



# Hamilton Lake Sediment Removal Plan

Final Report

Prepared for:

Hamilton Lake Association, Inc.

P.O. Box 515

Hamilton, Indiana 46742

January 2009



Williams Creek Consulting, Inc.  
Babeca Building  
919 North East Street  
Indianapolis, IN 46202  
(317) 423-0690

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## Hamilton Lake – Black Creek Sediment Removal Plan Executive Summary

The Hamilton Lake Sediment Removal Plan is the result of the efforts of the Hamilton Lake Association and concerned residents of the lake. This group is concerned about reducing the amount of sediment from Black Creek and removing existing sediment.

Black Creek drains 60% of the northern part of the Hamilton Lake watershed in Steuben County, Indiana. During a storm event in 1996 a large amount of sediment was carried into the lake. The Hamilton Lake Association is concerned about limited recreation capacity as well as diminished habitat and degraded water quality. The Association recognizes the need to reduce the amount of sediment coming into the lake before undertaking the sediment removal process and is working to address the problem. The Association applied for and received a Lake and River Enhancement (LARE) grant through the Indiana Department of Natural Resources (IDNR) to develop this Sediment Removal Plan.

This Plan addresses the amount of sediment located near the mouth of Black Creek and sediment in the channel at Clark's Landing, the chemical and physical composition of the sediment, and the removal process based on IDNR guidance. The Plan identifies the area where the sediment will be dewatered and the construction of the sediment dewatering basin. The permits required for this undertaking and landowner agreements are included in the Appendices.

This Sediment Removal Plan, when paired with the corrective actions planned for Black Creek, will improve water quality and habitat, and improve recreation possibilities in the lake.

### Acknowledgements

This Sediment Removal Plan was completed with funding from the Indiana Department of Natural Resources - Division of Fish and Wildlife, Lake and River Enhancement Program, and the Hamilton Lake Association, Incorporated. Williams Creek Consulting, Inc. (WCC), documented the historical information, completed the in lake sediment measurements, collected samples for chemical evaluation and particle composition, calculated the amount of sediment in the lake, and sized the appropriate sediment disposal area. In addition, all appropriate permits were filed. Special thanks are due to the lake residents of Hamilton Lake who volunteered their time, boats, and ideas. Authors of this report include Beth Neilson and Heather Gregory of WCC.

Overall this document is about the influence of Black Creek on Hamilton Lake, the efforts of the residents to restore the inlet area, and restore the recreation and habitat benefits by removal of accumulated sediment. The Hamilton Lake Association is working to stabilize areas of Black Creek to reduce sediment inflow into the lake. This concerned group of residents is committed to protecting and improving water quality and habitat within Hamilton Lake and the surrounding watershed.

## 1.0 INTRODUCTION

### 1.1 Project Description and Purpose

The Hamilton Lake Sediment Removal Plan was completed under the guidance of the Hamilton Lake Association (HLA). The main sediment removal area is located at the mouth of Black Creek in the northern section of Hamilton Lake. The plan includes a second area, Clark's Landing Channel for the Clark's Landing Co-op.

The removal of accumulated sediment in these areas will improve accessibility and aesthetics of Hamilton Lake in Steuben County, Indiana. Sediment deposition at the Black Creek discharge into Hamilton Lake is evident and is documented by many of the local residents. This deposition causes the following problems and impairments: a) Local residents can not access the lake without extending their docks; b) During many months of the year, fish and other aquatic species cannot access Black Creek as they historically could; c) Sediment plumes and erosion in this area lead to an aesthetically unpleasing environment. (Dynamic Environmental Solutions, 2006)

The project is part of the Hamilton Lake-Black Creek Stream Restoration Design Study/Sediment Removal Plan. Streambank stabilization along the areas of Black Creek identified in the Engineering Feasibility Study of 2006 will be designed as part of this project. This streambank stabilization will reduce sediment loads from Black Creek to Hamilton Lake.

### 1.2 Contact Information

The Hamilton Lake Association is a non-profit organization comprised of a volunteer board of directors and officers. The officers and directors listed by year:

<u>2007 Officers</u>		<u>2008 Officers</u>	
<u>Officers</u>	<u>Name</u>	<u>Officers</u>	<u>Name</u>
<i>President</i>	William Dillon	<i>President</i>	Janet Albright
<i>Vice President</i>	Jeff Bireley	<i>Vice President</i>	William Dillon
<i>Treasurer</i>	Jack Thompson	<i>Treasurer</i>	Jack Thompson
<i>Secretary</i>	Linda Skelly	<i>Secretary</i>	Linda Skelly
<u>Directors</u>		<u>Directors</u>	
District 1	Georgian Bush William Dillon Ro Pape	District 1	Georgian Bush William Dillon Ro Pape
District 2	Ginny DeBrunner Scott Federoff Tony Hile	District 2	Ginny DeBrunner Scott Federoff Tony Hile
District 3	Tom Blood Bill Martins Linda Skelly	District 3	Tom Blood Bill Martins Linda Skelly
District 4	Jim Honiotes Adam Clinton Mike Roop	District 4	Jim Honiotes Adam Clinton Dennis Germann

Directors  
District 5

Name  
Jeff Bireley  
Kay Nims  
Jack Thompson

Directors  
District 5

Name  
Janet Albright  
Sandy Patterson  
Jack Thompson

Contact for this project:

Name/Title: William Dillon, Hamilton Lake Association Vice President

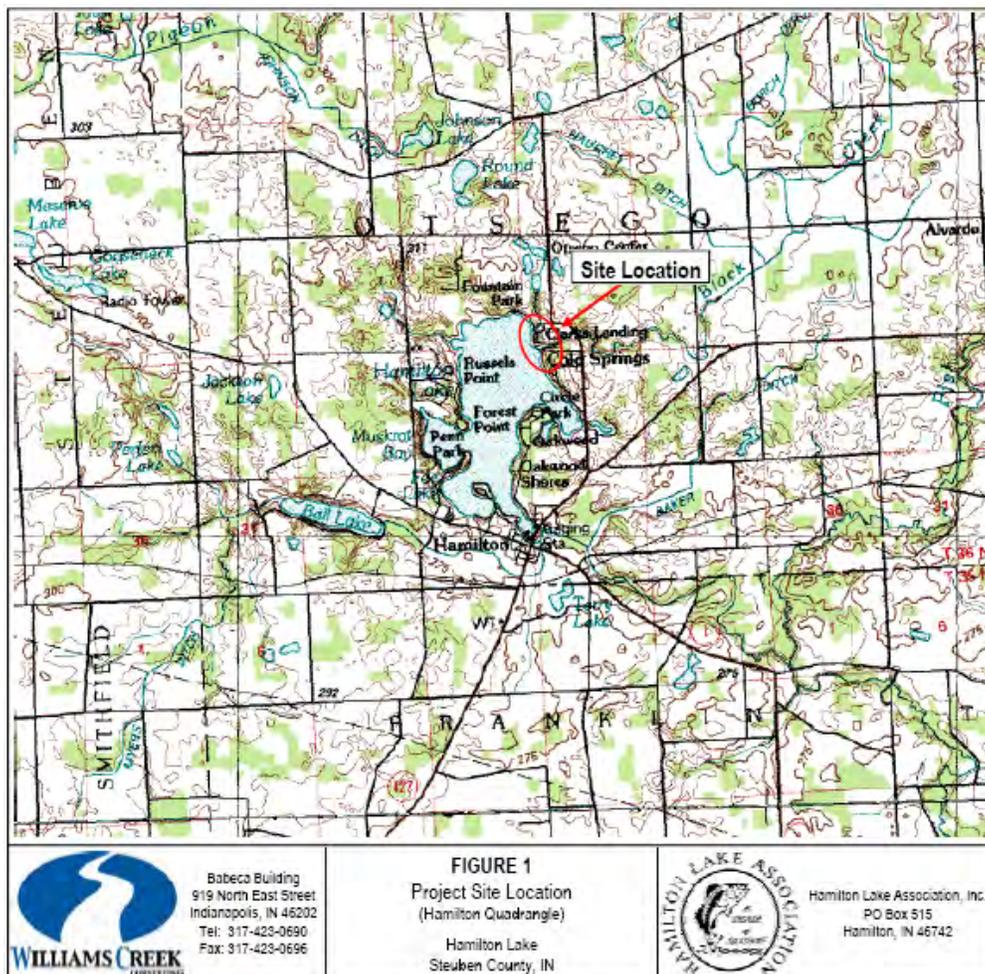
Address: P.O. Box 515  
Hamilton, IN 46742

