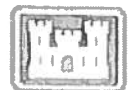
FIGURE 1
SITE LOCATION MAP
NORTH DITCH/CUYAHOGA RIVER STUDY AREA
CITY OF KENT, PORTAGE COUNTY, OHIO

14201201115298X\CADD\WGSI\Wetlands\Revised\Delin_RpM\115298X-REV-FIG 2 - TOPO MAP.dwg



 - STUDY AREA

Thomas & Betts Corporation
D/A Processing No. 2015-01012
USGS Quad: Kent, OH
Portage County, OH
Sheet 2 of 3



IZW ENVIRONMENTAL
CO. ISALTVTS, LLC
4105 Heisley Road, Mentor, Ohio 44060
Phone: (440) 357-1260 • Fax: (440) 357-1510

FIGURE 2
TOPOGRAPHIC MAP
NORTH DITCH/CUYAHOGA RIVER STUDY AREA
CITY OF KENT, PORTAGE COUNTY, OHIO

Thomas & Betts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 3 of 3



NORTH DITCH
 695 LINEAR FEET
 0.04 ACRES
 (2.5' AVERAGE WIDTH)
 [ON-SITE]

WETLAND A
 0.98 ACRES EMERGENT
 2.26 ACRES FORESTED
 3.24 ACRES TOTAL
 [ON-SITE]

KRAMER
 BALLFIELD
 COMPLEX

FULLER
 PARK

WETLAND B
 0.03 ACRES
 [ON-SITE]

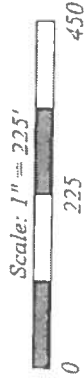
KENT
 RECLAMATION
 PLANT



LEGEND

- STUDY AREA (9.34 ACRES)
- STREAM
- NON-JURISDICTIONAL DRAINAGEWAY
- ORDINARY HIGH WATER MARK
- EMERGENT WETLAND
- FORESTED WETLAND
- ⊕# PHOTOLOCATION
- ⊙ DP# DATA POINT

800 MOGADORE ROAD PROPERTY



HW ENVIRONMENTAL
 CONSULTANTS, LLC
 6105 Heisley Road, Mentor, Ohio 44060
 Phone: (440) 357-1260 • Fax: (440) 357-1510



FIGURE 3A
 AQUATIC RESOURCE MAP (WHITE)
 NORTH DITCH/CUYAHOGA RIVER STUDY AREA
 CITY OF KENT, PORTAGE COUNTY, OHIO

I:\2015\11\19\18\CA\1D\1V\6\5\Wetland\Revised\13\10\15\12\18REV-FIG 3A - RESOURCES MAP (WHITE).dwg

Attachment 2

DA No. 2015-01012 NWP Permit 20



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

PLEASE SIGN AND SUBMIT
THE COMPLETION FORM
ATTACHED TO THIS PERMIT

February 12, 2016

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2015-01012, Nationwide Permit No. 20 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

Mr. Om Chopra
Thomas & Betts Corporation
8155 T&B Boulevard, 4B-35
Memphis, TN 38125

Dear Mr. Chopra:

This pertains to your application for a Department of the Army permit to dredge and remove petroleum-contaminated soils and sediments in North Ditch, un-named wetlands, and the Cuyahoga River located northwest of Mogadore Road and south of Stow Street in the City of Kent, Portage County, Ohio (Sheet 1 of 3).

Specifically, the project will include construction of a temporary access/haul road resulting in the temporary placement of fill in 0.03 acre (ac.) of Wetland A. The project will also include dredging approximately 567 linear feet (0.01 ac.) of the Cuyahoga River (Sheet 2 of 3).

I have evaluated the impacts associated with your proposal, and have concluded that they are authorized by the enclosed Nationwide Permit (NWP) provided that the attached conditions are satisfied.

Verification of the applicability of this NWP is valid until March 18, 2017 unless the NWP is modified, suspended, revoked, or the activity complies with any subsequent permit modification. Please note in accordance with 33 CFR part 330.6(b), that if you commence or are under contract to commence an activity in reliance of the permit prior to the date this Nationwide permit expires, is suspended or revoked, or is modified such that the activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of the permit, unless the permit has been subject to the provisions of discretionary authority.

