



A legacy of experience. A reputation for excellence.

5.5.2 Alternative #2
5.5.3 Alternative #3
5.6 Economic Considerations (1.6).....21
5.6.1 Alternative #1
5.6.2 Alternative #2
5.6.3 Alternative #3
5.7 Cumulative Impact (1.7).....22
5.8 Indirect Impacts (1.8)..... 2423
5.9 Construction Storm Water Management Plans (1.9)24
5.10 Post-Construction Stormwater Management Plans (1.10)..... 2524
Attachment 5: Social and Economic Justification (SEJ) Table

6.0 PROJECT MAPPING26
6.1 Existing Conditions26
6.1.1 Site Location and Vicinity
6.1.2 Topographic Features
6.1.3 Mapped Soils
6.1.4 Hydrologic Conditions
6.1.5 Surface Water Resources
6.2 Alternatives Analysis Mapping.....27
Attachment 6: Exhibits
Exhibit 1 – Area Location Map
Exhibit 2 – Vicinity Map
Exhibit 3 – USGS Topographic Map
Exhibit 4A – Franklin/Licking County Soil Survey Map (2014, 2013)
Exhibit 4B – Franklin/Licking County Soil Survey Map (1980, 1992)
Exhibit 5 – Flood Insurance Rate Map
Exhibit 6 – National Wetland Inventory Map
Exhibit 7 – Surface Water Resources Map
Exhibit 8 – Alternative #1 (Sheet 1 of 2 and Sheet 2 of 2)
Exhibit 9 – Alternative #2
Exhibit 10 – Alternative #3
Exhibit 11 – Offsite Stream Mitigation

7.0 PROPOSED MITIGATION AND MONITORING PLAN28
7.1 Overview of Proposed Mitigation.....28
7.1.1 Alternative #1
7.1.2 Alternative #2
7.2 Wetland Mitigation Bank..... 3133
7.3 In-Lieu Fee Mitigation..... 3133
7.4 Permittee-Responsible Mitigation..... 3234
7.5 Protection in Perpetuity 3234

8.0 CITATIONS 3335



A legacy of **experience**. A reputation for **excellence**.

TABLES

TABLE 1 Onsite Surface Water Features Summary3

TABLE 2 Wetland ORAM Summary.....5

TABLE 3 Determination of Existing Stream Use Summary7

TABLE 4 Proposed Impacts to Jurisdictional Surface Waters for Alternative #1 15

TABLE 5 Proposed Impacts to Jurisdictional Surface Waters for Alternative #2 16

TABLE 6 Mapped Onsite Soils..... 26

TABLE 7 Alternative #1 Wetland Impacts and Required Off-Site Mitigation..... 28

[TABLE 8 Estimate of Proposed Preservation Mitigation Credit..... 29](#)

[TABLE 9 Calculation of Proposed Mitigation Ratio for Alternative #1 30](#)

TABLE [10](#) Alternative #1 Stream Impacts and Proposed Mitigation [31](#)

TABLE [11](#) Alternative #2 Wetland Impacts and Required Off-Site Mitigation.....[32](#)

[TABLE 12 Calculation of Proposed Mitigation Ratio for Alternative #2..... 32](#)

TABLE [13](#) Alternative #2 Stream Impacts and Proposed Mitigation [33](#)

ADDENDUM A: Section 404 Addendum



2.0 SUMMARY OF IMPACTS

EMH&T has prepared this document in accordance with a request by MBJ Holdings, LLC for Section 401 Water Quality Certification from the Ohio EPA and Section 404 authorization from the USACE for impacts to Waters of the United States in association with the Harrison Road East Development. The proposed development is located east of Harrison Road, south of Jug Street, west of Mink Street, and north of State Route 161 in Jersey Township, Licking County, Ohio, as shown on Exhibit 1 (Section 6). MBJ Holdings, LLC is seeking authorization from the Ohio EPA and the USACE to construct the proposed Preferred Design (Alternative #1)

The proposed development site has 3,429 linear feet of perennial stream, 4,980~~1,551~~ linear feet of intermittent stream, 3,000 linear feet of ephemeral stream, and 12.67 acres of jurisdictional wetlands, as shown on Exhibit 7 (Section 6). The proposed impacts, based on Alternative #1, the Preferred Design (Exhibit 8 in Section 6), include 222 linear feet of perennial stream, 853~~631~~ linear feet of intermittent stream, 1,989 linear feet of ephemeral stream, and 2.66~~3.16~~ acres of Category 1 and 2 jurisdictional wetlands. Based on Alternative #2, the Minimal Degradation Alternative (Exhibit 9 in Section 6), the proposed impacts include 222 linear feet of perennial stream, 469~~247~~ linear feet of intermittent stream, 1,497 linear feet of ephemeral stream, and 1.5~~2.0~~ acres of Category 1 and 2 jurisdictional wetlands. These impacts are summarized on the Proposed Impacts Tables (Attachments 2A and 2B).

For Alternative #1, the proposed mitigation will include the preservation of approximately 4,937 linear feet of stream onsite and 1,987 linear feet of stream offsite. The proposed mitigation will also include purchase of 6.7~~7.2~~ acres of wetland mitigation credits from the Stream + Wetlands Foundation Huntington District In-Lieu Fee Program and onsite preservation of 1.0 acre of forested Category 3 wetland and 1.0 acre of associated non-wetland buffer. The proposed mitigation is further discussed in Section 7.

Alternative #1 is feasible, cost effective and a desirable alternative for onsite development. By implementing the Preferred Design, numerous social and economic benefits would be gained by the City of New Albany, Licking County and the State of Ohio. Some environmental benefits would be lost during the construction of the proposed development, but with the implementation of the proposed mitigation techniques, environmental benefits would also be gained via the preservation of high quality streams and wetlands on the site.



TABLE 1, continued
Onsite Surface Water Features Summary

Feature ID	Classification	Jurisdictional Streams		Jurisdictional Wetland Area (acres)	Isolated Wetland Area (acres)
Streams					
Stream 1	Intermittent	1,551	0.26	--	--
Stream 2	Ephemeral	665	0.04	--	--
Stream 3	Ephemeral	766	0.05	--	--
Stream 4	Ephemeral	385	0.04	--	--
Stream 5	Intermittent Perennial	3,429	0.49	--	--
Stream 6	Ephemeral	607	0.04	--	--
Stream 7	Ephemeral	432	0.03	--	--
Stream 8	Ephemeral	145	0.01	--	--
Streams Total	--	7,980	0.96	--	--

3.2 Wetlands Assessment

There are 12 wetlands located on the site. The wetlands total 18.67 acres and include six (6) jurisdictional wetlands (12.67 acres) and six (6) isolated wetlands (6.00 acres). The Ohio Rapid Assessment Method (ORAM), as presented in the *Ohio Rapid Assessment Method for Wetlands v. 5.0* (Mack, 2001) was used to determine the appropriate category for each wetland under the Wetland Antidegradation Rule, Ohio Administrative Code (OAC) 3745-1-54. The ORAM assigns a score to a wetland based on a series of answers to questions dealing with wetland functions and features. The score is used to classify the wetland as Category 1, 2 or 3, which corresponds with low, general and high quality, respectively.

The results of the ORAM assessment are summarized in Table 2. Further discussion of each of the jurisdictional wetlands to be impacted (Wetlands B, C, G and M) is provided below. The ORAM data forms are included in the surface water delineation and addenda (Attachment 3A).



the HMFEL score, which may then be used to assign an appropriate PHWH stream classification. These classes include Class I PHWH (HMFEL Score < 7), Class II PHWH (HMFEL Score 7-19) and Class III PHWH (HMFEL Score ≥ 20). As with the HHEI, the HMFEL cannot be used to establish existing aquatic life use per OAC 3745-1-07; however, it provides a qualitative evaluation of the benthic macroinvertebrate community to inform the determination of the provisional ALU.

3.3.3 Qualitative Habitat Evaluation Index

The QHEI methodology was developed by Ohio EPA to evaluate streams with watersheds greater than one square mile, or streams where the predominant natural pools are greater than 40 cm in depth, regardless of watershed size. QHEI scoring is based on substrate types, in-stream cover, channel morphology, riparian quality and bank erosion, pool/glide and riffle/run quality, and gradient. These metrics reflect stream habitat features that are correlated with the potential to attain the aquatic life use designation for Ohio streams. The QHEI cannot be solely used to establish existing aquatic life uses per OAC 3745-1-07. However, a QHEI score greater than 60 is generally a good indication that the stream has sufficient habitat diversity to sustain fish and macroinvertebrate populations indicative of WWH.

3.3.3 Results of Stream Assessment

EMH&T completed the stream habitat assessments in conjunction with the surface water delineations. Based on their watershed size and pool depths, the HHEI was completed for Streams 1, 2, 3, 4, 6, 7 and 8. A previously completed HMFEL assessment was used to supplement the HHEI score obtained for Stream 1. The QHEI was used to evaluate Stream 5. The datasheets for these evaluations are attached at the end of this section (Attachment 3C) and a summary of the scores and aquatic life use determinations is provided in Table 3. The results of the habitat assessment for each of the streams are discussed below.

TABLE 3
Determination of Existing Stream Use Summary

Stream ID	Flow Regime	QHEI	HHEI	HMFEL	PHWH Class	ALU
Stream 1	Intermittent	--	61	16	Class II	LRW
Stream 2	Ephemeral	--	18	--	Class I	LRW
Stream 3	Ephemeral	--	29	--	Class I	LRW
Stream 4	Ephemeral	--	49	--	Class II	LRW
Stream 5	Intermittent Perennial	68	--	--	--	WWH
Stream 6	Ephemeral	--	34	--	Class II	LRW
Stream 7	Ephemeral	--	24	--	Class I	LRW
Stream 8	Ephemeral	--	30	--	Class II	LRW

Stream 1: Stream 1 originates at a drain tile on the site and has a drainage area of approximately 0.25 square mile. It was observed to be a 2.2-meter (7-foot) wide intermittent channel with a maximum pool depth of approximately 8 inches. The dominant substrate types observed were silt and leaf pack, with lesser amounts of clay, gravel and cobble. The stream was observed to be recovering from previous agricultural impacts,

of a “spring” type aquatic habitat. However, it was observed in the field that Stream 4 originates from a drain tile, not an underground spring. Accordingly, it is not a rheocrene habitat and was classified as Class II PHWH. Due to its small size, ephemeral flow regime and lack of fish, it was determined that Stream 4 is likely incapable of supporting and maintaining “a balanced, integrated, adaptive community of warmwater aquatic organisms.” Accordingly, Stream 4 was assigned a provisional ALU designation of LRW (per OAC 3745-1-07).

Stream 5 (South Fork Licking River): Stream 5 flows southwest across the southern extent of the project site. At the downstream project boundary, it has a watershed area of 1.13 square miles. It was observed to be a 2.5-meter (8-foot) wide ~~intermittent~~ perennial channel with a maximum pool depth of 16 inches. The dominant substrate types observed were cobble and gravel, with lesser amounts of boulders, silt, and detritus. A QHEI score of 68 was calculated for the stream, which is indicative of WWH. Moreover, the South Fork Licking River is designated as warmwater habitat per OAC 3745-1-24. Accordingly, the WWH use designation was used for the purposes of this application.

Stream 6: Stream 6 flows north to south into Stream 5. It was observed to be a 1-meter (3-foot) wide ephemeral channel, which was dry at the time of the assessment. The dominant substrate types observed were cobble and leaf pack, with lesser amounts of silt and gravel. An HHEI score of 34 was calculated for the stream, resulting in its classification as Class II PHWH. Due to its small size and ephemeral flow regime, Stream 6 was determined to be incapable of supporting and maintaining “a balanced, integrated, adaptive community of warmwater aquatic organisms,” and thus was assigned a provisional ALU designation of LRW (per OAC 3745-1-07).

Stream 7: Stream 7 flows north to south from an agricultural field into Stream 5. It was observed to be a 1-meter (3-foot) wide ephemeral channel, which was dry at the time of the assessment. The dominant substrate types observed were silt and leaf pack, with lesser amounts of gravel. An HHEI score of 24 was calculated for the stream, resulting in its classification as Class I PHWH. Due to its small size and ephemeral flow regime, Stream 7 was determined to be incapable of supporting and maintaining “a balanced, integrated, adaptive community of warmwater aquatic organisms,” and thus was assigned a provisional ALU designation of LRW (per OAC 3745-1-07).

Stream 8: Stream 8 is the downstream extent of a ditch that originates offsite, flows southwest between an agricultural field and a residential property, onto the project site, and then to Stream 5. It was observed to be a 1-meter (3-foot) wide ephemeral channel with a maximum pool depth of approximately 2 inches. The dominant substrate types observed were silt and leaf pack, with lesser amounts of cobble and gravel. An HHEI score of 30 was calculated for the stream, resulting in its classification as Class II PHWH. Due to its small size, limited pool depths, and ephemeral flow regime, Stream 8 was determined to be incapable of supporting and maintaining “a balanced, integrated, adaptive community of warmwater aquatic organisms,” and thus was assigned a provisional ALU designation of LRW (per OAC 3745-1-07).



A legacy of **experience**. A reputation for **excellence**.

