



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, KANSAS CITY DISTRICT
635 FEDERAL BUILDING
601 E. 12TH STREET
KANSAS CITY, MISSOURI 64106-2824

May 31, 2017

Regulatory Branch
(NWK-2015-00646)

Mr. Greg Graves
5085 West 177 Terrace
Stillwell, Kansas 66223

Dear Mr. Graves:

Permit No. NWK-2015-00646 has been executed. One copy is enclosed for your records and one copy has been retained for our files. When you are ready to begin work, it is necessary that you contact Mr. Matthew Sailor at (816) 389-3739 or by email at matthew.c.sailor@usace.army.mil.

Special condition "a" of the permit requires you to sign and return the enclosed "Compliance Certification" upon completion of the authorized work and any required mitigation.

In addition to the general and special conditions of this IP, conditions "b" and "c" have been added in order to replace the lost aquatic resources that result from the authorized project:

b. The permittee must complete the following mitigation objectives in accordance with the approved compensatory Mitigation Plan dated January 2017, Revised 21 April 2017 and incorporated to this permit by reference and attached mitigation drawings (Sheets 12 - 14):

i. You must purchase 10,288 stream and 0.12 wetland credits from an approved compensatory mitigation bank in the service area of the project. The current approved mitigation bank in the service area of your project with sufficient amounts of credit available for purchase is Camp Branch Stream and Wetland Mitigation Bank. The compensatory mitigation credit purchase must be completed prior to the commencement of work within our regulatory jurisdiction. The project proponent must submit a receipt of payment from the mitigation bank that includes the amount of credits purchased and the date of credit purchase. Receipts submitted by authorized agents will not be accepted.

ii. You must restore 14.22 acres of riparian buffer along the right descending bank and enhance 14.63 acres of riparian buffer along the left descending bank of Harding Creek. Riparian buffer restoration and enhancement activities will measure 150 foot in width and will be conducted as depicted in Table 1 and Image 1 of the January 2017 Mitigation Plan (Revised on 21 April 2017).

iii. You must perform bank stabilization along Harding Creek for a distance of 3,026 linear feet. Bank stabilization activities must be accomplished in accordance with Table 1 and Image 1 of the January 2017 Mitigation Plan (Revised on 21 April 2017).

The above mitigation activities must be completed within 6 months from the date of initiating the authorized work or 12 months from the effective date of this permit, whichever first occurs. The Harding Creek compensatory mitigation area shall be preserved in perpetuity in accordance with the Conservation Easement Special Condition of this permit.

c. The permittee shall preserve the Harding Creek stream and riparian corridor referenced in the above Compensatory Mitigation Special Condition in perpetuity by recording a conservation easement within

the boundaries and location annotated within the mitigation plan. Prior to initiating the authorized work, the permittee shall record the easement in the public records of Cass County, Missouri and forward a certified copy of the recorded easement, including legal description, survey and sketch, to the Corps.

We are interested in your thoughts and opinions concerning your experience with the Kansas City District, Corps of Engineers Regulatory Program. Please feel free to complete our Customer Service Survey form on our website at: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. You may also call and request a paper copy of the survey which you may complete and return to us by mail or fax.

Sincerely,



David R. Hibbs
Regulatory Program Manager
Regulatory Branch

Enclosures

cc (electronically w/enclosures):

U.S. Environmental Protection Agency,
Watershed Planning and Implementation Branch
U.S. Fish and Wildlife Service, Columbia, Missouri
Missouri Department of Natural Resources,
Water Protection Program
Missouri Department of Conservation

COMPLIANCE CERTIFICATION

Special condition "a" of this permit document requires that you submit a signed certification regarding the completed work and any required mitigation. This certification page satisfies this condition if it is provided to the Kansas City District at the address shown at the bottom of this page upon completion of the project.

APPLICATION NUMBER: NWK-2015-00646

APPLICANT: Mr. Greg Graves, 5085 West 177 Terrace, Stillwell, Kansas 66223

PROJECT LOCATION: In unnamed tributaries to Harding Creek and an adjacent wetland, Section 10, Township 43 North, Range 33 West, Drexel, Cass County, Missouri

- a. I certify that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions.
- b. I certify that any required mitigation was completed in accordance with the permit conditions.
- c. Your signature below, as permittee, indicates that you have completed the authorized project as certified in paragraphs a and b above.

PERMITTEE

DATE

Return this certification to:

U.S. Army Corps of Engineers
Kansas City District, ODR
601 East 12th Street, Suite 402
Kansas City, MO 64106-2824

DEPARTMENT OF THE ARMY PERMIT

Permittee: Mr. Greg Graves

Permit No.: NWK-2015-00646

Issuing Office: U.S. Army Engineer District, Kansas City

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below, and with the plans and drawings attached hereto which are incorporated in and made a part of this permit.

Project Description: The permit authorizes the placement of fill material in Waters of the United States in association with dam, spillway, and plunge pool construction for the creation of a private, recreational lake. The lake will form by filling 525 linear feet of intermittent stream with earthen material to create an impoundment and spillway features. The formation of the lake will inundate 0.12 acres of wetland, 2,768 linear feet of ephemeral stream and 4,071 linear feet of intermittent stream. The lake footprint would measure 58.2 surface acres. The construction of this development will be completed in accordance with the plans and drawing attached herein.

Permit Drawing(s): Location map (1), plan view (3), cross section (2), mitigation plans (3): Sheets 6 through 14 dated 8 May 2017.

Project Location: In Four unnamed tributaries to Harding Creek and one adjacent wetland, Section 10, Township 43 North, Range 33 West, Drexel, Cass County, Missouri.