It is your responsibility to remain informed of changes to the NWP program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: <http://www.lrb.usace.army.mil/Missions/Regulatory.aspx>. Finally, note that if your activity is not undertaken within the defined period or the project specifications have changed, you must immediately notify this office to determine the need for further approval or reverification.

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2015-01012, Nationwide Permit No. 20 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

In addition to the general conditions attached to the NWP, your attention is directed to the following Special Conditions which are also appended at the end of the NWP General Conditions:

1. To reduce any potential adverse effects on the Federally endangered Indiana bat (*Myotis sodalis*), trees (woody stems greater than 5 inches Diameter at Breast Height) must not be cut between April 1 and September 30, of any year.
2. To reduce any potential adverse effects on the Federally threatened Northern long-eared bat (*Myotis septentrionalis*), trees (woody stems greater than 3 inches Diameter at Breast Height) must not be cut between April 1 and September 30, of any year.
3. The permittee must seed and mulch all exposed banks and slopes to prevent erosion within 24 hours of final grade. The mulch must be maintained until the vegetation becomes re-established. Only plant species native to Ohio shall be planted.
4. Prior to tree removal the permittee shall provide the Corps an estimate of the number, diameter at breast height (dbh), and species of trees to be removed.
5. Within 30 days following completion of the work authorized by this permit, the permittee shall re-plant 0.63 acre trees as indicated in the area shown on the Reforestation Plan (Sheet 3 of 3). The quantity of trees planted shall be commensurate with trees removed to restore the area to preconstruction conditions and shall be approved by the Corps prior to planting. A draft planting plan (number of trees, dbh, and species to be removed and number of trees, dbh, and species to be planted) shall be provided to the Corps within 30 days of the date of this permit authorization transmittal. Only tree species native to Ohio shall be planted.
6. You are responsible for ensuring that all contractors and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document is at the project site throughout the period that the authorized work is underway.
7. At the request of an authorized representative of the Buffalo District, U.S. Army Corps of Engineers, the permittee must allow access to the project site to determine compliance with the conditions of this permit.

This affirmation is limited to the attached NWP and associated Water Quality Certification, and does not obviate the need to obtain any other project specific Federal, state, or local authorization.

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2015-01012, Nationwide Permit No. 20 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

A copy of this letter has been sent to HzW Environmental Consultants, LLC, and to the Ohio Environmental Protection Agency.

Questions pertaining to this matter should be directed to me at 716-879-4159, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: melissa.j.tarasiewicz@usacc.army.mil