5.0 ANTIDegradation ANALYSIS

An antidegradation analysis is required to be performed as part of a 401 Water Quality Certification application pursuant to Ohio Administrative Code 3745-1-05. This analysis includes a discussion of three (3) alternative project proposals referred to as Alternative #1 (Preferred), Alternative #2 (Minimal Degradation) and Alternative #3 (Non-Degradation), as provided below.

Each alternative includes a discussion of the expected magnitude of the lowering of water quality associated with each scenario. As required by the antidegradation rule, the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife and the overall aquatic community structure and function is included. In addition, mitigative techniques are also discussed.

The sequence of the alternatives analysis discussion follows the format of the Ohio EPA Section 401 Water Quality Certification Application Completion and Submittal Instructions (rev. 7/2014) and the numbers following the heading titles correspond with those indicated under Item 5 – Section 1 of the submittal instructions. As mentioned previously, additional information requested by the USACE that is specific to the request for 404 permit authorization is provided in the “Section 404 Addendum” (Addendum A).

5.1 Project Description (1.1)

MBJ Holdings, LLC is proposing to construct a large commercial office/warehouse complex, including office and warehouse buildings, parking areas, trailer storage and loading dock areas. The proposed development is planned to be built on approximately 288-acres of land located southeast of the intersection of Harrison Road and Jug Street in Jersey Township, Licking County, Ohio. The construction of the proposed commercial office/warehouse facility will add much needed development space that combines office and warehouse facilities specifically designed for highly specialized tenants. The project site would be annexed into the City of New Albany, Ohio.

5.1.1 Alternative #1

Alternative #1, the Preferred Design, is shown on Exhibit 8 (Section 6). The Preferred Design provides for the development of a commercial office and warehouse complex consisting of 20 buildings totaling approximately 2.4 million square feet. The proposed commercial office and warehouse development would include installation of necessary infrastructure, including parking lots, stormwater basins, utility infrastructure and internal roadway construction, within the proposed development footprint.

Jurisdictional impacts associated with the Preferred Design include 2,812 linear feet of jurisdictional stream impacts and ~~2.66~~3.16 acres of jurisdictional wetland impacts; ~~an additional 0.5 acre of jurisdictional wetland impacts were previously permitted via a Nationwide Permit.~~ The 2,812 linear feet of jurisdictional stream impacts include 222 linear feet of perennial stream, 853 631 linear feet of intermittent stream and 1,959 linear feet of ephemeral stream. The ~~2.66~~3.16 acres of wetland impacts include 0.04 acre of Category 1, emergent wetlands and ~~2.62~~3.12 acres of Category 2, forested wetlands.



The stream and wetland impacts include grading and fill associated with construction of the proposed office and warehouse buildings and parking lots, as well as culverts on Stream 1 and Stream 5 in order to construct the roadway between Harrison Road and Mink Street. The specific activities impacting each water resource are listed below and the impacts are quantified in Table 4.

- Stream 1: Placement of fill and grading to accommodate the parking and stormwater facilities for Buildings 10, 11 and 13, as well as installation of a culvert for the primary entrance road between Harrison Road and Mink Street.
- Stream 3: Placement of fill and grading for the parking and stormwater facilities of Buildings 9 and 12, as well as the primary roadway between Harrison Road and Mink Street.
- Stream 4: Placement of fill and grading to accommodate the parking and stormwater facilities for Buildings 10 and 11.
- Stream 5: Installation of a culvert for the primary roadway between Harrison Road and Mink Street.
- Stream 6: Placement of fill and grading to accommodate the parking and stormwater facilities for Building 17.
- Stream 7: Placement of fill and grading to allow for the construction of Building 16 and its associated parking.
- Wetland B: Placement of fill and grading to allow for construction of the roadway between Harrison Road and Mink Street, as well as the Building 13 parking lot.
- Wetland C: Placement of fill and grading to allow for construction of the roadway between Harrison Road and Mink Street, as well as the parking lots and stormwater facilities associated with Buildings 4, 9 and 12.
- Wetland G: Placement of fill to accommodate the stormwater basin for Building 10 and grading associated with a secondary roadway.
- Wetland M: Placement of fill and grading to accommodate the parking and stormwater basin for Building 20.

Total fill generated from grading of the surface water features during construction of the Preferred Design is estimated to be approximately ~~4,596~~5,683 cubic yards. This includes approximately 260 linear feet of culvert (280 cubic yards) and approximately 305 cubic yards of earthen fill placed in the streams, as well as approximately ~~4,291~~5,098 cubic yards of earthen fill placed in the wetlands.



TABLE 4
Proposed Impacts to Jurisdictional Surface Waters for Alternative #1

a. Wetlands

Wetland ID	Type	ORAM/Category	Area On-site (ac)	Impacted Area (ac)	Impact Type	Volume of Impact (cy)	% Avoided
Wetland A	Forested	71.5 / 3	2.73	--	--	--	100%
Wetland B	Forested	44 / 2	0.54	0.54	Fill	871	0%
Wetland C	Forested	56 / 2	2.55	2.05 2.55	Fill	3,307 4,114	0%*
Wetland G	Forested	33 / 2	0.03	0.03	Fill	48	0%
Wetland I	Forested	63.5 / 1	6.77	--	--	--	100%
Wetland M	Emergent	27 / 1	0.05	0.04	Fill	65	25% 20%
Total	--	--	12.67	2.663.16	--	4,2915,098	79%75%

b. Streams

Stream ID	Type	ALU	Length On-site (lf)	Impacted Length (lf)	Impact Type	Volume of Impact (cy)	% Avoided
Stream 1	Intermittent	LRW	1,551	631	Fill/Culvert	217	59%
Stream 2	Ephemeral	LRW	665	--	--	--	100%
Stream 3	Ephemeral	LRW	766	635	Fill	35	17%
Stream 4	Ephemeral	LRW	385	385	Fill	32	0%
Stream 5	Intermittent Perennial	WWH	3,429	222	Fill/Culvert	248	94%
Stream 6	Ephemeral	LRW	607	556	Fill	31	8%
Stream 7	Ephemeral	LRW	432	383	Fill	21	11%
Stream 8	Ephemeral	LRW	145	--	--	--	100%
Total	--	--	7,980	2,812	--	305584	65%

5.1.2 Alternative #2

Alternative #2, the Minimal Degradation Alternative, is shown on Exhibit 9 (Section 6). This alternative is based upon Alternative #1 with a few differences. By eliminating Building 13 and reducing the size of Buildings 9 and 12, impacts to Wetlands B and C have been reduced by 1.16 acres and impacts to Streams 1 and 3 have been reduced by 846 linear feet. The surface water impacts for the Minimal Degradation Alternative are shown in Table 5.

Implementation of the Minimal Degradation Alternative would result in the loss of one (1) proposed building and approximately 147,300 square feet of useable office/warehouse space, as compared with the Preferred Design.

Total fill generated from grading of the surface water features during construction Alternative #2 is estimated to be approximately ~~2,487~~3,573 cubic yards. This includes approximately 260 linear feet of culvert (280 cubic yards) and approximately 180 cubic yards of earthen fill placed in the streams, as well as approximately ~~2,307~~3,114 cubic yards of earthen fill placed in the wetlands.



A legacy of experience. A reputation for excellence.

TABLE 5
Proposed Impacts to Jurisdictional Surface Waters for Alternative #2

a. Wetlands

Wetland ID	Type	ORAM/ Category	Area On-site (ac)	Impacted Area (ac)	Impact Type	Volume of Impact (cy)	% Avoided
Wetland A	Forested	71.5 / 3	2.73	--	--	--	100%
Wetland B	Forested	44 / 2	0.54	0.33	Fill	532	39%
Wetland C	Forested	56 / 2	2.55	1.10 1.60	Fill	1,775	63% 37%
Wetland G	Forested	33 / 2	0.03	0.03	Fill	48	0%
Wetland I	Forested	63.5 / 1	6.77	--	--	--	100%
Wetland M	Emergent	27 / 1	0.05	0.04	Fill	65	25% 20%
Total	--	--	12.67	1.502.00	--	2,3073,114	88%84%

b. Streams

Stream ID	Type	ALU	Length On-site (lf)	Impacted Length (lf)	Impact Type	Volume of Impact (cy)	% Avoided
Stream 1	Intermittent	LRW	1,551	247	Fill/Culvert	117	84%
Stream 2	Ephemeral	LRW	665	--	--	--	100%
Stream 3	Ephemeral	LRW	766	173	Fill	10	77%
Stream 4	Ephemeral	LRW	385	385	Fill	32	0%
Stream 5	Intermittent Perennial	WWH	3,429	222	Fill/Culvert	248	94%
Stream 6	Ephemeral	LRW	607	556	Fill	31	8%
Stream 7	Ephemeral	LRW	432	383	Fill	21	11%
Stream 8	Ephemeral	LRW	145	--	--	--	100%
Total	--	--	7,980	1,966	--	180459	75%

5.1.3 Alternative #3

Alternative #3, the Non-Degradation Alternative, is shown on Exhibit 10 (Section 6). This alternative is based upon the preservation of all the onsite streams and wetlands. The project would be constructed with no impacts to any surface water features as part of the Non-Degradation Alternative. Implementation of the Non-Degradation Alternative would result in the number of office buildings within the development being reduced from 20 to 17 and the useable square foot would be reduced from over 2.4 million square feet to less than 1.7 million square feet, as compared with the Preferred Design.

Zero cubic yards of earthen material would be used to fill onsite surface waters during the construction of the Non-Degradation Alternative.

5.2 Avoidance / Off-Site Alternative (1.2)



MBJ initially explored several sites in the City of New Albany area for the proposed project. There are very few viable options for the proposed office/warehouse complex, because the New Albany area has been developed extensively with both residential house lots, light manufacturing facilities, and corporate office buildings. For the evaluation of off-site alternative sites, EMH&T worked with MBJ to evaluate properties that met certain minimum criteria. These criteria were (1) sites that were within the City of New Albany or could be annexed to New Albany; (2) sites that were at least 200 acres in size; (3) sites with sufficient access to the interstate; (4) sites with available utilities or potential to develop sufficient utilities; and (5) sites that were owned or controlled by a single entity.

Using these criteria, only there are only two sites eligible for consideration, the Harrison Road East site and the Winding Hollow Golf Course site. Winding Hollow is currently slated for development of a corporate office business park and an application has been submitted Clean Water Act Section 404 Authorization and Section 401 Water Quality Certification for that project. Accordingly, there are no other properties available that meet the project criteria within the greater New Albany area. The Harrison Road East site meets all the criteria, providing approximately 288 acres of property with excellent interstate access and developable utilities, which is able to be annexed to New Albany.

5.3 Onsite Avoidance / Minimization (1.3)

MBJ has avoided on-site wetlands and streams to the maximum extent practical. However, it is not practical to avoid all the onsite surface water resources, as they are scattered across the site. Accordingly, MBJ focused on avoiding the most concentrated and highest quality areas on the site. The proposed Preferred Design would avoid the majority of a mature woodlot in the central portion of the site. This woodlot contains the majority of wetlands on the site, and also the highest quality wetlands on the site. The wetlands to be preserved within this woodlot (Wetlands A and I) are both forested Category 3 wetlands. The Minimal Degradation Alternative shows how the project could be made smaller and still meet most of the applicant's needs. The Minimal Degradation Alternative further reduces impacts by avoiding a significant portion of Wetlands B and C, which are forested, Category 2 wetlands. Permitting the Minimal Degradation Alternative sacrifices 147,300 square feet of commercial office and warehouse space, approximately 295 permanent jobs, the associated local tax revenue, and other economic benefits related to the project. Economic considerations related to the project are discussed in more detail in Section 5.6.

5.4 Magnitude of the Proposed Lowering of Water Quality (1.4)

5.4.1 Alternative #1

Stream and Wetland Habitat Impacts: Under Alternative #1, water quality and stream/wetland habitat would be impacted through the permanent loss of 1,959 linear feet of ephemeral stream, ~~853~~631 linear feet of intermittent stream, 222 linear feet of perennial stream and ~~2.66~~3.16 acres of wetlands. Within the approximately 288-acre project area, the 2,812 linear feet of headwater streams to be impacted were classified as ephemeral LRW streams (Stream 3, 4, 6 and 7), intermittent LRW stream (Stream 1), and ~~intermittent~~perennial WWH stream (Stream 5). The wetlands to be permanently impacted on site include 0.04 acre of Category 1 emergent wetland (Wetland M) and ~~2.62~~3.12 acres of Category 2 forested wetland (Wetlands B, C and G). Because the resources on-site are not unique or rare natural systems, the functions and values of the impacted waters can be replaced through the proposed mitigation (see Section 7.1).



Human Health Impacts: Since the surface waters at the site are not used for direct contact recreation or as a direct source of drinking water, no impacts are expected to occur to human health due to the potential implementation of the Preferred Design.

Social and Economic Impacts: No significant, direct loss of jobs is anticipated due to the development of the subject property as it does not support any commercial or industrial economic activity. The project may have an indirect impact on agricultural activities since some areas of the site are currently being actively farmed. No direct or indirect lowering of property values is anticipated due to the construction of the proposed development.

