### KANSAS DEPARTMENT OF AGRICULTURE

Mike Beam, Secretary of Agriculture

### **DIVISION OF WATER RESOURCES**

Earl D. Lewis Jr., Chief Engineer

		File Number	51341	10/00/00	04 40 40 414
			by the Division of Water Resources.	10/22/20	24, 10:46 AM
		APPLICATIO	N FOR PERMIT TO		Resources
	APP	_	TER FOR BENEFICIAL USE	Re	ceived
	(Ple	Filing Fee Must A ase refer to Fee Sched	Accompany the Application ule attached to this application form.)	KS Dept	Of Agriculture
		_			
			ater Resources, Kansas Depart ive, Manhattan, Kansas 66502	_	,
1.	Name of Applicant (Please P	rint): Cuthbertson Re	evocable Trust (Scott Cuthbertson	)	
	Address: 649 W 590th St				
	City: <u>Girard</u>		State KS Z	Zip Code <u>66743</u>	
	Telephone Number: (620)	704-7915	NEEDS STI	REAM NAME	
2.	The source of water is:	⋈ surface water in	overland flow runoff from contribu		10/22/2024
	OR	☐ groundwater in _	(stream NEOSHO RIV (drainage ba	ER BASIN	KJN
3	and return to the Division o	f Water Resources.	r application, you will be sent the a Maximum quantity equals constructed wet elevation plus net evaporation.	land storage at auxiliary sp	illway
3.	•		acre-feet OR		-
	to be diverted at a maximul	m rate of <u>NF</u>	gallons per minute OR	cubic feet per se	econd.
	requested quantity of water	er under that priority f diversion and maxin	ority, the requested maximum rate or number can <u>NOT</u> be increased num quantity of water are appropri Division of Water Resources' requ	<ul> <li>d. Please be certain fate and reasonable for</li> </ul>	n your
4.	The water is intended to be	appropriated for (Ch	eck use intended):		
	(a)   Artificial Recharge	(b) ☐ Irrigation	(c) ⊠ Recreational	(d) □ Water Powe	r
	(e) ☐ Industrial	(f) ☐ Municipal	(g) ☐ Stockwatering	(h) ☐ Sediment Co	ontrol
	(i) ☐ Domestic	(j) ☐ Dewatering	(k) ☐ Hydraulic Dredging	(I) ☐ Fire Protection	on
	(m) ☐ Thermal Exchange	(n) ☐ Contamination	on Remediation		

File No. <u>KS-Dept Of Agriculture</u>

5.	The location of the proposed wells, pump sites or other works for diversion of water is:
	Note: For the application to be accepted, the point of diversion location must be described to at least a 10 acre tract, unless you specifically request a 60 day period of time in which to locate the site within a specifically described, minimal legal quarter section of land. (B) = Water Control Structure
	(A) One in the quarter of the quarter of the quarter of Section, more particularly
	described as being near a point feet North and feet West of the Southeast corner of said
	section, in Township South, Range , County, Kansas.
	(B) One in the <u>SW</u> quarter of the <u>SE</u> quarter of the <u>NE</u> quarter of Section <u>18</u> , more particularly described as
	being near a point $\underline{2,807}$ feet North and $\underline{1,278}$ feet West of the Southeast corner of said section, in
	Township <u>29</u> South, Range <u>21</u> East, <u>Neosho</u> County, Kansas.
	(C) One in the quarter of the quarter of the quarter of Section, more particularly
	described as being near a point feet North and feet West of the Southeast corner of said
	section, in Township South, Range , County, Kansas.
	(D) One in the quarter of the quarter of the quarter of Section, more particularly
	described as being near a point feet North and feet West of the Southeast corner of said
	section, in Township South, Range , County, Kansas.
	wells, except that a single application may include up to four wells within a circle with a quarter (¼) mile radius in the same local source of supply which do not exceed a maximum diversion rate of 20 gallons per minute per well.  A battery of wells is defined as two or more wells connected to a common pump by a manifold; or not more than four wells in the same local source of supply within a 300 foot radius circle which are being operated by pumps not to exceed a total maximum diversion rate of 800 gallons per minute and which supply water to a common distribution system.
6.	The owner of the point of diversion, if other than the applicant is (please print):
	(name, address and telephone number)
	(name, address and telephone number)
	You must provide evidence of legal access to, or control of, the point of diversion from the landowner or the landowner's authorized representative. Provide a copy of a recorded deed, lease, easement or other document with this application. In lieu thereof, you may sign the following sworn statement:
	I have legal access to, or control of, the point of diversion described in this application from the landowner or the landowner's authorized representative. I declare under penalty of perjury that the foregoing is true and correct.
	Executed on, 20 Applicant's Signature
	The applicant must provide the required information or signature irrespective of whether they are the
	<u>landowner.</u> Failure to complete this portion of the application will cause it to be unacceptable for filing and the application will be returned to the applicant.
7.	The proposed project for diversion of water will consist of one (1) wetland cell with a water control structure (number of wells, pumps or dams, etc.)
	and was completed (by) July 2024 (Month/Day/Year - each was or will be completed)
8.	The first actual application of water for the proposed beneficial use was or is estimated to be following approval (Mo/Day/Year)

