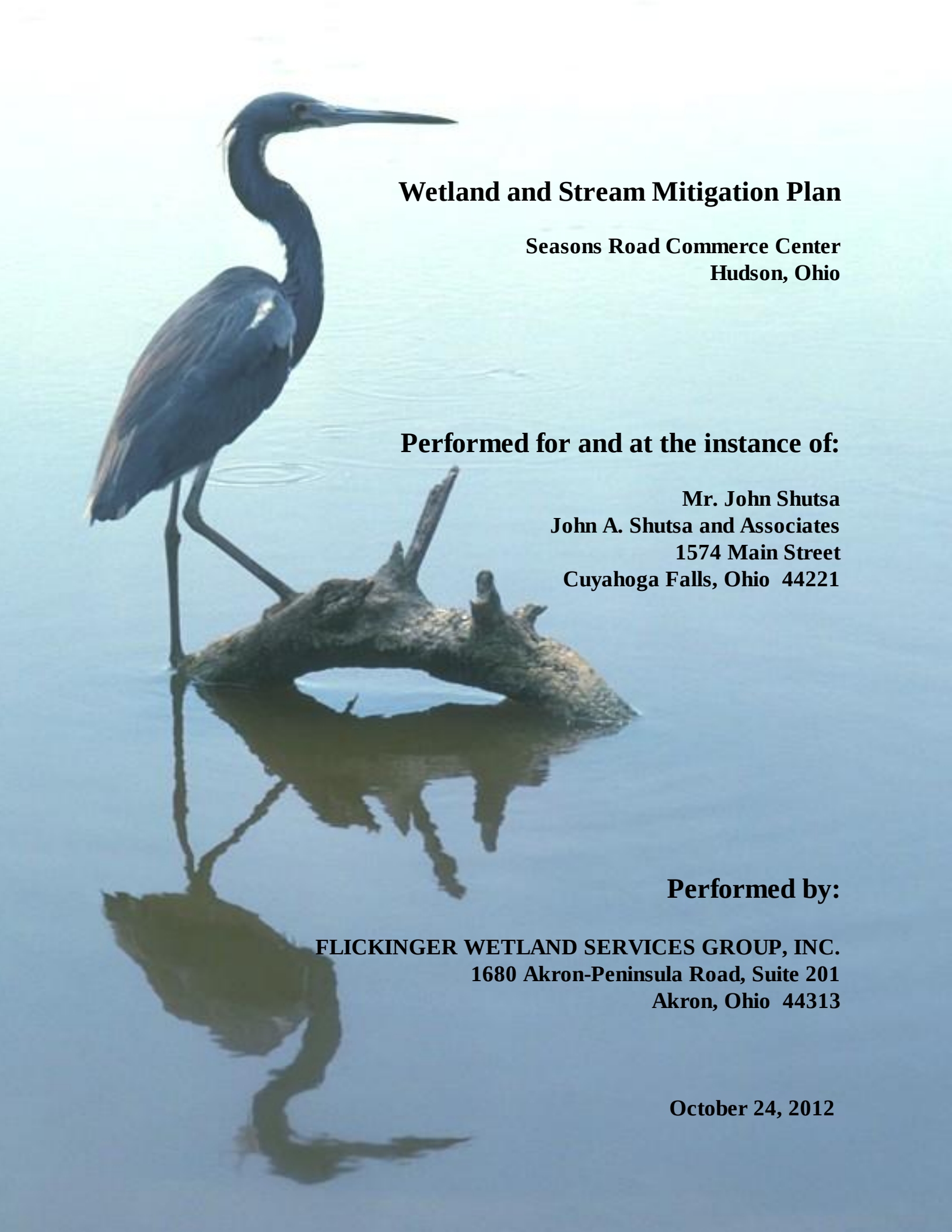

Wetland and Stream Mitigation Plan

Seasons Road Commerce Center
Hudson, Ohio

Performed for and at the instance of:

Mr. John Shutsa
John A. Shutsa and Associates
1574 Main Street
Cuyahoga Falls, Ohio 44221

Performed by:

FLICKINGER WETLAND SERVICES GROUP, INC.
1680 Akron-Peninsula Road, Suite 201
Akron, Ohio 44313

October 24, 2012

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Mr. John Shutsa
John A. Shutsa and Associates
1574 Main Street
Cuyahoga Falls, Ohio 44221

RE: Wetland and Stream Mitigation Plan (7.8/2.5 ac.)
Seasons Greene E/Commerce Park
Hudson, Ohio

Dear Mr. Shutsa:

Due to unavoidable impacts to wetlands, it is necessary to prepare this mitigation proposal for review for the U.S. Army Corps of Engineers and the Ohio Environmental Protection Agency (OEPA). Mitigation and monitoring plans are enclosed within.