5.4.2 Alternative #2

Construction of the Minimal Degradation Alternative would impact 1,966 linear feet of streams and ~~1.50~~2.0 acres of jurisdictional wetlands. The 1,966 linear feet of stream to be impacted under the Minimal Degradation Alternative includes 1,497 linear feet of ephemeral LRW stream (Streams 3, 4 and 7), 247 linear feet of intermittent LRW stream (Stream 1) and 222 linear feet of ~~intermittent~~perennial WWH stream (Stream 5). The wetland impacts include 0.04 acre of emergent, Category 1 wetland (Wetland M) and ~~1.46~~1.96 acre of forested, Category 2 wetlands (Wetlands B, C and G). In general, the same impacts to biota, recreation, human health, and social/economic activity discussed for the Preferred Design applies to the Minimal Degradation Alternative. The impacts to wetland habitat and aquatic communities would be slightly less under the Minimal Degradation Alternative.

5.4.3 Alternative #3

The Non-Degradation Alternative would not require the filling of any jurisdictional waters, since development would not extend into the onsite stream/wetland areas. Since no work would be performed in jurisdictional waters under the Non-Degradation Alternative, water quality functions and ecosystem benefits provided by the existing water resources would remain essentially the same.

5.5 Technical Feasibility and Cost Effectiveness (1.5)

5.5.1 Alternative #1

The Preferred Design provides for the potential development of approximately 2,407,950 square feet of office and warehouse space, which includes 20 buildings and associated parking, stormwater facilities and roadways throughout the 288-acre project site, and therefore is the most cost-effective alternative as it pertains to the developable use of the site. Based on the economic benefits for the entire project, as discussed in Section 5.6 and outlined in the Social and Economic Justification (SEJ) table in Attachment 6, the Preferred Design maximizes the square footage of office and warehouse space over the entire project site, and therefore is the most cost-effective alternative as it pertains to the developable use of the site.

The Preferred Design is also the most technically feasible design for optimizing land use on the site. The proposed layout of the buildings on this site are somewhat fixed by certain industry standards. The buildings dimensions are based on the size buildings desired by users for commercial office space. The building sizes determine the amount of required parking for each building and required stormwater detention for each building. Another consideration is that the



5.8 Indirect Impacts (1.8)

The Preferred Design would result in the loss of 222 linear feet of perennial stream, 853-631 linear feet of intermittent stream, 1,959 linear feet of ephemeral stream, and 2.663.16 acres of jurisdictional wetlands, including 0.04 acre of emergent, Category 1 wetlands and 2.623.12 acres of forested, Category 2 wetlands. These surface resources would be filled and/or culverted to allow for the development of the proposed office/warehouse complex and roadways. Under the Minimal Degradation Alternative, impacts would be reduced to 222 linear feet of perennial stream, 469-247 linear feet of intermittent stream, 1,497 linear feet of ephemeral stream and 1.52.0 acres of jurisdictional wetlands, including 0.04 acre of emergent, Category 1 wetlands and 1.461.96 acres of forested, Category 2 wetlands. The ecological and hydrological functions of the onsite streams and wetlands would be reduced by the project under both alternatives. However, approximately 9.5 acres of the highest quality wetlands onsite (Wetlands A and I, which are Category 3), along with 3,207 linear feet of the intermittent-perennial WWH onsite (the South Fork Licking River), will be preserved in perpetuity to continue to provide ecological functions.

In regard to off-site impacts, the majority of the areas both upstream and downstream of the site have been previously impacted by agricultural practices and recent commercial site development. Much of the surrounding area has been historically farmed and is comprised of active agricultural fields. To the west of the project is the New Albany Business Park, located along Innovation Campus Court and Smith's Mill Road. South of the project is the State Route 161 corridor. Downstream surface water resources could be potentially indirectly impacted by changes to the onsite surface contours and drainage, reduction of riparian buffers and elimination of wetlands. However, sediment and erosion controls during project construction would protect downstream populations from project-related impacts stemming from in-water activities. Further, extensive care will be taken to maintain the natural hydrology flowing into and out of the high quality wetlands to be preserved on the site.

5.9 Construction Stormwater Management Plans (1.9)

Best Management Practices (BMPs) for sediment and erosion control would be implemented at all times during the construction of any portion of the proposed office and warehouse development. These BMPs include silt fences, sediment traps, temporary and permanent seeding and mulching, construction road stabilization, temporary inlet protection, and retention basins installed for construction and post-construction use. The proposed basins will function as temporary sediment basins during construction and will be converted to permanent basins following construction.

Stormwater permits and Stormwater Pollution Prevention Plans for construction activities will be prepared as needed for site development, following the requirements of the National Pollutant Discharge Elimination Systems program (USEPA, 9/92) and Notices of Intent (NOIs). Appropriate, site-specific Best Management Practices (BMPs) will be included in construction plans to decrease erosion and sedimentation during and after construction of the project site including the placement of sediment fence inside impact areas.

All sediment controls that are utilized will be kept in place during construction activities and will remain until the site has been stabilized. All areas disturbed during construction will be seeded to



7.0 PROPOSED MITIGATION AND MONITORING PLAN

A mitigation and monitoring plan is required for this project as part of the Individual 404 permit review and pursuant to Ohio Administrative Code 3745-1-05. The mitigation discussion that follows describes the mitigation proposal for Alternative #1 (Preferred Design) and Alternative #2 (Minimal Degradation Alternative). A discussion of how the amount of required mitigation was determined is provided for each alternative, along with the overall objectives of the mitigation plan. No mitigation is proposed under Alternative #3, the Non-Degradation Alternative, as direct impacts to jurisdictional waters would not occur.

The sequence of the mitigation discussion below follows the format of the Ohio EPA Section 401 Water Quality Certification Application Completion and Submittal Instructions (rev. 7/2014), as described under Item 7 thereof.

7.1 Overview of Proposed Mitigation

7.1.1 Alternative #1

Under Alternative #1, the proposed jurisdictional impacts include ~~2.663.16~~ acres of wetlands and 2,812 linear feet of ephemeral, ~~and~~ intermittent and perennial stream. MBJ Holdings proposes to mitigate for the wetland impacts by purchasing ~~6.77.2~~ acres of wetland credits from the Stream + Wetlands Foundation Huntington District In-Lieu Fee Program. Stream impacts will be mitigated by preserving 5,194 linear feet of stream both onsite and offsite, along with associated riparian buffers. The components of the proposed mitigation are discussed below.

Wetland Mitigation

Compensatory mitigation is required for the proposed jurisdictional wetland impacts, including ~~2.623.12~~ acres of forested, Category 2 wetlands and 0.04 acre of emergent, Category 1 wetland. This will be accomplished by purchasing ~~6.77.2~~ acres of wetland mitigation credit (~~6.67.1~~ acres forested and 0.1 acre non-forested) from the Stream + Wetland Foundation Huntington District In-Lieu Fee Program (ILFP) and preserving 1.0 acre of Category 3 wetland and 1.0 acre of associated non-wetland buffer on the site.

Based on the required offsite mitigation ratios, per Ohio Administrative Code (OAC) 3745-1-54 and as shown in Table 7, Ohio EPA requires at least ~~6.627.86~~ acres of mitigation, in the form of wetland restoration or creation, for the project impacts. Table 7 lists the mitigation required for the project without considering any onsite preservation. Accordingly, the proposed credits to be purchased from the ILFP exceed the required mitigation. The agreement between Stream + Wetlands Foundation and MBJ is in process and will be provided under separate cover.

TABLE 7
Alternative #1 Wetland Impacts and Required Off-Site Mitigation

Wetland	Classification	ORAM Category	Impact (ac)	Mitigation Ratio	Mitigation Acreage
Wetland B	Forested	2	0.54	2.5:1	1.35
Wetland C	Forested	2	2.05 <u>2.55</u>	2.5:1	5.13 <u>6.38</u>
Wetland G	Forested	2	0.03	2.5:1	0.08



A legacy of experience. A reputation for excellence.

Wetland	Classification	ORAM Category	Impact (ac)	Mitigation Ratio	Mitigation Acreage
Wetland M	Emergent	1	0.04	1.5:1	0.06
Total			2.66 3.16		6.62 7.86

Based strictly on the required mitigation ratios, a total of 7.86 acres of offsite mitigation is required. However, Ohio EPA also encourages the preservation of high quality, avoided wetlands as a component of mitigation. In order to obtain credit for wetland preservation, OAC 3745-1-54 specifies that the wetland to be preserved must be a “category 3 wetland which will be preserved in perpetuity, or the wetland to be preserved is pivotal in protecting a category 3 wetland and both wetlands will be preserved in perpetuity.”

Additionally, OAC 3745-1-54 states that when preservation is a component of acceptable compensatory mitigation, wetland restoration/creation must also be a component of the mitigation and shall result in at least one acre of restored/created wetland for every acre of wetland that is impacted. Wetland preservation must occur at a rate of two acres of preservation for every remaining acre of compensatory wetland mitigation requirement. The wetland preservation requirement can be calculated as follows:

$P = [(LMR - 1) \times 2] \times N$, where
P = minimum number of acres of wetlands required to be preserved;
LMR = left side of mitigation ratio; and
N = number of acres of impacted wetlands.

OAC 3745-1-54 also states that non-wetland buffers adjacent to avoided and preserved Category 3 wetlands may be a component of acceptable compensatory mitigation provided that: (1) the avoided wetlands and buffer are preserved in perpetuity; (2) the non-wetland buffer consists of non-maintained, natural vegetation; and (3) the non-wetland buffers are not considered to fulfill more than 0.5 units of the required mitigation ratio. For example, non-wetland buffers could be used to reduce the mitigation requirement from 2.0:1 to 1.5:1.

As shown on Exhibit 8, there are 9.5 acres of Category 3, forested wetlands (Wetlands A and I) and 9.3 acres of associated non-wetland buffer available for preservation on the site. A portion of this onsite preservation area has been committed as mitigation for the Isolated Wetland Permit previously submitted for this project. Mitigation for the Isolated Wetland Permit included preservation of 8.5 acres of Category 3, forested wetland and 8.3 acres of associated non-wetland buffer. Thus, the remaining 1.0 acre of Category 3, forested wetland and 1.0 acre of associated non-wetland buffer will be utilized as part of the mitigation for the impacts proposed herein.

The entirety of the Category 3 wetlands (9.50 acres) and associated buffers (9.3 acres) will be protected in perpetuity via a conservation easement to be granted to the City of New Albany and recorded with the property deed. MBJ estimates that a total of 7.75 acres of mitigation credit may be generated at the site, as shown in Table 8.



TABLE 8
Estimate of Proposed Preservation Mitigation Credit

<u>Mitigation Method</u>	<u>Acres</u>	<u>Factor</u>	<u>Credit</u>
<u>Onsite preservation of Category 3 wetlands</u>	<u>9.5</u>	<u>(1)</u>	<u>4.75</u>
<u>Onsite preservation of non-wetland buffers</u>	<u>9.3</u>	<u>(2)</u>	<u>3.0</u>
Total			7.75

1. Per OAC 3745-1-54, two acres of preservation is required for every remaining acres of preservation beyond the 1:1 wetland restoration/creation requirement. Thus, the credit is equal to half the acreage.
2. Per OAC 3745-1-54, non-wetland buffers may fulfill no more than 0.5 units of the required mitigation ratio. Based on the impacts to be mitigated (0.5 acre associated with the 404/401 Permit and 5.44 acres associated with this Isolated Wetland Permit) and the applicable overall mitigation ratio of 2.5:1, 0.5 units equates to approximately 3.0 acres.

In summary, MBJ Holdings is proposing to utilize 1.0 acre of Category 3 wetland preservation (0.5 credits) and 1.0 acre of associated non-wetland buffer preservation (0.25 credits) as part of their mitigation for the proposed jurisdictional impacts. The remainder of the mitigation will be achieved by purchasing 7.2 acres of wetland mitigation credit from the Stream + Wetland Foundation Huntington District ILFP. Thus, the total mitigation credits proposed is 7.95 credits. As shown in Table 9, this provides a mitigation ratio of 2.52:1, meeting the required ratio for the proposed impacts of 3.16 acres.

TABLE 9
Calculation of Proposed Mitigation Ratio for Alternative #1

<u>Mitigation Method</u>	<u>Acres</u>	<u>Factor</u>	<u>Credit</u>
<u>Onsite preservation of Category 3 wetlands</u>	<u>1.0</u>	<u>(1)</u>	<u>0.5</u>
<u>Onsite preservation of non-wetland buffers</u>	<u>1.0</u>	<u>(2)</u>	<u>0.25</u>
<u>In-lieu fee credit purchase</u>	<u>7.2</u>	<u>(3)</u>	<u>7.2</u>
Total			7.95
Ratio (3.16 ac impact)			2.52:1

1. Per OAC 3745-1-54, two acres of preservation is required for every remaining acres of preservation beyond the 1:1 wetland restoration/creation requirement. Thus, the credit is equal to half the acreage.
2. Per OAC 3745-1-54, non-wetland buffers may fulfill no more than 0.5 units of the required mitigation ratio. Based on the impacts to be mitigated (0.5 acre associated with the 404/401 Permit) and the applicable overall mitigation ratio of 2.5:1, 0.5 units equates to approximately 0.25 acre.
3. Per OAC 3745-1-54, at least one acre of restored/created wetland is required for every acre of wetland that is impacted. Thus, the credit is equal to the acreage.