### 10/22/2024

### Water Resources Received

KS Dept Of Agriculture	File No.
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9.	Will pesticide, fertilizer, or other foreign substance be injected into the water pumped from the diversion works?
	☐ Yes   ☑ No   If "yes", a check valve shall be required.
	All chemigation safety requirements must be met including a chemigation permit and reporting requirements.
10.	If you are planning to impound water, please contact the Division of Water Resources for assistance, prior to submitting the application. Please attach a reservoir area capacity table and inform us of the total acres of surface drainage area above the reservoir.
	Have you also made an application for a permit for construction of this dam and reservoir with the Division of Water Resources? ☑ Yes ☐ No
	If yes, show the Water Structures permit number here <u>Floodplain fill permit pending</u>
	If no, explain here why a Water Structures permit is not required
11.	The application <u>must</u> be supplemented by a U.S.G.S. topographic map, aerial photograph or a detailed plat showing the following information. On the topographic map, aerial photograph, or plat, identify the center of
	the section, the section lines or the section corners and show the appropriate section, township and range numbers. Also, please show the following information:
	(a) The location of the proposed point(s) of diversion (wells, stream-bank installations, dams, or other diversion works) should be plotted as described in Paragraph No. 5 of the application, showing the North- South distance and the East-West distance from a section line or southeast corner of section.
	(b) If the application is for groundwater, please show the location of any existing water wells of any kind within ½ mile of the proposed well or wells. Identify each existing well as to its use and furnish the name and mailing address of the property owner or owners. If there are no wells within ½ mile, please advise us.
	(c) If the application is for surface water, the names and addresses of the landowner(s) $\frac{1}{2}$ mile downstream and $\frac{1}{2}$ mile upstream from your property lines must be shown.
	(d) The location of the proposed place of use should be shown by crosshatching on the topographic map, aerial photograph or plat.
	(e) Show the location of the pipelines, canals, reservoirs or other facilities for conveying water from the point of diversion to the place of use.
	A 7.5 minute U.S.G.S. topographic map may be obtained by providing the section, township and range numbers to: Kansas Geological Survey, 1930 Constant, Campus West, University of Kansas, Lawrence, Kansas 66047.
12.	List any application, appropriation of water, water right, or vested right file number that covers the same diversion points or any of the same place of use described in this application. Also list any other recent modifications made to existing permits or water rights in conjunction with the filing of this application.
	Direct diversion (pump site) from adjacent Flat Rock Creek. The direct diversion application and this
	surface water storage application are being filed together.

### 10/22/2024

### Water Resources Received

KS Dept Of Agriculture File No. \_\_\_\_\_

13.	Furnish the following well in well has not been complete	nformation if the pd., give information	proposed a n obtained	ppropriation is for form test holes,	or the use of of it is in the contract of the	groundwater. If the
	Information below is from:	☐ Test holes	□ Well	as completed	☐ Drillers I	og attached
	Well location as shown in No.	paragraph	(A)	(B)	(C)	(D)
	Date Drilled	_				
	Total depth of well	_				
	Depth to water bearing for	mation				
	Depth to static water level	_				
	Depth to bottom of pump in	ntake pipe				
15.	The relationship of the appliowner / operator (owner, tenant, agent or otherwise)  The owner(s) of the propert	se) ····································	r is used, if	other than the a	applicant, is (p	
		(name, addre	ess and tel	ephone number)	)	
		(name, addre	ess and tel	ephone number	)	
16.	The undersigned states that this application is subm	at the information	set forth a			her knowledge and
	Dated at	, Kansas,	, this	_day of	( )	
					(month)	(year)
	(Applicant Signatu	re)				
<u>B</u> y	(Agent or Officer Sign	ature)	<del>_</del>			
	(Agent or Officer - Pleas	se Print)	_			
Assiste	ed by <u>Brian Severin, P.E.</u>	<u>E</u> c	ocene Envi	ironmental Grou office/title)	p Date: <u>8/1</u>	2/2024

### **FEE SCHEDULE**

KS Dept Of Agriculture

1. The fee for an application for a permit to appropriate water for beneficial use, except for domestic use, shall be (see paragraph No. 2 below if requesting storage):

ACRE-FEET	I	FEE
0-100	;	\$200.00
101-320	(	\$300.00
More than 320	;	\$300.00 plus \$20.00 for each additional 100 acre-feet or any part thereof.

2. The fee for an application in which storage is requested, except for domestic use, shall be:

ACRE-FEET	FEE
0-250	\$200.00
More than 250	\$200.00 plus \$20.00 for each additional 250 acre-feet of storage or any part thereof.

Note: If an application requests both direct use *and* storage, the fee charged shall be as determined under No. 1 or No. 2 above, whichever is greater, but not both fees.

3. The fee for an application for a permit to appropriate water for water power or dewatering purposes shall be \$100.00 plus \$200.00 for each 100 cubic feet per second, or part thereof, of the diversion rate requested.

Note: The applicant shall notify the Chief Engineer and pay the statutorily required field inspection fee of \$400.00 when construction of the works for diversion has been completed, except that for applications filed on or after July 1, 2009, for works constructed for sediment control use and for evaporation from a groundwater pit for industrial use shall be accompanied by a field inspection fee of \$200.00.

