

# NOTICE

This scan only represents the application as filed. The information contained herein meets the requirements of K.A.R. 5-3-1 or K.A.R. 5-5-1, and has been found acceptable for filing in the office of the Chief Engineer. The application should not be considered to be a complete application as per K.A.R. 5-3-1b or K.A.R. 5-5-2a.

THE STATE OF KANSAS



**KANSAS DEPARTMENT OF AGRICULTURE**  
Jackie McClaskey, Secretary of Agriculture

**DIVISION OF WATER RESOURCES**  
David W. Barfield, Chief Engineer

File Number 50,334  
This item to be completed by the Division of Water Resources.

Water Resources  
Received

**APPLICATION FOR PERMIT TO  
APPROPRIATE WATER FOR BENEFICIAL USE**  
Filing Fee Must Accompany the Application  
(Please refer to Fee Schedule attached to this application form.)

JAN 15 2020  
11:45  
KS Dept Of Agriculture

To the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture,  
1320 Research Park Drive, Manhattan, Kansas 66502:

1. Name of Applicant (Please Print): KANSAS DEPARTMENT OF WILDLIFE PARKS & TOURISM  
Address: 1020 S KANSAS AVE FL2  
City: TOPEKA State KS Zip Code 66612-1389  
Telephone Number: (785) 296-2281

Please confirm correct  
address and PID in WRIS  
when working this file. LLM

2. The source of water is:  surface water in SMOKY HILL RIVER  
OR  groundwater in \_\_\_\_\_  
(drainage basin)

Certain streams in Kansas have minimum target flows established by law or may be subject to administration when water is released from storage for use by water assurance district members. If your application is subject to these regulations on the date we receive your application, you will be sent the appropriate form to complete and return to the Division of Water Resources.

3. The maximum quantity of water desired is 1407 acre-feet OR \_\_\_\_\_ gallons per calendar year,  
to be diverted at a maximum rate of NAT FLOW gallons per minute OR \_\_\_\_\_ cubic feet per second.

Once your application has been assigned a priority, the requested maximum rate of diversion and maximum requested quantity of water under that priority number can **NOT** be increased. Please be certain your requested maximum rate of diversion and maximum quantity of water are appropriate and reasonable for your proposed project and are in agreement with the Division of Water Resources' requirements.

4. The water is intended to be appropriated for (Check use intended):  
(a)  Artificial Recharge (b)  Irrigation (c)  Recreational (d)  Water Power  
(e)  Industrial (f)  Municipal (g)  Stockwatering (h)  Sediment Control  
(i)  Domestic (j)  Dewatering (k)  Hydraulic Dredging (l)  Fire Protection  
(m)  Thermal Exchange (n)  Contamination Remediation

YOU **MUST** COMPLETE AND ATTACH ADDITIONAL DIVISION OF WATER RESOURCES FORM(S) PROVIDING INFORMATION TO SUBSTANTIATE YOUR REQUEST FOR THE AMOUNT OF WATER FOR THE INTENDED USE REFERENCED ABOVE.

<b>For Office Use Only:</b>									
F.O. <u>3</u>	GMD <u>2</u>	Meets K.A.R. 5-3-1 (YES/NO) <u>YES</u>	Use <u>REC</u>	Source <u>G</u>	County <u>EW</u>	By <u>KAB</u>	Date <u>1-15-2020</u>		
Code <u>RE 5</u>	Fee \$ <u>300</u>	TR # <u>2400011036</u>	Receipt Date <u>1/15/2020</u>	Check # <u>CC</u>					

1/27/2020  
LMoody

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.

(A) One in the NW quarter of the SW quarter of the SW quarter of Section 14, more particularly described as being near a point 1295 feet North and 5165 feet West of the Southeast corner of said section, in Township 16 South, Range 7 WEST, ELLSWORTH County, Kansas.

(B) One in the NE quarter of the SE quarter of the NW quarter of Section 23, more particularly described as being near a point 3776 feet North and 2710 feet West of the Southeast corner of said section, in Township 16 South, Range 7 WEST, ELLSWORTH County, Kansas.

(C) One in the NE quarter of the SE quarter of the SW quarter of Section 13, more particularly described as being near a point 913 feet North and 2645 feet West of the Southeast corner of said section, in Township 16 South, Range 7 WEST, ELLSWORTH 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 \_\_\_\_\_ East/West (circle one), \_\_\_\_\_ County, Kansas.

If the source of supply is groundwater, a separate application shall be filed for each proposed well or battery of wells, except that a single application may include up to four wells within a circle with a quarter (1/4) 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):

US Army Corps of Engineers, 105 Riverside Drive, Marquette, KS 67446  
(name, address and telephone number)

Water Resources  
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JAN 15 2020

(name, address and telephone number)

KS Dept Of Agriculture

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 JAN 13, 2020. Scott Thourman  
Applicant's Signature

The applicant must provide the required information or signature irrespective of whether they are the landowner. 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 3 embankments with water control structures  
(number of wells, pumps or dams, etc.)  
and will be completed (by) 2021

(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 2021  
(Mo/Day/Year)

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 \_\_\_\_\_
- If no, explain here why a Water Structures permit is not required This project is located on federal land  
Project applicant has done appropriate work through US Army Corps of Engineers

11. The application must 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 1/2 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 1/2 mile, please advise us.
- (c) If the application is for surface water, the names and addresses of the landowner(s) 1/2 mile downstream and 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.

<u>NORTH STRUCTURE STORES 93.433 AF WITH 47.144 SURFACE ACRES</u>	Water Resources Received
<u>MIDDLE STRUCTURE STORES 273.219 AF WITH 181.321 SURFACE ACRES</u>	
<u>EAST STRUCTURE STORES 227.381 AF WITH 132.779 SURFACE ACRES</u>	JAN 15 2020
<u>TOTAL STORAGE = 594.033 AF TOTAL SURFACE AREA = 361.244 ACRES</u>	KS Dept Of Agriculture
<u>594.033 AF STORAGE PLUS ONE YEAR EVAPORATION (2.25 AF/ACRE) = 1407 AF</u>	

13. Furnish the following well information if the proposed appropriation is for the use of groundwater. If the well has not been completed, give information obtained from test holes, if available.

Information below is from:  Test holes  Well as completed  Drillers log attached

Well location as shown in paragraph No.	(A)	(B)	(C)	(D)
Date Drilled	_____	_____	_____	_____
Total depth of well	_____	_____	_____	_____
Depth to water bearing formation	_____	_____	_____	_____
Depth to static water level	_____	_____	_____	_____
Depth to bottom of pump intake pipe	_____	_____	_____	_____

14. The relationship of the applicant to the proposed place where the water will be used is that of agent  
(owner, tenant, agent or otherwise)

15. The owner(s) of the property where the water is used, if other than the applicant, is (please print):  
UNITED STATES OF AMERICA ARMY CORPS OF ENGINEERS RT 1 BOX 30 MARQUETTE, KS 67446  
(name, address and telephone number)  
\_\_\_\_\_  
(name, address and telephone number)

16. The undersigned states that the information set forth above is true to the best of his/her knowledge and that this application is submitted in good faith.

Dated at Sylvan Grove, Kansas, this 13<sup>th</sup> day of JANUARY, 2020.  
(month) (year)

Scott Thomason  
(Applicant Signature)

By Scott Thomason  
(Agent or Officer Signature)

SCOTT THOMASSON  
(Agent or Officer - Please Print)

Water Resources  
Received

JAN 15 2020

KS Dept Of Agriculture

Assisted by M. BILLINGER ASSISTANT WATER COMMISSIONER Date: 3/12/19  
(office/title)

## FEE SCHEDULE

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	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

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JAN 15 2020

KS Dept Of Agriculture

**RECREATIONAL USE  
SUPPLEMENTAL SHEET**

File No. 50,334

Name of Applicant (Please Print): KDWP&T

1. Please indicate type of recreational use (boating, fishing, swimming, etc.): MARSH  
CONSTRUCTION FOR WATERFOWL, WILDLIFE AND GENERAL RECREATION

2. Please summarize how the water will be used and justify the quantity of water requested: \_\_\_\_\_  
NORTH STRUCTURE STORES 93.433 AF WITH 47.144 SURFACE ACRES  
MIDDLE STRUCTURE STORES 273.219 AF WITH 181.321 SURFACE ACRES  
EAST STRUCTURE STORES 227.381 AF WITH 132.779 SURFACE ACRES  
TOTAL STORAGE = 594.033 AF TOTAL SURFACE AREA = 361.244 ACRES  
594.033 AF STORAGE PLUS ONE YEAR EVAPORATION (2.25 AF/ACRE) = 1407 AF

3. Please complete the following table showing estimated future water requirements:

<b>ESTIMATED FUTURE WATER DIVERTED/STORED</b>	
<b>NEXT 5 YEARS</b>	<b>WATER TO BE DIVERTED (ACRE-FEET OR GALLONS)</b>
Year 1	1407
Year 2	1407
Year 3	1407
Year 4	1407
Year 5	1407

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**JAN 15 2020**  
KS Dept Of Agriculture

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

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.

SEE FOLLOWING PAGE FOR ARCRE DESCRIPTIONS AND ATTACHED DESIGN PLANS

\*\* NOTE US ARMY CORPS OF ENGINEERS OWNS ALL LAND WITHIN 1/2 MILE  
UPSTREAM AND DOWNSTREAM OF THE PROPOSED POINTS OF DIVERSION

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
15	16S	7W																		
14	16S	7W																		
13	16S	7W																		
23	16S	7W	18	9	17	8.5	35	33	6.5	22										
24	16S	7W					9	33												