~~In addition, a total of 9.5 acres of Category 3 wetlands, and approximately 9.3 acres of associated buffers will be preserved on site as shown on Exhibit 8. This wetland preservation is proposed to be utilized as a component of the compensatory mitigation under the Nationwide Permit and Isolated Wetland Permit previously submitted for this project. Accordingly, the wetland preservation is not discussed as a component of the wetland mitigation herein.~~

Stream Mitigation

Stream preservation is proposed for compensatory mitigation for the 2,812 linear feet of stream impacts. The proposed stream preservation will occur both on the project site and on a nearby parcel owned by MBJ Holdings, which is located approximately 0.5 mile southwest of the project.



On the project site, approximately 3,207 linear feet of the South Fork Licking River, an **intermittent** **perennial** WWH stream, will be preserved within a 100-foot riparian buffer, as shown on Exhibit 8. The stream and associated ±7-acre buffer will be protected in perpetuity via a conservation easement to likely be held by the City of New Albany. In addition, as shown on Exhibit 8, portions of Stream 1 (920 lf) and Stream 2 (665 lf) will also be preserved on the site. Although these streams were assigned a provisional use designation of LRW, they serve important functions in preserving the hydrology from the Category 3 wetlands that will also be preserved on the site. These streams, along with approximately 3.5 acres of associated riparian buffer, will be protected via a conservation easement to likely be held by the City of New Albany.

Offsite, an additional 1,987 linear feet of stream will be preserved on property owned by MBJ Holdings south of State Route 161. This proposed stream preservation is shown on Exhibit 11. The streams to be preserved on this property include approximately 1,398 linear feet of the South Fork Licking River, which is a perennial WWH stream, and 589 linear feet of two tributaries. These streams and an associated 50-foot buffer on each stream bank, totaling 4.19 acres, would be placed in a conservation easement to likely be held by the City of New Albany.

It should be noted that up to 100 linear feet of stream within the proposed offsite conservation easement area may need to be crossed in the future to allow for the future installation of up to two (2) crossings on the site. The locations of these potential crossings are not yet known. This length has been deducted from the totals presented in Table 8. If it is determined that fewer crossings are necessary, the corresponding unimpacted portion of the preserved streams would remain intact and be preserved in perpetuity.

As summarized in Table 8.10, the proposed stream preservation represents a 2.4:1 ratio as compared to the overall stream impacts. Moreover, the streams to be preserved are higher quality resources as compared to the streams to be impacted, which are primarily small, ephemeral, LRW streams.

TABLE 8.10
Alternative #1 Stream Impacts and Proposed Mitigation

Stream	Classification	ALU	Length (lf)
Stream Impacts			
Stream 1	Intermittent	LRW	631
Stream 3	Ephemeral	LRW	635
Stream 4	Ephemeral	LRW	385
Stream 5	Intermittent Perennial	WWH	222
Stream 6	Ephemeral	LRW	556
Stream 7	Ephemeral	LRW	383
Total			2,812
Stream Mitigation			
Onsite Stream Preservation (WWH)			3,207
Onsite Stream Preservation (LRW)			1,730
Offsite Stream Preservation (WWH)			1,887
Total			6,824
Ratio (2,812 lf impact)			2.4:1



7.1.2 Alternative #2

Wetland Mitigation

MBJ Holdings proposes to utilize the same general mitigation components for Alternative #2 as is proposed for Alternative #1. Under Alternative #2, impacts would be incurred to ~~1.52.0~~ acres of wetlands ~~and 1,966 linear feet of stream~~. As the wetland impacts are less, fewer credits (~~3.74.2~~ acres forested and 0.1 acre non-forested) would be purchased from the ILFP program. MBJ Holdings would still utilize the onsite preservation of 1.0 acre of Category 3 forested wetland and 1.0 acre of non-wetland buffers, as described under Alternative #1.

Based on the required offsite mitigation ratios, per Ohio Administrative Code (OAC) 3745-1-54 and as shown in Table 11, Ohio EPA requires at least 4.96 acres of mitigation, in the form of wetland restoration or creation, for the impacts under Alternative #2. Table 7 lists the mitigation required for Alternative #2 without considering any onsite preservation. ~~This exceeds the required mitigation based on the offsite mitigation ratios specified in Ohio Administrative Code (OAC) 3745-1-54, as shown in Table 9.~~

TABLE 9
Alternative #2 Wetland Impacts and Required Off-Site Mitigation

Wetland	Classification	ORAM Category	Impact (ac)	Mitigation Ratio	Mitigation Acreage
Wetland B	Forested	2	0.33	2.5:1	0.83
Wetland C	Forested	2	1.10 1.60	2.5:1	2.75 4.00
Wetland G	Forested	2	0.03	2.5:1	0.08
Wetland M	Emergent	1	0.04	1.5:1	0.06
Total			1.50 2.0		3.72 4.96

This mitigation would be achieved via the proposed onsite preservation, and purchase of 4.3 acres of wetland credit from the Stream + Wetlands Foundation’s ILFP. Given the impacts of 2.0 acres of wetland under Alternative #2, and the 5.05 acres of calculated credits generated from the proposed mitigation, as shown in Table 12, the resultant mitigation ratio is 2.53:1.

TABLE 12
Calculation of Proposed Mitigation Ratio for Alternative #2

Mitigation Method	Acres	Factor	Credit
<u>Onsite preservation of Category 3 wetlands</u>	<u>1.0</u>	<u>(1)</u>	<u>0.5</u>
<u>Onsite preservation of non-wetland buffers</u>	<u>1.0</u>	<u>(2)</u>	<u>0.25</u>
<u>In-lieu fee credit purchase</u>	<u>4.3</u>	<u>(3)</u>	<u>4.3</u>
Total			5.05
Ratio (2.0 ac impact)			2.53:1

1. Per OAC 3745-1-54, two acres of preservation is required for every remaining acres of preservation beyond the 1:1 wetland restoration/creation requirement. Thus, the credit is equal to half the acreage.
2. Per OAC 3745-1-54, non-wetland buffers may fulfill no more than 0.5 units of the required mitigation ratio. Based on the impacts to be mitigated (0.5 acre associated with the 404/401 Permit) and the applicable overall mitigation ratio of 2.5:1, 0.5 units equates to approximately 0.25 acre.



3. [Per OAC 3745-1-54, at least one acre of restored/created wetland is required for every acre of wetland that is impacted. Thus, the credit is equal to the acreage.](#)

Stream Mitigation

For the streams, a total of 7,901 linear feet would be preserved to offset the impacts to 1,966 linear feet of stream under Alternative #2. This would include: (1) approximately 3,207 linear feet of the South Fork Licking River located onsite; (2) approximately 2,707 linear feet of Stream 1 (1,304 lf), Stream 2 (665 lf), Stream 3 (593 lf) and Stream ~~8~~5 (145 lf) onsite; and (3) approximately 1,987 linear feet of the South Fork Licking River and associated tributaries located offsite. As summarized in Table 10, this proposed stream preservation represents a 4.0:1 ratio as compared to the overall stream impacts under Alternative #2.

TABLE ~~10~~13
Alternative #2 Stream Impacts and Proposed Mitigation

Stream	Classification	ALU	Length (lf)
Stream Impacts			
Stream 1	Intermittent	LRW	247
Stream 3	Ephemeral	LRW	173
Stream 4	Ephemeral	LRW	385
Stream 5	Intermittent Perennial	WWH	222
Stream 6	Ephemeral	LRW	556
Stream 7	Ephemeral	LRW	383
Total			1,966
Stream Mitigation			
Onsite Stream Preservation (WWH)			3,207
Onsite Stream Preservation (LRW)			2,707
Offsite Stream Preservation (WWH)			1,887
Total			7,801
Ratio (1,966 lf impact)			4.0:1

7.2 Wetland Mitigation Bank

The proposed mitigation does not include payment to a wetland mitigation bank. Therefore, this section is not applicable.

7.3 In-Lieu Fee Mitigation

The proposed mitigation includes payment to the Stream + Wetland Foundation In-Lieu Fee Program, as described herein. Per Item 7, Section 3 of the 401 WQC Application Submittal Instructions, the following information is provided:

- Mitigation for ~~the entirety of 2.66 acres of~~ the total wetland impacts (~~2.66~~3.16 acres) will be achieved through in-lieu fee under Alternative #1, the Preferred Design. The remaining 0.5 acre of impact will be mitigated through in-lieu fee (0.5 acre) and onsite preservation of 1.0 acre of Category 3 forested wetland and 1.0 acres of associated non-wetland



[buffer](#). The required stream mitigation will [also](#) be satisfied through the onsite preservation, as described above.

- A total of ~~6.7~~[7.2](#) credits will be purchased from Stream + Wetland Foundation Huntington District ILFP.
- The Stream & Wetlands Foundation ILFP currently operates in two geographically distinct service areas in the Huntington District. The ILFP designates one service area that consists of the Tuscarawas River (05040001) 8-digit HUC watershed and one that consists of the Upper Scioto River (05060001) 8-digit HUC watershed. Each of the 8-digit HUC watersheds also has a secondary service area that includes the remainder of the 6-digit HUC watershed in which each respective 8-digit HUC primary service area occurs (050400 Muskingum for the Tuscarawas service area and 050600 Scioto for the Upper Scioto service area).
- The Harrison Road East project is located in the Tuscarawas River Secondary Service Area.

7.4 Permittee-Responsible Mitigation

MBJ Holdings proposes to complete permittee responsible mitigation for both the Preferred and Minimal Degradation Alternatives. The proposed mitigation, as described in Section 7.1, will ~~including~~[include wetland and stream preservation](#) to be achieved on the project property and [stream preservation](#) at nearby property owned by MBJ Holdings. Additional details regarding the proposed offsite stream preservation, including the existing stream conditions, photographs, and mapping, will be provided under separate cover.

7.5 Protection in Perpetuity

Per the requirements of the Ohio Administrative Code and Ohio Revised Code, the [wetland and stream preservation](#) areas proposed as part of the mitigation will be protected in perpetuity via conservation easements. The conservation easements will be filed by MBJ Holdings and will likely held by the City of New Albany.

A draft copy of the proposed conservation easements and an aerial photograph showing the boundaries of the proposed conservation easement areas will be provided under separate cover.



A legacy of **experience**. A reputation for **excellence**.

Harrison Road East Project
USACE No. LRH-2015-385-MUS-UT South Fork Licking River
Ohio EPA ID No. 154841
Revised 1-29-16; Rev No. 1

8.0 CITATIONS

- Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*, Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.
- FEMA. 2009. Flood Insurance Rate Map for Licking County, Ohio and Incorporated Areas. Map number: 39089C0280H. Available online: <https://msc.fema.gov>.
- Ohio EPA. 2012. *Biological and Water Quality Study of the Licking River and Selected Tributaries*, 2008. OEPA Technical Report/EAS 2011-1-3. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio.
- Ohio EPA. 2012. *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (Version 3.0)*. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio.
- USACE. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ERDC/EL TR-10-16. U.S. Army Corps of Engineers Research and Development Center, Vicksburg, Mississippi.
- USDA-NRCS. 1992. Soil Survey of Licking County, Ohio.
- USDA-NRCS. 2014. Soil Survey Geographic (SSURGO) Databases for Licking County, Ohio. Available online at: <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.
- USCA-NRCS. 2014. National Hydric Soils List. Available online from the Natural Resources Conservation Service: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>.
- USFWS. 2014. National Wetlands Inventory. U.S. Department of the Interior, Fish & Wildlife Service, Washington, D.C. Available online at: <http://www.fws.gov/wetlands>.
- USFWS. 2015. Ohio County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species (revised April 2015). Available online at <http://www.fws.gov/midwest/endangered/lists/ohio-cty.html>.
- USGS. (1975). *Jersey, Ohio Quadrangle, 7.5 Minute Series (Topographic)*. Reston, VA: United States Geological Survey.