### MAKE CHECKS PAYABLE TO THE KANSAS DEPARTMENT OF AGRICULTURE

### **ATTENTION**

A Water Conservation Plan may be required per K.S.A. 82a-733. A statement that your application for permit to appropriate water may be subject to the minimum desirable streamflow requirements per K.S.A. 82a-703a, b, and c may also be required from you. After the Division of Water Resources has had the opportunity to review your application, you will be notified whether or not you will need to submit a Water Conservation Plan. You also may be required to install a water flow meter or water stage measuring device on your diversion works prior to diverting water. There may be other special conditions or Groundwater Management District regulations that you will need to comply with if this application is approved.

### **CONVERSION FACTORS**

1 acre-foot equals 325,851 gallons

1 million gallons equal 3.07 acre-feet

KS Dept Of Agriculture

### **RECREATIONAL USE**

	SU.	PPLEMENTAL SHEET
	Fil	e No
	Name of Applicant (Ple	ease Print):  Cuthbertson Revocable Trust (Scott Cuthbertson)
	Please indicate type of recreational	use (boating, fishing, swimming, etc.):  Constructed low
		ally impound shallow water for wildlife use.
	Please summarize how the water wi	Il be used and justify the quantity of water requested:
•		torage plus net evaporation at the auxiliary spillway
	elevation = 17.8 acre-leet. Th	e installed water control structure will release
	runoff and stored water back	into the floodplain.
	Dl	-hii
	Please complete the following table	showing estimated future water requirements:
	ESTIMATED F	UTURE WATER DIVERTED/STORED
	NEXT 5 YEARS	WATER TO BE DIVERTED (ACRE-FEET OR GALLONS)
	Year 1 17	7.8 acre-feet
	Year 2	7.8 acre-feet
	Year 3	7.8 acre-feet
	Year 4	7.8 acre-feet

Please attach any additional information, tables, or curves showing past, present and estimated future water requirements to substantiate the amount of water requested.

17.8 acre-feet

4.	Please designate the legal description of the location where the water is to be used by providing the
	fractional part of the Section, Township and Range.

NE 1/4 Sec 18, T-29S; R-21E	(see plan sheets)
-----------------------------	-------------------

Year 4

Year 5

You may attach any additional information you believe will assist in informing the Division of the need for your request.

5. The location of the proposed wells, pump	sites or other works t	or diversion of water is:	bed to at least a 10
			ate the site within a
appointably described, fill the		munder of Section	, more particularly
(A) One in the quarter of the	quarter or the	feet West of the So	outheast corner of said
described as being near a point	_ reet North and _		County, Kanses
to makin flouith R	- 1 DONES		
	CONTRACTOR WINDOWS AND ADDRESS.	w of Section 15, more p	distribution of the second
(B) One in the SW quarter of the SE qua- being near a point 2.807 feet North	and 1,278 feet We	st of the Southeast co	wher of said section, in
Towns 20 South Range 21 East	Neosho		
Township 29 South, Range 21 East.	- Steel and a steel and a	managed Section	, more particularly
(C) One in the quarter of the	_ quarter of the	quarter or Section	Southeast corner of said
described as being near a point	_ seet North and _		County, Kansas
section in Township South, R	Range		
(D) One in the quarter of the	The second second	quarter of Section	more particularly
(D) One in the quarter of the	— drawter of the —	food Mines of the	Southeast corner of said
described as being near a point	feet North and _	Ther Avent or now	County, Kansas
- Franchia Couth D	Zonna .		- Goding 1
		- hall be flied for each t	proposed well or battery of
If the source of supply is groundwater, a si wells, except that a single application may	vinclude up to four v	wells within a circle wit	130 polices con min facius
wells, except that a single application may in the same local source of supply which d	to not exceed a may	smum diversion rate o	i zu galioris per minute per
in the same local source of supply which of	The second of the		A STATE OF THE PARTY OF THE PAR
well.	hotsoners street	to a common oump b	by a manifold; or not more
A battery of wells is defined as two or mo			
A battery of wells is defined as two or mo than four wells in the same local source of pumps not to exceed a total maximum div			
pumps not to exceed a total maximum on	3.2.2.1. Take 01 000		The street was pro-
common distribution system.		lie felence sales	10/22/2024
The owner of the point of diversion, if other	er usan the applican	" o (brease built):	The state of the s
	e, address and teleph		Water Resource
(nam	and the pr	The state of the s	Received
	e, address and teleph	one number)	STATE STATE OF
(nam	and teleps		KS. Dept Of Agriculty
You must provide evidence of legal acces	ss to, or control of,	the point of diversion	n from the landowner or the
landowner's authorized representative.	Provide a copy of	or a recorded deed,	, lease, easement or our
document with this application. In lieu ther	reof, you may sign	the following sworn	statement
I have legal access to, or control of	vised some of dive	and described in the	nenalty of negure that
landowner or the landowner's author	viced representati	o. I godary under	beniand or beilard man
the foregoing is true and correct.	311	(14/11)	Control of the last of the las
Executed on 9-15	_ 20 14 X	At letter	~
and the second second		Applicant's	Signature
he applicant must provide the required	d information or	33,000,000,000,000	
ndowner. Failure to complete this portion	n of the application	) will cause it to be	nacceptable for filing and t
pplication will be returned to the applican		The same of the part	and and
process, was no returned to the applican			
ne proposed arrival to a	CHET COLUMN TO SERVICE	m (d) well and	th a water analyst at
he proposed project for diversion of wate umber of wells, pumps or dams, etc.)	will consist of or	e (1) wetland cell w	in a water control structur
nd was completed (by) July 2024			
(by) 904 2024	Month Po-	sylYear - each was or will	be completed)
	STATE OF THE PARTY OF	THE PARTY OF THE P	
e first actual application of water for the	proposed benefit	al use was or is or it.	nated to be following appr
The first actual application of water for the	2000000		

File No.