USGS 1:24K QUAD: MO-Freeman
(Latitude North: 38.54185, Longitude West: -94.55656)

Mitigation Location: Along the downstream left and right sides of Harding Creek, Section 10, Township 43 North, Range 33 West, Drexel, Cass County, Missouri.

USGS 1:24K QUAD: MO-Freeman
(Latitude North: 38.54112, Longitude West: -94.55043)

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 31 December 2020. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See continuation sheet(s), page(s) 4 (and 5), of this document.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (Sec 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.


Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.


(PERMITTEE)

(PRINTED NAME AND TITLE)

5/31/17
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.


(DISTRICT ENGINEER)
Douglas B. Guttormsen
Colonel, Corps of Engineers

31 May 2017
(DATE)

By: David R. Hibbs
Assistant Branch Chief, Regulatory Branch

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

Special Conditions:

- a) You must sign and return a "Compliance Certification" after you complete the authorized work and any required mitigation. Your signature will certify that you completed the work in accordance with this permit, including general and specific conditions, and that any required mitigation was completed in accordance with the permit conditions.
- b) The permittee must complete the following mitigation objectives in accordance with the approved compensatory Mitigation Plan dated January 2017, Revised 21 April 2017 and incorporated to this permit by reference and attached mitigation drawings (Sheets 12-14):
 - i. You must purchase 10,288 stream and 0.12 wetland credits from an approved compensatory mitigation bank in the service area of the project. The current approved mitigation bank in the service area of your project with sufficient amounts of credit available for purchase is Camp Branch Stream and Wetland Mitigation Bank. The compensatory mitigation credit purchase must be completed prior to the commencement of work within our regulatory jurisdiction. The project proponent must submit a receipt of payment from the mitigation bank that includes the amount of credits purchased and the date of credit purchase. Receipts submitted by authorized agents will not be accepted.
 - ii. You must restore 14.22 acres of riparian buffer along the right descending bank and enhance 14.63 acres of riparian buffer along the left descending bank of Harding Creek. Riparian buffer restoration and enhancement activities will measure 150 foot in width and will be conducted as depicted in Table 1 and Image 1 (Appendix C) of the January 2017 Mitigation Plan (Revised on 21 April 2017).
 - iii. You must perform bank stabilization along Harding Creek for a distance of 3,026 linear feet. Bank stabilization activities must be accomplished in accordance with Table 1 and Image 1 of the January 2017 Mitigation Plan (Revised on 21 April 2017).

The above mitigation activities must be completed within 6 months from the date of initiating the authorized work or 12 months from the effective date of this permit, whichever first occurs. The Harding Creek compensatory mitigation area shall be preserved in perpetuity in accordance with the Conservation Easement Special Condition of this permit.

- c) The permittee shall preserve the Harding Creek stream and riparian corridor referenced in the above Compensatory Mitigation Special Condition in perpetuity by recording a conservation easement within the boundaries and location annotated within the mitigation plan. Prior to initiating the authorized work, the permittee shall record the easement in the public records of Cass County, Missouri and forward a certified copy of the recorded easement (including legal description, survey and sketch) to the Corps.
- d) If any part of the authorized work is performed by a contractor, before starting work you must discuss the terms and conditions of this permit with the contractor; and, you must give a copy of this entire permit to the contractor.
- e) You must use clean, uncontaminated materials for fill in order to minimize excessive turbidity by leaching of fines, as well as to preclude the entrance of deleterious and/or toxic materials into the waters of the United States by natural runoff or by leaching.
- f) You must dispose of excess concrete and wash water from concrete trucks and other concrete mixing equipment in a non-wetland area above the ordinary high water mark and at a location where the concrete and wash water cannot enter the water body or an adjacent wetland area.