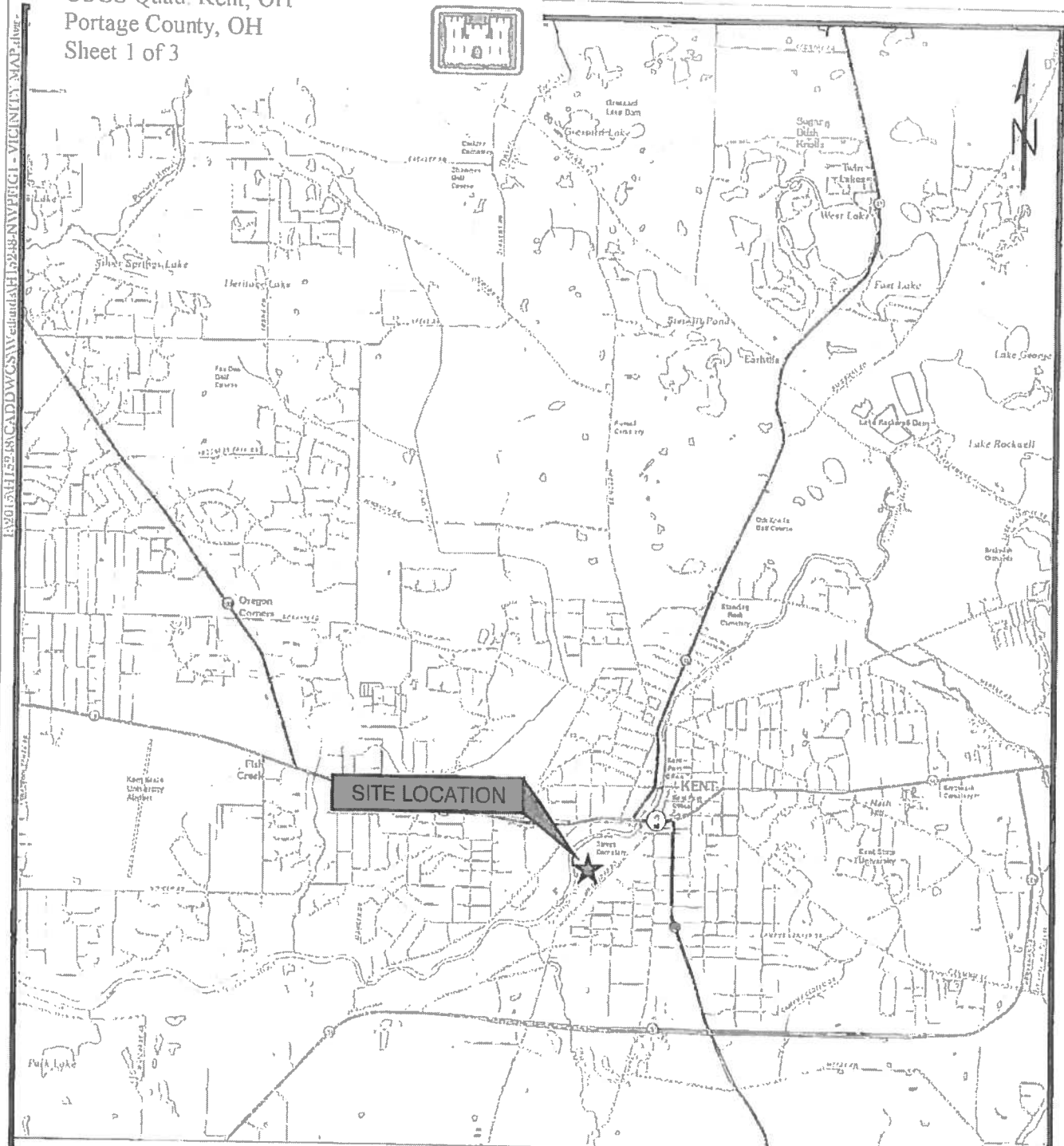
Sincerely,

A handwritten signature in cursive script that reads "Melissa J. Tarasiewicz". The signature is written in black ink and includes a long horizontal flourish at the end.