Section 3: Fees			
Are you exempt from fees? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If YES, leave fee section blank)			
Application Fee =			\$ 200.00
Review Fee			
Wetland	Acres Impacted	3.16	x \$500 = \$ 1,580.00
Ephemeral Stream	Linear Feet Impacted	1959.00	x \$5.00 = \$ 9,795.00 (\$200.00 minimum)
Intermittent Stream	Linear Feet Impacted	631.00	x \$10.00 = \$ 6,310.00 (\$200.00 minimum)
Perennial Stream	Linear Feet Impacted	222.00	x \$15.00 = \$ 3,330.00 (\$200.00 minimum)
Lake	Cubic Yards		x \$3.00 = \$ 0.00
Total Review Fees =			\$ 21,015.00
Total Fees (\$200 Application Fee + Total Review Fees) = \$ 21,215.00			
Standard Applicant - Is the fee cap (\$25,000) exceeded? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
If YES, \$12,500 (\$12,700) is due with application and \$12,500 (\$12,300) is due at time of 401 WQC issuance			
County, Township or Municipal Corp. – Is the fee cap (\$5,000) exceeded? <input type="checkbox"/> YES <input type="checkbox"/> NO			
If YES, \$2,500 (\$2,700) is due with application and \$2,500 (\$2,300) is due at time of 401 WQC issuance			
If fee cap is not exceeded:			
DUE AT TIME OF 401 WQC APP. SUBMITTAL – APPLICATION FEE AND ½ OF REVIEW FEE =			\$ 10,707.50
DUE AT TIME OF 401 WQC ISSUANCE – ½ OF REVIEW FEE (Invoice will be sent) =			\$ 10,507.50
PLEASE MAKE FEE CHECK PAYABLE TO: "TREASURER, STATE OF OHIO"			

Section 4: Submitted Documentation		
Check all documents/items that have been submitted:		
<input checked="" type="checkbox"/> U.S. ACOE JD letter	<input checked="" type="checkbox"/> A specific & detailed mitigation plan	<input checked="" type="checkbox"/> US FWS & ODNR T&E Coordination
<input checked="" type="checkbox"/> 10 page ORAM forms - impacted wetlands	<input checked="" type="checkbox"/> Applicable fees	<input checked="" type="checkbox"/> Investigation report of "waters of the US"
<input checked="" type="checkbox"/> A DoEU for each undesignated stream *	<input checked="" type="checkbox"/> Site photographs	<input type="checkbox"/> US ACOE 404 Permit Public Notice
<input checked="" type="checkbox"/> Descriptions, schematics & appropriate economic information for <u>all three alternatives</u> (Preferred, Minimal Degradation and Non Degradation)		

*DoEU – Determination of Existing Use (See pages 6 and 11 in the Instructions)

Section 5: Applicant and Agent Signature			
<i>I hereby designate and authorize the agent/consultant identified in Section 1 to act on my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application:</i>			
Applicant Name	Brent Bradbury	Applicant Signature	
<i>Application is hereby made for a Section 401 Water Quality Certification. I certify that the information provided on this form and all attachments related to this project are true and accurate to the best of my knowledge:</i>			
Applicant Name	Brent Bradbury	Applicant Signature	
Agent Name	Heather Dardinger	Agent Signature	

For Internal Ohio EPA Use	
Reviewer:	
Project ID #	
Date Received:	
CR Due:	

17. DIRECTIONS TO THE SITE

From Huntington, WV: Take WV-527 N, which becomes OH-7, and follow onto US-52. Turn right onto OH-23N. Stay on US-23N toward Columbus. Exit to I-270E. Take I-270 to OH-161E (Exit 33). Continue on OH-161 toward New Albany. Take the US-62 Exit toward New Albany/Johnstown. Turn left onto US-62E / E Johnstown Rd. Turn right onto Central College Road. Continue to Jug Street. Site is located south of Jug Street between Harrison Road and Mink Street.

18. Nature of Activity (Description of project, include all features)

MBJ Holdings, LLC is proposing to construct an office/warehouse development on the approximately 288-acre Harrison Road East site in Jersey Township, Licking County, Ohio. The proposed development would include 20 office and warehouse buildings encompassing approximately 2.4 million square feet. The proposed development would also include roadways, parking and infrastructure associated with the office/warehouse complex. The proposed impacts include 2,812 linear feet of ephemeral, intermittent and perennial stream and 3.16 acres of jurisdictional wetlands.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to construct additional office/warehouse space to meet the increasing demand within the City of New Albany and surrounding areas.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Construction of the proposed development in accordance with the stated purpose will result in unavoidable impacts to 2,812 linear feet of on-site streams and 3.16 acres of on-site wetlands. An alternative analysis indicated that it was not possible to fulfill the project purpose without disturbing jurisdictional waters.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type	Type	Type
Amount in Cubic Yards	Amount in Cubic Yards	Amount in Cubic Yards
Approx. 280 CY of concrete culvert	Approx. 5,403 CY of clean fill material	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 3.16 acres of on-site wetlands
or
Linear Feet 2,812 linear feet of on-site stream

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Because of the jurisdictional water feature locations and the planned development, 2,812 linear feet stream and 3.16 acres of wetland could not be avoided as part of the project. However, approximately 4,937 linear feet of stream and 9.51 acres of wetlands will be avoided and preserved as part of the project. Proposed compensatory mitigation includes purchase of 7.2 acres of in-lieu fee wetland mitigation credits, onsite preservation of 4,937 linear feet of streams and riparian buffers, and offsite preservation of 1,987 linear feet of streams and riparian buffers.



Application for Section 401 Water Quality Certification — Proposed Stream Impacts and Mitigation

Division of Surface Water 401 Water Quality Certification and Isolated Wetland Permitting Unit

Section 1: Streams Onsite and Proposed Impacts									
Stream ID	Jurisdictional?	Flow	Aquatic Life Use Designation in 3745-1	Existing Use?	Length Onsite (linear ft.)	Preferred Alternative		Minimal Degradation Alternative	
						Impact Length (linear ft.)	Impact Type	Impact Length (linear ft.)	Impact Type
Stream 1	YES	Intermittent	Undesignated	LWH	1551.00	160.00	Culvert/Pipe	160.00	Culvert/Pipe
Stream 1	YES	Intermittent	Undesignated	LWH	0.00	471.00	Fill	87.00	Fill
Stream 2	YES	Ephemeral	Undesignated	LWH	665.00	0.00	Choose an item.	0.00	Choose an item.
Stream 3	YES	Ephemeral	Undesignated	LWH	766.00	635.00	Fill	173.00	Choose an item.
Stream 4	YES	Ephemeral	Undesignated	LWH	385.00	385.00	Fill	385.00	Choose an item.
Stream 5	YES	Perennial	WWH	WWH	3429.00	100.00	Culvert/Pipe	100.00	Culvert/Pipe
Stream 5	YES	Perennial	WWH	WWH	0.00	122.00	Fill	122.00	Fill
Stream 6	YES	Ephemeral	Undesignated	LWH	607.00	556.00	Fill	556.00	Fill
Stream 7	YES	Ephemeral	Undesignated	LWH	432.00	383.00	Fill	383.00	Fill
Stream 8	YES	Ephemeral	Undesignated	LWH	145.00	0	Choose an item.	0.00	Choose an item.
Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.		Choose an item.
Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.		Choose an item.
Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.		Choose an item.
Stream Length Totals					7980.00	2812.00		1966.00	

Section 2: Proposed Stream Mitigation (Check All That Apply) Preferred Alternative				
<input type="checkbox"/>	In-Lieu Fee Program	ILF Sponsor: Choose an item.	Number of Stream Credits:	Number of Buffer Credits: Proof of Reservation? YES <input type="checkbox"/> NO <input type="checkbox"/>
<input checked="" type="checkbox"/>	On-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. linear feet <input checked="" type="checkbox"/> Preservation of WWH 4937 linear feet with 50 foot buffers		<input type="checkbox"/> Enhancement of linear feet of a Choose an item. to a Choose an item. through Choose an item. <input type="checkbox"/> Other Click here to enter text.
<input checked="" type="checkbox"/>	Off-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. linear feet <input checked="" type="checkbox"/> Preservation of WWH 1987 linear feet with 50 foot buffers		<input type="checkbox"/> Enhancement of linear feet of a Choose an item. to a Choose an item. through Choose an item. <input type="checkbox"/> Other Click here to enter text.
Section 3: Proposed Stream Mitigation (Check All That Apply) Minimal Degradation Alternative				
<input type="checkbox"/>	In-Lieu Fee Program	ILF Sponsor: Choose an item.	Number of Stream Credits:	Number of Buffer Credits: Proof of Reservation? YES <input type="checkbox"/> NO <input type="checkbox"/>
<input checked="" type="checkbox"/>	On-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. linear feet <input checked="" type="checkbox"/> Preservation of WWH 5914 linear feet with 50 foot buffers		<input type="checkbox"/> Enhancement of linear feet of a Choose an item. to a Choose an item. through Choose an item. <input type="checkbox"/> Other Click here to enter text.
<input checked="" type="checkbox"/>	Off-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. linear feet <input checked="" type="checkbox"/> Preservation of WWH 1987 linear feet with 50 foot buffers		<input type="checkbox"/> Enhancement of linear feet of a Choose an item. to a Choose an item. through Choose an item. <input type="checkbox"/> Other Click here to enter text.



Application for Section 401 Water Quality Certification — Proposed Wetland Impacts and Mitigation

Division of Surface Water 401 Water Quality Certification and Isolated Wetland Permitting Unit

Wetlands Onsite and Proposed Impacts											
Wetland ID	ORAM Score	Category	Cat. Verified by Ohio EPA?	Ohio EPA Reviewer who Verified	Acreage Onsite	Preferred Alternative			Minimal Degradation Alternative		
						Impact Acreage		Impact Type	Impact Acreage		Impact Type
						Forested	Non		Forested	Non	
Wetland A	71.50	3	<input type="checkbox"/>	Choose an item.	2.73	0.00	0.00		0.00	0.00	
Wetland B	44.00	2	<input type="checkbox"/>	Choose an item.	0.54	0.54	0.00	Fill	0.33	0.00	Fill
Wetland C	56.00	2	<input type="checkbox"/>	Choose an item.	2.55	2.55	0.00	Fill	1.60	0.00	Fill
Wetland G	33.00	2	<input type="checkbox"/>	Choose an item.	0.03	0.03	0.00	Fill	0.03	0.00	Fill
Wetland I	63.50	3	<input type="checkbox"/>	Choose an item.	6.77	0.00	0.00		0.00	0.00	
Wetland M	27.00	1	<input type="checkbox"/>	Choose an item.	0.05	0.00	0.04	Fill	0.00	0.04	Fill
Click here to enter text.		1	<input type="checkbox"/>	Choose an item.				Choose an item.			Choose an item.
Click here to enter text.		1	<input type="checkbox"/>	Choose an item.				Choose an item.			Choose an item.
Click here to enter text.		1	<input type="checkbox"/>	Choose an item.				Choose an item.			Choose an item.
Click here to enter text.		1	<input type="checkbox"/>	Choose an item.				Choose an item.			Choose an item.
Click here to enter text.		1	<input type="checkbox"/>	Choose an item.				Choose an item.			Choose an item.
Click here to enter text.		1	<input type="checkbox"/>	Choose an item.				Choose an item.			Choose an item.
Wetland Acreage Totals						12.67	3.12	0.04		1.96	0.04
Totals – Category 1 Wetlands						0.05	0.00	0.04		0.00	0.04
Totals – Category 2 Wetlands						3.12	3.12	0.00		1.96	0.00
Totals – Category 3 Wetlands						9.50	0.00	0.00		0.00	0.00

Proposed Wetland Mitigation (Check All That Apply) Preferred Alternative			
<input type="checkbox"/> Wetland Mitigation Bank Mitigation Bank: Choose an item.	Number of Forested Credits: Number of Non-Forested Credits: Number of Buffer Credits:	Type of Credits (if applicable): Choose an item. Type of Credits (if applicable): Choose an item. Type of Credits (if applicable): Choose an item.	Proof of Reservation? <input type="checkbox"/>
<input checked="" type="checkbox"/> In-Lieu Fee Program	ILF Sponsor: Stream + Wetlands Foundation	Number of Wetland Credits: 7.2 Number of Buffer Credits:	
<input checked="" type="checkbox"/> On-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. Acres <input checked="" type="checkbox"/> Preservation Forested 1.0 Acres	<input type="checkbox"/> Enhancement Choose an item. Acres <input checked="" type="checkbox"/> Other Preservation 1.0 acre non-wetland buffer	
<input type="checkbox"/> Off-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. Acres <input type="checkbox"/> Preservation Choose an item. Acres	<input type="checkbox"/> Enhancement Choose an item. Acres <input type="checkbox"/> Other Click here to enter text.	
Proposed Wetland Mitigation (Check All That Apply) Minimal Degradation Alternative			
<input type="checkbox"/> Wetland Mitigation Bank Mitigation Bank: Choose an item.	Number of Forested Credits: Number of Non-Forested Credits: Number of Upland Buffer Credits:	Type of Credits (if applicable): Choose an item. Type of Credits (if applicable): Choose an item. Type of Credits (if applicable): Choose an item.	Proof of Reservation? <input type="checkbox"/>
<input checked="" type="checkbox"/> In-Lieu Fee Program	ILF Sponsor: Stream + Wetlands Foundation	Number of Wetland Credits: 4.3 Number of Buffer Credits:	
<input type="checkbox"/> On-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. Acres <input checked="" type="checkbox"/> Preservation Forested 1.0 Acres	<input type="checkbox"/> Enhancement Choose an item. Acres <input checked="" type="checkbox"/> Other Preservation 1.0 acre non-wetland buffer	
<input type="checkbox"/> Off-Site Permittee-Responsible Mitigation	<input type="checkbox"/> Restoration/Creation Choose an item. Acres <input type="checkbox"/> Preservation Choose an item. Acres	<input type="checkbox"/> Enhancement Choose an item. Acres <input type="checkbox"/> Other Click here to enter text.	