Phone: (260) 341-9091

Email: wjdillon@hotmail.com

**1.3 Project Location**

Hamilton Lake is an 836 acre (338 ha) lake located in Otsego Township in southeastern Steuben County, Indiana (Figure 1). The project site is located in the northwest quarter of Section 27, Township 36N, Range 14E and the southwest quarter of Section 22, Township 36N, Range 14E. The project site is located in the 8-digit hydrologic unit code (HUC) 041000030, St. Joseph (IN, MI, OH) watershed and more specifically lies within the 14-digit HUC 04100003050040 (Hamilton Lake/Black Creek watershed). The Association identified two areas for sediment removal, the Black Creek outlet and Clark's Landing (Figures 2 through 4). The nearest community is the town of Hamilton.







## 1.4 Public Involvement

Discussions about the removal of sediment have been ongoing with Hamilton Lake residents since a large storm event in 1996 brought large amounts of sediment into the lake via Black Creek. The residents have been concerned not only about the sediment but the source of the sediment as well. They realize it is necessary to remove the source of the sediment to prevent additional sediment from entering the lake. The Hamilton Lake Association has identified sources of sediment in the Black Creek stream corridor and has a plan in motion to install bio-engineered Best Management Practices (BMPs) to hold the stream banks in place. The lake association has provided volunteers to assist with the sediment measuring and contact effected landowners.

## 2.0 DESIGN CRITERIA

### 2.1 Sediment Characteristics

The sediment dimensions, particle composition, and chemical composition were determined by sediment sampling conducted on August 31, 2007.

#### 2.1.1 Sediment Dimensions

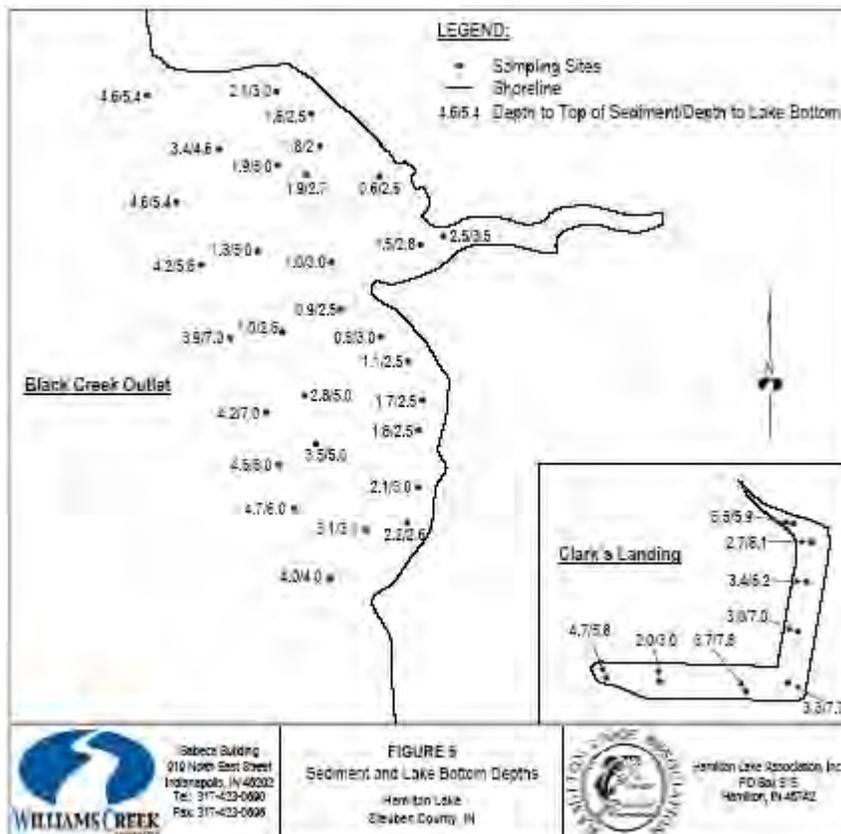
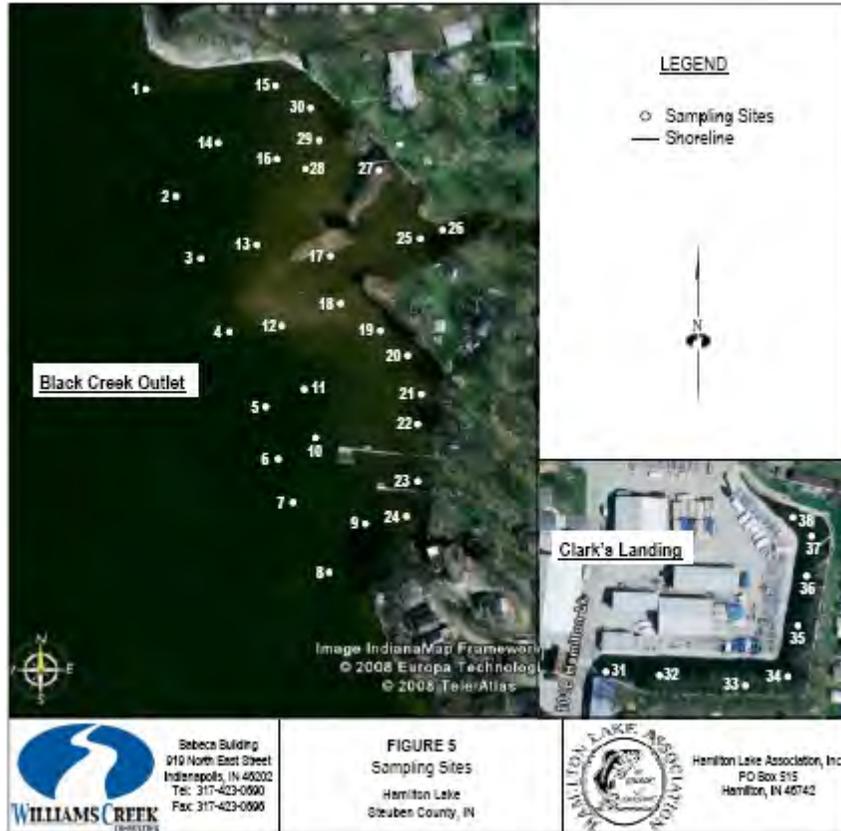
Sediment sampling was conducted on August 31, 2007. The sampling sites are shown in **Figure 5**. Sediment depth in the two target sediment removal areas was measured using a two inch PVC pipe. The pipe was submersed until it reached the top of the accumulated sediment and then again until it reached the lake bottom at each sampling site. These measurements were used to determine the average depth of the accumulated sediment. GPS coordinates were recorded at the sampling sites and imported into ArcGIS. These coordinates were used to measure the surface area of the accumulated sediment. The area and average depth of the accumulated sediment were used to determine the volume of sediment to be removed. **Table 1** shows the area, average depth, and volume of the accumulated sediment.

**Table 1. Area, Average Depth, and Volume of Accumulated Sediment**

Location	Area (acres)	Average Depth (feet)	Volume (cubic yards)
Black Creek Outlet	4.8	2	15,500
Clark's Landing	0.6	3.25	3,400
<b>Total</b>	<b>5.4</b>	<b>-</b>	<b>18,900</b>

#### 2.1.2 Lake Bottom Mapping

The lake depth measurements recorded on August 31, 2007 were used to create bathymetric maps (**Figure 6**). The depths recorded for the top of sediment depict the current conditions, while the depths of the lake bottom depict the conditions before the sedimentation occurred.