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

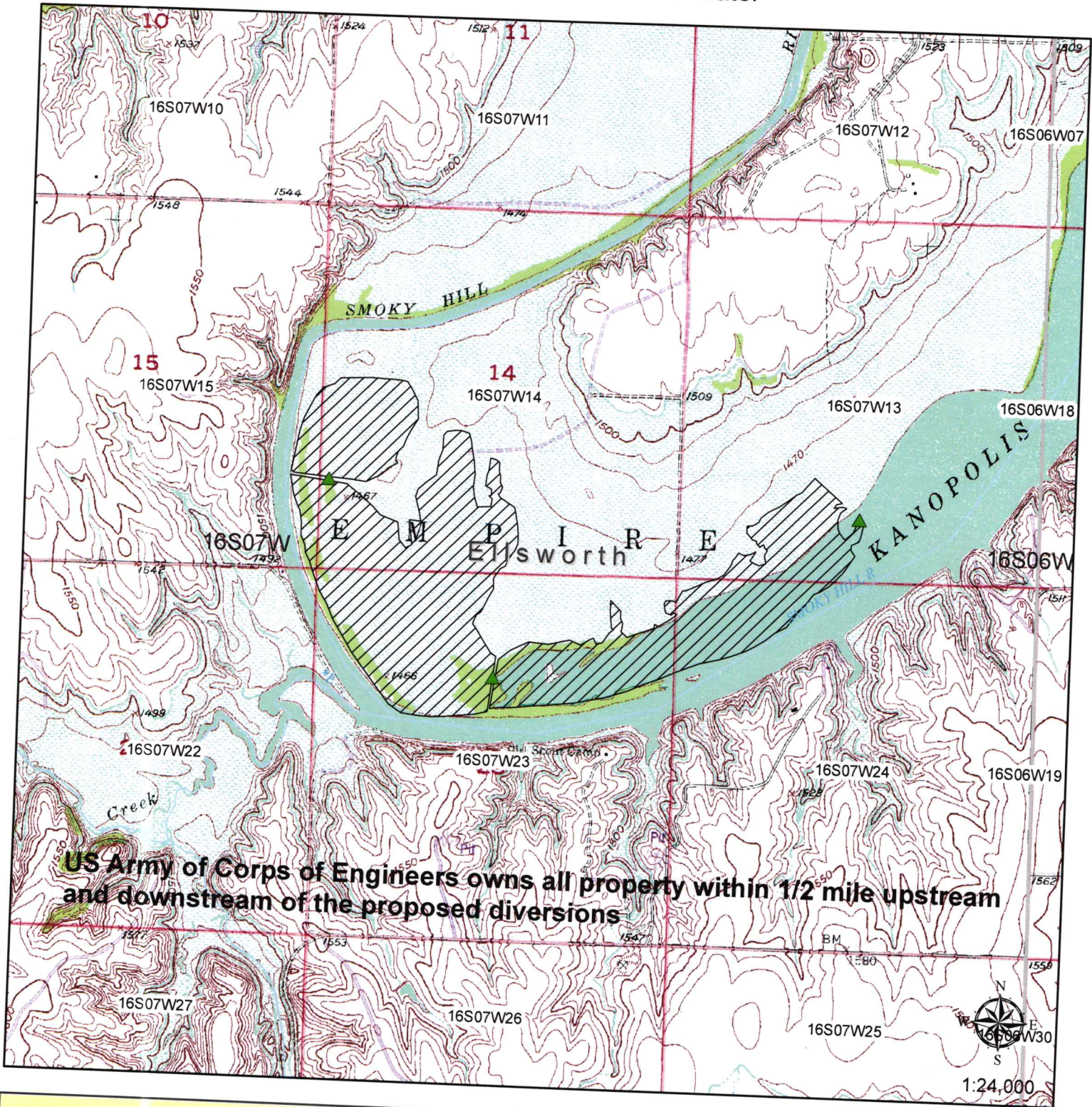
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**JAN 15 2020**

KS Dept Of Agriculture



# New Application - Surface Water



**US Army of Corps of Engineers owns all property within 1/2 mile upstream and downstream of the proposed diversions**

Signature Required

*Scott Thomanon*

By signing this I am stating that to the best of my knowledge that all landowners within 1/2 mile upstream and downstream of my property are identified on this map or listed on an attachment to this map.

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JAN 15 2020

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- ▲ Surface Water Point of Diversion
- Groundwater Point of Diversion
- ▨ Proposed Place of Use
- ▲ Proposed Point(s) of Diversion



**DUCKS UNLIMITED**  
SPECIFICATIONS

- 101 GENERAL CONDITIONS
- 102 SUPPLEMENTAL CONDITIONS
- 201 MOBILIZATION
- 202 SITE PREPARATION
- 203 EXCAVATION
- 204 EMBANKMENT CONSTRUCTION
- 205 WATER
- 301 WATER CONTROL STRUCTURES
- 303 CULVERT AND PIPE INSTALLATION
- 304 CAST-IN-PLACE REINFORCED CONCRETE
- 305 RIPRAP, REVETMENT & AGGREGATE PLACEMENT
- 401 SOIL EROSION AND POLLUTION CONTROL
- 402 SEEDING AND MULCHING

**PLAN INDEX**

- 1 LOCATION & VICINITY MAPS
- 2 OVERALL PLAN
- 3 EMBANKMENT AND BORROW DETAIL
- 4 EMBANKMENT DETAIL
- 5 EMBANKMENT AND DRAINAGE DETAIL
- 6 DRAINAGE DETAIL
- 7 WATER CONTROL STRUCTURE DETAIL
- 8 SWPP DETAIL MAP
- 9 SWPP DETAIL
- 10 USGS TOPOGRAPHIC MAP
- 11 EMBANKMENT PROFILE VIEW
- 12 EMBANKMENT PROFILE VIEW

**ESTIMATED QUANTITIES**

MOBILIZATION	1 L.S.
SITE PREPARATION	1 L.S.
NORTH EMBANKMENT	8,345 C.Y.-P**
MIDDLE EMBANKMENT	9,083 C.Y.-P**
EAST EMBANKMENT	2,242 C.Y.-P**
WATER	1 MG
DITCH PLUG #1	200 C.Y.-P**
DITCH PLUG #2	250 C.Y.-P**
24-INCH WATER CONTROL STRUCTURE	1 EA.
36-INCH WATER CONTROL STRUCTURE	2 EA.
24-INCH, ALUMINUM CMP	113 L.F.-A*
36-INCH, ALUMINUM CMP	204 L.F.-A*
CLASS II RIPRAP W/ FILTER FABRIC	36 C.Y.-P**

\*PAYMENT WILL BE BASED ON ACTUAL QUANTITY USED OR INSTALLED.  
\*\*THE UNIT (CY-P) CUBIC YARDS-PLAN MEANS PAYMENT WILL BE BASED ON THE PLAN QUANTITY LISTED ABOVE. A 20% REDUCTION FACTOR HAS BEEN APPLIED TO THE VOLUME OF FILL TO COMPENSATE FOR COMPACTION SHRINKAGE.

**NOTES:** NOTE BEFORE THE START OF CONSTRUCTION THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE ENGINEER/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "DIGGER'S HOTLINE" AT (800) 344-7233 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

**DUCKS UNLIMITED**

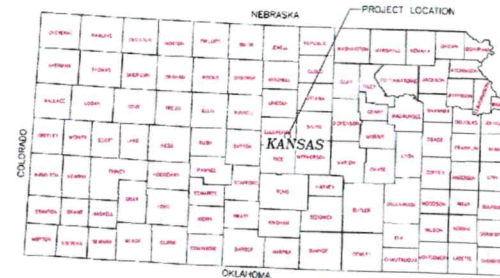
PROJECT

**KANOPOLIS-STUMPS WETLAND**

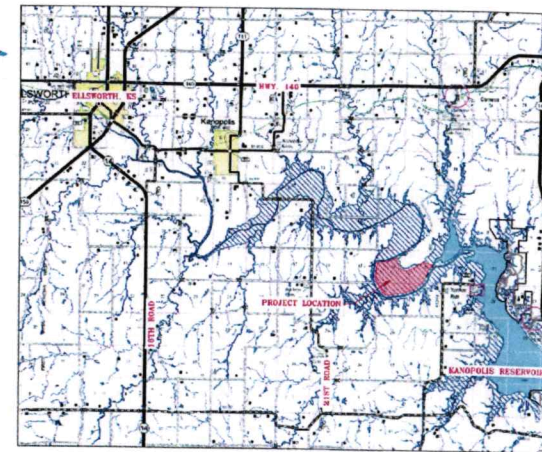
LOCATED IN SECTIONS 13,14,15,23,  
AND 24 TOWNSHIP 16S, RANGE 7W,  
6TH P.M. ELLSWORTH COUNTY, KANSAS

IN COOPERATION WITH

**KDWPT**



**VICINITY MAP**  
NOT TO SCALE



**LOCATION MAP**  
NOT TO SCALE

ALL WRITTEN SCALES ARE ACCURATE ON 24x36 INCH SHEETS



DJ REGIONAL ENGINEER  
MITCH MESSMER, P.E.  
2121 N. WEBB RD., SUITE 309  
GRAND ISLAND, NE 68803  
(308) 383-3086

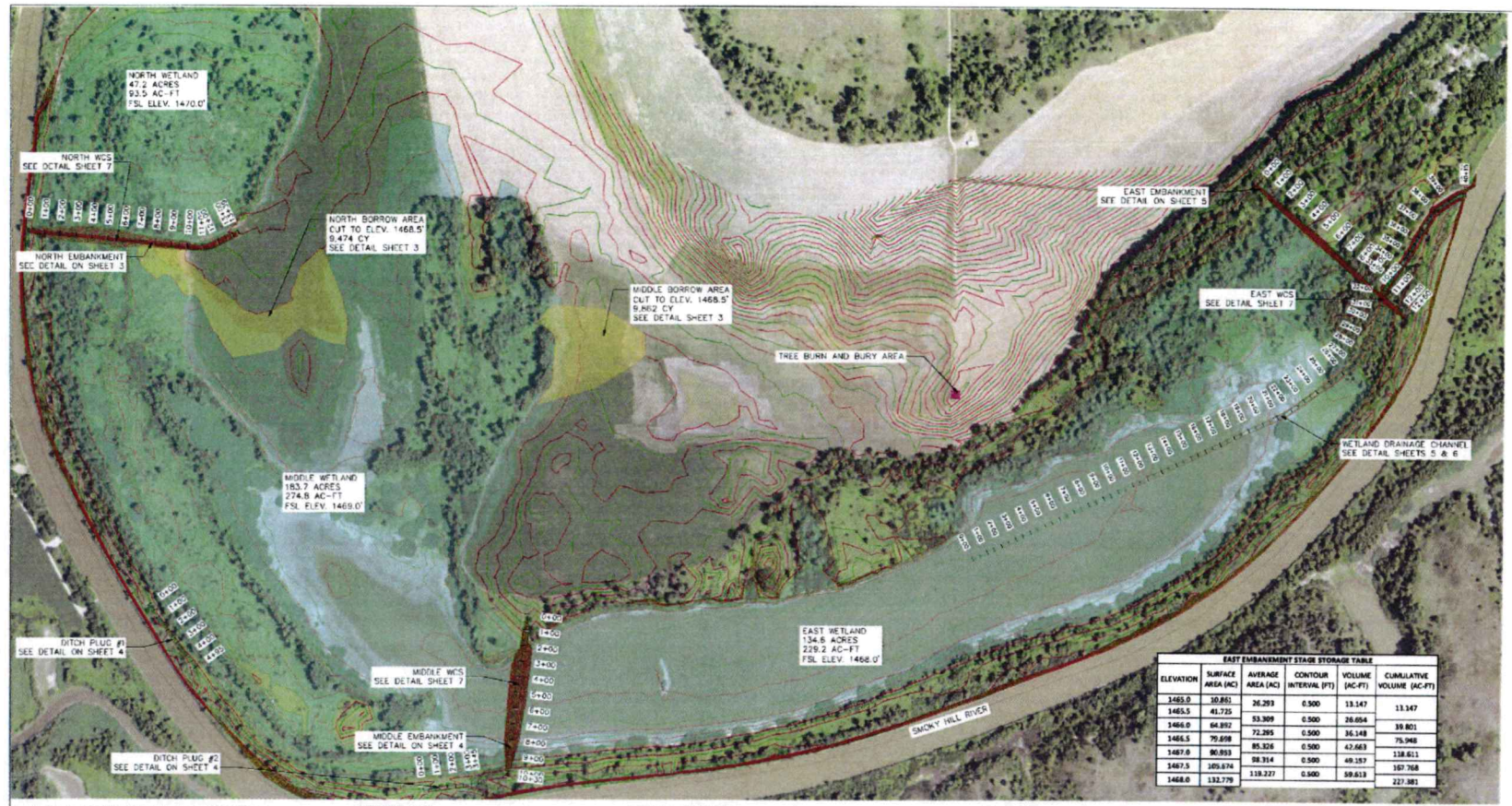
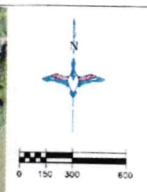
DJ ENGINEER  
NATHAN JENSEN  
2121 N. WEBB RD., SUITE 309  
GRAND ISLAND, NE 68803  
(308) 529-1660

**Water Resources  
Received**

**JAN 15 2020**

**KS Dept Of Agriculture**

<b>DUCKS UNLIMITED INC.</b>		PROJECT NO. KS-38-5		DRAWN BY: NGJ	
GRAND PLAINS REGIONAL OFFICE		KANOPOLIS WILDLIFE AREA		SUBMITTED BY: NGJ	
SITE		STUMPS WETLAND		CHECKED BY: MMBJ	
SHEET NO.		LOCATION & VICINITY MAPS		DATE	
11/8/2018		1 OF 12		APPROVED BY:	



**EAST EMBANKMENT STAGE STORAGE TABLE**

ELEVATION	SURFACE AREA (AC)	AVERAGE AREA (AC)	CONTOUR INTERVAL (FT)	VOLUME (AC-FT)	CUMULATIVE VOLUME (AC-FT)
1465.0	30.851	26.293	0.500	13.147	13.147
1465.5	43.725	33.309	0.500	26.654	39.801
1466.0	64.891	52.295	0.500	36.148	75.949
1466.5	79.698	65.326	0.500	47.663	123.612
1467.0	90.893	78.314	0.500	49.157	162.769
1467.5	105.874	98.314	0.500	59.613	222.382
1468.0	132.779	119.227	0.500	59.613	272.382

**SEEDING AND MULCHING:** THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW RIPPING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRUCK-FREE FINISH. BMD-DRAINING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.

