APPENDIX C

Level II Isolated Wetland Permit Application
LEVEL 2 ISOLATED WETLAND PERMIT

April 22, 2013

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1.0 INTRODUCTION

An application for a Level Two Isolated Wetland Permit from the Ohio Environmental Protection Agency (Ohio EPA) has been prepared by EMH&T for the site. The site is comprised of approximately 100 acres and is located in Licking County, Ohio (Exhibit 1). The project consists of a single family residential development that is expanding. This study was performed at the request of and is for the exclusive use of the applicant.

EMH&T initially conducted an Investigation of the Waters of the United States in 2000 for the site. The results of the delineation identified two (2) jurisdictional wetlands and a stream. This report was verified by the USACE in a letter dated from 2002. Recently, EMH&T reevaluated the site due to comments from the local planning office as well as the Ohio Environmental Protection Agency (Ohio EPA). The Waters of the United States on the site were re-delineated by EMH&T in 2013. One prior-converted wetland within the agricultural field has formed since 2000 and a second wetland, previously delineated in 2000, has expanded into the development footprint (Exhibits 1 and 2). We are now referring to these areas as Isolated Wetland A and Isolated Wetland B, respectively. The remaining wetland, Wetland C, in the woodlot and the stream have not changed since 2000. An Investigation of Waters report was prepared and submitted to the USACE in 2013. This wetland delineation focused only on the two isolated wetlands to be impacted. Verification of the delineation by the United States Army Corps of Engineers (USACE) is currently pending. The results of the delineation identified two (2) isolated wetlands (totaling 2.67 acre).

The client requests authorization to impact 2.29 acres of isolated wetland on the property. In order to provide a complete Level Two Isolated Wetlands Permit application, this report provides the following:

- a description of the size and location of the isolated wetlands;
- a wetland categorization;
- a description of the project;
- a justification for the isolated wetland impacts;
- a description of an on-site alternative;
- a description of avoidance measures;
- a description of wetland buffer zones;
- an evaluation of the wetlands' regional and local scarcity;
- an evaluation of the potential to effect endangered species;
- an evaluation of potential aquatic impacts;
- an evaluation of the proposed stormwater pollution prevention plan for the site; and,
- a compensatory wetland mitigation plan.

The client is proposing to compensate for impacted isolated wetlands through the purchase of 4.6 acres of wetland credit at a Wetland Mitigation Bank operated by Wetlands Resource Center.
2.0 SITE DESCRIPTION

As shown on Exhibit 1, the subject property is located in Licking County, Ohio. The site contains wooded areas, agricultural fields, an active construction site, and occupied residential homes.

As shown on Exhibit 2, the project area is located between the elevations of approximately 1080 feet and 1060 feet (USGS, 1992). Three structures are shown in the southeastern portion of the property and a forest is indicated in the northwestern portion of the site. A drainageway flows through the eastern portion of the property and marsh symbols are present in the forest at the northwestern corner of the site. No other open water symbols are mapped for the site.

As shown on Exhibit 3, the Web Soil Survey for Licking County, Ohio was reviewed for the site (USDA-SCS, 2010). The property contains five soil types. These soils are listed in Table 1 along with their hydric status. Only one drainageway is mapped on the eastern portion of the site. No marsh symbols or open water ponds are indicated for the site.