### 2.1.3 Particle Composition

A sediment sample was collected on August 31, 2007 at the Black Creek Outlet to determine the particle size. An area containing gravel directly adjacent to Black Creek in Hamilton Lake was sampled. This area contained more gravel than the remaining sediment removal area, due to the size of the gravel, the sample was collected using a bucket and taken to the Alt & Witzig Engineering lab for analysis. The analysis showed that the sediment was predominately composed of gravel (66.5%) and sand (24.3%) with little silt/clay (1.1%). One hundred percent of the sample had a grain size smaller than 38 mm, while 10 percent was 0.5 mm or larger. The lab results sheet can be found in **Appendix A**.

### 2.1.4 Chemical Composition

Sediment samples were collected on August 31, 2007 at the Black Creek Outlet and Clark's Landing for analysis of chemical composition. The samples were collected using a two inch PVC pipe and placed in sterile containers provided by the lab. Samples were stored on ice and transported to Sherry Laboratories in Fort Wayne, Indiana. Only two of the nine parameters analyzed were detected, Ammonia and Barium. **Table 2**. However, these parameters did not exceed the permit limit at either sampling site. The complete analysis results are included in **Appendix A**.

**Table 2. Chemical Analysis of Sediment Samples collected August 31, 2007**

Parameter	Black Creek Outlet	Clark's Landing	Detection Limit	Permit Limit
Nitrogen, Ammonia (as N)	41.2 ppm	166 ppm	27.7 ppm	N/A
Barium	0.61 ppm	0.77 ppm	0.10 ppm	100 ppm

## 2.2 Black Creek Description

Black Creek is the largest of three main tributaries to Hamilton Lake, but is not a regulated drain according to information obtained from the Steuben County Surveyor's Office. Black Creek is considered to be a major contributor of sediment to Hamilton Lake based on the presence of sediment deltas at the mouth of Black Creek's discharge into the lake. The sediment was most likely flushed into the lake during high flow events. Local landowners observed an extensive increase of the sediment deltas in Hamilton Lake after the flood of 1996. Numerous locations of streambank erosion were identified on Black Creek in the 2006 Engineering Feasibility Study by Dynamic Engineering Solutions, Inc. The feasibility study recommended stabilization of eroding bank areas on Black Creek. Following the recommendation in the 2006 Engineering Feasibility Study, the engineering design for the streambank stabilization for eroding areas of Black Creek has been completed. The bio-engineered design utilizes Benway weirs and tree revetments constructed of natural materials found on the site to avoid costly earthmoving and concrete. Dormant willow stakes will be added to further stabilize the sites. The HLA has submitted a LARE application for construction funding.

## 2.3 Land Agreements

All landowners adjacent to the sediment removal areas were contacted by the Hamilton Lake Association. The Lake Association also contacted individuals owning potential Sediment Dewatering Basin locations and obtained permission for the use of their land for construction of the dewatering basin. A copy of the landowner agreement included as **Appendix B**.

## 3.0 CONSTRUCTION CRITERIA

### 3.1 Sediment Removal Method

Sediment will be hydraulically dredged from the Black Creek Outlet and Clark's Landing areas. Construction of the sediment dewatering basin will be completed and the dredge material inlet and return water outlet pipes and silt fence will be installed upon commencement of any dredging activities. Material dredged from the lake will be pumped to the dewatering basin. HLA will contract with an engineering firm to administer the bidding process,

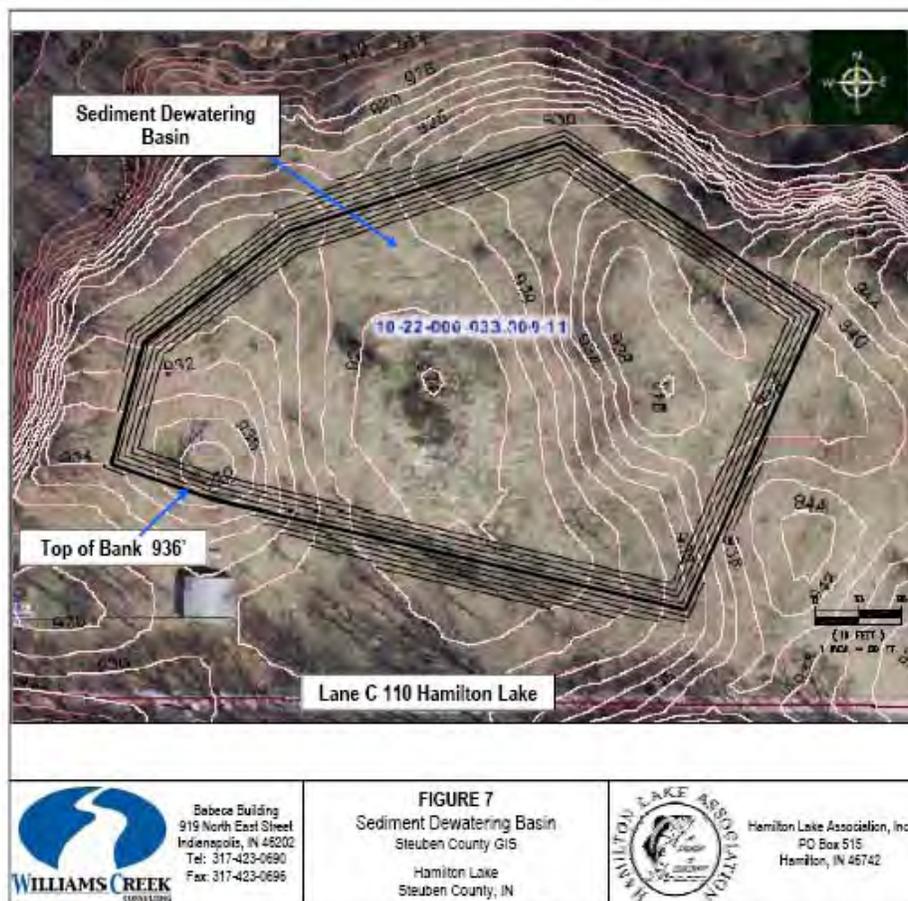
monitor project progress, ensure timely completion of dredging, and map post-dredging contours. Upon completion of the dredging, lake association volunteers will measure lake bottom depths and create contour maps of the dredged areas to be submitted upon completion as **Appendix C**.