**BORROW AREA NOTE:** CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEDING FROM ANY EXISTING AREAS. 4" OF TOPSOIL SHALL BE REAPPLIED OVER THE AREAS UPON COMPLETION. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION."

**GENERAL NOTES:**

- ONE HALF FOOT CONTOUR INTERVAL SHOWN.
- 2012 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
- ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
- SPOT ELEVATIONS INDICATED BY  $\phi$ -XXXXX ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MOUND ELEVATIONS.

**CONSTRUCTION NOTES:**

- THE DRAINAGE DITCH EXCAVATION SHOULD BE RE-EXAMINED PRIOR TO THE EAST EMBANKMENT CONSTRUCTION. THIS SHALL SERVE AS A DEWATERING OPTION AS WELL AS A POTENTIAL DRAINAGE SOURCE FOR SOILS USED IN THE EAST EMBANKMENT.
- UPON COMPLETION OF DRAINAGE DITCH EXCAVATION, A DU ENGINEER OR REPRESENTATIVE APPOINTED BY DU SHALL INSPECT THE SOIL EXCAVATION FOR CONTAMINATION OF EMBANKMENT CONSTRUCTION MATERIAL. IF THESE MATERIALS ARE NOT SUITABLE FOR CONSTRUCTION OF THE EAST EMBANKMENT, THE DU ENGINEER OR REPRESENTATIVE SHALL NOTIFY A SUITABLE BORROW LOCATION.
- EXCESS SOILS FROM THE WETLAND DRAINAGE EXCAVATION NOT USED IN EMBANKMENT CONSTRUCTION SHALL BE SPILLED IN AN AREA OF UPLAND WHICH WILL BE DESIGNATED BY THE DU ENGINEER OR REPRESENTATIVE.
- FILL RELIEF SHALL BE REQUIRED WITHIN THE FOOTPRINT OF ALL CONSTRUCTED EMBANKMENTS AND DITCH PLUGS ALONG WITH WITHIN DITCH BORROW AREAS AND CUTS. ONE TREE (INCLUDING ROOT BALLS) AND REMOVED, THEN SHALL BE BURIED THEN BURIED AWAY FROM THE WETLAND FOOTPRINT. TREE BURIAL AREA IS IDENTIFIED ON THE MAP ON SHEET 2. COST OF TREE REMOVAL CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION."

**OVERALL PLAN VIEW**  
SCALE 1"=300'

**NORTH EMBANKMENT STAGE STORAGE TABLE**

ELEVATION	SURFACE AREA (AC)	AVERAGE AREA (AC)	CONTOUR INTERVAL (FT)	VOLUME (AC-FT)	CUMULATIVE VOLUME (AC-FT)
1465.0	0.066	0.217	0.500	0.108	0.108
1466.0	0.368	1.081	0.500	0.840	0.948
1466.5	2.369	7.106	0.500	8.863	9.811
1467.0	11.210	14.772	0.500	7.386	17.197
1467.5	18.326	20.936	0.500	10.468	27.665
1468.0	23.947	26.499	0.500	13.249	40.914
1468.5	35.799	32.820	0.500	16.930	57.844
1469.0	41.569	38.679	0.500	19.340	77.184
1469.5	47.344	44.936	0.500	22.118	99.302

**MIDDLE EMBANKMENT STAGE STORAGE TABLE**

ELEVATION	SURFACE AREA (AC)	AVERAGE AREA (AC)	CONTOUR INTERVAL (FT)	VOLUME (AC-FT)	CUMULATIVE VOLUME (AC-FT)
1465.5	3.868	13.738	0.500	6.869	6.869
1466.0	21.807	31.798	0.500	15.893	22.762
1466.5	39.264	48.201	0.500	24.102	46.864
1467.0	56.436	64.400	0.500	33.200	80.064
1467.5	76.363	84.123	0.500	47.061	127.125
1468.0	111.883	128.735	0.500	64.368	191.493
1468.5	145.587	169.454	0.500	81.727	273.220
1469.0	181.821				

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HORIZONTAL AND VERTICAL CONTROL: ORUS SOLUTION—COORDINATES ARE UTM ZONE 14 GRID COORDINATES IN US FEET (NAD83). THEY WERE ESTABLISHED FROM THE WIS044 11-POINT WITH INFORMATION FROM A TRIMBLE R10 SURVEY GRAPH GPS RECEIVER ON MARCH 3, 2017 AT QUACKS UNLIMITED CONTROL POINT DU-415-01 AND CALIBRATED TO AN ORUS POSITION OCCURRED FOR 4 HOURS AND 13 MINUTES AND SENT TO HDS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE SAME SOLUTION USING SPSS 13A CONTROL POINT NUMBER 1. THE FULL ORUS SOLUTION REPORT IS ON FILE AT THE QUACKS UNLIMITED ENGINEERING DEPARTMENT IN GRAND ISLAND, NEBRASKA.

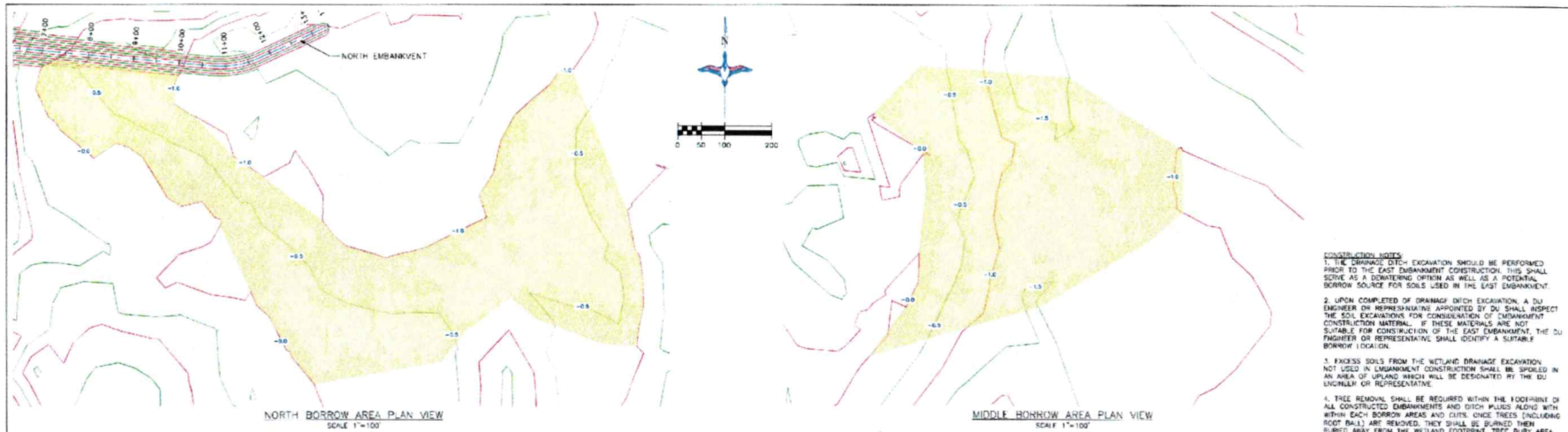
\\1\021\200\10\Volume\_1\Engineer\Work\Projects\KS-KS-20-2 - Kanopolis WA\Design\KS-20-5 Kanopolis WA Plan Set.dwg 1/15/2018 11:47:28 AM



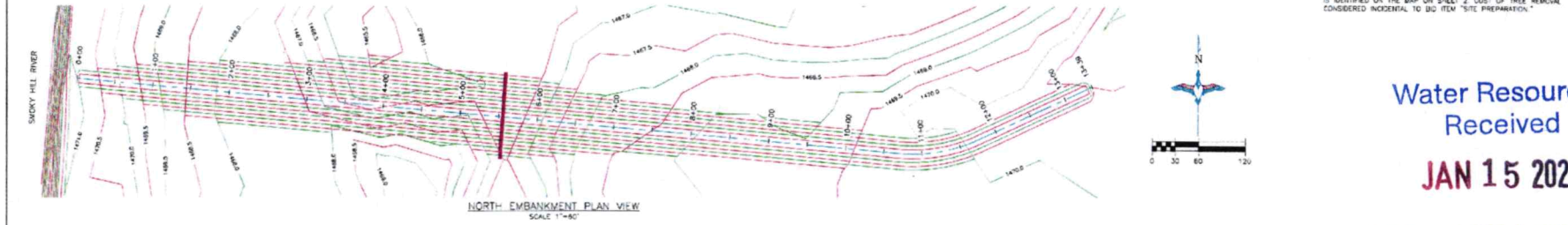
**DUCKS UNLIMITED INC.** PROJECT NO. KS-20-5  
KANSAS WILDLIFE AREA  
SLUIMERS WETLAND  
OVERALL PLAN

DESIGNED BY: NCS	CHECKED BY: NCS
DRAWN BY: NCS	APPROVED BY: NCS
DATE: 11/15/2018	DATE: 11/15/2018

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JAN 15 2020  
KS Dept of Agriculture



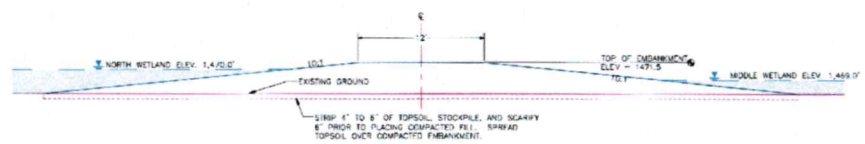
- CONSTRUCTION NOTES**
1. THE DRAINAGE DITCH EXCAVATION SHOULD BE PERFORMED PRIOR TO THE EAST EMBANKMENT CONSTRUCTION. THIS SHALL SERVE AS A DOWNSLOPE OPTION AS WELL AS A POTENTIAL BORROW SOURCE FOR SOILS USED IN THE EAST EMBANKMENT.
  2. UPON COMPLETION OF DRAINAGE DITCH EXCAVATION, A DU ENGINEER OR REPRESENTATIVE APPOINTED BY DU SHALL INSPECT THE SOIL EXCAVATIONS FOR CONSISTENCY OF EMBANKMENT CONSTRUCTION MATERIALS. IF THESE MATERIALS ARE NOT SUITABLE FOR CONSTRUCTION OF THE EAST EMBANKMENT, THE DU ENGINEER OR REPRESENTATIVE SHALL IDENTIFY A SUITABLE BORROW LOCATION.
  3. EXCESS SOILS FROM THE WETLAND DRAINAGE EXCAVATION NOT USED IN EMBANKMENT CONSTRUCTION SHALL BE SPREAD IN AN AREA OF UPLAND WHICH WILL BE DESIGNATED BY THE DU ENGINEER OR REPRESENTATIVE.
  4. TREE REMOVAL SHALL BE REQUIRED WITHIN THE FOOTPRINT OF ALL CONSTRUCTED EMBANKMENTS AND DITCH PLUS 50 FEET WITHIN EACH BORROW AREA AND CUTS. CONIFER TREES (INCLUDING ROSE HULL) ARE REMOVED, THEY SHALL BE BURIED THEN BURIED AWAY FROM THE WETLAND FOOTPRINT. TREE BURY AREA IS IDENTIFIED ON THE MAP ON SHEET 2. USE OF TREE REMOVAL CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION".