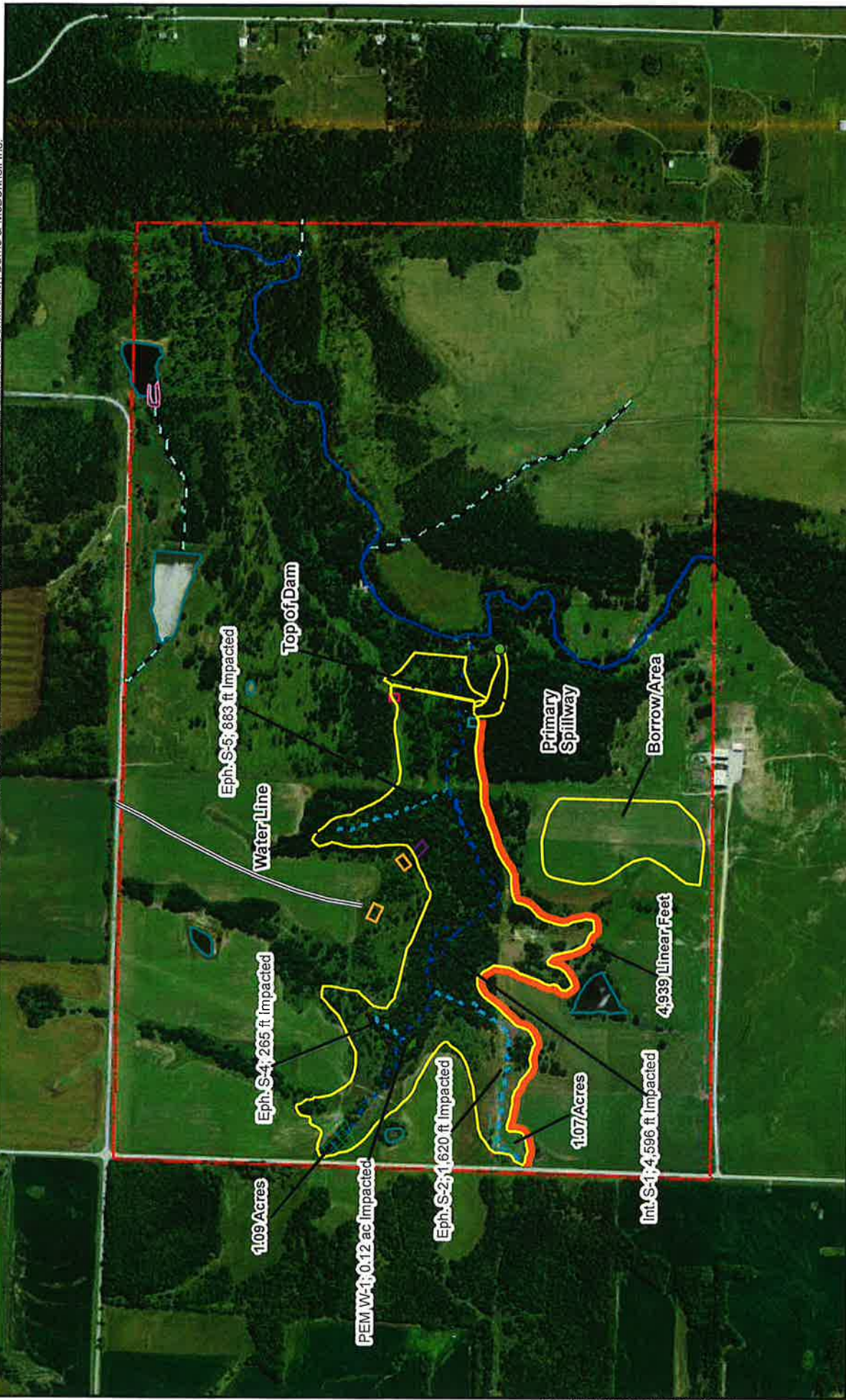
- g) You must excavate, dredge and/or fill in the watercourse in a manner that will minimize increases in suspended solids and turbidity which may degrade water quality and damage aquatic life outside the immediate area of operation.
- h) You must immediately remove and properly dispose of all debris during every phase of the project in order to prevent the accumulation of unsightly, deleterious and/or toxic materials in or near the water body.
- i) You must not dispose of any construction debris or waste materials below the ordinary high water mark of any water body, in a wetland area, or at any location where the materials could be introduced into the water body or an adjacent wetland as a result of runoff, flooding, wind, or other natural forces.
- j) You must store all construction materials, equipment, and/or petroleum products, when not in use, above anticipated high water levels.
- k) You must restrict the clearing of timber and other vegetation to the absolute minimum required to accomplish the work. Clearing, grading and replanting should be planned and timed so that only the smallest area necessary is in a disturbed, unstable or unvegetated condition



Approximate Parcel 16 Boundary



PERMIT NO. NWK-2015-00646
 Greg Graves
 Recreational Lake
 UNNAMED TRIBUTARIES TO HARDING CREEK
 AND AN ADJACENT WETLANDS
 CASS COUNTY, MISSOURI
 SHEET 6 OF 14
 DATED 8 May 2017



Approximate Parcel 16 Boundary

Wetland (W)

Area of Potential Impact (API)

Outbuilding

Boat Ramp

Boat Dock

Proposed Mitigation Sites

Driveway

Pump Station

Plunge Pool

Riparian Tree Buffer Zone

Desktop Streams

Desktop Wetland Types

PUB

PEM

Scale in Feet

900 450 0 900

NORTH

PERMIT NO. NWK-2015-00646
Greg Graves
Recreational Lake
UNNAMED TRIBUTARIES TO HARDING CREEK
AND AN ADJACENT WETLANDS
CASS COUNTY, MISSOURI
SHEET 7 OF 14
DATED 8 May 2017