LEGEND

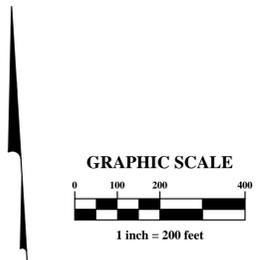
- Wetland
- Prop Pond
- Impacted Stream
- Ex Stream
- Prop Stream
- Preserved Wetland 9.50 Acres
- Impacted Wetlands
- Buffer Zone 18.65 Acres

Building	Square Feet
1	140,000
2	175,000
3	157,500
4	195,300
5	150,000
6	172,500
7	243,050
8	102,400
9	24,000
10	120,000
11	105,000
12	238,000
13	20,000
14	67,300
15	50,000
16	110,000
17	84,000
18	60,000
19	112,500
20	81,400
Total	2,407,950

STREAM IMPACTS				
Stream	L.F.	Impacted	L.F. Impacted	L.F. Unimpacted
1	1551	X	631	920
2	665		0	665
3	766	X	635	131
4	385	X	385	0
5	3429	X	222	3207
6	607	X	556	51
7	432	X	383	49
8	145		0	145
Total	7,980		2812	5168

JURISDICTIONAL WETLAND IMPACTS				
Wetland	Acreage	Impacted	Impacted Acreage	Unimpacted Acreage
A	2.73		0	2.73
B	0.54	X	0.54	0
C	2.55	X	2.55	0
G	0.03	X	0.03	0
I	6.77		0	6.77
M	0.05	X	0.04	0.01
Total	12.67		3.16	9.51

ISOLATED WETLAND IMPACTS				
Wetland	Acreage	Impacted	Impacted Acreage	Unimpacted Acreage
D	0.32	X	0.32	0.00
E-F	0.14	X	0.14	0.00
H	0.12	X	0.12	0.00
J	4.92	X	4.49	0.43
K	0.37	X	0.37	0.00
L	0.13		0	0.13
Total	6.00		5.44	0.56





LEGEND

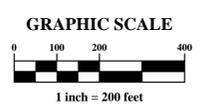
- Wetland
- Prop Pond
- Impacted Stream
- Ex Stream
- Prop Stream
- Preserved Wetland 9.50 Acres
- Impacted Wetlands
- Buffer Zone 19.38 Acres

Building	Square Feet
1	140,000
2	175,000
3	117,500
4	175,000
5	150,000
6	142,500
7	243,050
8	102,400
9	15,000
10	120,000
11	105,000
12	210,000
13	67,300
14	50,000
15	110,000
16	84,000
17	60,000
18	112,500
19	81,400
Total	2,260,650

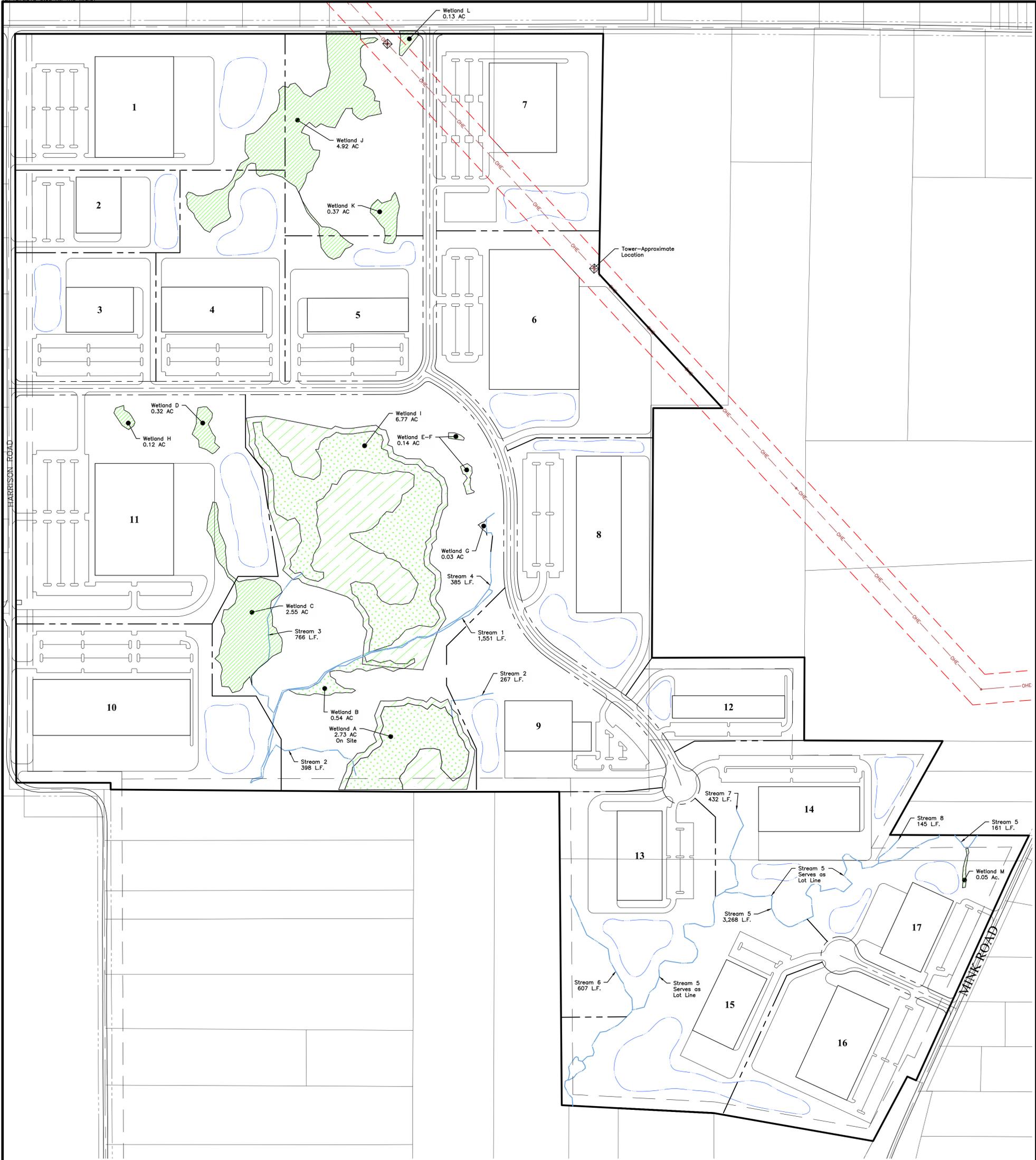
STREAM IMPACTS				
Stream	L.F.	Impacted	L.F. Impacted	L.F. Unimpacted
1	1551	X	247	1304
2	665		0	665
3	766	X	173	593
4	385	X	385	0
5	3429	X	222	3207
6	607	X	556	51
7	432	X	383	49
8	145		0	145
Total	7,980		1966	6014

JURISDICTIONAL WETLAND IMPACTS				
Wetland	Acreage	Impacted	Impacted Acreage	Unimpacted Acreage
A	2.73		0	2.73
B	0.54	X	0.33	0.21
C	2.55	X	1.6	0.95
G	0.03	X	0.03	0
I	6.77		0	6.77
M	0.05	X	0.04	0.01
Total	12.67		0	10.67

ISOLATED WETLAND IMPACTS				
Wetland	Acreage	Impacted	Impacted Acreage	Unimpacted Acreage
D	0.32		0.00	0.32
E-F	0.14	X	0.14	0.00
H	0.12	X	0.12	0.00
J	4.92	X	4.49	0.43
K	0.37		0.00	0.37
L	0.13		0.00	0.13
Total	6.00		4.75	1.25



REVISIONS		
MARK	DATE	DESCRIPTION



LEGEND

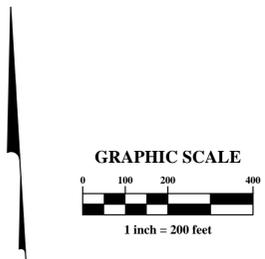
- Wetland
- Prop Pond
- Ex Stream
- Prop Stream
- Preserved Wetland 9.50 Acres
- Buffer Zone 9.3 Acres

Building	Square Feet
1	157,500
2	50,000
3	60,000
4	90,000
5	67,500
6	233,000
7	115,350
8	100,000
9	67,300
10	175,000
11	175,000
12	50,000
13	80,000
14	90,000
15	70,000
16	112,500
17	70,000
Total	1,763,150

STREAM IMPACTS				
Stream	L.F.	Impacted	L.F. Impacted	L.F. Unimpacted
1	1551		0	1551
2	665		0	665
3	766		0	766
4	385		0	385
5	3429		0	3429
6	607		0	607
7	432		0	432
8	145		0	145
Total	7,980	0	0	7980

ISOLATED WETLAND IMPACTS			
Wetland	Acres	Impacted Acres	Unimpacted Acres
D	0.32	0.00	0.32
E-F	0.14	0.00	0.14
H	0.12	0.00	0.12
J	4.92	0.00	4.92
K	0.37	0.00	0.37
L	0.13	0.00	0.13
Total	6.00	0.00	6.00

JURISDICTIONAL WETLAND IMPACTS			
Wetland	Acres	Impacted Acres	Unimpacted Acres
A	2.73	0	2.73
B	0.54	0	0.54
C	2.55	0	2.55
G	0.03	0	0.03
I	6.77	0	6.77
M	0.05	0	0.05
Total	12.67	0	12.67



1/1
 SHEET
 2015-0785
 JON BOY
 SCALE
 1" = 200'
 DATE
 November 2015

EMHT
 Evans, Mechwart, Hamilton & Tillon, Inc.
 Engineers • Surveyors • Planners • Scientists
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.776.4500 Fax: 614.776.4500
 emht.com

CITY OF NEW ALBANY, LICKING COUNTY, OHIO
 ALTERNATIVE #3 EXHIBIT
 FOR
HARRISON ROAD EAST PROJECT

REVISIONS		
MARK	DATE	DESCRIPTION



TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 GENERAL DESCRIPTION OF PROPOSED WORK 1

3.0 PROJECT PURPOSE AND NEED..... 4

4.0 DESCRIPTION OF THE PROPOSED DISCHARGE 4

4.1 Location of the Discharge..... 4

4.2 Material to be Discharged..... 4

4.3 Controlling the Material after Discharge..... 4

4.4 Placement Method, Timing and Technology..... 5

5.0 ALTERNATIVES CONSIDERED 5

6.0 TECHNICAL EVALUATION FACTORS 6

6.1 Physical and Chemical Characteristics 6

 6.1.1 Substrate Impacts

 6.1.2 Suspended Sediment / Turbidity Impact

 6.1.3 Water Column Impacts

 6.1.4 Alteration of Current Patterns and Water Circulation

 6.1.5 Alteration of Normal Water Fluctuations / Hydroperiod

6.2 Biological Characteristics 7

 6.2.1 Effect on Threatened / Endangered Species

 6.2.2 Effect on the Aquatic Food Web

 6.2.3 Effect on Other Wildlife

6.3 Special Aquatic Sites 8

6.4 Human Use Characteristics..... 8

 6.4.1 Effects on Municipal and Private Water Supplies

 6.4.2 Recreational and Commercial Fisheries Impacts

 6.4.3 Effects on Water-Related Recreation

 6.4.4 Aesthetic Impacts

 6.4.5 Effects on Parks, Monuments, Wilderness Areas and Preserves

7.0 CUMULATIVE EFFECTS EVALUATION 9

7.1 Land Uses in 12-Digit HUC..... 9

7.2 Water Resources in 12-Digit HUC 9

7.3 Known Past, Present and Future Activities..... 9

7.4 Known Restoration Projects..... 10

8.0 PUBLIC INTEREST FACTOR EVALUATION 11

8.1 Conservation 11

8.2 Economics 11

8.3 Aesthetics 11

8.4 Wetlands & Other High Value Aquatic Sites 11



A legacy of **experience**. A reputation for **excellence**.

8.5	Historic Properties	12
8.6	Flood Hazards	12
8.7	Floodplain Values	12
8.8	Land Use	12
8.9	Navigation	12
8.10	Recreation	12
8.11	Energy & Mineral Needs	12
8.12	Safety	12
8.13	Water Quality	12 13
8.14	Fish & Wildlife Values	12 13
8.15	Shore Erosion & Accretion	12 13
8.16	Water Supply & Conservation	12 13
8.17	Food & Fiber Production	12 13
8.18	Consideration of Property Ownership	12 13
8.19	General Environmental Concerns	12 13
8.20	Needs & Welfare of the People	12 13

TABLES

TABLE 1	Proposed Discharges of Dredged and/or Fill Material in Waters of the U.S.....	2
---------	---	---



1.0 INTRODUCTION

EMH&T has prepared this addendum document at the request of MBJ Holdings, LLC in order to obtain Section 404 authorization for impacts to Waters of the United States associated with a proposed development known as the Harrison Road East Project.

As more fully described in the *Proposal for Section 404 & 401 Authorization*, the proposed Harrison Road East Project will provide for the construction of a 2.4 million square foot office/warehouse complex on a 288-acre site located east of Harrison Road, south of Jug Street, west of Mink Street and north of State Route 161 Jersey Township, Licking County, Ohio. The project area will be annexed into the City of New Albany.

To issue an Individual Section 404 Permit, the U.S. Army Corps of Engineers (USACE) must (1) assess the probable effects of the proposed action; (2) consider the extent of the public and private need for the proposed structures and work; (3) consider all public comments; (4) prepare documentation pursuant to the National Environmental Policy Act (NEPA); and (5) conclude that the project is in compliance with applicable laws and is not contrary to the public interest.

This addendum is intended to support this USACE decision-making process. The information provided herein is intended to supplement the *Proposal for Section 404 & 401 Authorization*.

2.0 GENERAL DESCRIPTION OF PROPOSED WORK

Three alternatives, Alternative #1, Alternative #2, and Alternative #3, have been prepared for the proposed office/warehouse complex development, as described in the *Proposal for Section 404 & 401 Authorization*. MBJ Holdings is requesting authorization to construct Alternative #1. This alternative would include 20 buildings with approximately 2.4 million square feet of available office and warehouse space as well as associated parking areas, loading docks, trailer storage, internal roadways and stormwater facilities. The construction of the proposed complex will add much needed development space that combines office and warehouse facilities specifically designed for highly specialized tenants.