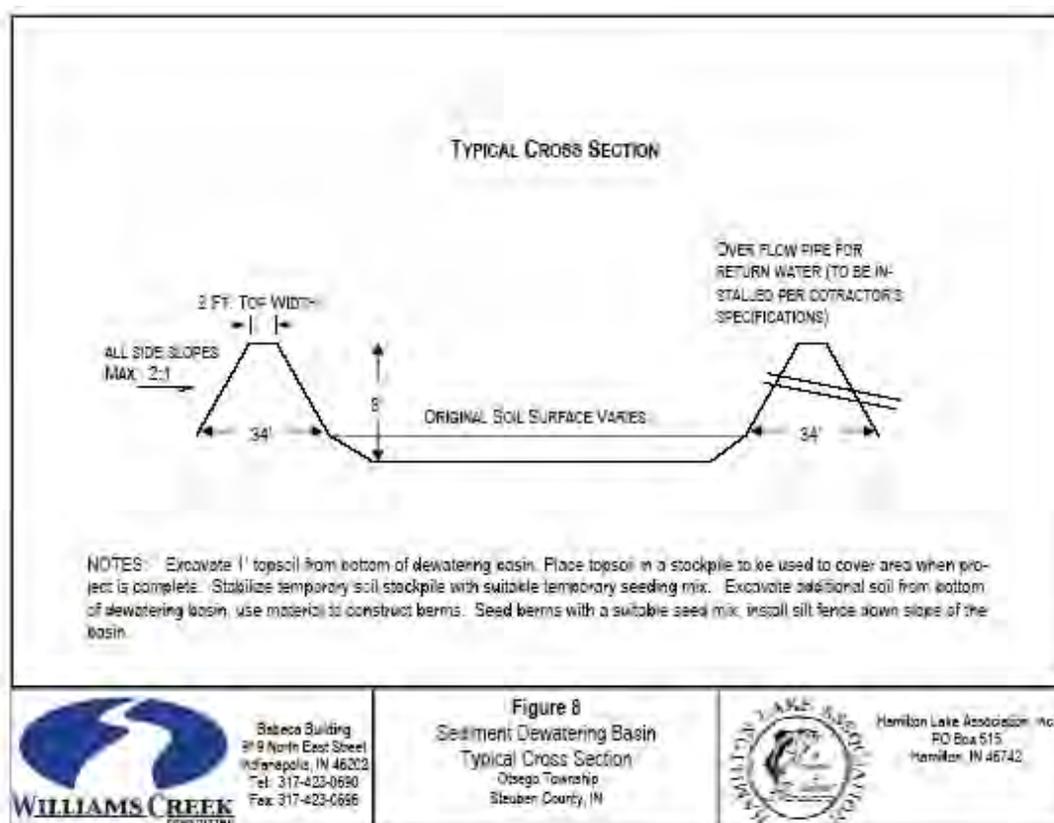
### 3.2 Contractor Selection

Contractor selection will be made by the Hamilton Lake Association to contract with a qualified individual to complete the items outlined in the previous section. Contractor selection needs to include guarantee of ability to remove gravel material directly adjacent to Black Creek in Hamilton Lake

### 3.3 Spoil Disposal

A sediment dewatering basin will be constructed prior to any dredging activities. A dewatering basin location has been identified and a signed agreement with the landowner is included as **Appendix B**. One foot of topsoil will be removed and stockpiled. Additional soil will be excavated and used to construct berms eight feet tall (measured from the inside of the dewatering basin with 2:1 side slopes around the entire basin. Berms should be constructed in six inch lifts and compacted to 90% modified proctor. The topsoil stockpile and berms will be temporarily seeded to reduce erosion. Additionally, silt fence or an erosion control equivalent will be installed down slope of the basin to catch any construction site runoff. The basin will have a storage capacity of 26,500 cubic yards of material and water, this storage capacity allows for expansion of the sediment once removed from the lake. The dewatering basin design is shown in **Figure 7**. The topographic lines depicted in the figure are from Steuben County GIS. Due to the varying topography of the site, the top of berm will be level with the original ground level at several locations. A typical cross section for the dewatering basin is included as **Figure 8**. After the dredging is complete and the Sediment Dewatering Basin has had sufficient time to dry out, the area needs to be reshaped, stockpiled topsoil spread and permanent seed and mulch applied to the area.





### 3.4 Permitting

A Rule 5 Stormwater Pollution Prevention Plan Permit from the Indiana Department of Environmental Management (IDEM) will be required for the construction of the sediment dewatering basin. The contractor constructing the dewatering basin will be responsible for obtaining this permit prior to any earth moving activities. A Lake Preservation Permit will be required from IDNR because dredging will "affect the contour of the lake below the waterline." A Clean Water Act Section 401 Water Quality Certification from the IDEM and a Section 404 permit from the U.S. Army Corps of Engineers (USACE) will be required because water from the sediment dewatering basin will be returned to the lake. The IDNR Lake Preservation Permit, IDEM, and USACE permits were submitted in December 2008 and January 2009, and once obtained will be included as **Appendix D**.

### 3.5 Construction Schedule

The sediment dewatering basin will need to be constructed and stabilized with temporary measures prior to dredging activities. Once the basin is complete the sediment removal may begin. The sediment and water will be pumped to the dewatering basin where the water will eventually drain into Black Creek and return to Hamilton Lake.

After dewatering is complete, the sediment in the basin will be graded to blend into the surrounding landscape. The stockpiled topsoil will be spread on top and permanently seeded and straw mulched. Once the seeding has established growth, the silt fence and any other temporary erosion control measures will be removed.

The construction schedule will ultimately be based on contractor scheduling and funding.

### 3.6 Cost Estimate

Cost estimates were determined based on excavator and dredge contractor estimates. Cost estimates are shown in Table 3.

**Table 3. Cost Estimates for Sediment Removal and Dewatering Basin Construction**

<b>Location</b>	<b>Total Cost</b>
Black Creek Outlet*	\$217,000.00
Clark's Landing**	\$62,000.00

\*Black Creek Outlet estimate includes construction of sediment dewatering basin  
\*\*Clark's Landing estimate includes cost of crane



**Appendix A**

**Hamilton Lake  
Sediment Removal  
Plan**

**Sediment Sampling Lab Results**

5738 Industrial Road  
 Fort Wayne Indiana 46825  
 260-471-7000

Fax: 260-471-7777

**CLIENT:** WILLIAMS CREEK CONSULTING  
**Lab Order:** F07080573  
**Project:** Hamilton Lake / 070039  
**Lab ID:** F07080573-01A  
**Date Received:** 31-Aug-07

**Client Sample ID:** BLACK CREEK  
**Tag Number:**  
**Collection Date:** 8/31/2007 11:00:00 AM  
**Matrix:** SLUDGE  
**Date Reported:** 02-Oct-07

Analyses	Detection		Qual	Permit		Date Analyzed	Analyst
	Result	Limit		Limit	Units		
<b>MERCURY, TCLP LEACHED</b>							
Mercury	ND	0.020		0.2	ppm	9/14/2007	<b>SUB</b>
<b>AMMONIA (AS N) IN SLUDGE</b>							
Nitrogen, Ammonia (As N)	41.2	27.7			ppm	9/13/2007	<b>SUB</b>
<b>ICP METALS, TCLP LEACHED</b>							
Arsenic	ND	0.20		5	ppm	9/13/2007 6:00:01	<b>SUB</b>
Barium	0.61	0.10		100	ppm	9/13/2007 6:00:01	
Cadmium	ND	0.10		1	ppm	9/13/2007 6:00:01	
Chromium	ND	0.10		5	ppm	9/13/2007 6:00:01	
Lead	ND	0.10		5	ppm	9/13/2007 6:00:01	
Selenium	ND	0.20		1	ppm	9/13/2007 6:00:01	
Silver	ND	0.10		1	ppm	9/13/2007 6:00:01	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds MCL or Permit Limitations  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 MI+ - Matrix Interference  
 H - Exceeds Holding Time