PERMIT NO. NWK-2015-00846

Greg Graves

Recreational Lake

UNNAMED TRIBUTARIES TO HARDING CREEK

AND AN ADJACENT WETLANDS

CASS COUNTY, MISSOURI

SHEET 8 OF 14

DATED 8 May 2017

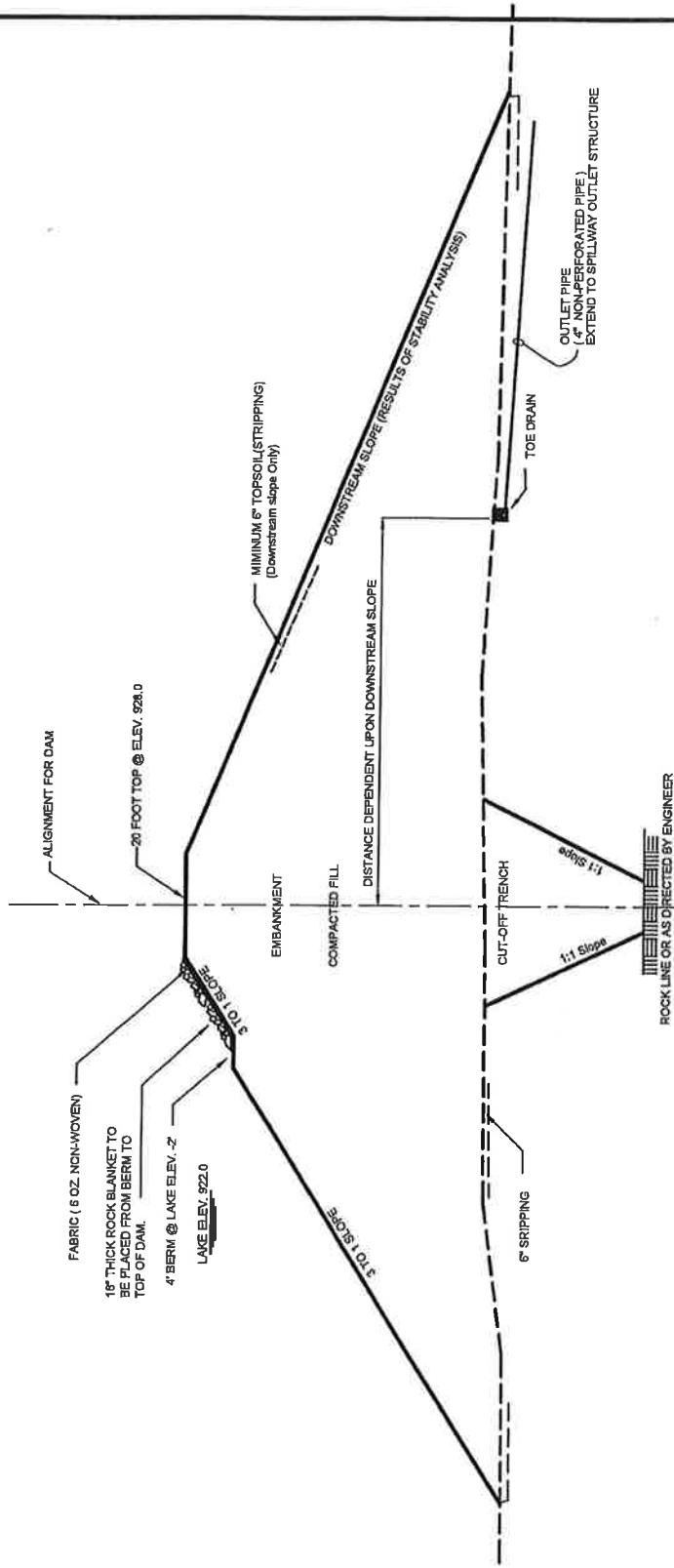
PROPOSED DAM, SPILLWAY AND LAKE SHORE LINE

TOKAY ENGINEERING - 2007 Sylvan Hills Ct. - Jefferson City, MO 65109

Scale 1" = 500'

Project # 15002

Oct. 8, 2015



NOTE:
 EXCAVATE CUT-OFF TRENCH TO ROCK LINE
 OR AS DIRECTED BY THE ENGINEER.
 CUT-OFF TRENCH TO HAVE MINIMUM 10 FOOT BOTTOM WITH 1 TO 1
 SIDE SLOPES.
 REMOVE WEATHERED ROCK IN CONFORMANCE WITH THE
 SPECIFICATIONS.

SECTION EMBANKMENT NO SCALE

PROPOSED EMBANKMENT SECTION

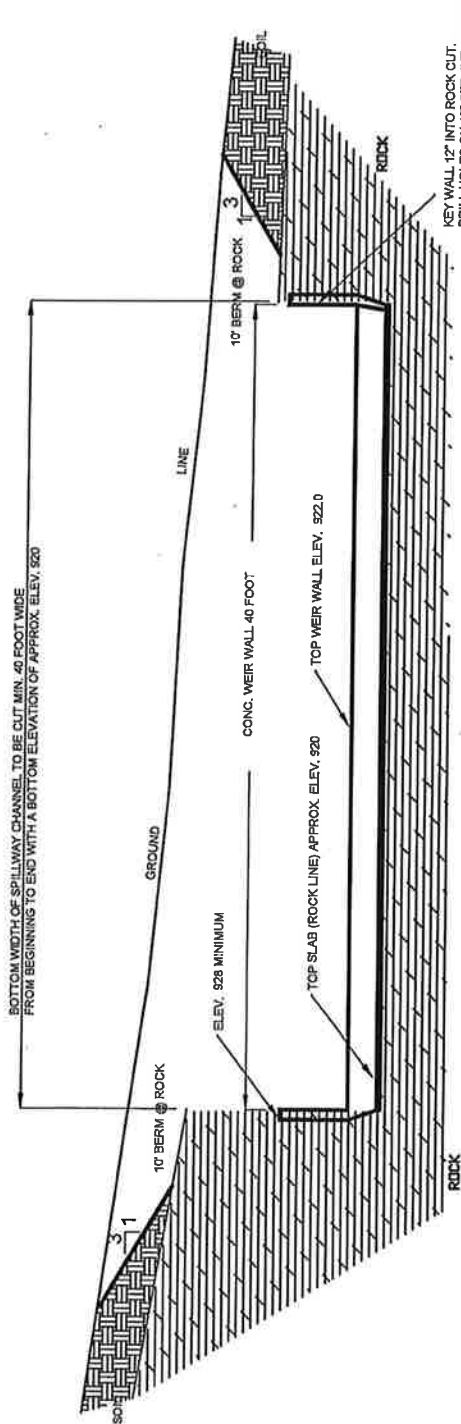
PERMIT NO. NWK-2015-00646

Greg Graves
 Recreational Lake
 UNNAMED TRIBUTARIES TO HARDING CREEK
 AND AN ADJACENT WETLANDS
 CASS COUNTY, MISSOURI
 SHEET 9 OF 14
 DATED 8 May 2017

Project # 15002
 Oct. 8, 2015

TOKAY ENGINEERING - 2007 Sylvan Hills Ct. - Jefferson City, MO 65109

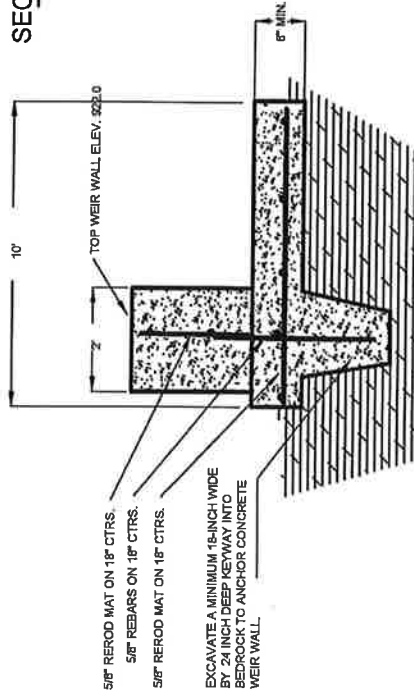
Revised 9-15-2015



KEY WALL 12" INTO ROCK CUT. DRILL HOLES ON 12" CTR. INTO ROCK TO ANCHOR 3/8" RODS WITH EXFXY (SEE DETAIL) SUPPORTING 24" WIDE VERTICAL WALL ALONG EDGE OF ROCK CUT. REINFORCE VERTICAL WALL WITH A 3/8" MAT ON 18" CTRS.