The proposed jurisdictional impacts for Alternative #1 include 1,989 linear feet of ephemeral stream (Streams 3, 4, 6 and 7), ~~853~~ 631 linear feet of intermittent stream (Streams 1 ~~and~~ 5), 222 linear feet of perennial stream (Stream 5), 0.04 acre of emergent wetlands and ~~2.62~~ 3.12 acres of forested wetlands. The stream and wetland impacts include grading and fill associated with construction of the proposed buildings and parking lots, as well as culverts on Stream 1 and Stream 5 in order to construct a roadway between Harrison Road and Mink Street. The surface water impacts for the Alternative #1 are summarized below in Table 1.

For Alternative #1, the proposed mitigation will include the preservation of approximately 4,937 linear feet of stream onsite and 1,987 linear feet of stream offsite. The proposed mitigation will also include purchase of ~~6.7~~ 7.2 acres of wetland mitigation credits from the Stream + Wetlands Foundation Huntington District In-Lieu Fee Program.



A legacy of experience. A reputation for excellence.

TABLE 1
Proposed Discharges of Dredged and/or Fill Material in Waters of the U.S.

Feature ID	Latitude	Longitude	Classification	ORAM Category/ALU	Onsite Extent (acres/lf)	Proposed Impacts (acres/lf)	Proposed Preservation (acres/lf)	Activity
Wetland A	40.0875	-82.7286	Forested/PFO	Cat 3	2.73	0	2.73	None
Wetland B	40.0882	-82.7299	Forested/PFO	Cat 2	0.54	0.54	0	Fill and grading for primary entrance road and Building 13 parking lot
Wetland C	40.0889	-82.7311	Forested/PFO	Cat 2	2.55	2.05* 2.55	0	Fill and grading for primary entrance road and parking lots and stormwater basins for Buildings 4, 9 and 12
Wetland G	40.0899	-82.7273	Forested/PFO	Cat 2	0.03	0.03	0	Fill and grading for roadway and Building 10 stormwater basin
Wetland I	40.0900	-82.7287	Forested/PFO	Cat 3	6.77	0	6.77	None
Wetland M	40.0855	-82.7200	Herbaceous/PEM	Cat 1	0.05	0.04	0.01	Fill and grading for Building 20 parking lot and stormwater basin
Wetland Total	---	---	---	---	12.67	2.66 3.16	9.51	---

* 0.5 acre of impact previously requested under a Nationwide Permit



A legacy of **experience**. A reputation for **excellence**.

TABLE 1, continued
Proposed Discharges of Dredged and/or Fill Material in Waters of the U.S.

Feature ID	Latitude	Longitude	Classification	ORAM Category/ALU	Onsite Extent (acres/lf)	Proposed Impacts (acres/lf)	Proposed Preservation (acres/lf)	Activity
Stream 1	40.0885	-82.7287	Intermittent	LRW	1,551	631	920	Fill and grading for parking lots and stormwater basins for Buildings 10, 11 and 13; installation of box culvert for primary entrance road
Stream 2	40.0879	-80.7277	Ephemeral	LRW	665	0	665	None
Stream 3	40.0891	-82.7307	Ephemeral	LRW	766	635	0	Fill and grading for primary entrance road and parking lots and stormwater basins for Buildings 9
Stream 4	40.0897	-82.7272	Ephemeral	LRW	385	385	0	Fill and grading for parking lots and stormwater basins for Buildings 10 and 11
Stream 5	40.0852	-82.7234	Intermittent Perennial	WWH	3,429	222	3,207	Installation of a box culvert for the primary entrance road
Stream 6	40.0845	-82.7257	Ephemeral	LRW	607	556	0	Fill and grading for parking lot and stormwater basin for Building 16
Stream 7	40.0858	-82.7237	Ephemeral	LRW	432	383	0	Fill and grading for Building 16 and its parking lot
Stream 8	40.0857	-82.7212	Ephemeral	LRW	145	0	145	None
Stream Total	---	---	---	---	7,980	2,812	4,937	---



3.0 PROJECT PURPOSE AND NEED

The purpose of the proposed project is to construct a commercial office/warehouse complex, including office and warehouse buildings, parking areas, trailer storage and loading dock areas. The construction of the proposed commercial office/warehouse facility will add much needed development space that combines office and warehouse facilities specifically designed for highly specialized tenants.

Construction of the project in accordance with the proposed development plan will require grading and tree clearing across portions of the site. The development will ~~impact~~ incur 2,812 linear feet of jurisdictional stream impacts and ~~2.66~~3.16 acres of jurisdictional wetland impacts; ~~an additional 0.5-acre of jurisdictional wetland impacts were previously permitted via a Nationwide Permit and an Ohio Isolated Wetland Permit has been submitted for impacts to 5.44 acres of isolated wetlands.~~

4.0 DESCRIPTION OF THE PROPOSED DISCHARGE

4.1 Location of the Discharge

Fill material is proposed to be placed in ~~2.66~~3.16 acres of wetland and 2,812 linear feet of ephemeral, ~~and~~ intermittent ~~and~~ perennial stream on the 288-acre Harrison Road East site located in Jersey Township, Licking County, Ohio. The site is located within the 12-digit HUC 05040006-0402, Headwaters South Fork Licking River.

4.2 Material to be Discharged

The material to be discharged includes approximately ~~4,596~~5,403 cubic yards of clean earthen fill material and 260 linear feet (280 cubic yards) of culvert. These materials will be chemically non-contaminating and physically stable.

4.3 Controlling the Material after Discharge

Best Management Practices (BMPs) for sediment and erosion control will be implemented at all times during the construction of the proposed development. These BMPs include silt fences, sediment traps, temporary and permanent seeding and mulching, construction road stabilization, temporary inlet protection, and sediment basins installed for construction use.

Stormwater permits and Stormwater Pollution Prevention Plans for construction activities will be prepared as needed for site development, following the requirements of the National Pollutant Discharge Elimination Systems program (USEPA, 9/92) and Notices of Intent (NOIs). Appropriate, site-specific Best Management Practices (BMPs) will be included in construction plans to decrease erosion and sedimentation during and after construction of the project site, including the placement of sediment fence inside impact areas.

All sediment controls that are utilized will be kept in place during construction activities and will remain until the site has been stabilized. All areas disturbed during construction will be seeded to encourage the establishment of a vegetative cover and decrease erosion potential. No area for which grading has been completed shall be left unseeded or un-mulched for longer than 14 days.



4.4 Placement Method, Timing and Technology

Placement of fill would be accomplished via standard earthmoving practices. As described above, BMPs would be employed at all times during the construction. Construction would not all occur simultaneously over the project site. Construction is expected to begin with construction of the primary roadway between Harrison Road and Mink Street in 2016 with the remainder of the development to be constructed over a 5-year period between 2016 and 2021.

5.0 ALTERNATIVES CONSIDERED

Section 5.0 of the *Proposal for Section 404 & 401 Authorization* discusses in detail the off-site and on-site alternatives that were considered as part of the development of the Harrison Road East Project. The alternatives considered included:

Off-Site Alternatives:

MBJ Holdings initially explored several sites in the City of New Albany area for the proposed project. There are very few viable options for the proposed office/warehouse complex, because the New Albany area has been developed extensively with both residential housing, light manufacturing facilities, and corporate office buildings. For the evaluation of off-site alternative sites, EMH&T worked with MBJ Holdings to evaluate properties that met certain minimum criteria. These criteria were (1) sites that were within the City of New Albany or could be annexed to New Albany; (2) sites that were at least 200 acres in size; (3) sites with sufficient access to the interstate; (4) sites with available utilities or potential to develop sufficient utilities; and (5) sites that were owned or controlled by a single entity.

Using these criteria, only there are only two sites eligible for consideration, the Harrison Road East site and the Winding Hollow Golf Course site. Winding Hollow is currently slated for development of a corporate office business park and an application has been submitted Clean Water Act Section 404 Authorization and Section 401 Water Quality Certification for that project. Accordingly, there are no other properties available that meet the project criteria within the greater New Albany area. The Harrison Road East site meets all the criteria, providing approximately 288 acres of property with excellent interstate access and developable utilities, which is able to be annexed to New Albany.

On-Site Alternatives:

- **Alternative #1:** The Preferred Alternative provides for the development of a commercial office and warehouse complex consisting of 20 buildings totaling approximately 2.4 million square feet. The proposed commercial office and warehouse development would include installation of necessary infrastructure, including parking lots, stormwater basins, utility infrastructure and internal roadway construction, within the proposed development footprint. Impacts associated with this alternative include 2,812 linear feet of ~~ephemeral and intermittent~~ stream impacts and ~~2.66~~3.16 acres of jurisdictional wetland impacts.
- **Alternative #2:** The Minimal Degradation Alternative provides for the construction of a slightly revised complex consisting of 19 buildings, totaling approximately 2.26 million square feet, and associated parking, stormwater facilities, utilities and roadways. By



eliminating one building, and reducing the size of two other buildings, stream and wetland impacts have been reduced. Impacts associated with this alternative include 1,966 linear feet of ~~ephemeral and intermittent~~ stream impacts and ~~1.50~~2.0 acres of jurisdictional wetlands.

- **Alternative #3:** The Non-Degradation Alternative is based upon the preservation of all onsite surface water features. This would require that the project be scaled down and would allow for construction of 17 buildings, totaling 1.76 million square feet, and reduced parking areas. This alternative significantly decreases the size and capacity of the proposed development. This reduced facility would not meet the purpose and need of the project.

The proposed Alternative (Alternative #1) will allow MBJ Holdings to develop a 2.4 million square foot office/warehouse complex including 20 buildings. The evaluation of technical factors, cumulative effects, and public interest factors described herein is based upon the evaluation of the proposed Preferred Alternative, Alternative #1.

6.0 TECHNICAL FACTORS EVALUATION

6.1 Physical and Chemical Characteristics

6.1.1 Substrate Impacts

The placement of fill within the streams and wetlands will be a permanent impact, removing those features from the site. In Streams 1 and 5, in which culverts will be placed, there will be limited impacts to the existing stream substrates in the vicinity of the culverts. However, culverts will be installed at the streambed slope to allow for the natural movement of aquatic organisms and bedload to form a stable bed inside the culvert. Additionally, the culvert bases shall be installed below the sediment to allow a natural channel bottom to develop.

6.1.2 Suspended Sediment / Turbidity Impacts

There will be increased, localized turbidity impacts associated with construction of the proposed project. Utilization of appropriate sediment and erosion controls and installation of culverts during low flow conditions will help to reduce turbidity impacts.

6.1.3 Water Column Impacts

The placement of fill within the streams and wetlands will permanently impact the chemical and physical properties of the water column within the existing stream channels and wetlands. Within the unimpacted streams and wetlands existing light penetration, dissolved oxygen, and water chemistry is expected to be maintained.

6.1.4 Alteration of Current Patterns and Water Circulation

Current patterns, flow and water circulation would not be significantly affected by the proposed project. Water will continue to flow through the northern portion of the site in a southwesterly direction from the preserved Wetlands A and I, into Streams 1 and 2, and offsite via Stream 1. In the southern portion of the site, the culvert over the South Fork Licking River (Stream 5) will be



appropriately sizes such that flow is unimpeded and continues to flow in its current southwesterly direction across the site.

6.1.5 Alteration of Normal Water Fluctuations / Hydroperiod

Construction of the proposed project will not retain or detain stream flow and will not impact normal seasonal stream stages.

6.2 **Biological Characteristics**

6.2.1 Effect on Threatened/Endangered Species

The proposed project is located within the range of the endangered Indiana bat (*Myotis sodalis*), threatened northern long-eared bat (*Myotis septentrionalis*), and the candidate species Eastern massasauga (*Sistrurus catenatus*). Coordination with the U.S. Fish and Wildlife Services was initiated by EMH&T concerning possible impacts to federally-listed species on a portion of the site and a summer survey was conducted for bat species. No Indiana bats or northern long-eared bats were detected.

The USFWS response to this coordination indicated that following “seasonal tree clearing restrictions [clearing between October 1 and March 31] should ensure that any effects to northern long-eared bats are insignificant or discountable.” Further, the USFWS stated that “due to project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.”

In November 2015, additional coordination with the USFWS was initiated concerning possible impacts to federally-listed species in regard to an additional 72-acre parcel that was incorporated into the project area in October 2015, following the previously described coordination. A coordination letter was submitted to the USFWS regarding the additional area on November 13, 2015. The response from the USFWS is still pending and will be provided upon receipt. Additional information regarding threatened/endangered species is provided in Section 4.3 of the *Proposal for Section 404 & 401 Authorization*.

6.2.2 Effect on the Aquatic Food Web

Adverse effects to biota, including primary producers (algae and plankton), benthic macroinvertebrates and small pioneering species of fish, are expected to be short-term. Fish and amphibian species may relocate to unimpacted wetlands and stream reaches. The fill material to be placed will not introduce, relocate or increase any contaminants on the site.