Melissa Tarasiewicz
Biologist

Enclosures

Thomas & Betts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 1 of 3



SITE LOCATION

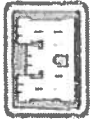


HWZ ENVIRONMENTAL
 CONSULTANTS, LLC

6105 Heisley Road, Mentor, Ohio 44060
 Phone: (440) 357-1260 • Fax: (440) 357-1510

NWP FIGURE 1
 VICINITY MAP
 NORTH DITCH/CUYAHOGA RIVER CLEAN-UP OPERATION
 CITY OF KENT, PORTAGE COUNTY, OHIO

Thomas & Betts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 2 of 3

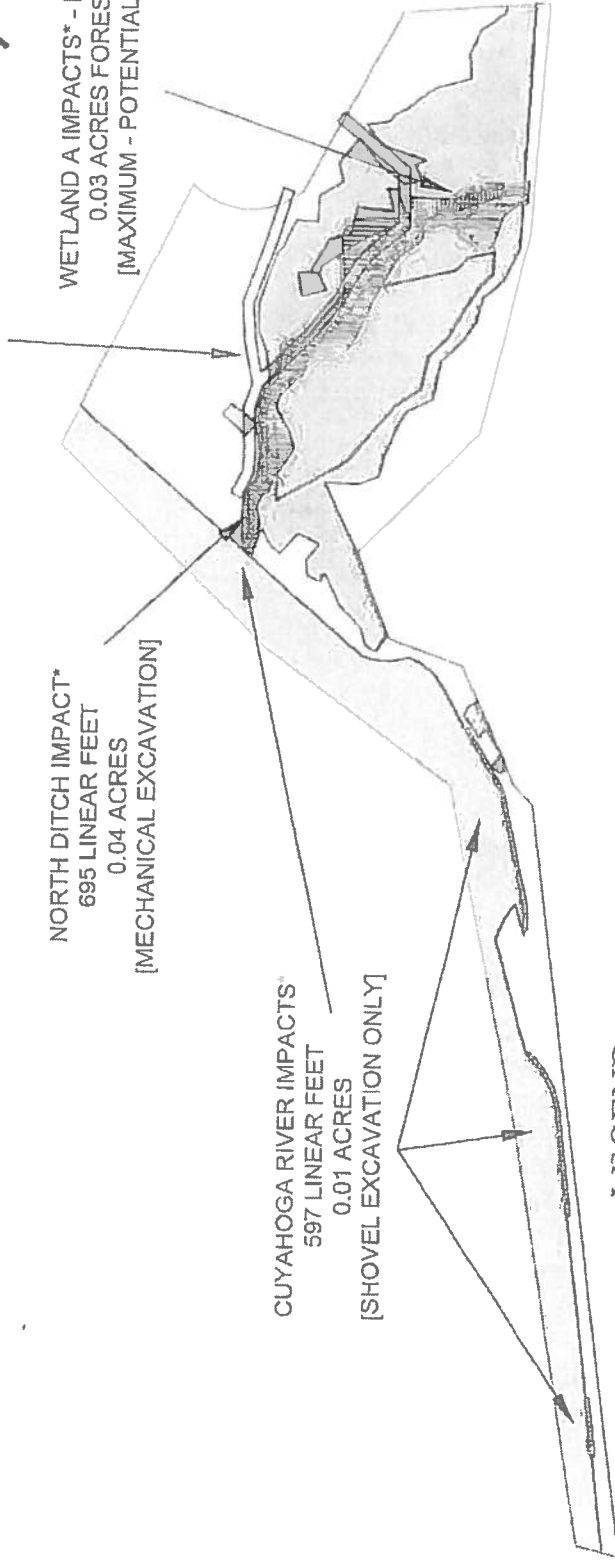


WETLAND A IMPACTS* - DREDGING
 0.16 ACRES EMERGENT
 0.32 ACRES FORESTED
 [MECHANICAL EXCAVATION]

NORTH DITCH IMPACT*
 695 LINEAR FEET
 0.04 ACRES
 [MECHANICAL EXCAVATION]

WETLAND A IMPACTS* - ROADWAY
 0.03 ACRES FORESTED
 [MAXIMUM - POTENTIAL RIPRAP]

CUYAHOGA RIVER IMPACTS*
 597 LINEAR FEET
 0.01 ACRES
 [SHOVEL EXCAVATION ONLY]



LEGEND

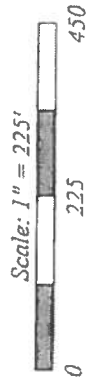
- STUDY AREA (9.34 ACRES)
- STREAM
- NON-JURISDICTIONAL DRAINAGEWAY
- ORDINARY HIGH WATER MARK
- CUYAHOGA RIVER
- EMERGENT WETLAND
- FORESTED WETLAND
- AREA TO BE DREDGED
- TEMPORARY ROAD (WETLAND MATS)
- TEMPORARY ROAD (POTENTIAL RIPRAP)

*ALL IMPACTS PROPOSED AS TEMPORARY



F2W ENVIRONMENTAL
 CONSULTANTS, LLC

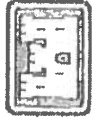
6105 Hedley Road, Mentor, Ohio 44060
 Phone: (440) 337-1260 • Fax: (440) 337-1510