**SEEDING AND MULCHING NOTE:** THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BOX TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HANDED OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH FINISH. FULLY FINISH, EACH EMBANKMENT WITH A SMOOTH FINISH.

- CONSTRUCTION NOTES**
1. STRIP AND STOCKPILE APPROX. 4"-6" TOPSOIL FROM PROPOSED BORROW AREA. SPREAD TOPSOIL OVER RECLAIMED BORROW AREA. BORROW AREA SHALL BE RECLAIMED WITH 3:1 MINIMUM SLOPES. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION".
  2. EMBANKMENT FILL TO BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.

**BORROW AREA NOTE:** CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. 4" OF TOPSOIL SHALL BE RECLAIMED OVER THE SLOPES UPON COMPLETION. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION".



- GENERAL NOTES**
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  2. 2012 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  4. SPOT ELEVATIONS INDICATED BY  $\phi$  SYMBOL ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

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HORIZONTAL AND VERTICAL CONTROL, OPUS SOLUTION - COORDINATES ARE UTM ZONE 14 GRID COORDINATES IN U.S. FEET. THESE POINTS WERE ESTABLISHED FROM THE ROSSER ELLIPSOID WITH INFORMATION FROM A TRIMBLE R10 SURVEY GRADE GPS RECEIVED ON MARCH 13, 2017 AT DUCKS UNLIMITED CONTROL POINT IN-412-01 AND CALIBRATED TO AN OPUS POSITION OCCUPIED FOR 5 HOURS AND 13 MINUTES AND SENT TO MGS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE SAME SOLUTION USING SCORP 12A CORNUS IN THE NAVSTAR. THE FULL OPUS SOLUTION REPORT IS ON FILE AT THE DUCKS UNLIMITED PROJECTS DEPARTMENT IN GRAND BLAINE, WYOMING. \\10.21.200.10\volume\_1\Engineer\Land Projects\_KS\KS-38-5 - Kameops WA\Design\KS-38-5 Kameops WA Plan Set.dwg 11/6/2016

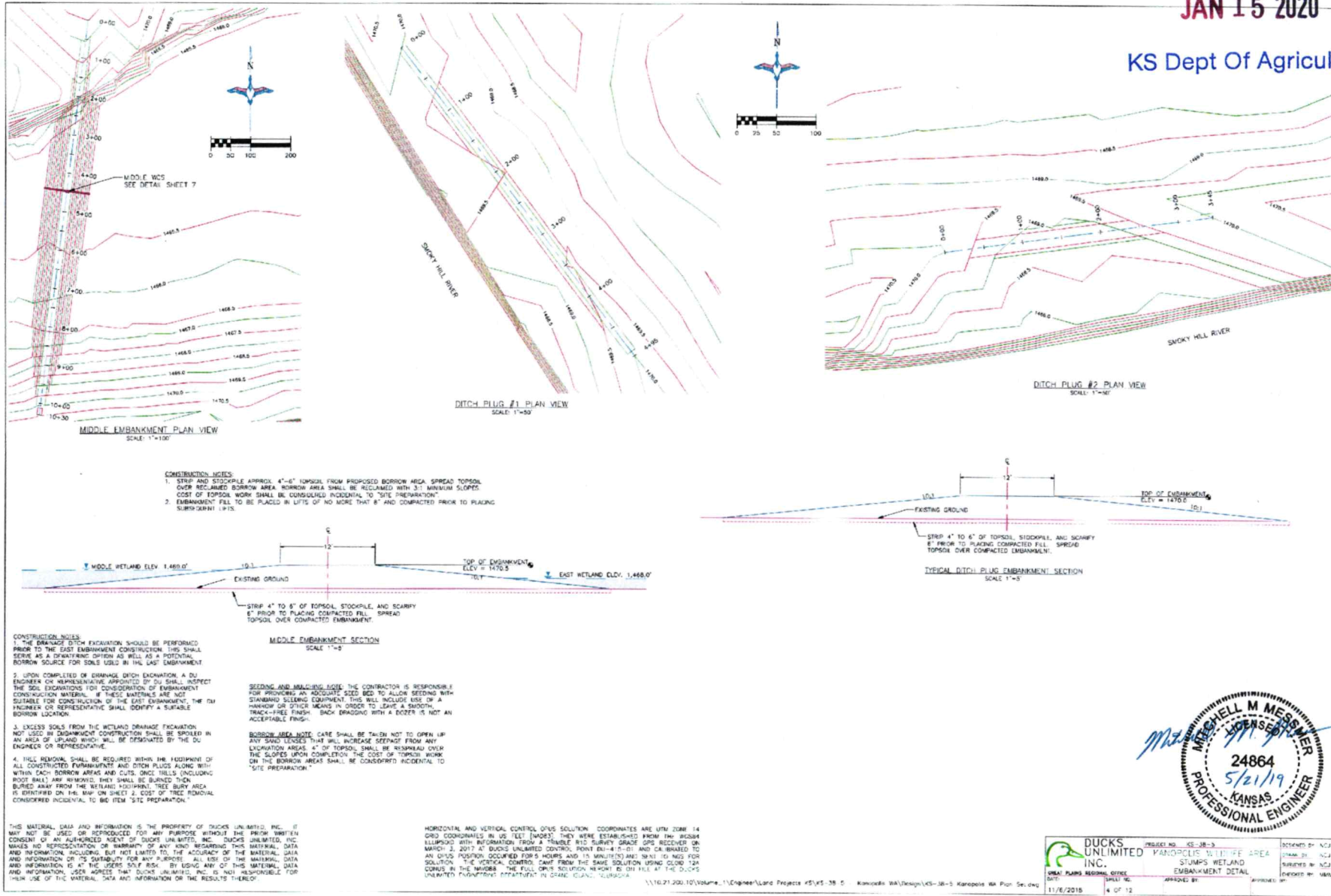
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**JAN 15 2020**  
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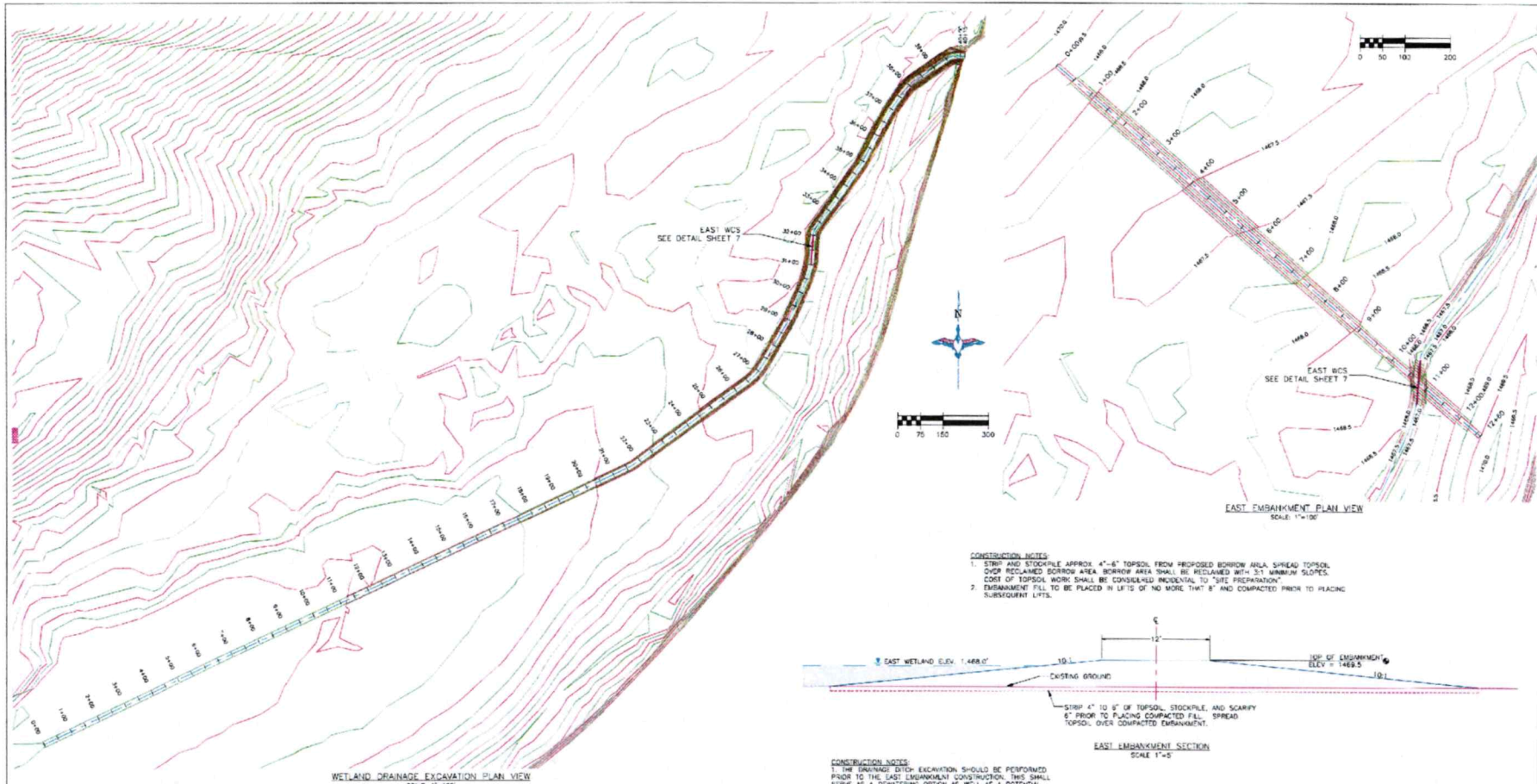


DUCKS UNLIMITED INC. SHEET PLANS, RECORDS, OFFICE	PROJECT NO. 45-38-5	SUBMIT BY: NCF
	KANOPOLIS WETLAND AREA SLUMPS WETLAND EMBANKMENT AND BORROW DETAIL	DATE BY: NCF
DATE 11/6/2016	SHEET NO. 3 OF 12	APPROVED BY: [Signature]

JAN 15 2020



<b>DUCKS UNLIMITED INC.</b> LOCAL PLANS REGIONAL OFFICE DATE: 11/6/2018	SHEET NO. 4 OF 12	APPROVED BY:	APPROVED BY:
	PROJECT NO. KS-38-5	PROJECT NAME: STUMPS WETLAND EMBANKMENT DETAIL	DRAWN BY: NCU



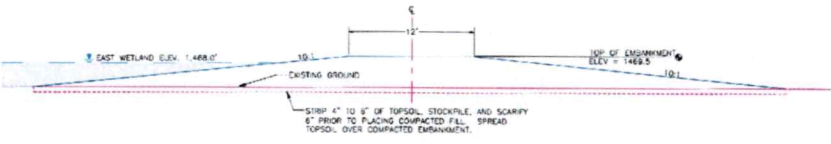
**SEEDING AND MULCHING NOTE:** THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN APPROPRIATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK FREE FRESH, ROCK FREE SURFACE WITH A ROZERS IS NOT AN ACCEPTABLE FINISH.