Introduction/Overview

Site Location

The Seasons Greene property is approximately 161 acres in size and is located in the City of Hudson, Summit County, Ohio. The property is bordered to the south by Seasons Road. The site is located at 41°12'26.8"North by 81°27'53.63"West, latitude/longitude. See the Location Map (Attachment 1) for details.

Project Description

The Seasons Greene Park provides for the construction of industrial buildings with associated parking, infrastructure, and a required rail spur. This industrial park will be constructed on a site that has already been partially developed with one existing building and graded driveway. The proposed layout (see Attachment 2) allows for nine additional industrial lots. The existing onsite road is proposed to be fully improved and will head north and end in a cul-de-sac. This road will access Buildings A, B, C, D, E, F, and G. The driveway that is used for the existing on site building will access Buildings F, G, H, and I. Page 2 of 11

The ultimate anchor tenant proposed for the site (Building A) will be a waste energy plant which turns waste into electricity. This plant will ultimately provide the entire industrial park with electricity and will supply any surplus of energy into the sub-station located adjacent to the property to the south. This building and the Park will require the rail spur that is shown crossing the property from the existing railroad to the east.

To provide jobs and funds to the city of Hudson, it is necessary to have industrial development. The Seasons Greene Commerce Center can provide funding that is necessary for the maintenance and development of the city. In addition, this site will provide the tri-county area with municipal waste disposal, and an alternative energy source.

Proposed Impacts

The proposed development entails the impact of 6.082 acres of jurisdictional wetland and 0.003 acres of isolated wetland. For details, see the fill map in Appendix B. Using on-site mitigation ratios, 9.8 acres of mitigation is required for the proposed impacts. See table 1 below.

Table 1. Jurisdictional & Isolated Wetland Preservation, Impact, & Mitigation.

Wetland Label	Area (ac)	Category	Preserved (acres)	Fill	Land Cover	Mitigation Ratio	Mitigation (acres)
W-A	0.015	1	0.015	0	Emergent	-	-
W-B	0.044	1 or 2	0.044	0	Emergent	-	-
W-B	0.022	1 or 2	0	0.022	Forest	2	0.044
W-C	2.922	Modified 2	2.625	0.297	Emergent	1.5	0.446
W-C	3.516	Modified 2	3.151	0.365	Forest	2	0.730
W-D	0.123	Modified 2	0	0.123	Forest	2	0.246
W-E	0.899	1 or 2	0	0.899	Emergent	1.5	1.3485
W-E	0.500	1 or 2	0	0.500	Forest	2	1
W-F	1.311	1 or 2	0	1.311	Emergent/Shrub	1.5	1.9665

W-G	3.890	1 or 2	3.089	0.801	Emergent/Shrub	1.5	1.2015
W-H	5.698	2	5.606	0.092	Emergent/Shrub	1.5	0.138
W-I	1.319	1	0	1.319	Emergent/Shrub	1.5	1.9785
W-J	6.736	2	6.392	0.344	Forest	2	0.688
W-K	0.359	2	0.359	0	Forest	-	-
W-L	0.270	2	0.270	0	Forest	-	-
W-M (I)	0.003	1	0	0.003	Shrub	1.5	0.0045
W-N	0.712	Modified 2	0.706	0.006	Emergent/Shrub	-	-
W-O	0.539	2	0.539	0	Emergent/Shrub	-	-
Total	**28.878**	-	**22.698**	**6.082**	-	-	**9.7915 (9.8)**

Functions and Values of Jurisdictional Impact Areas

These proposed impact areas have been assessed using the Ohio EPA Wetland Rapid Assessment Method (ORAM), version 5.0. A brief assessment of each impacted wetland is below and assessments of all on site wetlands are included in Appendix C.