NWP FIGURE 2
 PLAN VIEW IMPACT MAP
 NORTH DITCH/CUYAHOGA RIVER CLEAN-UP OPERATION
 CITY OF KENT, PORTAGE COUNTY, OHIO

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Thomas & Berts Corporation
 D/A Processing No. 2015-01012
 USGS Quad: Kent, OH
 Portage County, OH
 Sheet 3 of 3

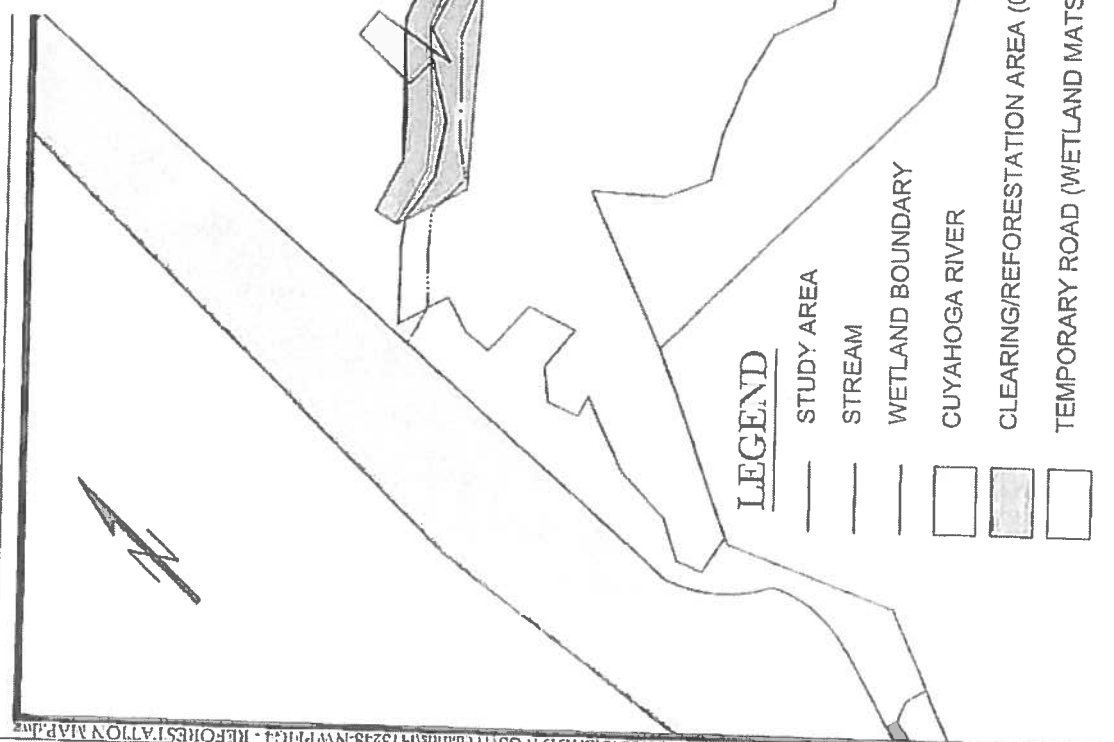


TREE SPECIES TO BE PLANTED*:

- UPLAND**
Aesculus glabra [FAC]
Betula lenta [FACU]
Carpinus caroliniana [FAC]
Prunus serotina [FACU]
Quercus alba [FACU]

- WETLAND**
Acer negundo [FAC]
Acer saccharinum [FACW]
Nyssa sylvatica [FAC]
Quercus bicolor [FACW]
Salix nigra [OBL]

* Based on availability at time of acquisition. If not available, an alternate list will be provided to the Corps for approval before purchase.



LEGEND

- STUDY AREA
- STREAM
- WETLAND BOUNDARY
- CUYAHOGA RIVER
- CLEARING/REFORESTATION AREA (0.63 ACRES)
- TEMPORARY ROAD (WETLAND MATS)

NOTE: Up to 100 one (1) - two (2) foot seedlings of various species will be planted. Final number will be based upon post-project assessment of number of trees felled.