**BORROW AREA NOTE:** CARE SHALL BE TAKEN NOT TO OPEN UP ANY SOIL TYPES THAT WILL INCREASE SEepage FROM ANY EXCAVATION AREAS. AT THE DISCRETION OF THE ENGINEER, TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION."

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HORIZONTAL AND VERTICAL CONTROL POINT SOLUTIONS: COORDINATES ARE UTM ZONE 14 GRID COORDINATES IN US FEET (NAD83). THEY WERE ESTABLISHED FROM THE WGS84 ELLIPSOID WITH INFORMATION FROM A TRIMBLE R10 SURVEY GRADE GPS RECEIVER ON MARCH 3, 2017 AT DUCKS UNLIMITED CONTROL POINT DU-417-01 AND CALIBRATED TO AN GPS POSITION OBTAINED FOR 5 HOURS AND 15 MINUTES) AND SENT TO NGS FOR SOLUTION. THE VERTICAL CONTROL SAME FROM THE SAME SOLUTION USING OTHER 124 CORNUS IN THE MIDDLE. THE FULL GPS SOLUTION REPORT IS ON FILE AT THE DUCKS UNLIMITED ENGINEERING DEPARTMENT IN DRAINAGE PLANS. W/000004

- CONSTRUCTION NOTES:**
1. STRIP AND STOCKPILE APPROX. 4"-6" TOPSOIL FROM PROPOSED BORROW AREA. SPREAD TOPSOIL OVER RECLAIMED BORROW AREA. BORROW AREA SHALL BE RECLAIMED WITH 3:1 MINIMUM SLOPES. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION"
  2. EMBANKMENT FILL TO BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.



- CONSTRUCTION NOTES:**
1. THE EMBANKMENT EXCAVATION SHOULD BE PERFORMED PRIOR TO THE EAST EMBANKMENT CONSTRUCTION. THIS SHALL BE DONE AS A SEPARATE OPTION AS WELL AS A POTENTIAL BORROW SOURCE FOR SOILS USED IN THE EAST EMBANKMENT.
  2. UPON COMPLETION OF DRAINAGE DITCH EXCAVATION, A DU ENGINEER OR REPRESENTATIVE APPOINTED BY DU SHALL INSPECT THE SOIL EXCAVATIONS FOR CONSIDERATION OF FERRUGINOUS CONSTRUCTION MATERIAL. IF THESE MATERIALS ARE NOT SUITABLE FOR CONSTRUCTION OF THE EAST EMBANKMENT, THE DU ENGINEER OR REPRESENTATIVE SHALL DETERMINE A SUITABLE BORROW LOCATION.
  3. EXCESS SOILS FROM THE WETLAND DRAINAGE EXCAVATION NOT USED IN EMBANKMENT CONSTRUCTION SHALL BE STOCKPILED IN AN AREA OF 10'-40' WHICH WILL BE DESIGNATED BY THE DU ENGINEER OR REPRESENTATIVE.
  4. TREE REMOVAL SHALL BE REQUIRED WITHIN THE FOOTPRINT OF ALL CONSTRUCTED EMBANKMENTS AND DITCH PLUGS ALONG WITH NETS IN EACH BORROW AREA AND CUTS. ONCE TREES (INCLUDING ROOT BALLS) ARE REMOVED, THEY SHALL BE BURNED THEN BURIED AWAY FROM THE RECLAIMED TOPSOIL. TREE BURIAL AREA IS IDENTIFIED ON THE MAP ON SHEET 2. COST OF TREE REMOVAL CONSIDERED INCIDENTAL TO THE ITEM "SITE PREPARATION."



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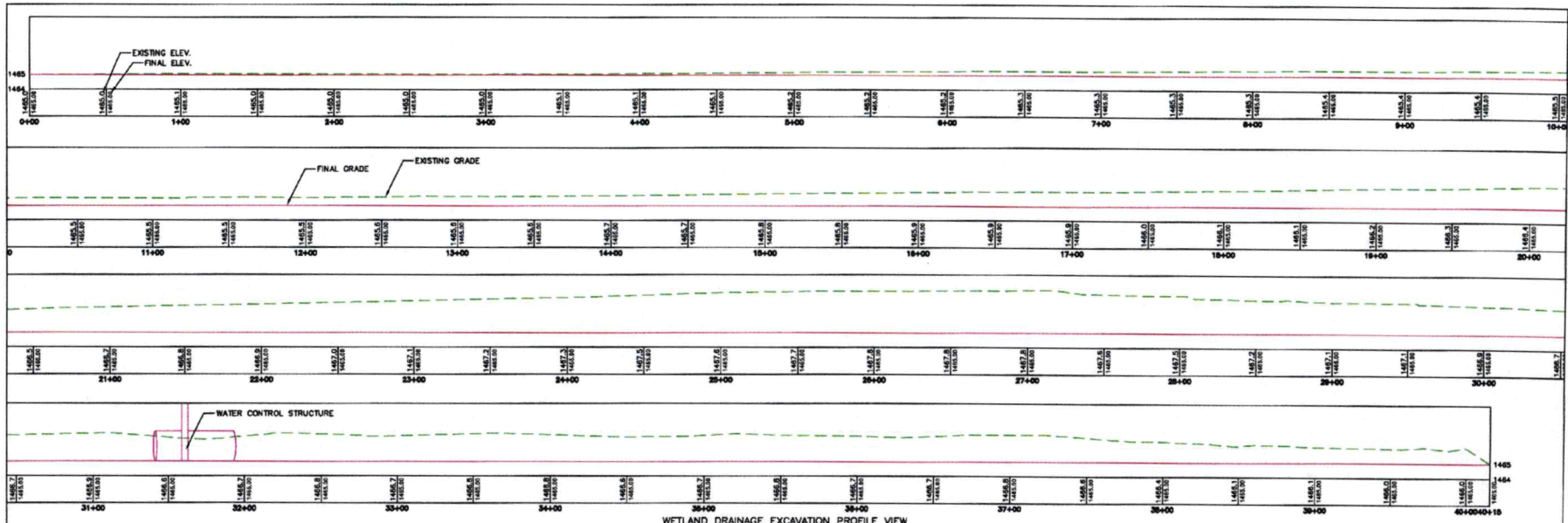
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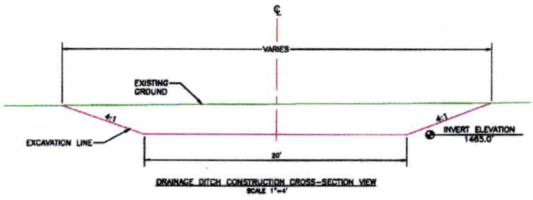
**DUCKS UNLIMITED, INC.**  
 GREAT PLAINS REGIONAL OFFICE  
 DATE: 11/8/2018  
 SHEET NO: 5 OF 12

PROJECT NO.: 05-19-A  
 FAIRBURN WILDLIFE AREA  
 STUMPS WETLAND  
 EMBANKMENT AND DRAINAGE DETAIL

DESIGNED BY: NCL  
 DRAWN BY: NCL  
 CHECKED BY: MMW  
 APPROVED BY:



WETLAND DRAINAGE EXCAVATION PROFILE VIEW  
HORIZONTAL SCALE: 1"=30', VERTICAL EXAGGERATION 10:1



- CONSTRUCTION NOTES**
1. THE DRAINAGE DITCH EXCAVATION SHOULD BE PERFORMED PRIOR TO THE EAST EMBANKMENT CONSTRUCTION. THIS SHALL SERVE AS A DOWNSLOPING OPTION AS WELL AS A POTENTIAL BORROW SOURCE FOR SOILS USED IN THE EAST EMBANKMENT.
  2. UPON COMPLETION OF DRAINAGE DITCH EXCAVATION, A DU ENGINEER OR REPRESENTATIVE APPOINTED BY DU SHALL INSPECT THE SOIL EXCAVATIONS FOR CONSIDERATION OF EMBANKMENT CONSTRUCTION MATERIALS. IF THESE MATERIALS ARE NOT SUITABLE FOR CONSTRUCTION OF THE EAST EMBANKMENT, THE DU ENGINEER OR REPRESENTATIVE SHALL IDENTIFY A SUITABLE BORROW LOCATION.
  3. EXCESS SOILS FROM THE WETLAND DRAINAGE EXCAVATION NOT USED IN EMBANKMENT CONSTRUCTION SHALL BE SPILLED IN AN AREA OF UPLAND BRUSH WILL BE DESIGNATED BY THE DU ENGINEER OR REPRESENTATIVE.
  4. TREE REMOVAL SHALL BE REQUIRED WITHIN THE FOOTPRINT OF ALL CONSTRUCTED EMBANKMENTS AND DITCH PILES ALONG WITH WITHIN EACH BORROW AREAS AND CUTS. ONCE TREES (INCLUDING ROOT BALLS) ARE REMOVED, THEY SHALL BE BURIED THEN BURIED AWAY FROM THE WETLAND FOOTPRINT. TREE BURY AREA IS IDENTIFIED ON THE MAP ON SHEET 2. COST OF TREE REMOVAL CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION."

**SEEDING AND MULCHING NOTE:** THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SIZE BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HAYRIG OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.

**BORROW AREA NOTE:** CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. 4" OF TOPSOIL SHALL BE REAPPLIED OVER THE SLOPES UPON COMPLETION. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION."