1	The undersigned states that the introduction is submitted in Dated at	good faith.				10/22/202 Water F Reco	(year)
X	Dated at	good faith.				10/22/202 Water F Reco	(year) 4 Resources eived
X	Dated at	good faith.				10/22/202 Water F Reco	(year) 4 Resources eived
1	chat this application is submitted in coated at	good faith.				10/22/202	(year)
1	chat this application is submitted in coated at	good faith.					
1	that this application is submitted in	good faith.					
1	that this application is submitted in	good faith.					
16.	that this application is submitted in	good faith.					wledge and
	— (ne	ame, addres	s and tele	phone numb	er)		
15.				phone numb			
14.	The relationship of the applicant to owner / operator (owner, tenant, agent or otherwise)  The owner(s) of the property where						nt):
	Depth to bottom of pump intake p				Total Control		
	Depth to static water level	-	_	_	-		-
	Depth to water bearing formation	-				-	
	Total depth of well	1,000			_		3
	Date Drilled	_	-				
	Well location as shown in paragni	agori	(A)	(B)	(C)	(6)	
	Information Majore is a	est holes			144	(D)	
	The second secon		CI Well as	completed	☐ Drillers	log attached	
13.	Furnish the following well informat well has not been completed, give	information					

File No.











### **Cuthbertson Revocable Trust** (Flat Rock Bottoms)

10/22/2024

Water Resources Received

KS Dept Of Agriculture

**As Constructed Wetland Development** 

August 13, 2024

### Prepared By:

Brian W. Severin, P.E.

**Director of Technical Services** 

bseverin@eocene.com

785.207.0201



KS Dept Of Agriculture

### **Design Report**

### **Project Information**

Name: Cuthbertson Revocable Trust (Flat Rock Bottoms)

• Practice: As Constructed Wetland Development

Legal: NE 1/4 Section 18, Township 29 South; Range 21 East

Location: Neosho County, Kansas

### **Project Description**

The project is located along and within the floodplain of Flat Rock Creek. The wetland development includes one wetland cell with a water control structure. The dike structure was constructed July 2024 (prior to securing permits). The low-level dike will provide additional water storage and create diverse topography within the degraded wetland area. The dike will increase water storage capacity and maintain hydrology at times throughout the year. The project will not hydraulically affect adjacent landowners, as the permanent pools will be confined to the landowner's property.

### Design

The wetland cell has approximately 97 acres of drainage area. The contributing hydrology into the wetland cell is direct rainfall, overland flow runoff, and seasonal flood events. The low-level dike is expected to overtop during flood events. The dikes were constructed with a minimum profile to reduce damage during these events. Average annual rainfall and seasonal flooding is expected to maintain wetland hydrology in the cell at most times throughout the year. However (permit pending), the cell will be supplemented with pumped surface water from Flat Rock Creek.

### **Permitting and Permissions**

The following permits will be required for the as constructed dike and wetland operation activities. Pertinent information for the permits has been supplied on the applications.

- Kansas Department of Agriculture, Division of Water Resources: DWR 1-100 Water Appropriation for Beneficial
   Use (Direct Diversion Pump Site)
- Kansas Department of Agriculture, Division of Water Resources: DWR 1-100 Water Appropriation for Beneficial
   Use (Natural Flow Surface Water Storage)
- Kansas Department of Agriculture, Division of Water Resources: DWR 2-200 Floodplain Fill

KS Dept Of Agriculture

### Survey

The as constructed project was surveyed by Matt Miller, Engineering Technician, Eocene using survey grade GPS equipment. The survey data was post processed using NOAA – Online Positioning User Service (OPUS) and corrected to Kansas State Plane, Zone South. The project is tied to permanent benchmarks labeled and described on the Plan Sheets. LiDAR topographic data was compared to the survey data and elevation corrected for planning and design use.

### **Appendix**

The attached Appendix includes Plan Sheets, KDA-DWR Report, and Permit Documentation.



Cuthbertson Revocable Trust (Flat Rock Bottoms) Project:

As Constructed Wetland Development Practice:

Location: NE 1/4 Sec 18, T-29S; R-21E

Neosho County, Kansas

Description Index to Drawings Sheet No.