Wetlands I and M have assessed within the range for Category 1 wetlands. Category 1 wetlands, by definition, support minimal wildlife habitat and minimal hydrological and recreational functions. Wetland A has assessed low because it is located in the middle of a mowed area associated with the existing building and is dominated by the invasive narrow-leaved cattail (*Typha angustifolia*). Wetland I has assed low because its hydrology has been modified by placement of a culvert under the road. Substrate and habitat have also been altered by the roadway, plus other ATV paths. Wetland M is a small hole in the middle of a field that is dominated by the invasive narrow-leaved cattail (*Typha angustifolia*).

Wetlands B, E, F, and G have little diversity and have scored between category 1 and 2 within the gray zone. Wetlands that have assessed between Category 1 and 2 are elevated to modified 2. Modified 2 wetlands are "degraded but restorable category 2 wetlands" (per the ORAM User's Manual, 2001). Wetlands C, D, and N have scored as Modified 2 wetlands. For all intents and purposes such as calculating mitigation, these wetlands are treated as Category 2 wetlands. Wetlands B and D have assessed low because they are partially located within the mowed area associated with the existing building and therefore has narrow buffers and a high intensity of surrounding land use. Wetlands E, F, and also have narrow buffers, hydrological impacts due to filling/grading, and are dominated by the invasive species narrow-leaved cattail (*Typha angustifolia*) and/or tall reed (*Phramites australis*). Wetland C is a large wetland complex, but it has narrow buffers and a moderately high surrounding land use. This wetland has been impacted by the road bed, mowing, and dredging of the ditch that runs along the western portion of the wetland. In addition, this wetland has the invasive species narrow-leaves cattail (*Typha angustifolia*) and tall reed (*Phramites australis*) within the emergent portion.

Wetland N has been impacted by filling/grading and is dominated by invasive species including narrow-leaved cattail (*Typha angustifolia*), European buckthorn (*Rhamnus frangula*), and tall reed (*Phragmites australis*).

Wetlands H and J have scored in the category 2 range. The wetlands that have assessed as category 2 have fully recovered or are recovering from past activities and have medium to wide buffers. These wetlands also have more microtopography and less invasive species than the other onsite wetlands. Category 2 wetlands, constitute the broad middle category that "…support moderate wildlife habitat, or hydrological or recreational functions" and are typified by a dominance of native vegetation without the presence of threatened or endangered species."

A summary of the wetlands and their categories as determined by the ORAM is listed on the following page in Table 1 on page 2.

Names and Addresses of Responsible Parties

Applicant: Mr. John Shutsa
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1574 Main Street
Cuyahoga Falls, Ohio 44221

Engineer: Mr. Matthew Weber, P.E.
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Biological Consultant: Erik Flickinger
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Wetland Mitigation

Location and Description of the Mitigation Area

It is proposed that mitigation for the proposed wetland impacts will be achieved by wetland restoration/creation and preservation on site. Thus, mitigation would be within the Cuyahoga watershed, and thus within the same watershed where the impacts occur.

The proposed site for mitigation is adjacent to existing wetland, as depicted on the Mitigation Maps (Appendix B). It is proposed that wetland would be created/restored within the floodplain area between W-J and Powers Brook as well as the area between W-G and the railroad tracks to the east. At present, both mitigation areas are composed of mixed hardwoods. The northern mitigation area is dominated by red maples (*Acer rubrum*) and white ashes (*Fraxinus americana*). The southern mitigation area is also dominated by red maples and white ashes, and also has shrubby species such as ironwood (*Carpinus caroliniana*), privet (*Ligustrum vulgare*), and blackberry (*Rubus allegheniensis*).

Much of the northern area was previously wetland as is indicated by the existing soils as seen on the Soils Map (Appendix A). The soils within this area are listed as Sebring Silt Loam (Sb), a hydric soil. The hydrology of the site has been modified throughout the years by the construction of a drainage ditch (S-1). These modifications have diminished the available water and consequently reduced the wetland areas. The wetlands that will abut the northern mitigation area (W-J, K, L) have all scored within the range of category 2 wetlands.

The southern mitigation area is underlain by Bogart Loam, 2-6% slopes (BgB), and are not considered to be hydric or have hydric inclusions. In addition, this area has hydrological modifications due to mounding and the railroad to the east. Wetland G, which will abut the southern mitigation area, has scored within the 1 and 2 grey zone.