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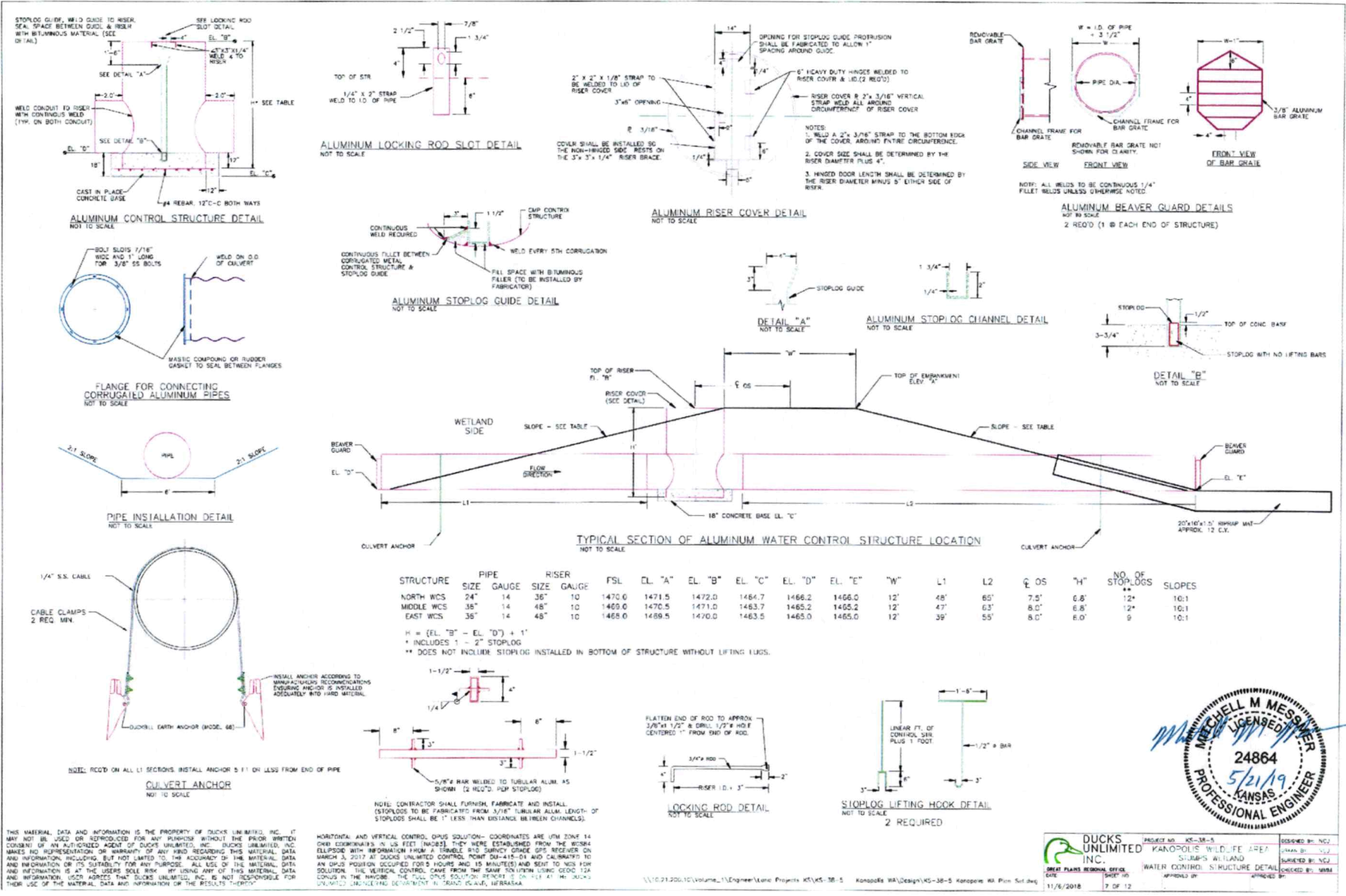
HORIZONTAL AND VERTICAL CONTROL, OPUS SOLUTION-- COORDINATES ARE UTM ZONE 14 GRID COORDINATES IN US FEET (NAD83). THEY WERE ESTABLISHED FROM THE WISMA ELLIPSOID WITH INFORMATION FROM A TRIMBLE R10 SURVEY GRADE GPS RECEIVER ON MARCH 3, 2017 AT DUCKS UNLIMITED CONTROL POINT DU-110-01 AND CALIBRATED TO AN OPUS POSITION OCCUPIED FOR 5 HOURS AND 18 MINUTES) AND SENT TO NGS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE SAME SOLUTION USING GEOID 12A CORNUS IN THE NAVD83. THE FULL OPUS SOLUTION REPORT IS ON FILE AT THE DUCKS UNLIMITED ENGINEERING DEPARTMENT IN GRAND ISLAND, NEBRASKA. \\10.21.200.10\Volume\_1\Engineer\Land Projects KS\KS-30-5 - Kanopolis WA\Design\KS-30-5 Kanopolis WA Plan Set.dwg

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<b>DUCKS UNLIMITED INC.</b> GREAT PLAINS REGIONAL OFFICE DATE: 11/8/2018	PROJECT NO. KS-30-5 KANOPOLIS WILDLIFE AREA STUMPS WETLAND WETLAND DRAINAGE DETAIL	DESIGNED BY: NGJ DRAWN BY: NGJ CHECKED BY: NGJ APPROVED BY: NGJ
	SHEET NO. 6 OF 12	APPROVED BY:



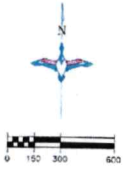
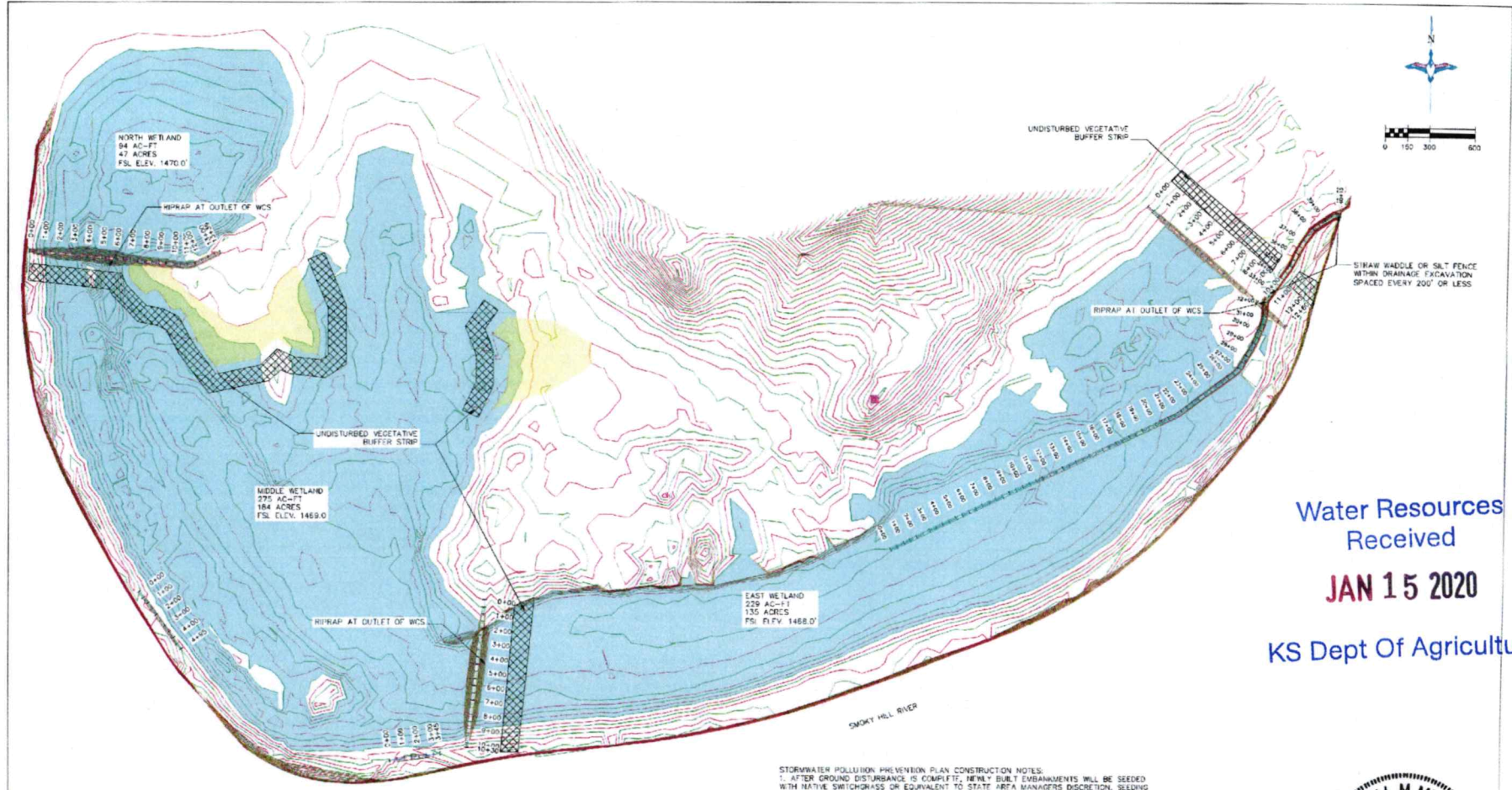
**DUCKS UNLIMITED INC.**  
 PROJECT NO. KS-18-5  
 KANOKPOLIS WILDLIFE AREA  
 STUMPS WETLAND  
 WATER CONTROL STRUCTURE DETAIL  
 11/6/2018 7 OF 12

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HORIZONTAL AND VERTICAL CONTROL POINT SOLUTIONS - COORDINATES ARE UTM ZONE 14 OVER COORDINATES IN US FEET (METERS) THEY WERE ESTABLISHED FROM THE WISKA ELLIPSE WITH INFORMATION FROM A TRIMBLE R10 SURVEY GRADE GPS RECEIVER ON MARCH 3, 2017 AT DUCKS UNLIMITED CONTROL POINT DM-418-D1 AND CALIBRATED TO AN ORIGIN POSITION OCCURRED FOR 8 HOURS AND 15 MINUTES AND SENT TO NGS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE RAUP TOWNSHIP TSGC GEOID 12A DATUM IN THE TOWNSHIP. THE FULL DATA SET IS ON FILE AT THE PROJECT LOCATION UNDER THE PROJECT NUMBER 18-5. KANSAS  
 11/07/2018 10:10:10 AM  
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**JAN 15 2020**





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**JAN 15 2020**  
KS Dept Of Agriculture

OVERALL PLAN VIEW  
SCALE 1"=300'

- GENERAL NOTES**
- ONE HALF FOOT CONTOUR INTERVAL SHOWN
  - 2012 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN
  - ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION
  - SPOT ELEVATIONS INDICATED BY  $\phi$  XXXXX ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS

**SEEDING AND MULCHING NOTE:** THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARBOR OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZELER IS NOT AN ACCEPTABLE FINISH.

HORIZONTAL AND VERTICAL CONTROL POINT SOLUTIONS - COORDINATES ARE UTM ZONE 14 GRID COORDINATES IN US FEET (NAD83). THEY WERE ESTABLISHED FROM THE KOSBA CLOUDS WITH INFORMATION FROM A TRIMBLE R10 SURVEY ORIGIN LOG RECEIVED ON MARCH 3, 2017 AT DUCKS UNLIMITED CENTER, POINT DU-418-017 AND CALIBRATED TO AN ORIGIN POSITION OCCURRED FROM 4 HOURS AND 15 MINUTES AND SENT TO NGS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE SAME SOLUTION. DUCKS UNLIMITED HAS COMPILED THE VERTICAL CONTROL SOLUTION REPORT IS ON FILE AT THE DUCKS UNLIMITED ENGINEERING DEPARTMENT IN GRAND ISLAND, NEBRASKA

- STORMWATER POLLUTION PREVENTION PLAN CONSTRUCTION NOTES:**
- AFTER GROUND DISTURBANCE IS COMPLETE, NEWLY BUILT EMBANKMENTS WILL BE SEEDED WITH NATIVE SWITCHGRASS OR EQUIVALENT TO STATE PER A MANAGER'S DISCRETION. SEEDING MIX SPECIFICATIONS SHALL FOLLOW THE GUIDELINES OF THE MOST-STANDARD SPECIFICATIONS IN SECTIONS 903
  - MULCHING WILL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRUMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  - MULCHING APPLICATION RATE WILL BE TWO TONS PER ACRE OR ONE 74 POUND BALE PER 600 SQUARE FEET.
  - WITHIN DRAINAGE FACINATION, SILT FENCE OR STRAW WADDLER MUST BE INSTALLED EVERY 200 LINEAR FEET OR LESS TOWARDS THE SMOKY HILL RIVER. THE LAST STRAW WADDLER OR SILT FENCE MUST BE INSTALLED DIRECTLY PRIOR TO SPILLING INTO THE SMOKY HILL RIVER TO PREVENT RUNOFF DIRECTLY INTO THE RIVER.