HZW ENVIRONMENTAL
 CONSULTANTS, LLC

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NWP FIGURE 4
 REFORESTATION PLAN
 NORTH DITCH/CUYAHOGA RIVER CLEAN-UP OPERATION
 CITY OF KENT, PORTAGE COUNTY OHIO

Attachment 3

August 2016 Topographic Survey

Attachment 4

Project Scope

HZW – Kent – North Ditch

Mobilization

EMS will mobilize labor, equipment, and materials to the Site.

Site Prep

The project team will establish access routes to the North Ditch work area as identified and marked in the Site walk with the City of Kent and HZW on February 16, 2016. Trees and other vegetation will be removed as necessary to allow for equipment to move without hindrance from the designated staging area to the North Ditch work area. EMS will utilize chain saws to clear vegetation/trees, and a CAT 308 excavator and CAT 279 skid steer to place material in the appropriate designated area. Trees will be cut into manageable sizes and removed from the Site by EMS. Brush will be chipped and broadcasted on Site into non-wetland wooded areas. Tree removal will be completed prior to April 1, 2016 pursuant to the permit issued by the Army Corps of Engineers.

A staging area will be constructed in the parking lot adjacent to Kramer Field #4. Temporary chain link fencing and gates will be installed adjacent to the Left Field Corner and Right Field Corner of Kramer Field #3 to block road access to the staging area. Orange construction fencing will be extended into the woods as an extension of the chain link. The staging area will be used for parking equipment and storing construction materials. A spotter will be utilized to assist highway trucks in crossing the bridge leading into the park.

Water Diversion

Prior to excavation, EMS will use plywood to construct a small dam upstream of the work area. Pooled water will be diverted around the work area with a trash pump. Water will be discharged downstream of work area.

Excavation

EMS will excavate soil as directed by HZW. EMS will use a CAT 308 excavator to remove contaminated soil. Swamp mats will be utilized to access saturated parts of the work area. The Cat 308 excavator will have a ditch bucket (one that has a flat edge instead of teeth) which will allow for more precise excavation depths. Excavation will start on the east side of the project Site where the North Ditch originates. The excavation crew will then move west along the North Ditch toward the discharge point into the Cuyahoga River.

Soil will be loaded into a tracked haul truck and transported to the designated offloading area. A gravel ramp will be constructed and utilized to assist in the direct loading of the roll-off boxes. Impacted soil will be dumped into roll-off boxes and prepared for transportation. If necessary, solidification will occur by using an excavator to mix sawdust with the soil.

EMS will have a rotating stock of approximately six (6) roll-off boxes that will be staged at the 800 Mogadore Road Site. On average, two (2) roll-off boxes will be at the North Ditch staging area at a time. A dedicated roll-off truck will be on-Site to move boxes around the North Ditch staging area and to/from the 800 Mogadore Road Site. At the end of each shift roll-off containers containing waste will be delivered to the disposal facility or staged at the 800 Mogadore Road Site.

Confirmation sampling will be completed by HZW as contaminated soil is removed. Based on analytical results, EMS will continue to remove soil in six (6) inch increments until analytical testing indicates acceptable TPH DRO concentrations.