<table>
<thead>
<tr>
<th>Mapped Soil Unit</th>
<th>Hydric Inclusions</th>
<th>% of Hydric Inclusions</th>
<th>Location of Hydric Inclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bennington silt loam, 0 to 2 percent slopes (BeA)</td>
<td>Partially hydric</td>
<td>Pewamo 10</td>
<td>Depressions</td>
</tr>
<tr>
<td>Bennington silt loam, 2 to 6 percent slopes (BeB)</td>
<td>Partially hydric</td>
<td>Pewamo 10</td>
<td>Depressions</td>
</tr>
<tr>
<td>Centerburg silt loam, 2 to 6 percent slopes (CeB)</td>
<td>Partially hydric</td>
<td>Pewamo 10</td>
<td>Depressions</td>
</tr>
<tr>
<td>Centerburg silt loam, 6 to 12 percent slopes, eroded (CeC2)</td>
<td>Partially hydric</td>
<td>Pewamo 5</td>
<td>Depressions</td>
</tr>
<tr>
<td>Pewamo silty clay loam (Pe)</td>
<td>All hydric</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USDA-SCS, 1985). Map units are composed of one or more map unit components or soil types, each of which is rated as hydric or not hydric soil. Map units that are made up dominantly of hydric soils may have small areas of minor non-hydric components in the higher positions on the landform, and map units that are made up dominantly of non-hydric soils may have small areas of minor hydric components in the lower positions on the landform. As noted each map unit is designated as "all hydric," "partially hydric," "not hydric," or "unknown hydric," depending on the rating of its respective components.

According to the Web Soil Survey, four of the five soils are partially hydric soils that contain hydric inclusions. "Partially hydric" means that at least one component of the map unit is rated as hydric and at least one component is rated as not hydric. Hydric inclusions within these soil units may be found in depressions. One soil, Pewamo silty clay loam, is all hydric. “All hydric” indicates that all components listed for a given map unit
are rated as being hydric. "Unknown hydric" indicates that at least one component is not rated so a definitive rating for the map unit cannot be made.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the site (FEMA, 2007). As shown in Exhibit 4, the entirety of the subject property lies in Zone X (unshaded) which are areas determined to be outside the 500-year flood plain.

The U.S. Fish and Wildlife Service’s (USFWS) National Wetland Inventory (NWI) Map for the Pataskala, Ohio quadrangle was reviewed for the site (USFWS, 1995). As shown on Exhibit 5, several mapped wetlands are located to the north, west, and south of the property. One palustrine, forested, broad-leaved deciduous, seasonally flooded (PFO1C) wetland is mapped on the northwest portion of the property. One FPO1A feature is mapped partially on the northwest portion of the property.

The Monthly Water Inventory Report (MWIR) for Ohio reported that precipitation within the Central Region of Ohio was 0.21 inches below normal for February 2013, the most recent report available at the time of the delineation (Kirk, 01/13). Precipitation within the Central Region of Ohio was 3.23 inches below normal for the year up to and including February 2013. Precipitation within the Central Region of Ohio was 2.54 inches above normal for the six months prior to and including February 2013. According to the Palmer Drought Severity Index, the Central Region of Ohio was experiencing an Incipient Moist Spell. The MWIR stated that stream flow was below normal for Ohio in February. A copy of the MWIR has been included as Appendix A in this report.

3.0 WETLAND DELINEATION

In 2000, EMH&T conducted an Investigation of Waters of the United States for the property on behalf of a housing development company. A jurisdictional determination (JD) was provided by the USACE for two wetlands and a stream in 2002 for the site. A copy of the 2000 Investigation of the Waters of the United States for the site and the USACE’s JD letter are included in Appendix B. This verification was valid for a period of five years from the date of the letter, but is now expired. No permit was required from the USACE or the Ohio EPA for the development of the residential project because the stream and both wetlands on the property were avoided. A road crossing structure was built to span the stream without any impacts below the Ordinary High Water Mark (OHWM). Sections 1 and 2 of the development have been built; however, proposed Section 3 of the property was not managed or maintained for several years. Section 3 of the property contains mapped hydric soils, Pewamo silty clay loam (Pe), and a slight depression. As a result of these features, one additional wetland developed and another wetland expanded within Section 3 of the site. Because the JD from the USACE expired in 2007, a re-verification was necessary. During the delineation it was apparent that both wetlands were isolated due to the lack of a connection to jurisdictional waters.