	PROJECT NO. KS-38-5	DRAWN BY: NCL
	KANOPOLIS WILDLIFE AREA	CHECKED BY: NCL
	STUMPS WETLAND	DRAWN BY: NCL
	SWAMP 12F IAI: MAF	CHECKED BY: NCL
GREAT PLAINS REGIONAL OFFICE DATE: 11/4/2018	APPROVED BY: 11/4/2018	8 OF 12

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**STORM WATER POLLUTION PREVENTION PLAN**  
 The Kansas General Permit Authorization to Discharge Stormwater Associated with Construction Activity shall apply for this project.

**ABBREVIATIONS**  
 KDHE: Kansas Department of Health and Environment  
 KSDNR: Kansas Department of Natural Resources  
 USFWS: United States Fish and Wildlife Service

**NARRATIVE**  
 Project Limits: See Sheets 2-7 of this plan for the project limits. These sheets cover the water control structure, culvert installations and embankment construction features.

**SITE DESCRIPTION**  
 Project Description: The purpose of the project is to create three shallow water impoundments and the installation of the associated water control structures.

Site Map(s): See map on cover sheet of plans.

Major Soil Disturbing Activities (check all that apply):  
 Clearing & Grubbing  
 Grading & Shaping  
 Cutting & Filling  
 Other (describe):

Total Project Area: 676 Acres  
 Total Area to Be Disturbed: 23.6 Acres  
 Existing Impervious Area: 0.0 Acres  
 Proposed Impervious Area: 0.0 Acres

Name of Receiving Water Body/Bodies: Smoky Hill River  
 - Kanopolis Reservoir

Discharges to Special Or Impaired Waters: The project does not discharge to a special or impaired water.

Discharges to Calcareous Fen: The project does not have a discharge to a Calcareous fen.

Endangered or Threatened Species: The project area has not been identified for endangered or threatened species.

Historic Places or Archeological Sites: Historical places or archeological sites have been addressed by the USFWS.

Quantities Tabulation for All BMPs: See estimated quantities and construction notes in plans.

**ORDER OF CONSTRUCTION ACTIVITIES**

(Stabilization measures shall be completed as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.)  
 Install erosion and sediment control measures.  
 Proceed with site grading and construction activities.  
 Stabilize areas disturbed by construction activities with temporary erosion and sediment control measures.  
 Complete final grading.  
 Complete permanent erosion and sediment control measures.

**LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN**  
 See the SWPPP details and notes on plan sheet 5.

**EROSION AND SEDIMENT CONTROLS**  
 (Check all that apply)

Stabilization Practices (See Erosion and Sediment Control Details in Plan Sheets)  
 Temporary or Permanent Seeding  
 Sod Placement  
 Planting  
 Mulching (Straw or Cellulose Fiber)  
 Erosion Control Blankets or Mats  
 Vegetation Buffer Strips  
 Roughened Surface (e.g. tracking)  
 Geobions-Cobion Mattress  
 Other: Rip Rap, Geoweb

Structural Temporary Erosion and Sediment Controls  
 Silt Fence  
 Temporary Berm  
 Temporary Slope Drain  
 Straw Mattress or Rolls  
 Rock Check Dams  
 Channel Liners (TRM)  
 Stone Rip Rap Sheet  
 Sediment Traps/Basins  
 Inlet Protection  
 Outlet Protection  
 Surface Inlet Protection  
 Curb Inlet Protection  
 Stabilized Construction Entrances  
 Other

Wetland Avoidance:  
 Will construction and/or erosion and sediment controls impinge on regulated wetlands?  Yes  No  
 If yes, the project and erosion and sediment control impacts have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

Storm Water Management: Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period.

**Pollution Prevention Management Measures**

Solid Wastes  
 Collected sediment, asphalt, and concrete millings, flooding debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with the KDHE disposal requirements.  
 Hazardous Materials  
 Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with KDHE regulations.  
 Vehicle Washing  
 External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.  
 Concrete Washout Onsite  
 All liquid and solid wastes generated by concrete washout operation must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operation or areas. Liquid and solid wastes must be disposed of properly and in compliance with KDHE regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

**MAINTENANCE AND INSPECTION**

Maintenance and Inspection Practices  
 Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.  
 All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report or as soon as field conditions allow access.  
 Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place as soon as runoff occurs at the site or prior to resuming construction, whichever comes first.  
 Disturbed project areas that are temporarily stabilized due to ice, frozen soil conditions or consistent snow cover extending across 70 percent or more of the area shall be noted on the inspection report. The thawing of these areas shall be noted during the first subsequent inspection when ice, frozen or snow covered conditions are no longer present.  
 Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month.  
 Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely anchored. Sediment buildup will be removed from the silt fence when it reaches 1/2 of the height of the silt fence. All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/2 of the height of the fence.

Sediment basins and traps will be checked. Sediment will be removed and cleaned when the capacity of the sediment basin reaches 20 percent or more. The basin will be maintained until less than 10 acres of area needing final stabilization within the drainage basin remains.  
 Check dams will be inspected for stability. Sediment will be removed when the depth reaches 1/2 the height of the dam.  
 All seeded areas will be checked for bare spots, weatholts, and vigorous growth free of significant weed infestations.  
 Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion.  
 Construction site vehicle entrance and exit locations will be designated prior to mobilizing equipment. If a designated entrance and exit location cannot be determined, the use of a wheel washing facility will be utilized. If applicable, wash waters will be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. Off-site truck out shall be cleaned up at the end of each work day. If contaminated soils are encountered, a wheel washing station with tanks for holding of the fresh water will be utilized.  
 Disturbed areas will be checked for stabilization. Stabilization measures shall be initiated as soon as construction activity in that portion of the site has temporarily or permanently ceased.  
 The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 linear feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 linear feet must be completed within 24 hours after connection to a surface water.  
 Stabilization of the remaining portions of any temporary or permanent ditch or swale that connects to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.  
 Temporary or permanent ditches or swales that are being used as a sediment containment system (with properly designed rock ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. These areas must be stabilized within 24 hours after no longer being used as a sediment containment system.  
 Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.  
 Discharge procedures for water control and dewatering operations will be inspected. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners.  
 Inspection and maintenance reports will be completed for each site inspection. This form will also be used to document changes to the SWPPP. The report shall include the date and amount of precipitation or snowmelt events that cause surface erosion. A copy of the completed inspection form will be filed with the SWPPP documents.  
 The Contractor's site superintendent is responsible for inspection. Maintenance and repair activities are the responsibility of the Contractor.  
 In areas of concentrated flows such as channelized drainage, the use of velocity dissipation devices (e.g. check dams, riprap and wattles), installation of channel liners (e.g. riprap, geotextiles, and erosion control blankets) will be utilized.

**SPILL NOTIFICATION**

In the event of a spill, the contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:  
 1. A reportable spill is a quantity of more than 5 gallons of petroleum which must be reported immediately to the KDEM.  
 2. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the KDEM.  
 3. Kansas Department Emergency Management Reporting Line: 24 Hour (800) 275-0297.

**CONSTRUCTION CHANGES**

The SWPP2 shall be modified or amended as appropriate during the term of the construction activity until the site is stabilized. The contractor is responsible for the installation, operation, and maintenance of erosion controls and shall keep a current copy of the SWPP2 plan on the project site. Modifications to the SWPP2 plan shall be made to better control the site erosion and sediment discharges based on field conditions or site phasing that was not considered during SWPP2 plan development. The permittee shall indicate the changes on the erosion and sediment control plan sheets, maintain a log showing dates of all SWPP2 plan modifications, and the name and title of the person authorizing the modifications. Changes to the SWPP2 plan that are not an amendment (See Section 7.3.2 of the Kansas Department of Health and Environment-Kansas Pollution Control) are considered modifications and do not need to be submitted to KDEM. Modification of site erosion and sediment controls based on field conditions or site phasing do not require preparation or approval by a professional however, modifications that involve the relocation or reconfiguration of any sedimentation basin or corresponding outlet structure required under Section 7.2.7 of the Kansas Department of Health and Environment-Kansas Pollution Control shall be prepared under the supervision of a licensed or certified professional.

**PROJECT CONTACTS**

The Contractor is responsible for implementation of the SWPP2 and installation, inspection and maintenance of the erosion prevention and sediment control BMP's before and during construction.  
 Contractor and KDHE contact information is provided in the contract documents and project plans.

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 JAN 15 2020  
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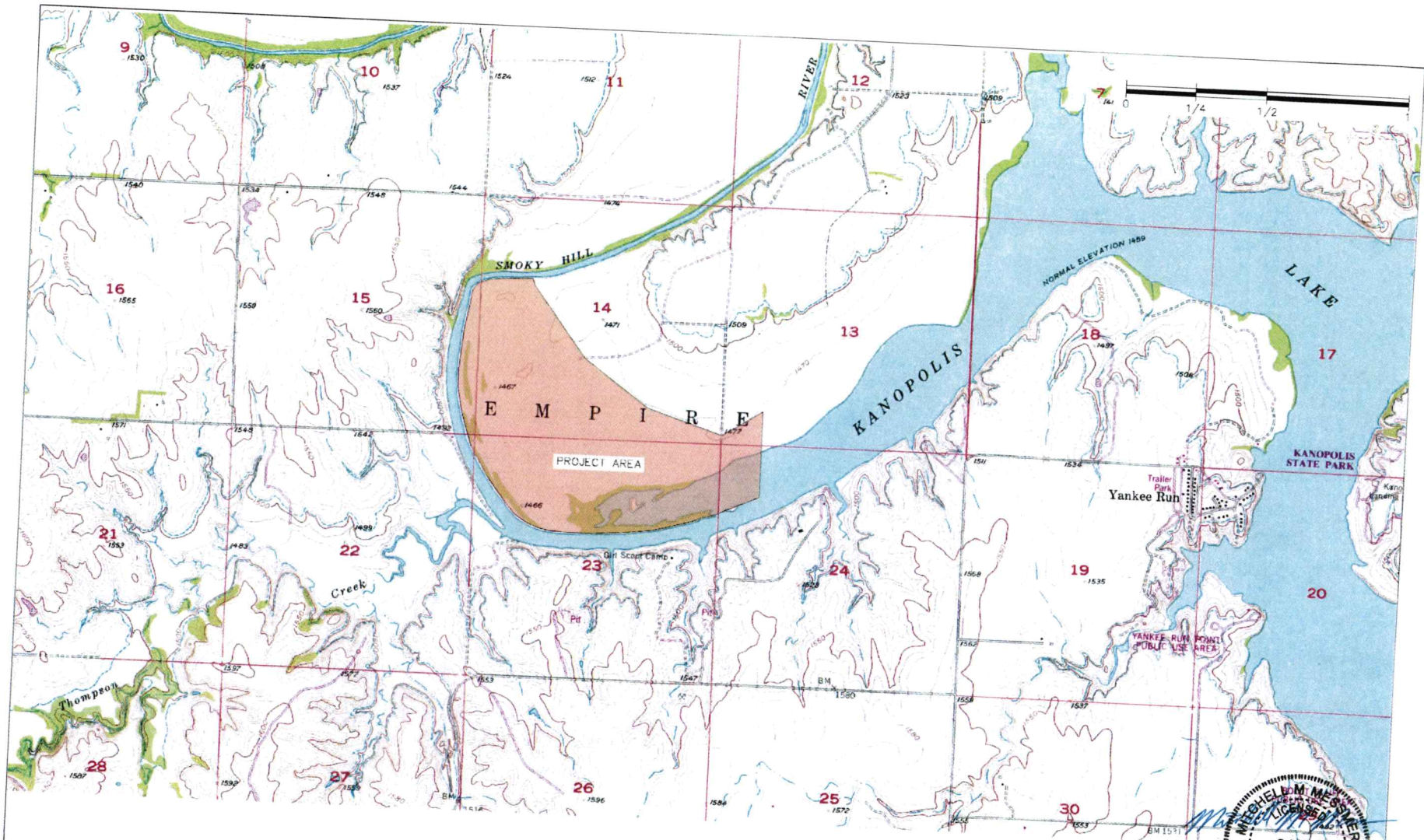