6.2.3 Effect on Other Wildlife

Construction and grading activities would impact vegetation through removal of existing trees, shrubs and herbaceous ground cover within portions of the project site. Accordingly, some terrestrial biota, including birds, amphibians, reptiles, small mammals, etc. are expected to be disturbed or displaced during construction. However, these wildlife species could re-colonize to adjacent, unimpacted forested habitat. In addition, the high quality wetlands and stream corridors that are proposed to be preserved as part of Alternative #1 would provide habitat for these species.



6.3 Special Aquatic Sites

The proposed project will not impact any of the following special aquatic sites, as defined in 40 CFR 230 Subpart E: Sanctuaries and refuges, mud flats, vegetated shallows or coral reefs. The proposed project does include impacts to wetlands and riffle/pool complexes.

The wetland impacts are limited in scope (~~2.66~~3.16 acres) and will impact low to moderate quality resources, i.e., Category 1 and Category 2 per the Ohio Rapid Assessment Method (ORAM) assessment. The wetland resources are further discussed in Section 3.2 of the *Proposal for Section 404 & 401 Authorization*.

The stream impacts will include 2,590 linear feet of ephemeral and intermittent Limited Resource Waters (LRW) and 222 linear feet of ~~intermittent~~perennial Warmwater Habitat, as defined in Ohio Administrative Code 3745-1-07. The streams to be impacted are further discussed in Section 3.3 of the *Proposal for Section 404 & 401 Authorization*. To offset these impacts, a total of 4,937 linear feet of stream will be preserved on the site and an additional 1,987 linear feet of stream will be preserved offsite. This is further discussed in Section 7 of the *Proposal for Section 404 & 401 Authorization*.

6.4 Human Use Characteristics

6.4.1 Effects on Municipal and Private Water Supplies

The surface waters on the site are not used as a source of drinking water, nor are any waters located within the HUC 05040006-0402. Accordingly, no impacts are expected to occur to municipal and/or private water supplies.

6.4.2 Recreational and Commercial Fisheries Impacts

Due to their size and quality, the surface waters on the site do not support recreational or commercial fisheries. Thus, no impacts are expected to fisheries as a result of this project.

6.4.3 Effects on Water-Related Recreation

The size and quality of the surface waters on the site make water-related recreational opportunities such as fishing, swimming or boating, effectively non-existent. The area could potentially support passive recreation and wildlife observation. However, the site is privately owned and is not currently used for any recreational activities.

6.4.4 Aesthetic Impacts

The proposed project would remove existing houses, driveways, lawns, agricultural fields and forest present on the property. Aesthetic elements of the proposed development will include preservation of existing trees within property setbacks and an extensive planting plan, including large trees and shrubs. In addition, the proposed project includes significant stream and wetland preservation areas that would help to maintain the aesthetic quality of the project site.



6.4.5 Effects on Parks, Monuments, Wilderness Areas and Preserves

Per the coordination conducted with the Ohio Department of Natural Resources (ODNR) and the USFWS, there are no state or federal parks, wilderness areas, forests, monuments, wildlife refuges, nature preserves or other such designated, protected areas in the vicinity of the project.

7.0 CUMULATIVE EFFECTS EVALUATION

7.1 Land Uses in 12-Digit HUC

The project is located within the 12-digit HUC 05040006-0402, Headwaters South Fork Licking River. This 15.4 square mile watershed includes the principal part of the City of Pataskala and extends north to the State Route 161 corridor. According to the *Biological and Water Quality Study of the Licking River and Selected Tributaries, 2008* (Ohio EPA, 2012), the watershed is comprised of approximately 12% residential and commercial development, 19% pasture and 42% row crop agriculture. The balance includes forest and open water. Agricultural land uses within the watershed are expected to decline with the growth of the Columbus metro area along the State Route 161 corridor.

7.2 Water Resources in 12-Digit HUC

The primary water resource in HUC 05040006-0402 is the South Fork Licking River. The South Fork Licking River is designated as warmwater habitat (WWH) per Ohio Administrative Code (OAC) 3745-1-24 and is in full attainment of that use designation per the Ohio EPA's 2014 *Integrated Water Quality Monitoring and Assessment Report*. There are approximately 28.5 miles of stream located within the watershed according to the U.S. EPA EnviroAtlas. According to the EnviroAtlas, approximately 0.02% of the watershed is comprised of wetlands.

7.3 Known Past, Present and Future Activities

As mentioned, within the 12-digit HUC, agriculture is expected to significantly decline as commercial and residential development expands along State Route 161, which was increased to a four lane highway through Licking County in 2009. In particular, the New Albany Business Park, in which the proposed development is located, continues to expand along State Route 161 and provides thousands of jobs to the area economy. The business park is estimated to have created over 13,000 jobs and represents over \$1.3 billion in total investment.

In association with the business campus development, approximately 500-600 acres of ground have been developed, primarily in the Blacklick Creek watershed (HUC 05060001-15-03). However, stream and wetland impacts within these recently developed areas were minimized by avoiding and preserving the highest quality stream and wetland features. These projects also removed approximately 500 acres from active agricultural use, eliminating nonpoint source pollution from nutrient runoff. Additionally, hundreds of acres of forest, wetland and other natural habitat have been donated to the City of New Albany for mitigation, conservation and recreational purposes. Finally, for those surface water impacts that were unavoidable, the mitigation completed has resulted in a new increase of wetland acreage.



Outside of the business campus and the State Route 161 corridor, the majority of the surrounding land has been historically farmed and is comprised of active agricultural fields and residential parcels. The ongoing agricultural activities have significantly altered the stream, riparian and wetland areas within the watershed, and contribute to the nonpoint source pollutant loads in the watershed.

Due to the high rates of forecasted population growth within the next several years and associated land use impacts, the South Fork Licking River watershed has been identified by Ohio EPA as a “Rapidly Developing Watershed.” Rapidly developing watersheds are subject to increased permit requirements and an accelerated implementation schedule under the Ohio EPA National Pollutant Discharge Elimination System (NPDES) Phase II General Permits. This provides protection for water quality, habitat and aquatic life within the watershed.

Despite significant population growth, Ohio EPA has determined that fish and aquatic species are thriving within the Licking River watershed. The Ohio EPA recently completed the *Biological and Water Quality Study of the Licking River and Selected Tributaries, 2008* (Ohio EPA, 2012), which included the South Fork Licking River watershed, in preparation for completion of the Licking River Total Maximum Daily Load (TMDL) report. The biological and water quality study determined that 88 percent of the watershed fully met aquatic life use goals. In particular, in the Headwaters South Fork Licking River Assessment Unit (HUC 05040006-0402), biological performance was found to be good, stream habitat was found to be in the very good range, and water column chemical parameters were consistent with good quality.

7.4 Known Restoration Projects

Several restoration and other implementation projects have been completed within the South Fork Licking River watershed (HUC 05040006-04). Much of this work has centered on Buckeye Lake, located downstream of the project area. These include:

- Development of a comprehensive lake management and nutrient reduction plan for Buckeye Lake
- Tributary mapping and watershed characterization for the Buckeye Lake Watershed by the Fairfield Soil & Water Conservation District
- Installation of 200 rain barrels and planting of 200 acres of cover crops in Fairfield, Licking and Perry County
- Installation of 1,701 square feet of permeable pavement, installation of four rainwater reuse systems, installation of a 440-square foot rain garden and retrofit of two catch basins with sediment skimmers in the Village of Buckeye Lake
- Installation of 7,500 square feet of permeable pavement and installation of two rain gardens by ODNR at Buckeye Lake State Park
- Removal of a low head dam and restoration of the Salt Run stream channel in Granville Township, Licking County

In addition, a large, multi-million dollar restoration project was completed by Ohio EPA and the U.S. Army Corps of Engineers at the former Newark Processing Facility on the Licking River mainstem. Based on available information from the Ohio EPA, it does not appear that any



restoration projects have been completed in the Headwaters South Fork Licking River subwatershed (HUC 05040006-0402).

8.0 PUBLIC INTEREST FACTOR EVALUATION

8.1 Conservation

MBJ Holdings has made an effort to minimize impacts to jurisdictional waters of the U.S. to the extent practical, as a significant area is needed in order to construct the proposed project. The project proposes the use of sediment and erosion control measures during and after construction to minimize downstream impacts. Further, significant stream and wetland preservation areas have been incorporated into Alternative #1, which will provide for the perpetual protection of the highest quality resources on the site. In total, 9.5 acres of Category 3 forested wetlands and 4,937 linear feet of unimpacted ephemeral, ~~and~~-intermittent and perennial stream will be preserved on site within approximately 20 acres of associated forested buffer. In addition, 1,987 linear feet of stream will be preserved offsite within approximately 4 acres of riparian buffer. These areas will be protected in perpetuity via conservation easement. These preservation areas are discussed in Section 7 of the *Proposal for Section 404 & 401 Authorization*.

8.2 Economics

Alternative #1, estimated over the 15 year build out of the office/warehouse complex, would create an estimated 4,816 new permanent (office/warehouse) jobs and potentially create an estimated 963 new temporary (construction/maintenance) jobs. The new permanent positions could potentially result in an estimated annual payroll of \$144,477,000 while the new temporary jobs could potentially result in another \$28,895,000 of annual payroll.

Using these assumptions, the total estimated annual payroll taxes for the new permanent positions would be approximately \$11,992,000, while the estimated annual payroll taxes for the temporary jobs would be approximately \$2,398,000. The state and local annual income and property taxes generated from the proposed complex would be based on the taxable real estate and income taxes for the development and would exceed \$11.9 million annually. The social and economic benefits of the project are further discussed in Section 5.6 of the *Proposal for Section 404 & 401 Authorization*.

8.3 Aesthetics

As mentioned previously, the proposed project would remove existing houses and appurtenant facilities present on the property. Aesthetic elements associated with the proposed development will include preservation of existing trees within property setbacks and an extensive planting plan, including large trees and shrubs. In addition, the project includes significant stream and wetland preservation areas that would help to maintain the aesthetic quality of the project site.

8.4 Wetlands & Other High Value Aquatic Sites

Impacts would occur to approximately 2,812 linear feet of ephemeral, ~~and~~-intermittent and perennial stream and ~~2.66~~3.16 acres of wetlands under the proposed alternative. Information concerning the location and quality of these streams and wetlands is provided in Section 3 of the



Proposal for Section 404 & 401 Authorization. The stream and wetland impacts include grading and fill associated with construction of the proposed buildings and parking lots, as well as culverts on Stream 1 and Stream 5 in order to construct a roadway between Harrison Road and Mink Street.

8.5 Historic Properties

The cultural resources literature review completed by EMH&T that there is a low potential to encounter significant prehistoric archaeological sites within the project area. Further, it was determined to be highly unlikely for the project to contain historic sites. A copy of the literature review is attached to *Proposal for Section 404 & 401 Authorization*.

8.6 Flood Hazards

Not applicable. Per the FEMA Flood Insurance Rate Map, the entirety of the site is located within Zone X (unshaded), which includes areas outside the 500-year floodplain.

8.7 Floodplain Values

Not applicable. Per the FEMA Flood Insurance Rate Map, the entirety of the site is located within Zone X (unshaded), which includes areas outside the 500-year floodplain. Accordingly, there will be no adverse impacts associated with occupancy and modification of floodplains.

8.8 Land Use

The proposed development meets all applicable local zoning requirements. It is located on land identified by Licking County with the land use of "Vacant land." The property is intended to be annexed by the City of New Albany.

8.9 Navigation

Not applicable. The size of the surface waters to be impacted on the site precludes navigation. The [majority of the](#) streams have ephemeral to intermittent flow regimes and [all the streams](#) are (on average) less than 5 feet wide and less than a foot deep, preventing navigation by even small watercraft such as canoes or kayak.

8.10 Recreation

As noted previously, the size and quality of the surface waters on the site make water-related recreational opportunities such as fishing, swimming or boating, effectively non-existent. The area could potentially support passive recreation and wildlife observation. However, the site is privately owned and is not currently used for any recreational activities.

8.11 Energy & Mineral Needs

Not applicable. The proposed project will have no effect on energy or mineral resources.

8.12 Safety

Not applicable. The proposed project will not adversely affect public health and safety.



8.13 Water Quality

The project shall be completed utilizing best management practices that will avoid and minimize any temporary impacts to water quality during project construction. It is anticipated that adverse impacts to water quality, if any, would be minor in magnitude and short-term in duration.

8.14 Fish & Wildlife Values

Coordination with the U.S. Fish and Wildlife Services was initiated by EMH&T concerning possible impacts to federally-listed species. The USFWS response indicated that following “seasonal tree clearing restrictions [clearing between October 1 and March 31] should ensure that any effects to northern long-eared bats are insignificant or discountable.” Further, the USFWS stated that “due to project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.” This coordination is further discussed in Section 4.3 of the *Proposal for Section 404 & 401 Authorization*.

Adverse effects to non-federally-listed species are expected to be short-term. Fish species and terrestrial biota (birds, amphibians, small mammals, etc.) may be disturbed or displaced during construction but these species could likely relocate to adjacent, unimpacted habitat.

8.15 Shore Erosion & Accretion

Not applicable. There are no lake or sea shores located within the project area.

8.16 Water Supply & Conservation

Not applicable. The proposed project will not affect the local water supply.

8.17 Food & Fiber Production

Not applicable. The proposed project will have no effect on food and/or fiber production.

8.18 Consideration of Property Ownership

The project is proposed to be developed on private property owned by MBJ Holdings, LLC. Development of the project will not cause damage to the property of others.