The location and extent of jurisdictional waters and wetlands were reevaluated and identified by EMH&T in a report in 2013. It appears that a Prior-Converted wetland within the agricultural field has formed and a second wetland, previously delineated in 2000, has also expanded into the development footprint (Exhibit 6). We are now referring to these areas as Isolated Wetland A and Isolated Wetland B. The remaining wetland complex in the woodlot and the stream are unchanged. The delineation report has been provided to the Ohio EPA under a separate cover. The report was submitted to the USACE for verification and is currently in review. Once finalized, a copy of the USACE JD letter for the site will be forwarded to the Ohio EPA.
The location and extent of potential waters identified during the delineation review in both 2000 and 2013 are shown on Exhibit 6 and summarized in Table 2. The wetland boundaries and stream centerline were surveyed by EMH&T using traditional survey methods. Photographs of the 2013 delineated features are included in the Photographs section of this report.

**TABLE 2**
Extent of Identified On-site Surface Water Features

<table>
<thead>
<tr>
<th>Name</th>
<th>Classification</th>
<th>Length of Jurisdictional Stream (linear feet)</th>
<th>Jurisdictional Stream Area (acres)</th>
<th>Isolated Wetland Area (acres)</th>
<th>Jurisdictional Wetland Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolated Wetland A</td>
<td>Herbaceous/Open Water</td>
<td>-</td>
<td>-</td>
<td>2.10</td>
<td>-</td>
</tr>
<tr>
<td>Isolated Wetland B* (Formerly Area B*)</td>
<td>Herbaceous/Open Water</td>
<td>-</td>
<td>-</td>
<td>0.56</td>
<td>-</td>
</tr>
<tr>
<td>Wetland C (Formerly Area A)</td>
<td>Forested</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.13</td>
</tr>
<tr>
<td>Stream 1 (Formerly Drainageway 1)</td>
<td>Ephemeral</td>
<td>1,340</td>
<td>0.10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Site Total</strong></td>
<td></td>
<td>1,340</td>
<td>0.10</td>
<td>2.66</td>
<td>3.13</td>
</tr>
</tbody>
</table>

* In 2000 Area B was delineated as a 0.28 acre jurisdictional wetland, which has expanded and is now identified as a 0.56 acre isolated wetland.
4.0 WETLAND AND STREAM HABITAT ASSESSMENT

The Ohio Wetland Rapid Assessment Method (ORAM) version 5.0 was developed by the Ohio EPA for use in determining wetland quality; the following assessment is based upon that method. The ORAM seeks to determine whether wetlands are rated as Category 1, 2 or 3 based on the State of Ohio Wetland Water Quality Standards adopted in 1998. Category 1 represents the lowest quality wetland, Category 2 is a moderate quality wetland and Category 3 is the highest quality wetland. The ORAM asks a series of questions regarding wetland functions and characteristics and scores each wetland based on the answers provided.

Table 3 provides a summary of the ORAM scoring for Isolated Wetland A, Isolated Wetland B, and Wetland C on the site. Copies of the ORAM forms are located in Appendix C.

<table>
<thead>
<tr>
<th>Name</th>
<th>Score</th>
<th>Category</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolated Wetland A</td>
<td>25</td>
<td>1</td>
<td>Scored in the low range due to very narrow buffers, a recovering hydrological regime, a recovering substrate and habitat, and few vegetation communities.</td>
</tr>
<tr>
<td>Isolated Wetland B</td>
<td>26</td>
<td>1</td>
<td>Scored in the low range due to narrow buffers, a recovering hydrological regime, a recovering substrate and habitat, and few vegetation communities.</td>
</tr>
<tr>
<td>Wetland C</td>
<td>68</td>
<td>3</td>
<td>Scored in the high range due to medium buffers, low surrounding land use, a natural hydrological regime, a natural substrate and habitat, and a mature forested vegetation community.</td>
</tr>
</tbody>
</table>

5.0 REQUIRED AUTHORIZATION & AGENCY COORDINATION

The USACE exercises regulatory authority under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344) for certain activities within “Waters of the United States”. These waters include all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce. The USACE determines whether a wetland is a “Water of the United States”. The United States Supreme Court issued a decision in January 2001 which stated that isolated wetlands are not “Waters of the United States.” In July 2001, Ohio House Bill 231 was enacted into law. This bill states that isolated wetlands are to be regulated by the Ohio EPA as State waters. Accordingly, the client submits this Level 2 Isolated Wetlands Permit Application.