Cover Sheet

August 2024

Brian W. Severin, P.E. Designed by

Location Map and Adjacent Landowners

Orthographic Plan Map

Plan View and Storage Table

Dike 1 Profile

Dike 1 Cross Sections

Base Flood Analysis

Base Flood Analysis

Approved by

Date

Before any investigation or construction activity, the excavator is responsible for calling Kansas One—Call

at 800-344-7233 (800-DIG-SAFE) or 811

10/22/2024

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Cuthbertson Revocable Trust (Flat Rock Bottoms)
As Constructed Wetland Development
NE 1/4 Sec 18, T-29S; R-21E
Neosho County, Kansas

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Points of Diversion A) Pump Site - Direct Diversion B) Water Control Structure 1 - Storage

Upstream and Downstream Landowners

- 1) Project Location Cuthbertson Revocable Trust 649 W 590th St Girard, Kansas 66743
- 2) Beachner Southwest Farming PO Box 128 Saint Paul, Kansas 66771
- 3) Beachner Bros Inc PO Box 128 Saint Paul, Kansas 66771
- 4) Beachner, Cory 10780 Udall Rd Saint Paul, Kansas 66771
- 5) Beachner, Alice M Trust 909 Willowbrook Rd Parsons, Kansas 67357
- 6) Chambers, Ken A & Kari S 10510 Udall Rd Saint Paul, Kansas 66771
- 7) Carter Roy Revocable Trust 108 St. Joseph Saint Paul, Kansas 66771
- 8) Pollick Michael William & Johnson Claire White 10260 Udall Rd Saint Paul, Kansas 66771
- 9) Riverlands Investment Property LLC 10900 S Woodland Rd Olathe, Kansas 66061
- 10) Oehlert, Jeremy D 407 Webster Pittsburg, Kansas 66762
- 11) Oplotnik Frank E & Sandra Revocable Trust 1238 W Hwy 47 Girard, Kansas 66743
- 12) Smith Joshua M 808 N Western Ave Girard, Kansas 66743
- 13) Smith Joseph A 19600 Udall Rd Erie, Kansas 66733
- 14) USD #505 430 Elm Chetopa, Kansas 67336

10/22/2024

Water Resources Received

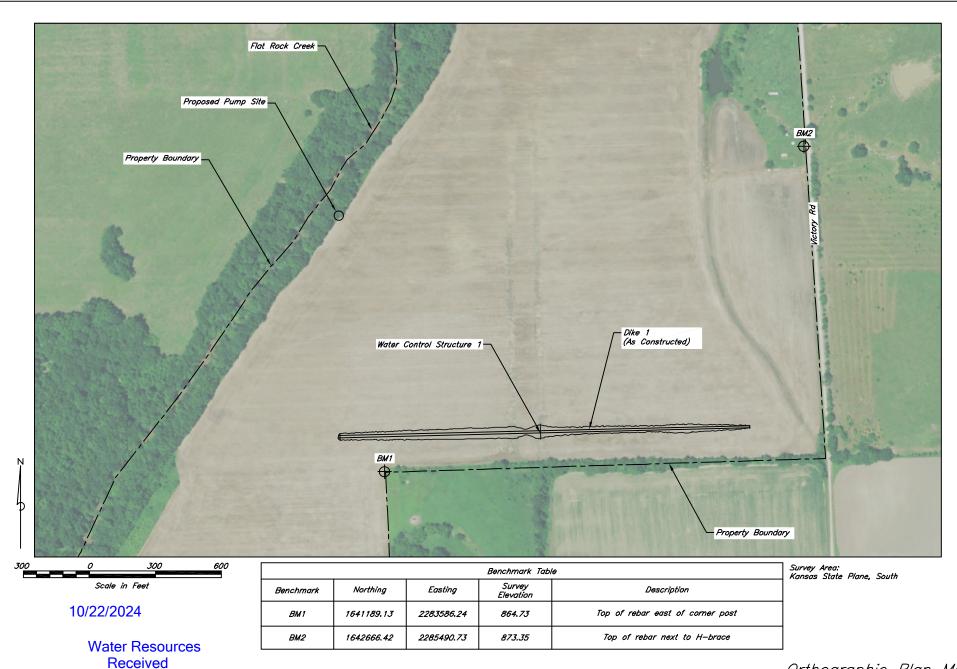
KS Dept Of Agriculture

(2) =110th Rd = Project Storage 1 5 105th Rd 7 10 9 Project Location 8 (11) (13) KS Hwy 47 1000

Scale in Feet

The approximate project location is 1 mile east and 0.5 mile north of Saint Paul, Kansas.