Proposed Wetland Acreage to be Impacted/Created/Preserved

Using on site mitigation ratios, 9.8 acres of wetland mitigation is required (see Table 1, Page 2). On site wetland restoration/creation can provide 7.8 of these acres and largely compensate for the direct replacement of the 6.082 acres of impacted wetland. To address the shortfall of 2.0 acres it is proposed to acquire 2.0 acres of wetland mitigation from the Ohio Wetlands Foundation, Trumbull Creek Bank. The proposed contract is attached in Appendix C

Stream Mitigation

Location and Description of the Mitigation Area

No streams are proposed to be filled as part of this proposed project. However, all un-impacted on site streams will be preserved using a conservation easement. This preservation will include 1452.72 linear feet of Powers Brook. See the fill map in Appendix B for details on un-impacted stream locations.

Implementation Plan

Site Preparation & Construction

The northern restoration site is lacking hydrology due to a ditch (S-1) that was dug with the intention of drying up the wetland floodplain surrounding Powers Brook. If the flow of the ditch is stopped, the hydrology will return to the area and will become wetland. It is proposed to block drainage out of the ditch in order to prevent the floodplain area from draining. Once the ditch is blocked and hydrology returns, the soils will also become hydric in color. The soil series within this mitigation area is listed as hydric and therefore it is likely they will change with the addition of hydrology.

The southern mitigation area is currently supporting several FAC species as well as FACU species. This area does not have hydric soils or evidence of hydrology. The surrounding wetland G has a dominance of the invasive tall reed grass (*Phargmites australis*) so precautions must be taken to prevent this invasive from entering the mitigation area. Since forested cover will discourage the growth of tall reed grass, it is proposed to leave all existing trees. The ground surrounding the existing trees will be rutted and compacted to create an opportunity for water to remain in this area and create hydrology and hydric soil color. Any areas large enough to excavate will be dug out and overlain with hydric soils from the site.

Since both mitigation areas are currently forested, no plantings are proposed. If, after two years, either area is lacking hydrophytic vegetation, it will be supplemented with plantings. The exact type of vegetation to be planted will be determined at that time with regard to the hydrological regime of the specific wetland area.

Projected Functions & Goals of the Mitigation Area

Types of Communities/Habitats to be Created/Restored

The northern mitigation area is dominated by hydrophytic and mesophytic trees. These trees will be preserved and will continue to thrive in the restored wetland area. The addition of hydrology to the area will result in the area becoming wetland and new plants may begin to naturally grow. This area will become saturated throughout.

The southern mitigation area is a mix of shrubs and trees with an herbaceous understory in some areas. With the preservation of existing vegetation, it is anticipated that there will be a mosaic of upland and wetland areas in the mitigation site. The existing topography may not allow for complete saturation of the soils throughout the site, so that upland vegetation will continue to grow. This kind of mosaic can provide exceptional wildlife habitat. With the upland and wetland mosaic, the functional value of this area will be greatly augmented.

Summary of Goals

The following is a summary of goals for the Seasons Greene Commerce Center mitigation proposal:

1. Creation/restoration of a minimum of 7.8 acres of wetland.

2. As it is our goal to replace the impact areas at a quality equal to or higher than the existing wetland values, the existing wetland assessments (ORAMs in Appendix C) will be used to evaluate the relative functionality of the mitigation area. The northern mitigation area must elevate the scores of wetlands J, K, and L. Therefore, it must score above a 55. The southern mitigation area must elevate the score of W-G and score above a 33.5.

3. Establishment of 85% plant cover within 5 years in the mitigation areas.

4. Minimum establishment of 20 different species of native hydrophytic vegetation within 5 years in the mitigation areas.

5. Coverage of invasive plants will be kept at a “sparse” level. That is, invasive plants will be kept below 10% coverage of the mitigation area. These invasive plants include

canary reed grass (*Phalaris arundinacea*), tall reed grass (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), and European buckthorn (*Rhamnus frangula*).

6. Establishment of self-sustaining wetland hydrology in the mitigation areas must be established.

7. All un-impacted wetlands (20.707 acres) and streams (2701.25 linear feet) within the project site will be preserved using a conservation easement.

8. The mitigation areas (7.8 acres) will be preserved in perpetuity using a conservation easement.

Maintenance and Monitoring Plan

Maintenance Activities

Due to the self-sustaining nature of these created wetlands, maintenance will be limited to ensuring the drainage from S-1 remains blocked. If necessary, invasive vegetation will be removed if they are preventing the establishment of more desirable wetland species. Eradication of weedy plant species that may overtake the mitigation area will occur only with the permission and guidance of the Army Corps of Engineers and Ohio EPA. The removal, destruction or cutting of vegetation or the spraying of herbicides will occur only if the Corps and OEPA considers such management practices necessary to ensure the long-term success of the mitigation program.