6.0 PROPOSED PROJECT DESCRIPTION

The client is proposing to expand the development of a residential community. As of the date of this document, Sections 1 and 2 of the residential community are developed and sold out; therefore, the client is looking to expand into Section 3 of the development. Sections 4 and 5 are not currently built, but will be constructed in
the future. The proposed site will include internal roadways that will provide access to 45 newly constructed residential homes. Construction of the community will require grading and earth movement on the site. Isolated Wetland A and a portion of Isolated Wetland B (2.29 acres total) lie within the footprint of the proposed housing development and cannot be avoided. The current site plan has been approved by the local municipality and engineered. Changes to the site plan would cause a substantial delay and cost increase for the applicant. Isolated Wetland A is located on the western portion of proposed development and will be filled to support internal roadways and residential homes. Isolated Wetland B is located on the northwestern portion of the property and will be partially filled for the construction of residential homes. Exhibit 6 presents the proposed site layout and wetland impacts.

A total of 2.29 acres of isolated, emergent wetlands will be impacted for the proposed project. No impacts to jurisdictional waters, including streams and jurisdictional wetlands, will occur. Table 4 summarizes proposed isolated wetland impacts on the site.

### TABLE 4
Proposed Isolated Wetland Impacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Total Isolated Wetland Area (acres)</th>
<th>Proposed Wetland Impacts (acres)</th>
<th>Wetlands Preserved (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolated Wetland A</td>
<td>2.10</td>
<td>2.10</td>
<td>0</td>
</tr>
<tr>
<td>Isolated Wetland B</td>
<td>0.56</td>
<td>0.19</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>Site Total</strong></td>
<td><strong>2.66</strong></td>
<td><strong>2.29</strong></td>
<td><strong>0.37</strong></td>
</tr>
</tbody>
</table>
7.0 LEVEL TWO ISOLATED WETLAND PERMIT INFORMATION

The sequence of the information provided below follows the format of the Application for Individual Isolated Wetland Permit (Level Two Review), and the numbers preceding the heading titles correspond with those on the application form.

7.1 Analysis of On-Site Alternatives

Preferred Design Alternative

The client is proposing to expand the development of a residential community in Licking County, Ohio. The northeastern portion of the property has already been developed into residential homes. During the site analysis, two development alternatives were studied. The two potential site alternatives were the only two that were feasible to support the footprint on the property. In the Preferred Alternative, shown in Exhibit 6, the proposed residential development includes 45 newly constructed homes and their associated internal roadways. Although the majority of the property is upland, Isolated Wetland A (2.10 acre) and a portion of Isolated Wetland B (0.19 acre) would be impacted by this layout. This site alternative would have a total of 2.29 acres of Category 1, isolated wetland impacts. Proposed wetland fills can be attributed to necessary site grading and the development of residential homes. The location of these features makes it impossible to avoid impacts to these wetlands and execute the construction of the entire residential community.

The client purchased this property from another housing development company, who started the project in 2000. The initial company built some houses and internal roadways on the property. After the client purchased the property, they began to design and develop the remaining residential community according to their needs. Isolated Wetlands A and B were not present when Section 3 was originally designed. These features have developed over time in an abandoned farm field due to the lack of maintenance and disruption of drain tiles by grading activities. The project was expanded to include additional lots by developing the property to the edge of a woodlot in the northwest corner of the site. The woodlot was avoided and preserved due to it containing a high quality, jurisdictional wetland (Wetland C). Ultimately, this alternative was selected in order to efficiently utilize the parcel and maximize developable space on the property.