SECTION SPILLWAY CHANNEL

NO SCALE



CONSTRUCT A CONCRETE SLAB 10 FOOT WIDE WITH THE TOP SURFACE LEVEL AND THE BOTTOM SURFACE LEVEL WITH THE SURROUNDING GROUND. THE SLAB SHALL NOT BE LESS THAN 8" THICK AT ANY POINT. A STEEL MAT SHALL BE PLACED NEAR THE CENTER OF THE SLAB. TOP OF SLAB SHALL NOT TO BE HIGHER THAN Rock + .5.

SECTION CONCRETE WEIR WALL

NO SCALE

PROPOSED PRIMARY SPILLWAY (Rock Channel)

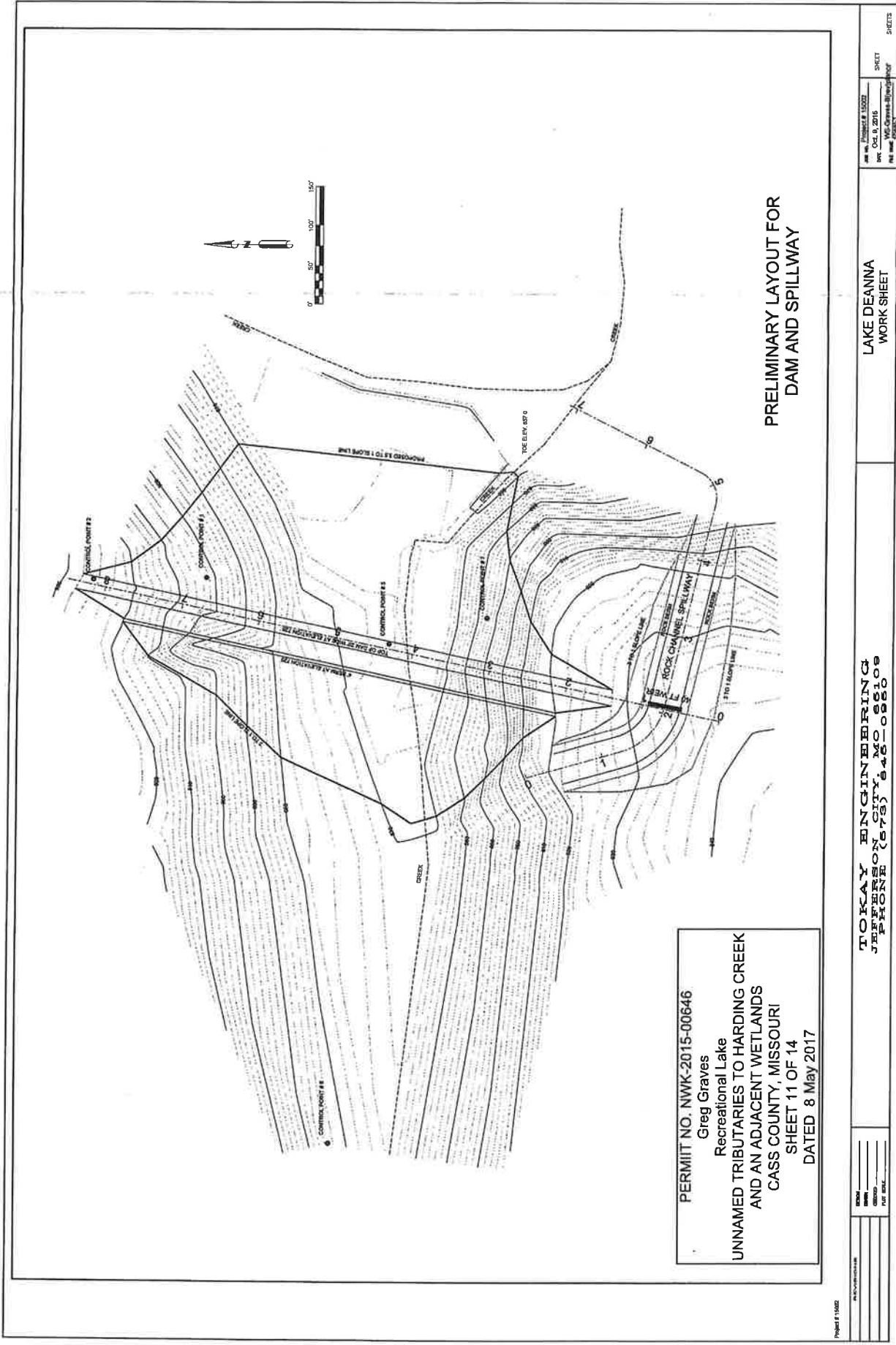
No Scale

PERMIT NO. NWK-2015-00646

Greg Graves
Recreational Lake
UNNAMED TRIBUTARIES TO HARDING CREEK
AND AN ADJACENT WETLANDS
CASS COUNTY, MISSOURI
SHEET 10 OF 14
DATED 8 May 2017