5738 Industrial Road  
 Fort Wayne Indiana 46825  
 260-471-7000

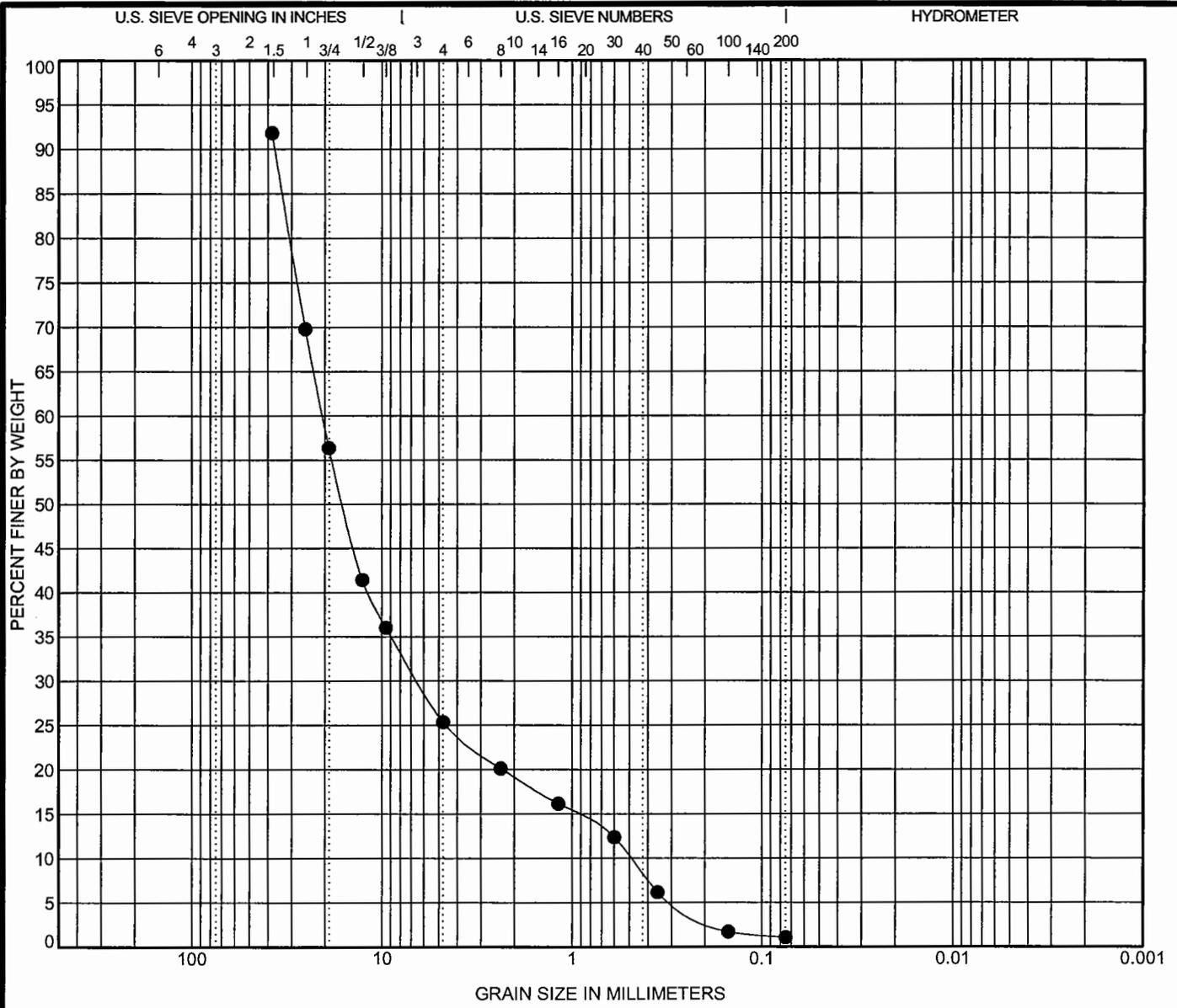
Fax: 260-471-7777

**CLIENT:** WILLIAMS CREEK CONSULTING  
**Lab Order:** F07080573  
**Project:** Hamilton Lake / 070039  
**Lab ID:** F07080573-02A  
**Date Received:** 31-Aug-07

**Client Sample ID:** CLARK'S LANDING  
**Tag Number:**  
**Collection Date:** 8/31/2007 1:30:00 PM  
**Matrix:** SLUDGE  
**Date Reported:** 02-Oct-07

Analyses	Detection		Qual	Permit		Date		Analyst
	Result	Limit		Limit	Units	Analyzed		
<b>MERCURY, TCLP LEACHED</b>								
Mercury	ND	0.020		0.2	ppm	9/14/2007		<b>SUB</b>
<b>AMMONIA (AS N) IN SLUDGE</b>								
Nitrogen, Ammonia (As N)	166	37.6			ppm	9/13/2007		<b>SUB</b>
<b>ICP METALS, TCLP LEACHED</b>								
Arsenic	ND	0.20		5	ppm	9/13/2007 6:03:13		<b>SUB</b>
Barium	0.77	0.10		100	ppm	9/13/2007 6:03:13		
Cadmium	ND	0.10		1	ppm	9/13/2007 6:03:13		
Chromium	ND	0.10		5	ppm	9/13/2007 6:03:13		
Lead	ND	0.10		5	ppm	9/13/2007 6:03:13		
Selenium	ND	0.20		1	ppm	9/13/2007 6:03:13		
Silver	ND	0.10		1	ppm	9/13/2007 6:03:13		

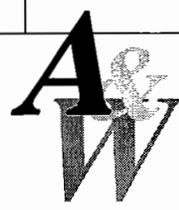
**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds MCL or Permit Limitations  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 MI+ - Matrix Interference  
 H - Exceeds Holding Time



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● 1      0.0 to 2.0	<b>POORLY GRADED GRAVEL with SAND(GP)</b>				<b>4.09</b>	<b>41.94</b>

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● 1      0.0 to 2.0	<b>38.1</b>	<b>20.589</b>	<b>6.431</b>	<b>0.491</b>	<b>66.5</b>	<b>24.3</b>		<b>1.1</b>



Alt & Witzig Engineering, Inc.  
 4105 West 99th Street  
 Carmel, Indiana 46032  
 Telephone: (317) 875-7000  
 Fax: (317) 876-3705

GRAIN SIZE DISTRIBUTION	
Project:	Hamilton Lake - Black Creek Inlet
Location:	Hamilton Lake
Number:	070039

A&W GRAIN SIZE USCS GRAIN SIZE.GPJ US EVAL.GDT 9/26/07



**Appendix B**

**Hamilton Lake  
Sediment Removal  
Plan**

**Landowner Agreement**

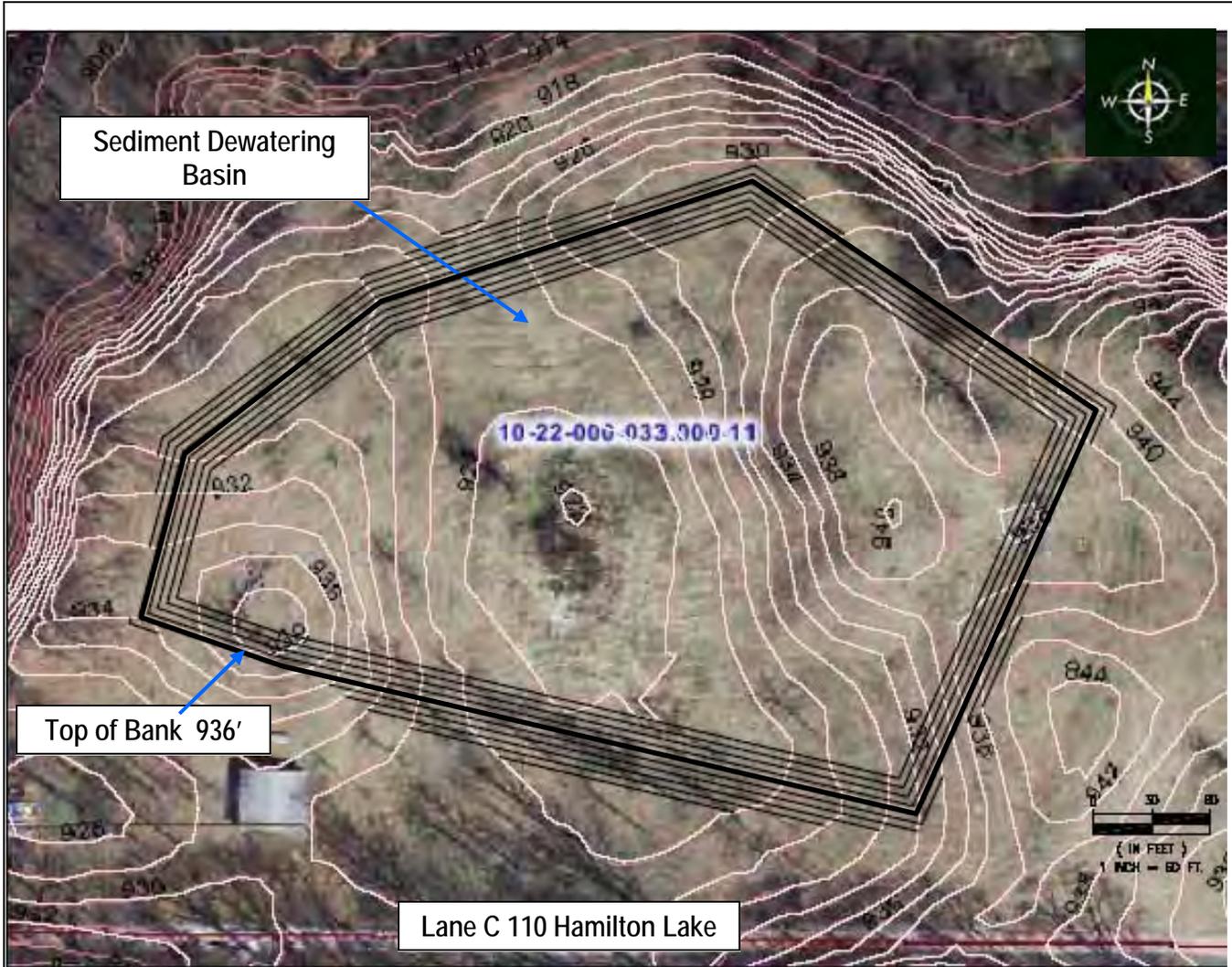
Once signed by landowner, the Landowner Agreement will be included as  
Appendix B.