Alternative 1

Alternative 1, shown in Exhibit 7, is based upon the Preferred Design, with the exception being the preservation of Isolated Wetland B near the northern property boundary. This represents an avoidance of 0.19 acres of Category 1, isolated wetland compared to the Preferred Design Alternative. The preservation of this herbaceous, isolated wetland alters the proposed residential development by changing the location of two homes. The two homes impacting Isolated Wetland B in the Preferred Design would be moved to the opposite side of the cul-de-sac. A woodlot is currently in this area. This alternative would still impact Isolated Wetland A (2.10 acre) for the newly developed homes. A total of 2.10 acres of Category 1, isolated wetlands would be filled for this alternative, which is 0.19 acres less than the Preferred Design Alternative.

In order to completely avoid Isolated Wetland B (0.56 acre), the proposed layout for the development was altered. Avoiding Isolated Wetland B causes the site to be underutilized. Reducing the overall size of two lots by moving them makes them less marketable and makes the overall development less profitable. The moved lots would also require tree clearing and reduce the 11.4 acre buffer surrounding Wetland C, a preserved Category 3 wetland. Additionally, moving the lots would force the applicant to revise the preliminary plat.
and resubmit the plan to Licking County for approval. Section 3 has been approved by Licking County and the final engineering has been finished. Section 3 is ready to construct, while neither Sections 4 or 5 have been approved or engineered. Preserving Wetland B would cause a 6 to 8 month revision process as well as the expense to revise the engineering plans. This delay would likely shut the development down until they could begin building homes again. There are currently few unsold houses in Sections 1 and 2. This Alternative is not economically feasible for the applicant due to the potential costs and delays to the project timeline.

7.2 Avoidance of High Quality Waters

Onsite isolated wetlands were evaluated by EMH&T using the ORAM 5.0 method. The habitat scores for the wetlands on the site were presented in Section 4.0. Isolated Wetland A received an ORAM score of 25, characterizing it as a Category 1 wetland, which indicates low quality wetland habitat. An ORAM score of 26 was assigned to Isolated Wetland B, characterizing it as a Category 1 wetland. Neither feature represents a high quality water. The Preferred Alternative will avoid Wetland C, a jurisdictional wetland. An ORAM score of 68 was assigned to Wetland C, characterizing it as a Category 3 wetland, which indicates high quality wetland habitat.

Wetlands A and B are isolated, meaning they do not have a direct surface water connection to the downstream watershed. The site is located on the divide between the Licking River (HUC 05040006) watershed and the Upper Scioto River (HUC 05060001). Stream 1 and Wetland C connect to an unnamed tributary, which connects to South Fork Licking River. Wetlands A and B on the site have no direct connection to these waters and as such impacts to the wetlands will not significantly impact the South Fork Licking River watershed. As noted above, the Preferred Alternative avoids impacts to Stream 1 that runs through the eastern portion of the site as well as Wetland C located in the northwest corner of the site. Additionally, Stream 1 was avoided by development activities. A 3-sided span was installed at the one road crossing over this stream. The remainder of it was avoided by grading within a 150 foot wide riparian buffer.

Wetland C, a Category 3 wetland, is the only high quality feature on the site. It is being avoided and preserved within a 11.4 acre buffer zone. This jurisdictional wetland will continue to provide its current functions to the South Fork Licking River watershed. Based on its current quality and size (3.13 acres) it is likely benefitting water quality and aquatic life downstream. It may also be providing important habitat to plants and organisms in the project area.

7.3 Avoided Wetland Buffer Zones

Minimization of impacts to buffer zones is one of the many considerations taken into account when planning a site’s development. The Preferred Alternative proposes the preservation of a total of 11.4 acres of wooded area in the northwest corner of the property. This area will remain unaffected by construction, and therefore will remain intact. All of Wetland C (3.13 acres) and 0.37 acre of Isolated Wetland B are included in this area and will be preserved within the 11.4 acre forested buffer. Stream 1 and its respective buffer will be completely avoided at the site and will continue to remain unaffected by construction.