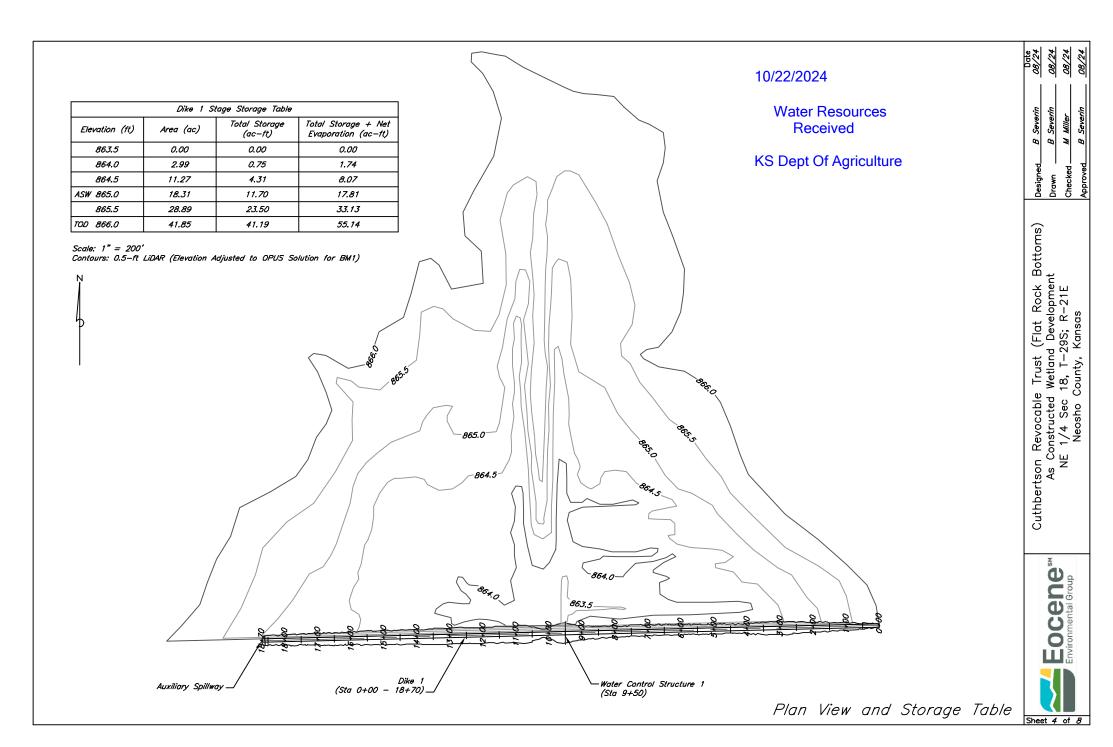
Location Map and Adjacent Landowners

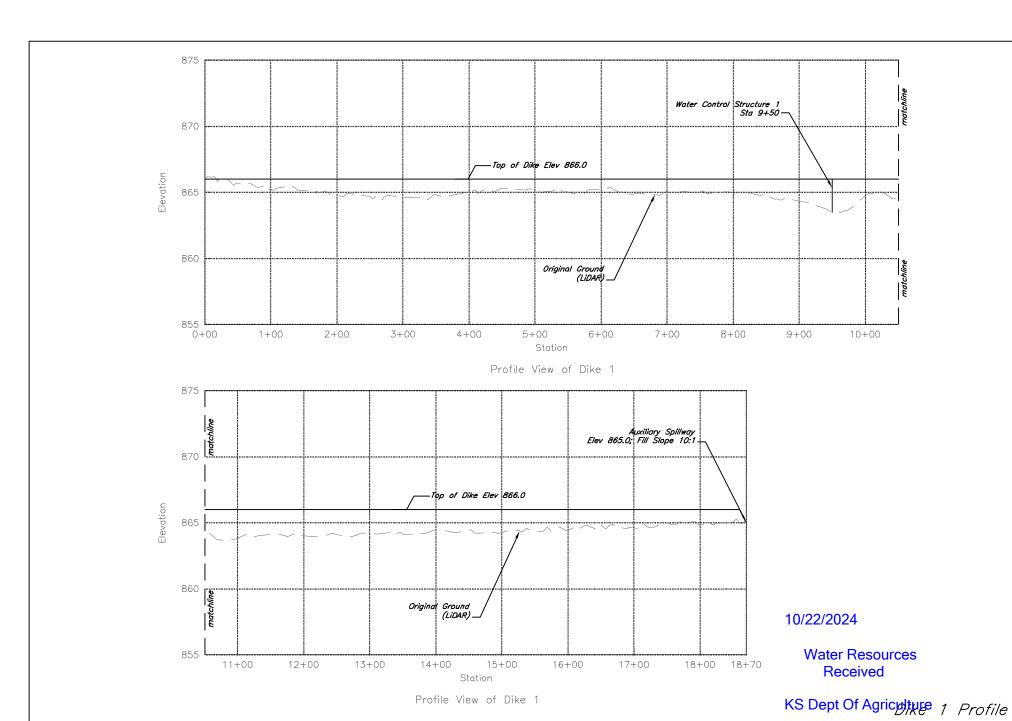


Cuthbertson Revocable Trust (Flat Rock Bottoms)
As Constructed Wetland Development
NE 1/4 Sec 18, T-295; R-21E
Neosho County, Kansas