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		PROJECT NO. KS-38-5 KANOPOLIS WILDLIFE AREA STUMPS WETLAND SWPPP DETAIL	DESIGNED BY: NGJ DRAWN BY: NGJ CHECKED BY: NGJ CHECKED BY: NGJ
SHEET NUMBER: 0076 DATE: 11/6/2018	SHEET NO. 8 OF 12	APPROVED BY: 	APPROVED BY: 



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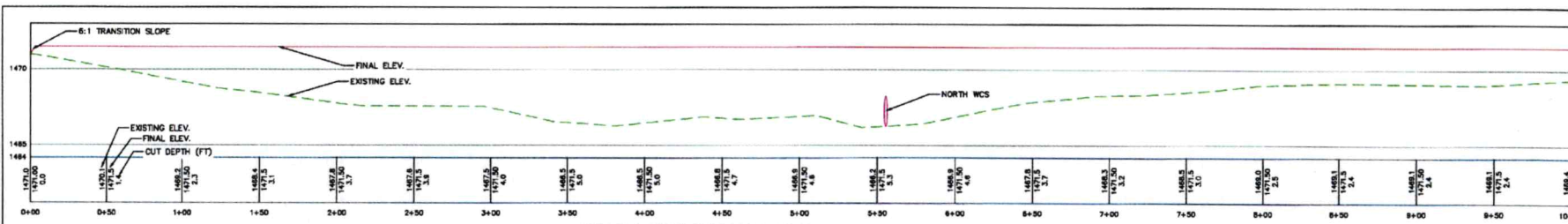
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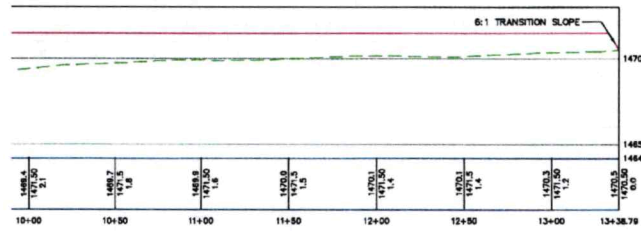
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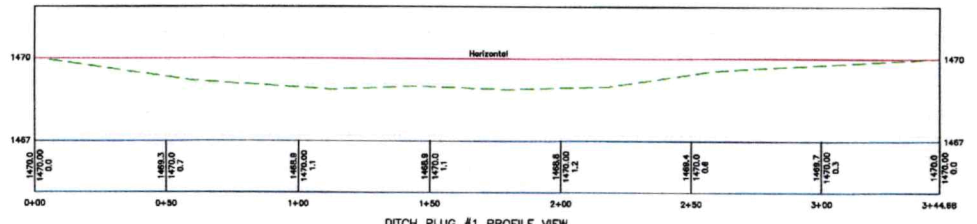
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	SHEET NO: 1001 12 APPROVED BY:	PROJECT NO: 24864 DATE: 5/21/19 PROFESSIONAL ENGINEER KANSAS



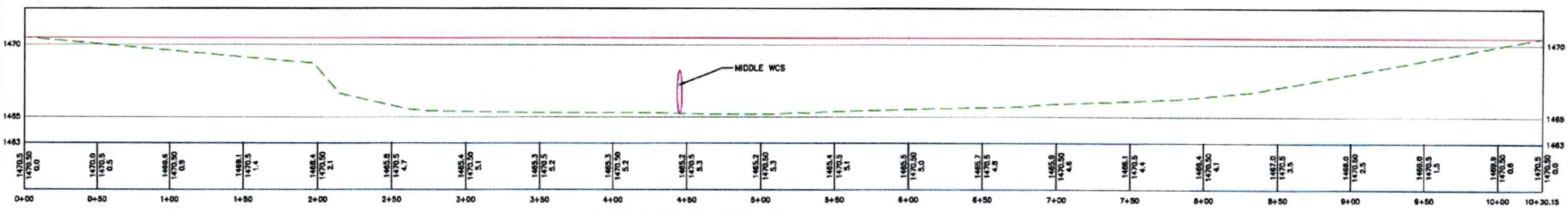
NORTH EMBANKMENT PROFILE VIEW 1 OF 2  
HORIZONTAL SCALE: 1"=30', VERTICAL EXAGGERATION 10:1



NORTH EMBANKMENT PROFILE VIEW 2 OF 2  
HORIZONTAL SCALE: 1"=30', VERTICAL EXAGGERATION 10:1



DITCH PLUG #1 PROFILE VIEW  
HORIZONTAL SCALE: 1"=20', VERTICAL EXAGGERATION 10:1



MIDDLE EMBANKMENT PROFILE VIEW  
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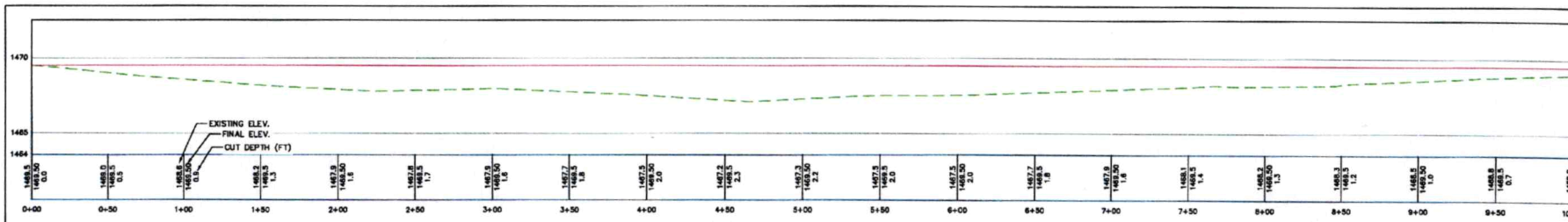
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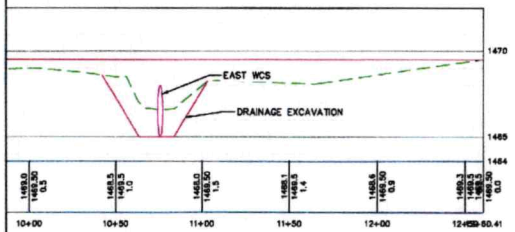
DUCKS UNLIMITED INC. GREAT PLAINS REGIONAL OFFICE	PROJECT NO. KS-38-5	DESIGNED BY: NGJ
	KANOPOLIS WILDLIFE AREA STUMPS WETLAND EMBANKMENT PROFILE VIEW	DRAWN BY: NGJ
DATE: 11/6/2018	SHEET NO. 11 OF 12	CHECKED BY: MAM
	APPROVED BY:	APPROVED BY:

JAN 15 2020

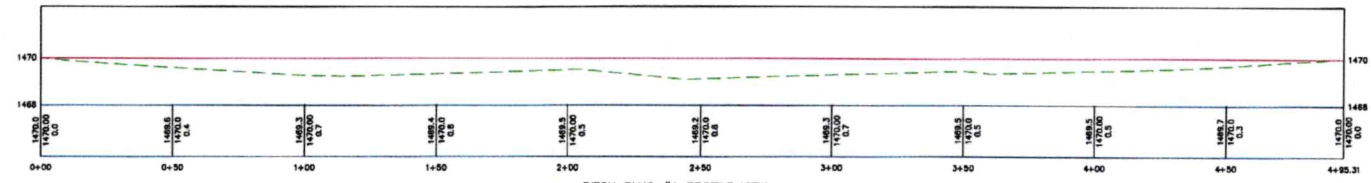
KS Dept Of Agriculture



FAST EMBANKMENT PROFILE VIEW 1 OF 2  
HORIZONTAL SCALE: 1"=30', VERTICAL EXAGGERATION 10:1



FAST EMBANKMENT PROFILE VIEW 2 OF 2  
HORIZONTAL SCALE: 1"=30', VERTICAL EXAGGERATION 10:1



DITCH PLUG #1 PROFILE VIEW  
HORIZONTAL SCALE: 1"=20', VERTICAL EXAGGERATION 10:1

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 DUCKS UNLIMITED INC. WETLANDS RESTORATION OFFICE DATE: 11/8/2018 SHEET NO: 12 OF 12	PROJECT NO.: KS-28-5 KANOPOLIS WILDLIFE AREA STUMPS WETLAND EMBANKMENT PROFILE VIEW	DESIGNED BY: NGJ DRAWN BY: NGJ CHECKED BY: MMJ APPROVED BY:
	APPROVED BY:	APPROVED BY:

**DATA ENTRY SYSTEM ID NUMBER SHEET**

FILE NUMBER 50334

APPLICANT PERSON ID & SEQ #	PDIV ID	BATTERY ID
40452 1	87865 NORTH	
	87866 MIDDLE	
	87867 EAST	

LANDOWNER PERSON ID & SEQ #	PUSE ID
40452 1	69805 NORTH
	69804 MIDDLE
	69806 EAST

WATER USE CORRESPONDENT PERSON ID & SEQ #
40452 1

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

Mike Beam, Secretary

Laura Kelly, Governor

January 16, 2020

KANSAS DEPT OF WILDLIFE & PARKS  
1020 S. KANSAS AVE FL2  
TOPEKA KS 66612

FILE COPY

RE: Application, File No. **50334**

Dear Sir or Madam:

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

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

Additional information about the process may be found on our website at [agriculture.ks.gov/divisions-programs/dwr](http://agriculture.ks.gov/divisions-programs/dwr). If you have any other questions, please contact our office at 785-564-6640 or your local Stockton Field Office at 785-425-6787. If you call, please reference the file number so we can help you more efficiently.

Sincerely,

A handwritten signature in black ink that reads "Kristen A. Baum". The signature is written in a cursive style.

Kristen A. Baum  
New Applications Unit Supervisor  
Water Appropriation Program