Project # 15002
Oct. 8, 2015

TOKAY ENGINEERING - 2007 Sylvan Hills Ct. - Jefferson City, MO 65109



PERMIT NO. NWK-2015-00646
Greg Graves
Recreational Lake
UNNAMED TRIBUTARIES TO HARDING CREEK
AND AN ADJACENT WETLANDS
CASS COUNTY, MISSOURI
SHEET 11 OF 14
DATED 8 May 2017

PRELIMINARY LAYOUT FOR
DAM AND SPILLWAY

TOKAY ENGINEERING
JEFFERSON CITY, MO 65108
PHONE (873) 646-0850

LAKE DEANNA
WORK SHEET

DATE: 8 May 2017
BY: Greg Graves
CHECKED: [Signature]
DATE: 8 May 2017
SHEET 11 OF 14



TERRA TECHNOLOGIES

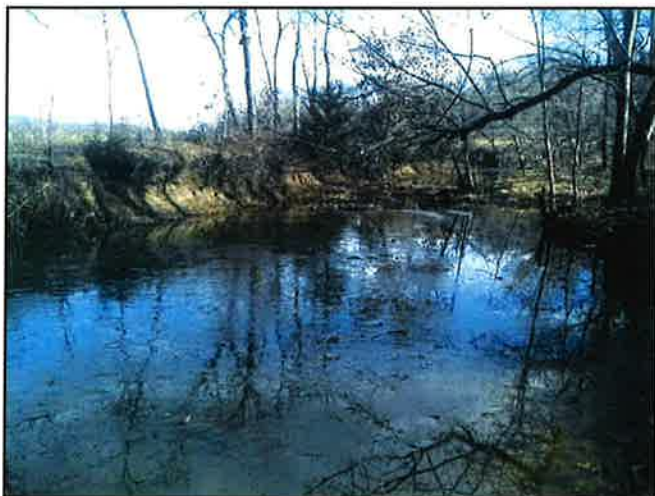
Engineers

Scientists

Permit Specialists

Parcel 16 Impoundment Project Permittee-Responsible Mitigation Site

Mitigation Plan



Prepared for
Greg Graves

January 2017, revised 21 April 2017

PERMIT NO. NWK-2015-00646
Greg Graves
Recreational Lake
UNNAMED TRIBUTARIES TO HARDING CREEK
AND AN ADJACENT WETLANDS
CASS COUNTY, MISSOURI
SHEET 12 OF 14
DATED 8 May 2017

pastures are dominated by fescue. Surface water from Perennial #1 generally flows north into the South Fork of the South Grand River which directly connects to the South Grand River.