OCEDE vironmental Group

Orthographic Plan Map



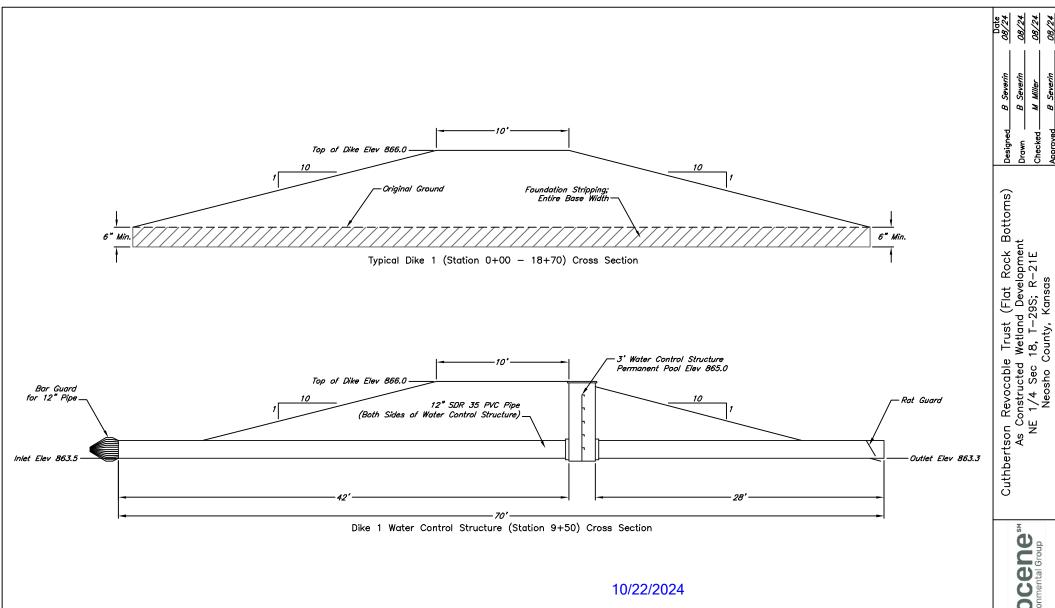


Date 08/24 08/24 08/24

B Severin

Cuthbertson Revocable Trust (Flat Rock Bottoms)
As Constructed Wetland Development
NE 1/4 Sec 18, T-29S; R-21E
Neosho County, Kansas

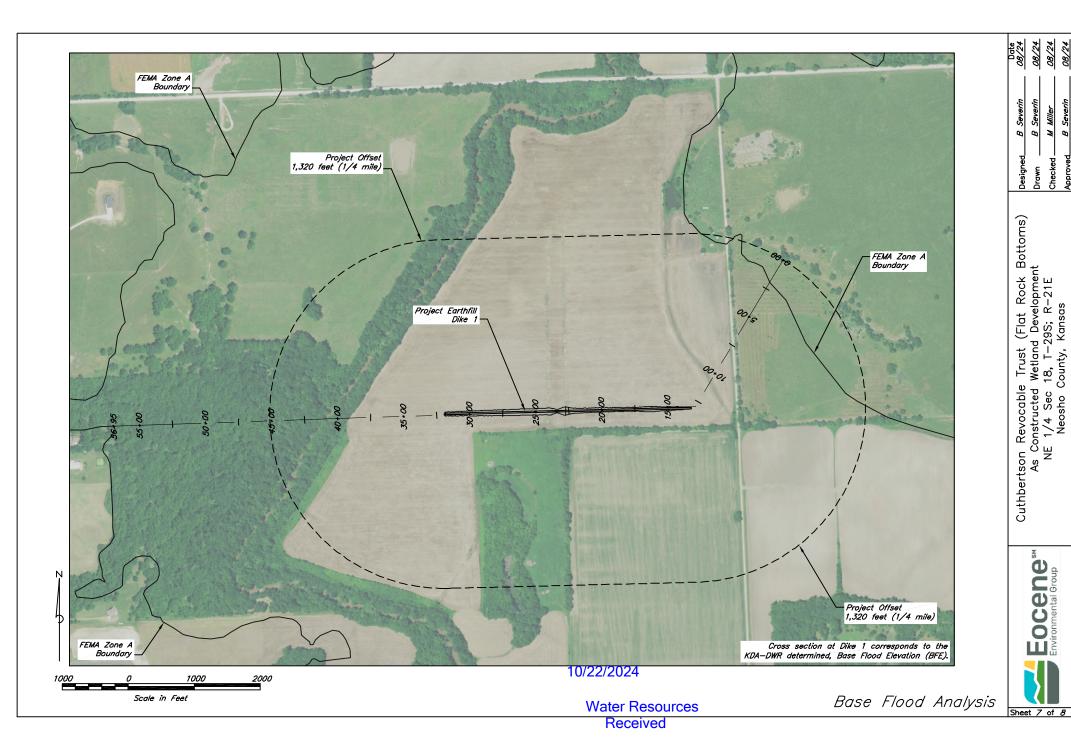




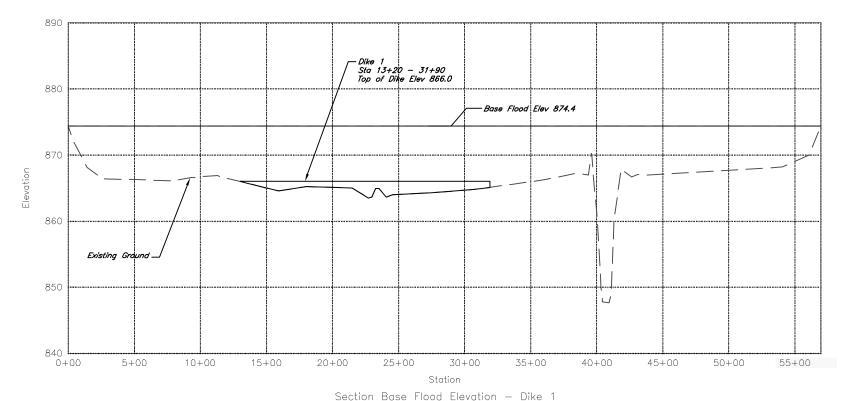
KS Dept Of Agriculture

Dike 1 Cross Sections





Eocenes Environmental Group



### References:

Existing ground and channels: LiDAR Topographic Data and the U.S. Geological Survey (USGS) 7.5 minute quadrangle map