**Appendix C**

**Hamilton Lake  
Sediment Removal  
Plan**

**Details  
and  
Final Sediment Measurements**



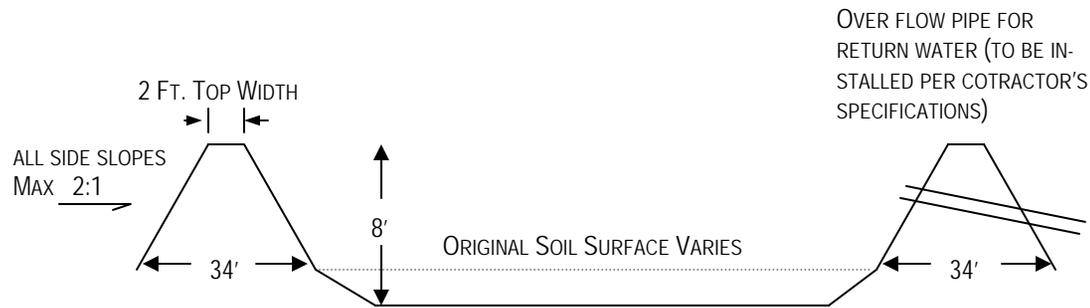
Babeca Building  
 919 North East Street  
 Indianapolis, IN 46202  
 Tel: 317-423-0690  
 Fax: 317-423-0696

**FIGURE 7**  
 Sediment Dewatering Basin  
 Steuben County GIS  
 Hamilton Lake  
 Steuben County, IN



Hamilton Lake Association, Inc.  
 PO Box 515  
 Hamilton, IN 46742

### TYPICAL CROSS SECTION



NOTES: Excavate 1' topsoil from bottom of dewatering basin. Place topsoil in a stockpile to be used to cover area when project is complete. Stabilize temporary soil stockpile with suitable temporary seeding mix. Excavate additional soil from bottom of dewatering basin, use material to construct berms. Seed berms with a suitable seed mix, install silt fence down slope of the basin.



Babeca Building  
919 North East Street  
Indianapolis, IN 46202  
Tel: 317-423-0690  
Fax: 317-423-0696

**Figure 8**  
Sediment Dewatering Basin  
Typical Cross Section  
Otsego Township  
Steuben County, IN



Hamilton Lake Association, Inc.  
PO Box 515  
Hamilton, IN 46742

Final sediment measurements to be completed following dredging will be inserted here.



**Appendix D**

**Hamilton Lake  
Sediment Removal  
Plan**

**Permits**



**Corporate**  
Babeca Building  
919 North East Street  
Indianapolis, IN 46202

**Ohio**  
247 East Livingston Ave  
Suite B  
Columbus, OH 43215

**Missouri**  
7211 Manchester Ave  
St. Louis, MO 63143

**Zurich**  
Grossackerstrasse 64  
8041, Zurich  
Switzerland

**North Carolina**  
5450 Fairview Road  
Charlotte, NC 28210

**Texas**  
511 West Northgate Drive  
Irving, TX 75062

1-877-668-8848  
info@williams creek.net  
www.williams creek.net

January 7, 2009

Technical Services  
Department of Natural Resources Division of Water  
402 W. Washington Street, Room W264  
Indianapolis, IN 46204-2641

**Re: Lake Preservation Permit Application  
Hamilton Lake Sediment Removal Plan, Steuben County, Indiana**

Dear Sir or Madam:

Williams Creek Consulting, Inc. (WCC) is submitting, on behalf of the Hamilton Lake Association, a Lake Preservation Permit Application for dredging activities proposed within approximately 4.8 acres of Hamilton Lake and approximately 0.6 acre of the Clark's Landing Channel, adjacent to Hamilton Lake. The details of the proposed dredging activities are provided in the enclosed permit application, project description, and site photos.

WCC has identified the adjacent property owners and will proceed with the public notice following notification of the receipt of these application materials by IDNR. If you have any questions, or need additional information, please contact me at your earliest convenience. Thank you for your time.

Best regards,  
Williams Creek Consulting, Inc.

Jason Steckel  
Project Scientist

Enclosures: Lake Preservation Permit Application form, Project Description including site maps and aerial photography, and labeled site photos

Cc: Mr. Joe Mapes, IDNR; Ms. Janet Albright, Hamilton Lake Association



## PERMIT APPLICATION FOR CONSTRUCTION

State Form 42946 (R6/2-05)

Approved by the State Board of Accounts, 2005

Mail To: Department of Natural Resources Division of Water  
 402 West Washington Street, Room W264  
 Indianapolis, Indiana 46204-2641  
 Telephone Number: (317) 232-4160  
 Toll Free: 1-877-928-3755  
 Fax Number: (317) 233-4579  
 www.IN.gov/dnr/water

Based on the "Permit Application Assistance Manual", I am submitting this application to perform work under:

Permit Type	Application Fee	Permit Type	Application Fee
<input checked="" type="checkbox"/> IC 14-26-2 Lake Preservation Act	\$ 100.00	<input type="checkbox"/> IC 14-29-3 Sand and Gravel Permits Act	\$ 50.00
<input type="checkbox"/> IC 14-26-5 Lowering of the Ten Acre Lake Act	\$ 25.00	<input type="checkbox"/> IC 14-29-4 Construction of Channels Act	\$ 100.00
<input type="checkbox"/> IC 14-29-1 Navigable Waterways Act	No Fee		
<input type="checkbox"/> IC 14-28-1 Flood Control Act, (select one of the following):			
<input type="checkbox"/> Excavation, fill, or non-residential construction in a floodway			\$ 200.00
<input type="checkbox"/> Residential reconstruction in a floodway, other than the Ohio River floodway			\$ 50.00
<input type="checkbox"/> Residential construction, or reconstruction, in the Ohio River floodway			\$ 10.00

### PLEASE TYPE OR PRINT

#### 1. APPLICANT INFORMATION

Name of Applicant Hamilton Lake Association Name of Contact Person Janet Albright  
 Applicant Mailing Address P.O. Box 515 Hamilton Indiana 46742  
 Street, P.O. Box or Rural Route City State ZIP Code  
 Contact Information: Daytime Tele. # (419)261-3333 Fax # ( ) N/A E-mail Address jalbright@buckeye-express.com

#### 2. AGENT INFORMATION

Name of Agent Williams Creek Consulting Name of Contact Person Jason Steckel  
 Agent Mailing Address 919 N. East Street Indianapolis IN 46202  
 Street, P.O. Box or Rural Route City State ZIP Code  
 Contact Information: Daytime Tele. # (317)423-0690 Fax # (317)423-0696 E-mail Address jsteckel@williams creek.net

#### 3. PROPERTY OWNER INFORMATION

Name of Property Owner Hamilton Lake Association Name of Contact Person Janet Albright  
 Property Owner Mailing Address P.O. Box 515 Hamilton Indiana 46742  
 Street, P.O. Box or Rural Route City State ZIP Code  
 Contact Information: Daytime Tele. # (419)261-3333 Fax # ( ) N/A E-mail Address jalbright@buckeye-express.com  
 Relationship of applicant to property:  Owner  Purchaser  Lessee Other \_\_\_\_\_

#### 4. PUBLIC NOTICE (See Permit Application Assistance Manual)

Complete and submit SF # 52086 titled "Adjacent Property Owners Listing - Form N-4: Affirmation of personal service, 1<sup>st</sup> class mail service, or certified mail service

#### 5. PROJECT DESCRIPTION 5.1 Description Narrative: (See Permit Application Assistance Manual)

Approximately 4.8 acres at an average sediment depth of 2 feet, will be hydraulically dredged from the mouth of Black Creek and approximately 0.6 acre at an average depth of 3.8 feet will be dredged from Clark's Landing. Sediment removed from these areas will be discharged into a constructed, upland dewatering site adjacent to Hamilton Lake. The specific locations of sediment removal are provided in the attached Hamilton Lake Sediment Removal Plan.