V. DETERMINATION OF CREDITS

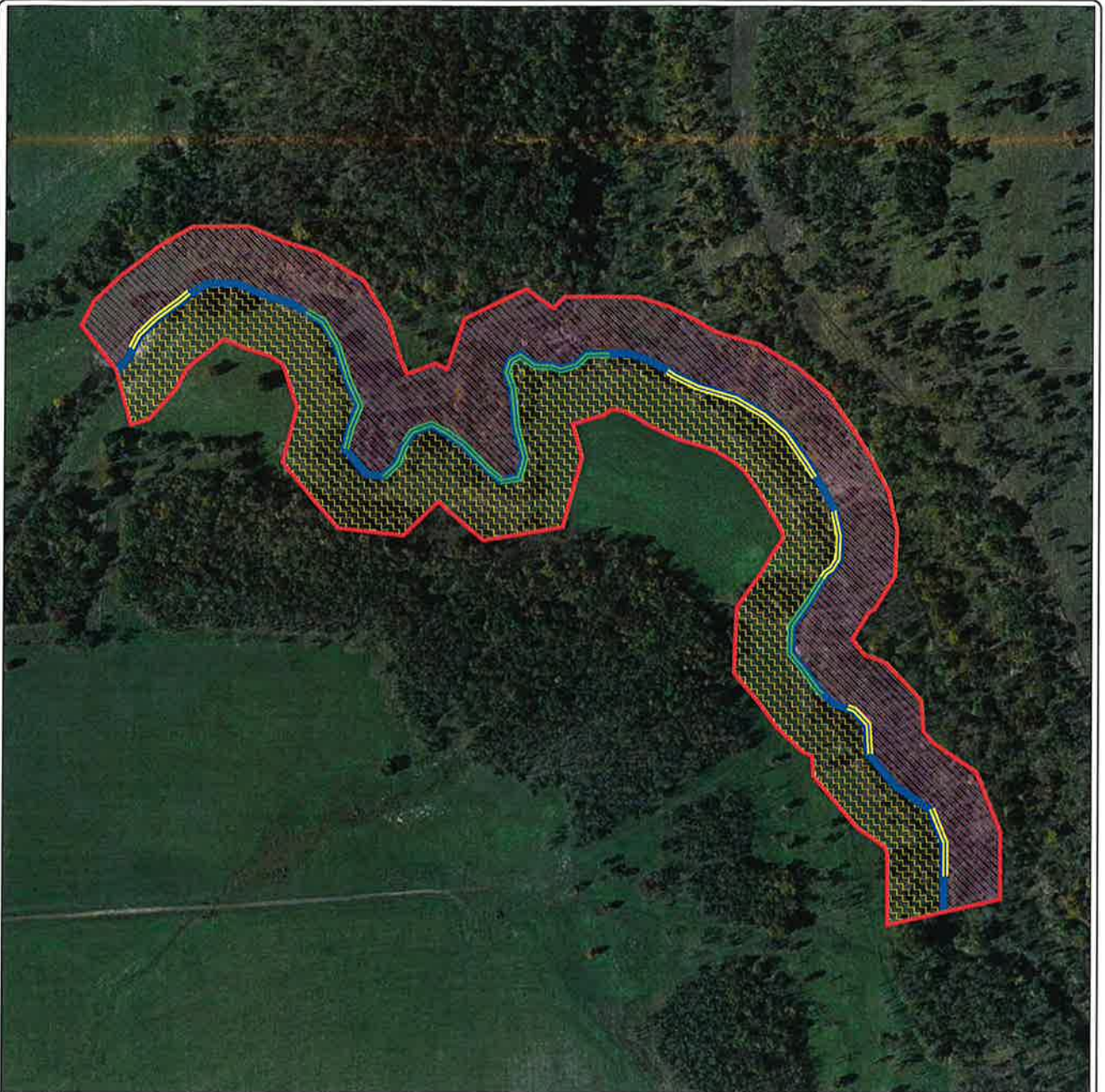
Stream Credits






As shown in the 2013 Missouri Stream Mitigation Method worksheets included below in Table 2 and Table 3, a total of 20,273 stream credits are generated from the planned in-stream and riparian mitigation improvements. The Sponsor is proposing to restore 14.22 acres of riparian buffer and to enhance 14.63 acres of riparian buffer surrounding Perennial #1. Native trees and shrubs will be planted throughout the restoration and enhancement areas and appropriate herbaceous species will be established from seed in currently unforested portions of the riparian corridor.

As described in more detail in the Mitigation Work Plan in Section VI, the proposed in-stream mitigation activities on the Site include bank stabilizing a small percentage of rock and non-rigid soft stabilization methods. These proposed mitigation activities and the rest of the mitigation activities associated with each Net Benefit area are described below in Table 1 and Image 1.

Table 1. Net Benefit Area Descriptions

Net Benefit Area	Location / Description	Average Riparian Width (Feet)
1	<u>Riparian</u> : Riparian Buffer Restoration along the right descending bank and riparian buffer enhancement along the left descending bank of Perennial #1.	150 (both sides)
2	<u>In-Stream</u> : Bank stabilization along Perennial #1 for a total 3,026 linear feet.	<u>N/A</u>



- Legend**
-  Riparian Buffer Restoration
14.22 Acres
 -  Riparian Buffer Enhancement
14.83 Acres
 -  Bank Stabilization
With Rock Toe
(Not to Scale)
 -  Bank Stabilization
With Soft Toe
(Not to Scale)
 -  Mitigation Site Boundary
28.85 Acres



Site Location
T43N-R23W-S10
Unincorporated, Cass County, Missouri
28.85 Acres
Lat. N38.542192
Long. W94.551205



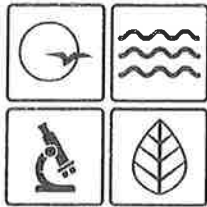
PERMIT NO. NWK-2015-00646
Greg Graves
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UNNAMED TRIBUTARIES TO HARDING CREEK
AND AN ADJACENT WETLANDS
CASS COUNTY, MISSOURI
SHEET 14 OF 14
DATED 8 May 2017

MITIGATION PLAN

PARCEL 16 IMPOUNDMENT PROJECT MITIGATION SITE NWK-2015-00646

GREG GRAVES

DATE 1/18/16
DRAWN BY GREG GRAVES
SHEET NO. 14
JOB NO. 2015-00646



Missouri Department of NATURAL RESOURCES

dnr.mo.gov

Eric R. Greitens, Governor

Carol S. Comer, Director

APR 26 2017

Mr. Greg Graves
5085 West 177 Terrace
Stillwell, KS 66085

RE: 2015-00646/CEK007125, Cass County

Dear Mr. Graves:

The Missouri Department of Natural Resources' Water Protection Program has reviewed your request for Clean Water Act Section 401 Water Quality Certification (WQC) to accompany the U.S. Army Corps of Engineers' (USACE) Permit for 2015-00646 in which you are proposing the construction of a private, recreational lake.

The project will fill 525 linear feet (LF) of intermittent stream with earthen material to create an impoundment and spillway features. A plunge pool will be constructed in uplands at the base of the spillway to avoid impacts to downstream waters. The proposed 58.2-acre lake would inundate 4,071 LF of one intermittent stream, a combined 2,768 LF of three ephemeral streams and 0.12 acre of palustrine forested wetland.

The proposed project is located near the city of Drexel in Section 10, Township 43 North, Range 33 West in Cass County, Missouri. Approximate geographic coordinates for the impacted wetland are 38.542915°N and 94.560925°W. Approximate geographic coordinates for the upstream limits of impacts, impact type and LF of impact for each stream are as follows:

Stream	Latitude (°N)	Longitude (°W)	Impact	LF
S-1 Intermittent	38.544533	94.563527	Fill	525
			Impound	4,071
S-2 Ephemeral	38.540911	94.563685	Impound	1,620
S-4 Ephemeral	38.543639	94.560267	Impound	265
S-5 Ephemeral	38.544344	94.555848	Impound	883

This WQC is being issued under Section 401 of Public Law 95-217, The Clean Water Act of 1977 and subsequent revisions. This office certifies the proposed project will not cause the general or numeric criteria to be exceeded nor impair beneficial uses established in the Water Quality Standards, 10 CSR 20-7.031, provided the following conditions are met:

1. Compensatory mitigation shall be satisfied by the purchase of 0.12 wetland acre as mitigation credit from the Camp Branch Wetland and Stream Mitigation Bank or other



Recycled paper

approved mitigation bank or in-lieu fee provider. A copy of the purchase document shall be provided to the department at the address below prior to the start of work within jurisdictional waters at the site.