Base Flood Elevation Determination: Keegan Schwartz, KDA - Division of Water Resources

FEMA Zone A Floodplain: National Flood Insurance Program, Flood Insurance Rate Map (FIRM) Map Number FM20133C0220D, Unincorporated Areas of Neosho County, KS (01/20/2010)

### Note:

1. No DWR permitted floodplain fills are located within 1/4 mile of the dike location. Therefore, a geometric base flood analysis was completed.

Base Flood Calculations:
Base flood elevation = 874.4
Base flood section area = 48,020 sq. ft.
Top width of base flood section = 5,695 ft
Maximum earthfill area below base flood elevation = 2,480 sq. ft.

Earthfill will increase base flood area by 5% Earthfill will increase base flood elevation by 0.44 ft.

Base Flood Analysis Completed By: Brian W Severin Date: 8/12/24

10/22/2024

Water Resources Received

**KS Dept Of Agriculture** 

Base Flood Analysis

Cuthbertson Revocable Trust (Flat Rock Bottoms)
As Constructed Wetland Development
NE 1/4 Sec 18, T-29S; R-21E
Neosho County, Kansas

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Date 08/24 08/24 08/24

B Severin

# KDA – Division of Water Resources (DWR) Report

## **Direct Diversion**

the plan sheets, with the water source being Flat Rock Creek. Therefore, a Water Appropriation for Beneficial Use (Direct Diversion) permit will be required A pumping site is proposed to control and maintain the wetland hydrology. The pumping site will be located as shown on

# Surface Water Storage

the wetland cell is greater than 15 ac-ft. Therefore, a DWR Water Appropriation for Beneficial Use (Storage) permit will be dike to maintain freeboard and manage the water level within the wetland cell. The Total Storage + Net Evaporation for The Potential Net Evaporation (Annual Average Evaporation minus Annual Normal Precipitation) for the project location is required 4 inches. The net storage for Dike 1 was analyzed from the auxiliary spillway. A water control structure is installed in the

Water Resources Received							
<sup>9</sup> 866.0 (Top of Dike)	Dept 0 865.5	88.0 (Auxiliary Spillway)	ulture 864.5	864.0	863.5	Elevation (ft)	
41.85	28.89	18.31	11.27	2.99	0.00	Area (ac)	
41.19	23.50	11.70	4.31	0.75	0.00	Total Storage (ac-ft)	
55.14	33.13	17.81	8.07	1.74	0.00	Total Storage + Net Evaporation (ac-ft)	

Dike 1 Stage Storage Table

## **Base Flood Analysis**

permitted floodplain fills located within  $\frac{1}{4}$  mile of the dike location. Therefore, a geometric base flood analysis was the FEMA FIRM data (Map Number FM20133C0220D, Unincorporated Areas of Neosho County, KS). There are no DWR determined by Keegan Schwartz, KDA-DWR. The base flood (FEMA Zone A, 100-yr floodplain) was approximated from elevation of the existing ground and channels was approximated from Kansas LiDAR topographic data and the U.S required. A base flood analysis was completed to determine the increase in base flood area and flood elevation. The See Base Flood Analysis plan sheets for further detail. completed. The as constructed dike will increase the base flood area by 5% and the base flood elevation by 0.44 feet Geological Survey (USGS) 7.5-minute quadrangle map. The Base Flood Elevation (BFE) for the project location was The project is located within the FEMA Zone A flood boundary of Flat Rock Creek. Therefore, a floodplain fill permit will be

1320 Research Park Drive Manhattan, KS 66502 785-564-6700 www. agriculture.ks.gov



900 SW Jackson, Room 456 Topeka, KS 66612 785-296-3556

Laura Kelly, Governor

Mike Beam, Secretary

October 28, 2024

CUTHBERTSON REVOCABLE TRUST 649 W 590TH ST GIRARD KS 66743

RE: Application, File No(s). 51341

Dear Sir or Madam:

additional information is required. makes every attempt to process them in the order in which they are received. You will be contacted if Please be aware that the Division may have a large number of pending applications on hand at times and water for beneficial use. Your application(s) has been assigned the file number(s) referenced above The Division of Water Resources (Division) has received your application(s) for a permit to appropriate

prior to approval of the application(s) is unlawful. Please note, this letter only acknowledges receipt of your application(s) and does not guarantee approval. In accordance with the provisions of the Kansas Water Appropriation Act, the use of water as proposed

more efficiently. Additional information about the process may be found on our website at <u>agriculture.ks.gov/divisions-programs/dwr</u>. If you have any other questions, please contact our office at 785-564-6640 or your local Topeka Field Office at 785-296-5733. If you call, please reference the file number so we can help you

Sincerely,

Kris Neuhauser New Applications Lead Water Appropriation Program