7.4 Potentially Regionally and Locally Scarce Wetlands

The wetlands to be impacted on the site include two Category 1, isolated wetlands. It is true that agriculture and mining from the 1780s to the present have greatly reduced the amount of wetland acreage found in Ohio when compared to pre-settlement. However, relative to the later part of the 20th century, low quality, isolated
wetlands are common throughout Ohio and the Midwest; therefore, this resource should not, for the purposes of the requested permit, be considered scarce to the region or state. As previously discussed, the wetlands on this site are not high quality waters and, as discussed below, do not have potential to provide critical habitat for any federal or state listed endangered species. Since Isolated Wetland A formed in an abandoned agricultural field, its potential to harbor plant or animal diversity critical to the region is greatly reduced. This claim is supported by the type of vegetation observed in this area: early succession, common wetland vegetation. The surrounding upland was old field dominated by a few common herbaceous upland species. Isolated Wetland B is located along the edge of the woodlot and there are early successional and invasive species impeding on the eastern portion of the wetland. The isolated wetlands on the site lacked diversity, as they were all dominated by the same types of wetland plants.

7.5 Potential Impacts To Rare, Threatened or Endangered Species

Federally Listed Threatened or Endangered Species

On April 9, 2013 EMH&T completed an on-line request and reviewed the U.S. Fish and Wildlife Service’s (USFWS) Section 7 Consultation list of species and critical habitat that “may be present” within the project area. There are two species indicated for Licking County: Indiana bat (Myotis sodalis)—endangered; and Eastern massasauga (Sistrurus catenatus)—candidate.

According to Clark, B. K., et. al. (1987), the Indiana bat is found in Ohio during summer months through September. Preferred habitat includes large living or dead trees with large cavities, cracks or exfoliated bark. Tree species, including American elm (Ulmus americana), slippery elm (U. rubra), post oak (Quercus stellata), red oak (Q. rubra), shagbark hickory (Carya ovata), bitternut hickory (C. cordiformis), Eastern cottonwood (Populus deltoides), silver maple (Acer saccharinum) and green ash (Fraxinus pennsylvanica) have been documented as used by reproductively active females in Michigan (Kurta, et. al., 1993). There was some clearing of trees over this past winter on the site. No additional trees will be impacted by construction as no trees are currently located within the section of development; therefore, the proposed project would not likely impact this species.

According to the USFWS Endangered Species Factsheet, the Eastern massasauga can be found in shallow wetlands and adjacent uplands. Isolated Wetland A and B are low quality wetland habitat and Isolated Wetland A is a deep wetland with large open water components. Due to the lack of high quality isolated wetlands on site, the proposed project is not likely to adversely affect the Eastern massasauga.

State Listed Rare and Endangered Species

The Ohio Department of Natural Resources (ODNR) was contacted for information available concerning the presence of state listed endangered, threatened, and proposed species or their habitat for the site. A request was made to provide information through a formal search of the Ohio Biodiversity Database. In a letter dated 2013, ODNR stated “the Division of Wildlife has no records of rare or endangered species in the project area, including a one mile radius in Licking County, Ohio. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, parks or forests or other protected natural areas within a one mile radius of the project area”. A copy of the response is included as Appendix D.

7.6 Potential Impacts to the Aquatic Ecosystem
Preferred Design

The proposed project impacts a total of 2.29 acres of emergent, Category 1, isolated wetlands. As previously discussed, it is not expected that the loss of these wetlands will have any measurable effect on the aquatic ecosystem as the wetlands are low quality habitat and are not critical to any threatened or endangered species. Furthermore, these wetlands are isolated, meaning they have no direct connection to other surface waters and would not have a substantial influence on surface water. Wetland C, a jurisdictional wetland, is located within the preserved wooded area in the northwestern corner of the property. Stream 1 runs near the eastern property boundary. All project construction and development will avoid impacting Wetland C and Stream 1, so there is no anticipated degradation to aquatic ecosystems. The implementation of the project is not expected to alter the aquatic life use designation of Stream 1 or other surface waters. No impact is expected to rare, threatened or endangered plants and animals or to sport or recreational fishes as none are known to be present within the site boundaries or vicinity.