Transportation & Disposal

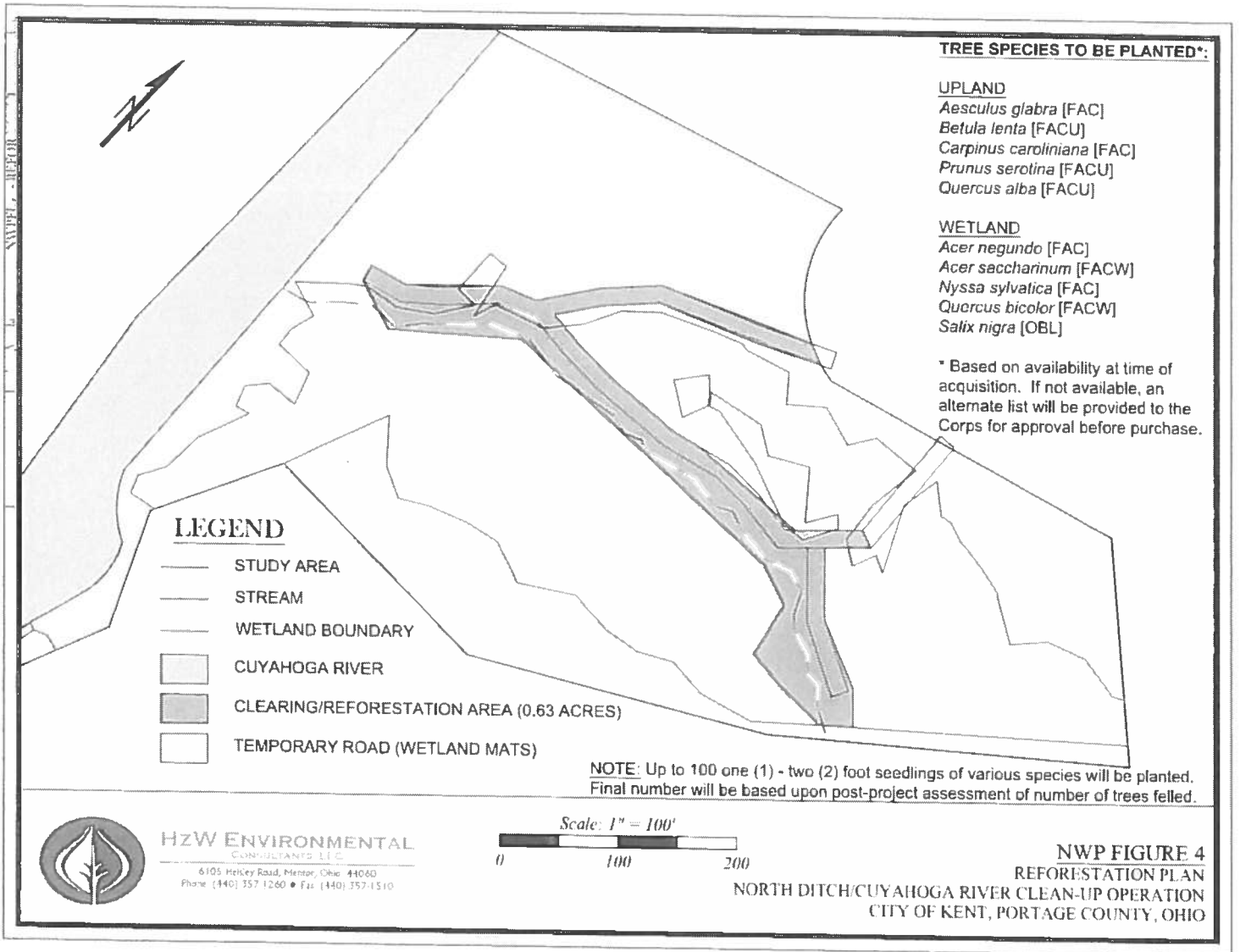
Impacted soil will be transported in roll-off boxes to Petro Environmental for disposal. Depending on the desired production rate, 1-3 roll-off trucks will be utilized to transport the full roll-off boxes for disposal and return the empty boxes to the Site.

Restoration

Restoration of the staging area, haul routes out of the park, and Mogadore Road Site will be addressed upon completion of soil excavation and waste transportation and disposal activities.

* Project Area will be restored to pre-construction grade using clean fill of a soil type closest to what is removed as reasonably possible. Native vegetation will then be planted and monitored for success.

Attachment 5
Reforestation Plan



TREE SPECIES TO BE PLANTED*:

- UPLAND**
Aesculus glabra [FAC]
Betula lenta [FACU]
Carpinus caroliniana [FAC]
Prunus serotina [FACU]
Quercus alba [FACU]

- WETLAND**
Acer negundo [FAC]
Acer saccharinum [FACW]
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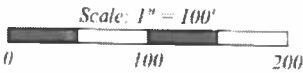
LEGEND

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NWP FIGURE 4
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