**6. PROJECT LOCATION****6-1 Location Narrative:** (See Permit Application Assistance Manual) Stream/Lake Name: **Black Creek**

Dredging activities will be conducted at the mouth of Black Creek into Hamilton Lake and at Clark's Landing, located north of the mouth of Black Creek in Otsego Township in Steuben County, Indiana.

**6-2 Driving Directions:** (See Permit Application Assistance Manual)

Beginning from Indianapolis, drive take I-69N to the Steuben County line and turn east on SR 4. Travel approximately 6 miles and take SR 1 north approximately 2 miles to Lane 110 Hamilton Lake. Turn left and proceed to Hamilton Lake.

**6-3 Special Information:** (See Permit Application Assistance Manual)**6-4 Project Location Map:** (See Permit Application Assistance Manual) See attached Sediment Removal Plan**6-5 Project Site Map:** (See Permit Application Assistance Manual) See attached Sediment Removal Plan**7. DISTURBED AREA DRAWING****7-1 Drawing Requirements:** (See Permit Application Assistance Manual) See Attached Sediment Removal Plan**8. PROJECT PHOTOGRAPHS****8-1 Images:** (See Permit Application Assistance Manual) See attached photo package**8-2 Photo Orientation Map:** (See Permit Application Assistance Manual) See attached photo package**8-3 Photo Documentation:** (See Permit Application Assistance Manual) See attached photo package**9. RELATED PROJECT INFORMATION****Department of Natural Resources**

Administrative Cause #	Related Application(s) #	Early Coordination #
Floodplain Analysis/Regulatory Assessment # Not available - Steuben County	Violation #	Exemption #

**Department of Environmental Management**

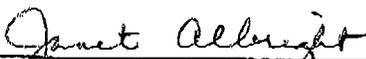
Section 401 # Section 404/401 permit applications being submitted concurrently

**Corps of Engineers**

Public Notice #	Section 404 Application #	Section 10 Application #
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**10. STATEMENT OF AFFIRMATION**

I hereby swear or affirm, under the penalties for perjury, that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete. I further certify that I possess the authority to undertake the project. I hereby grant to the Department of Natural Resources, the right to enter the above-described location to inspect the work.

  
 \_\_\_\_\_  
 Signature of Applicant or Authorized Agent (REQUIRED)

*January 6, 2009*  
 \_\_\_\_\_  
 Date (month, day, year)

**11. REGULATORY FEES****11-1 Regulatory Fees Submitted:** (See Permit Application Assistance Manual) \$100**11-3 Payment Method:** (See Permit Application Assistance Manual) Business check**REQUIREMENT FOR ADDITIONAL INFORMATION AND PERMITS**

Application made to and approval granted by the Department of Natural Resources does not in any way relieve the applicant of the necessity of securing easements or other property rights, permits and approvals from affected property owners and other local, state, and federal agencies.

# Indiana Department of Natural Resources / Division of Water

## Application Receipt Acknowledgement

Division of Water  
Room W264  
402 West Washington Street  
Indianapolis, IN 46204

Notice Date : January 8, 2009  
Toll Free # : (877) 928-3755  
Telephone # : (317) 232-4160  
FAX# : (317) 233-4579

Application # : PL-21220  
Lake : Hamilton Lake

Type : Public freshwater lake

**Applicant:**

Hamilton Lake Association  
Janet Albright  
PO Box 515  
Hamilton, IN 46742-0515

**Agent:**

Williams Creek Consulting  
Jason Steckel  
919 North East Street  
Indianapolis, IN 46202-3425

**Dear Applicant:**

On January 7, 2009, the Division of Water received your permit application under the Lakes Preservation Act, IC 14-26-2, with the associated Public Freshwater Lake Rule, 312 IAC 11. Your application has been logged into our database under the application # listed above. Department staff will review your application to determine if additional administrative, technical, or environmental information is required. If additional information is needed to complete our assessments, you will be notified by mail at a later date.

You can monitor the progress of your application on the Division of Water's web page at <http://www.in.gov/dnr/water/>. If you have any questions regarding the status of your application, please contact us at the address shown above or at one of the following telephone numbers. Refer to application # PL-21220 in all correspondence with the Department.

<u>Responsibility</u>	<u>Staff</u>	<u>Telephone and Fax #</u>
Administrative	TSC South Basin	(317) 232-4160, 233-4579

In addition to a permit from the Department of Natural Resources, you may also be required to obtain a permit from, or coordinate with, the following agencies. Contact with these agencies is your responsibility.

<u>Agency</u>	<u>Telephone #</u>
Steuben County Drainage Board	(260) 668-1000
Indiana Department of Environmental Management	(317) 233-8488 or (800) 451-6027
Local city or county planning or zoning commission	

Be advised that this notice is not a permit nor an authorization to proceed with the project. It should not be construed as a waiver of the provisions or requirements of any other state, federal, or local regulatory activity.

Enclosure: Public Notice Requirements  
Changes to the Public Notice Requirements, January 18, 2005, letter

pc: Williams Creek Consulting



**Corporate**  
Babeca Building  
919 North East Street  
Indianapolis, IN 46202

**Ohio**  
247 East Livingston Ave  
Suite B  
Columbus, OH 43215

**Missouri**  
7211 Manchester Ave  
St. Louis, MO 63143

**Zurich**  
Grossackerstrasse 64  
8041, Zurich  
Switzerland

**North Carolina**  
5450 Fairview Road  
Charlotte, NC 28210

**Texas**  
511 West Northgate Drive  
Irving, TX 75062

1-877-668-8848  
info@williams creek.net  
www.williams creek.net

December 31, 2008

Mr. Ron Hellmich  
IDNR Division of Nature Preserves  
Indiana Department of Natural Resources  
402 W. Washington St., Rm W267  
Indianapolis, IN 46204

RE: ETR Information for Hamilton Lake Site  
Located west of State Route 1, Clarks Landing, Steuben County, Indiana  
WCC Project Number 070039

Dear Mr. Hellmich,

I am requesting a data base search of all Endangered, Threatened, and Rare species which have been documented for the Black Creek riparian corridor beginning at Hamilton Lake and extending approximately 0.25 mile west of State Route 1, Clarks Landing, Steuben County, Indiana. The Site is more specifically located in Sections 22 and 27, Township 36 North, and Range 14 East, and 41° 33' 30" North Latitude and 84° 54' 39" West Longitude.

Attached is a current site location map. If you have any questions or need additional information you can contact me at (317) 423-0690.

Best regards,  
Williams Creek Consulting, Inc.

Jason Steckel  
Project Scientist

Enclosure: Site location map



Indiana Department of Natural Resources

January 8, 2009

Mr. Jason Steckel  
Williams Creek Consulting, Inc.  
Babeca Building  
919 North East Street  
Indianapolis, IN 46202

Dear Mr. Steckel:

I am responding to your request for information on the endangered, threatened, or rare (ETR) species, high quality natural communities, and natural areas documented from a project, Black Creek riparian corridor, Hamilton, Steuben County, Indiana. The Indiana Natural Heritage Data Center has been checked and following you will find information on the ETR species documented near the project area.