2. The 7,364 LF of stream impacts were assessed using the "2013 State of Missouri Stream Mitigation Method" and determined to require 30,561 stream mitigation credits. Compensatory mitigation shall be satisfied by a combination of the Permittee Responsible Mitigation Plan submitted April 21, 2017, and the purchase of 10,288 stream mitigation credits from the Camp Branch Wetland and Stream Mitigation Bank or other approved mitigation bank or in-lieu fee provider. A copy of the purchase document shall be provided to the department at the address below prior to the start of work within jurisdictional waters at the site.
3. Antidegradation requirements dictate all appropriate and reasonable Best Management Practices (BMPs) related to erosion and sediment control, project stabilization and prevention of water quality degradation are applied and maintained; for example, preserving vegetation, streambank stability and basic drainage. BMPs shall be properly installed prior to conducting authorized activities and maintained, repaired and/or replaced as needed during all phases of the project to limit the amount of discharge of water contaminants to waters of the state. The project shall not involve more than normal stormwater or incidental loading of sediment caused by project activities so as to comply with Missouri's general water quality criteria [10 CSR 20-7.031(4); Page 15 at <http://www.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf>].
4. Care shall be taken to keep machinery out of the water way as much as possible. If work in the water way is unavoidable, it shall be performed in a way that minimizes the duration and amount of any disturbance to banks, substrate and vegetation to prevent increases in turbidity. Fuel, oil and other petroleum products, equipment, construction materials and any solid waste shall not be stored below the ordinary high water mark at any time or in the adjacent flood-prone areas beyond normal working hours. All precautions shall be taken to avoid the release of wastes or fuel to streams and other adjacent waters as a result of this operation.
5. Petroleum products spilled into any water or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly. Any such spills of petroleum shall be reported as soon as possible, but no later than 24 hours after discovery to the department's Environmental Emergency Response number at 573-634-2436 or website at <http://dnr.mo.gov/env/esp/esp-ecr.htm>.
6. Only clean, nonpolluting fill shall be used.
7. Clearing of vegetation and trees shall be the minimum necessary to accomplish the activity except for the removal of invasive or noxious species and placement of ecologically beneficial practices.

8. Streambed gradient upstream or downstream of the project area shall not be adversely altered during project construction. The project shall not accelerate bed or bank erosion upstream or downstream of the project area.
9. The project shall not allow the filling of jurisdictional springs such as those associated with a water body's point of origin or located in a streambed.
10. Conduct project activity at low flows and water levels to limit the amount of sediment disturbance caused by heavy equipment. Limit the duration and extent that any heavy equipment is required to be instream.
11. The berm face and disturbed areas shall be restored to a stable condition to protect water quality as soon as possible. Seeding, mulching and needed fertilization should be within three days of final contouring. To ensure erosion and deposition of soil in waters of the state are not occurring from this project, on-site inspections of these areas should be conducted as necessary to ensure successful revegetation and stabilization.
12. Acquisition of a WQC shall not be construed or interpreted to imply the requirements for other permits are replaced or superseded, including Clean Water Act Section 402 National Pollutant Discharge Elimination System Permits. Permits or any other requirements shall remain in effect. Questions regarding permit requirements may be directed to the department's Kansas City Regional Office at 816-251-0700.
13. Land disturbance activities disturbing one or more acres of total area for the entire project may require a stormwater permit. Instructions on how to apply for and receive the online land disturbance permit are located at www.dnr.mo.gov/env/wpp/epermit/help.htm. Questions regarding permit requirements may be directed to the department's Land Disturbance phone line at 573-526-2082 or toll free at 855-789-3889.
14. Construction of the dam shall be in accordance with the provisions of Chapter 236.400 to 236.500 of the Revised Statutes of Missouri and the rules and regulations of the Missouri Dam and Reservoir Safety Council. This project is covered under the Dam and Reservoir Safety Program's Construction Permit C-546 issued on May 13, 2016. This permit was given an extension requiring construction be completed by May 13, 2018.
15. Representatives from the department shall be allowed upon request on the project property, which includes the site(s) where the authorized activity takes place and any associated compensatory mitigation site(s), to inspect the authorized activity and mitigation efforts as deemed necessary by the department to ensure compliance with WQC conditions and water quality standards. The applicant or their consultant shall submit any requested information deemed necessary by the department to ensure compliance with WQC conditions.

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16. The WQC is based on the plans as submitted. Should any plan modifications occur, please contact the department to determine whether the WQC remains valid or needs to be amended or revoked.


Pursuant to Chapter 644, RSMo, commonly referred to as the Missouri Clean Water Law, and fee regulations under 10 CSR 20-6.011(2)(I), this WQC shall be valid only upon payment of a fee of \$150.00. The enclosed invoice contains the necessary information on how to submit your fee. Payment must be received within ten business days of receipt of this WQC. Upon receipt of the fee, the applicable office of the USACE will be informed the WQC is now in effect and final.

You may appeal to have the matter heard by the Administrative Hearing Commission (AHC). To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

This WQC is part of the USACE's permit. Water Quality Standards must be met during any operations authorized. If you have any questions, please contact Mr. Mike Irwin by phone at 573-522-1131, by email at mike.irwin@dnr.mo.gov, or by mail at the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176. Thank you for working with the department to protect our environment.

Sincerely,

WATER PROTECTION PROGRAM



Chris Wieberg, Chief
Operating Permits Section

CW:mip

Enclosure

- c: Ms. Sherry Bell, Fiscal Management Section, Budget and Fees Unit
Mr. Jesse Cochran, Kansas City Regional Office
Mr. Craig Gump, Terra Technologies
Mr. David Flick, Terra Technologies
Ms. Corinne Rosania, Kansas City Regional Office
Mr. Matthew Sailor, U.S. Army Corps of Engineers, Kansas City District
Mr. Steve Sturgess, Kansas City Regional Office
Ms. Terrie Williams, Kansas City Regional Office