Alternative 1

The magnitude of lowering of water quality through the development of the property under this alternative design would be similar to that found through the implementation of the Preferred Design plan. Waterway impacts would be identical, except that one isolated, Category 1 wetland totaling 0.56 acre would be avoided. No impact is expected to rare, threatened or endangered plants and animals or to sport or recreational fishes as none are known to be present within the site boundaries or vicinity.

7.7 Stormwater Plan and Water Quality Improvements

Water pollution control measures and best management practices (BMPs) would be implemented during all construction phases of the project. These may include, but are not limited to sediment fencing along the edge of work limits, inlet protection at all catch basins, grated manholes, curb and gutter inlets, stabilized construction road entrances, and temporary sediment basins or dams. Temporary stormwater detention areas will be used as sediment catch basins during project construction.

The applicant will apply for general stormwater permit coverage in compliance with national stormwater permit regulations of the overall development project. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and held on site for the Ohio EPA. All SWPPP measures will be implemented and the applicant will comply with the general permit for stormwater discharges and any other applicable storm water regulations, including those required by the Licking County Engineer’s Office, Southwest Licking Community Sewer and Water District, and Etna Township.

Stormwater runoff will be directed into post-construction stormwater basins for water quality treatment and temporary storage before being released into streams. Post-construction site runoff will meet the requirements of the state and local authorities. The stormwater features will be designed using the most current technology to control non-point source pollution.
8.0 PROPOSED MITIGATION PLAN

Preferred Design

In order to proceed with the proposed development plan, authorization for the fill of 2.29 acres of Category 1, isolated wetland is requested. Given that the requested impacts are to Category 1, isolated wetlands, off-site mitigation at a wetland bank within the Huntington District’s Ohio boundary is appropriate. Compensatory mitigation is proposed to take place at the Mitigation Bank in Ohio, operated by Wetlands Resource Center. In order to mitigate for the loss of 2.29 acres of emergent, Category 1 isolated wetland, 4.6 acre of wetland credit will be purchased from the bank. This represents a 2:1 mitigation ratio for off-site wetland mitigation. Wetland Resource Center currently does not have credits available; however, they expect credits to be released within a few months. The applicant has reserved 4.6 acres of credits in anticipation of a release prior to issuance of the Isolated Wetland Permit. The agreement between Wetlands Resource Center and the client is presented in Appendix E.

Alternative 1

The impacts of Alternative 1 to Waters of the United States includes 2.10 acres of isolated, Category 1 wetlands. Mitigation for impacts is as proposed under the Preferred Design, with a lower amount of wetland mitigation credit from the Mitigation Bank. Only 4.2 acres of credit would be purchased to replace the wetlands proposed to be impacted at a 2:1 ratio.

9.0 CONCLUSIONS

On behalf of the client, a permit application requesting authorization for impacts to two Category 1, isolated wetlands on the site has been prepared by EMH&T. This document provides information to address permit application requirements for a Level Two Isolated Wetland Permit.

A total of 2.29 acres of isolated wetlands are proposed to be filled to build residential homes and associated internal roadways. Isolated wetland impacts will be mitigated through the purchase of 4.6 acres of wetland credit at the Wetland Mitigation Bank operated by Wetlands Resource Center. Sediment and stormwater will be detained and treated on the site within detention basins.
10.0 CITATIONS


Kirk, Scott. 2013. *Monthly Water Inventory Report for Ohio.* Published by the Ohio Department of Natural Resources, Division of Soil and Water Resources, 2045 Morse Road, Columbus, Ohio 43229.