1. There is a historical collection of the state species of special concern amphibian *Necturus maculosus*, common mudpuppy, from Hamilton Lake. No date is available.
2. There is a historical record of the state rare plant *Milium effusum*, tall millet-grass, documented in 1937 3 miles northeast of Hamilton.

For more information on the animal species mentioned, please contact Christie Stanifer, Environmental Coordinator, Division of Water, 402 W. Washington Room W264, Indianapolis, Indiana 46204, (317)232-4160.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. You should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service  
620 South Walker St.  
Bloomington, Indiana 47403-2121  
(812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal.

For more information, please contact:

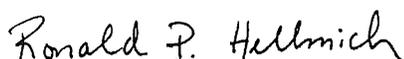
Department of Natural Resources  
attn: Christie Stanifer  
Environmental Coordinator  
Division of Water  
402 W. Washington Street, Room W264  
Indianapolis, IN 46204  
(317)232-4160

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)232-8059 if you have any questions or need additional information.

Sincerely,



Ronald P. Hellmich  
Indiana Natural Heritage Data Center

enclosure: invoice



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Babeca Building  
919 North East Street  
Indianapolis, IN 46202

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247 East Livingston Ave  
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Charlotte, NC 28210

**Texas**  
511 West Northgate Drive  
Irving, TX 75062

1-877-668-8848  
info@williams creek.net  
www.williams creek.net

December 31, 2008

Ms. Elizabeth McCloskey  
U.S. Fish and Wildlife Service  
P.O. Box 2616  
Chesterton, Indiana 46304-2616

RE: ETR Information for Hamilton Lake Site  
Located west of State Route 1, Clarks Landing, Steuben County, Indiana  
WCC Project Number 070039

Dear Ms. McCloskey,

I am requesting a data base search of all Endangered, Threatened, and Rare species which have been documented for the Black Creek riparian corridor beginning at Hamilton Lake and extending approximately 0.25 mile west of State Route 1, Clarks Landing, Steuben County, Indiana. The Site is more specifically located in Sections 22 and 27, Township 36 North, and Range 14 East, and 41° 33' 30" North Latitude and 84° 54' 39" West Longitude.

Attached is a current site location map. If you have any questions or need additional information you can contact me at (317) 423-0690.

Best regards,  
Williams Creek Consulting, Inc.

Jason Steckel  
Project Scientist

Enclosure: Site location map

# United States Department of the Interior

## Fish and Wildlife Service



Bloomington Field Office (ES)  
620 South Walker Street  
Bloomington, IN 47403-2121  
Phone: (812) 334-4261 Fax: (812) 334-4273

January 19, 2009

Mr. Jason Steckel  
Williams Creek Consulting, Inc.  
919 North East Street  
Indianapolis, Indiana 46202

Project: Black Creek Bank Stabilization  
Location: Hamilton Lake, Clarks Landing, Steuben County

Dear Mr. Steckel:

This responds to your emailed letter dated December 31, 2008, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project consists of bank stabilization using bendway weirs and protection structures constructed from fallen logs, with live willow staking above the water line, along about 6000 linear feet of Black Creek upstream from Hamilton Lake.

Black Creek is an entrenched, meandering stream within this portion of its length. The stream corridor and slopes, and in many cases the adjacent uplands, are well-wooded except right at the outlet into Hamilton Lake, where residential yards are present. Based upon aerial photographs of the area, it appears that access through the woodlands is greatly limited, so much of the work would likely need to be accomplished with light equipment and by walking up the stream. Tree clearing for access needs to be extremely limited, since loss of the tree cover would adversely affect the existing high quality forested wildlife habitat and may exacerbate the stream erosion problems.

The U.S. Fish and Wildlife Service provided early coordination comments on the Black Creek Lake and River Enhancement (LARE) Feasibility Study on March 30, 2006. A copy of that letter is enclosed.

#### ENDANGERED SPECIES

The proposed project is within the range of the Federally endangered Indiana bat (*Myotis sodalis*), the threatened northern copperbelly water snake (*Nerodia erythrogaster neglecta*), and the candidate eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*).

There may be suitable summer maternity habitat for the Indiana bat along the lower wooded portion of Black Creek, which is the project area for the proposed bank stabilization. Maternity colonies occupy roost sites in forested floodplain or upland habitats and are very loyal to their roosts and nightly foraging area, which are usually centered over riparian forests. Females and their young utilize both primary and secondary roosts, with the roosts usually being under exfoliating bark or living or dead trees, although tree cavities are also sometimes used. We have no data on the presence or absence of the Indiana bat along Black Creek. However, based upon our knowledge of the species, it is the position of the Fish and Wildlife Service in Indiana that the Indiana bat is considered to be present in suitable habitat unless proven otherwise.

The information provided to us about this proposed project does not present sufficient details for us to determine whether or not the Indiana bat may be adversely affected by the project; specifically, we need additional information on access and the amount of tree clearing, if any. It may be sufficient to protect Indiana bats through tree clearing restrictions, which would mean no tree clearing between April 1 and October 1, but we require the additional information before we can make that determination. Please provide us with that detailed information when it becomes available so that we can determine whether or not Indiana bats may be adversely affected by the project.

Although there may be habitat for the 2 snakes elsewhere within the Black Creek Watershed, we are not aware of their required habitats being available within the proposed project area.

These endangered species comments constitute informal consultation only. They do not fulfill the requirements of Section 7 of the Endangered Species Act of 1973, as amended.

We appreciate the opportunity to comment on this proposed project. If you have any questions, please contact Elizabeth McCloskey at (219) 983-9753 or [elizabeth\\_mccloskey@fws.gov](mailto:elizabeth_mccloskey@fws.gov).

Sincerely yours,

/s/ Elizabeth S. McCloskey

Acting for Scott E. Pruitt  
Supervisor

Sent via email 01-19-09

cc: Christie Stanifer, Indiana Division of Water, Indianapolis, IN  
LARE Section, Division of Fish and Wildlife, Indianapolis, IN  
Brad Baldwin, IDEM, Office of Water Management, Indianapolis, IN



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St. Louis, MO 63143

**Zurich**  
Grossackerstrasse 64  
8041, Zurich  
Switzerland

1-877-668-8848  
info@williamscreek.net  
www.williamscreek.net

February 18, 2009

Ms. Elizabeth McCloskey  
U. S. Fish and Wildlife Service  
Bloomington Field Office  
620 South Walker Street  
Bloomington, IN 47403-2121

**Re: Black Creek Bank Stabilization, Hamilton Lake, Clark's Landing, Steuben County, Indiana**

Dear Ms. McCloskey:

Williams Creek Consulting (WCC) received a comment letter dated January 19, 2009 from the United States Fish and Wildlife Service (USFWS) requesting additional information regarding tree removal within the Black Creek riparian corridor and the potential effects on Indiana bats. The purpose of this correspondence is to address comments and provide the additional information requested in the January 19 letter.

All contractors submitting bids will be notified of the project constraints; particularly, access limitations and the need to minimize impacts to the existing integrity of the Black Creek riparian corridor. As such, the proposed work will be performed using manual labor, hand tools, and small equipment so as to minimize tree removal for access purposes. The construction of log bendway weirs and log revetments will involve selective cutting of approximately 40 trees throughout the approximately 50-acre project site. Selective cutting will be employed to avoid clear-cutting of entire area(s) of forest. Trees exhibiting exfoliating bark such as hickory species (*Carya spp.*) or natural cavities which may be suitable as Indiana bat roosting habitat will be avoided. Although no single tree species will be targeted, species likely to be used may include willows (*Salix spp.*), cottonwood (*Populus deltoides*), ash (*Fraxinus spp.*), and elm species (*Ulmus spp.*). No tree cutting will be conducted between April 1 and October 1. Furthermore, the above listed provisions will be included on revised construction plans and bid documents and construction will be monitored to ensure adherence to the provisions.

If you have questions regarding this response or require additional information, please contact us at your earliest convenience. Thank you for your time.

Best regards,  
Williams Creek Consulting, Inc.

Jason Steckel  
Project Scientist

Brian E. Catt  
Project Manager

Cc: Mr. Kent Tracey, IDNR