Monitoring Methods

Vegetative, soil, and hydrological conditions, as well as wildlife usage will be monitored within the created wetland. Monitoring will be conducted using representative sample points along the edges of the created wetland. These sampling points will be established to monitor percent vegetative coverage, species diversity, species dominance (including scientific name and indicator status), changing soil conditions and hydrological conditions. Observed wildlife usage in the wetland will be recorded and reported. In addition, fixed-point photographs will be taken at regular intervals to document the succession within the wetland. Both hydrologic and vegetative information will be collected in the growing season every year. Monitoring will continue for a period of 5 years after the completion of construction activities.

Annual water quality, hydrology and vegetation surveys shall be conducted. A report containing these data shall be submitted to the USACE annually or biennially, as determined by the USACE, for each of five consecutive years following completion of mitigation construction. The reports shall contain, at a minimum, the following information:

1. **As-built drawings:** An 8.5 x 11 inch as-built drawing of the wetlands.

2. **Hydrology monitoring:** Water Level data shall be collected with the sample point information. Ground water levels shall be measured in the absence of inundated conditions.

3. **Soil Monitoring:** A minimum of one soil probe or test pit per two acres of mitigated wetland.

4. **Vegetation Monitoring:** The location and name of each plant community type within the mitigation area and buffer area shall be marked on a scaled drawing or scaled aerial photograph (base map) and named.

5. A representative observation point shall be selected in each plant community type in each distinct wetland mitigation area. This shall be a point which best represents the characteristics of the entire plant community. The observation points shall be marked on the base map.

6. The dominant plant species shall be visually determined in each vegetation layer of each community type, and the scientific names of these species shall be included in the report. Dominant species are those species which have the greatest relative basal area (woody overstory), greatest height (woody overstory), greatest percentage of aerial coverage (herbaceous understory), and/ or greatest number of stems (woody vines).

Reporting Schedule

Monitoring will continue for a period of 5 years after the completion of the construction activities. The data will be collected in the growing season of every year using the sampling points. Quantitative data collected will be used as a direct indication of the progress/success of the mitigation plans. Percent coverage, species diversity, water level reading and wildlife usage will be the parameters that will be measured. Reports concerning post-constructional monitoring will be submitted annually to the Army Corps of Engineers.

Final Success Criteria

The stated goal of this mitigation proposal is the creation of two forested wetland complexes. The total proposed created wetland will result in 7.8 acres of high quality wetland. In addition, 20.707 acres of wetland and 2701.25 linear feet of stream will be preserved.

Maximum water capacity of the wetland area will occur within the first month of the Northeast Ohio growing season, from April 30 to May 30. Initially, late growing season conditions will be drier to encourage FAC and FACW growth. The outer edges of the created wetland are expected to be

seasonally saturated. The hydrology of the rest of the wetland will range from seasonally saturated to permanently flooded, depending on the existing contours of the area.

Minimum Acceptable Functions and Values Scores

The Ohio EPA Ohio Wetland Assessment Method: Version 5.0 will be used to categorize the created wetlands. This will give some indication of functional assessment but other than this, there is no current widespread method for wetland functional assessment. Success will also be based on qualitative indications of functional value, such as visible wildlife usage and flood control. Quantitative data collected will also be used as a direct indication of the progress and success of the mitigation plans. Acreage of mitigation, percent vegetative coverage, species diversity, water level readings and wildlife usage will be the parameters that will be measured and used to evaluate the success of the project.

Notification of Completion

At the end of the 5 year monitoring period, notification will be given to the Army Corps of Engineers in the form of a comprehensive report outlining the success of the project. Included in the report will be a summary of all monitoring information and a vegetation map of each mitigation area. Upon completion of the stated goals, it is presumed that the U.S. Army Corps of Engineers will issue a confirmation of mitigation success upon termination of the 5 year monitoring program.

I hope the preceding information will be of help to you. Please feel free to contact me with any questions you may have concerning this report. FLICKINGER WETLAND SERVICES GROUP, INC. looks forward to further serving you in the future.

Sincerely,

Erik A. Flickinger, President
FLICKINGER WETLAND SERVICES GROUP, INC.

EAF/lls

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