Platte Basin Coalition Committee
Minutes

October 2, 2017, 1:30 p.m. Central Time
TPNRD Office, Great Western Bank Building, North Platte, NE

Call to order and attendance: Miller called the meeting to order at 1:30 p.m., Central Time. Sponsors and partners in attendance (Attachment A) were:

Lyndon Vogt	CPNRD	Ryan Reisdorff	SPNRD
Brandi Flyr	CPNRD	Rod L. Horn	SPNRD
Jennifer Schellpeper	NeDNR	John Thorburn	TBNRD
Melissa Mosier	NeDNR	Kent O. Miller	TPNRD
Barb Cross	NPNRD	Ann Dimmitt	TPNRD
Tracy Zayac	NPNRD		
Guests in attendance:			
Cory Steinke	CNPPID	Mike Drain	CNPPID

Welcome and Open Meetings Act: Miller noted that a copy of the Open Meetings Act was available in the meeting room.

1. **Publication of Meeting Notices:** The NeDNR published a public notice (Attachment B) of the PBC meeting in the Grand Island Independent on September 26, 2017, the North Platte Telegraph on September 26, 2017, and the Scottsbluff Star Herald on September 26, 2017.

2. **Agenda Modifications:** No revisions were made to the agenda (Attachment C)**.**

3. **Approval of the August 7, 2017, PBC Meeting Minutes:**
   Motion: To approve the August 7, 2017, PBC meeting minutes (Attachment D).
   Thorburn motioned to approve and Horn seconded. Motion passed with all ayes.

5. **Budget Update (NeDNR) (Attachment E):**

   A. Funding:
   - **i.** NPNRD-Recharge Project along Blue Creek (Attachment F)
   - **ii.** TBNRD-CNPPID Infrastructure Build & Excess Flows (Attachment G)
     Motion: To approve Year 6 Additional Funds Budget Review FY 2017-2018 (lines 1, 3, 4, 5, 6; not line 2) plus the North Platte NRD projects.
     Vogt motioned to approve and Horn seconded. Motion passed with all ayes.

B. Studies:

i. Invoices

a. Conservation Measures Study Phase II: Approval of the The Flatwater Group Invoices (2) in the amounts of $5,140.79 and $706.68. (Attachment H & I);

b. Difference Between Current and Fully Appropiated: No current invoices at this time.

c. 2nd Increment Planning Facilitation: Approval of HDR Invoices (2) in the amounts of $11,860.15 & $9,675.68. (Attachments J & K).

d. Robust Review: Approval of Flatwater Group Invoice in the amount of $36,082.50 (CoHYST $28,667.50 & WWUM $7,415.00) (Attachments L).

Motion: To approve and pay all said study invoices. **Schellpeper motioned to approve and Vogt seconded. Motion passed with all ayes.**

ii. Contract Amendment for Conservation Study: Proposal from Flatwater (Attachment M) to extend the studies contract to the end of 2017 in the amount of $11,060.00.

Motion: To approve extension of the contract to the end of 2017 in the amount of $11,060.00

Schellpepper motioned to approve and Vogt seconded. Motion passed with all ayes.

Actions:

1. NeDNR will send individual invoices to the NRDs.
2. NeDNR will draft a contract amendment working with Flatwater and will email it to the PBC members for review and approval

6. Project Updates

A. N-CORPE (TPNRD):

i. Miller stated the north pipeline is completed, pressure testing is also completed, and all that remains is the seeding.

B. J-2 Regulating Reservoir (NeDNR) (Attachment N):

i. Schellpeper gave out the quarterly report. Cory Steinke of CNPPID stated the project is wrapping up and any future costs will be related to groundwater monitoring which will be maintained by PRRIP. There is one last billing pending from the project. As the project is on hold as opposed to cancelled, the funds will remain and not be reimbursed unless and until the contract is closed.

C. Tri-Basin NRD Phase II Augmentation-North Dry Creek (TBNRD):

i. Thorburn reported both wells ran most of June, July, & August.

D. **Oliver Reservoir Streamflow Enhancement (SPNRD):**

i. Horn reported that the project is closed out due to options that were not feasible.

E. Western ID Intentional Recharge Pilot Project:

i. Miller stated there was nothing new to report.

F. Excess Flow Diversion Updates:

i. Schellpeper reported there were excess flows within the CNPPID system.

7. **2018 PBC Meeting Dates:** Dates were set for the 2018 PBC meetings as reported in the table below**.**

8. **Public Comments:** There were no public comments.

9. **Adjourn:** The meeting adjourned at 2:00 p.m. The next meeting is December 4, 2017, at 1:30 p.m. at the Twin Platte NRD office.

Action Item Summary:

1) NeDNR will email individual invoices to the NRDs,
2) NeDNR will draft a contract amendment working with Flatwater and will email it to the PBC members for review and approval.

The 2017 PBC meeting schedule is as follows:

Date	Meeting	Time	Location
December 4, 2017	POAC/PBC	10:30 a.m. / 1:30 p.m.	TPNRD Office, North Platte

2018 PBC Meeting Dates

Date	Meeting	Time	Location
February 7, 2018	PBC	1:30 p.m.	TPNRD Office, North Platte
April 3, 2018	PBC	1:30 p.m.	TPNRD Office, North Platte
June 5, 2018	PBC	1:30 p.m.	TPNRD Office, North Platte
August 7, 2018	PBC	1:30 p.m.	TPNRD Office, North Platte
October 2, 2018	PBC	1:30 p.m.	TPNRD Office, North Platte
December 6, 2018	PBC	1:30 p.m.	TPNRD Office, North Platte

Meeting times may adjust depending on the Agenda

PLATTE BASIN COALITION MEETING

Meeting Date: October 2, 2017

Place/Room: TPNRD Office

Name:	Representing:	E-Mail:
Melissa Mosier	NEDNR	melissa.mosier@nebraska.gov
John Thorburn	Tri-Basin NRD	jthorburn@tribasinnrd.org
Barb Cross	NPNRD	bcross@NPnrd.org
Tracy Zayac	NPNRD	tzayac@npnrd.org
ROD L. THORN	SPNRD	rlthorn@spnrd.org
Gary Steinke	CNPPID	Csteinke@cnppid.com
Mike Drain	CNPPID	mdrain@cnppid.com
Ryan Reisdorff	SPNRD	rreisdorff@spnrd.org
Lyndon Vogt	CPNRD	vogt@cpnrd.org
Brandi Flyr	CPNRD	flyr@cpnrd.org
Ann Dimmitt	TPNRD	adimmitt@tpnrd.org
Kent O. Miller	TPNRD	komiller@tpnrd.org
Jennifer Schellpeper	NE DNR	jennifer.schellpeper@nebraska.gov

PUBLIC NOTICE
MEETING
OF THE PLATTE BASIN COALITION

The Central Platte Natural Resources District, North Platte Natural Resources District, South Platte Natural Resources District, Tri-Basin Natural Resources District, Twin Platte Natural Resources District (collectively, the Platte Basin NRDs), and the Nebraska Department of Natural Resources (Department) hereby provide notice that a public meeting of the Platte Basin Coalition will be held on Monday, October 2, 2017, at 1:30 p.m. Central Time, at the Twin Platte Natural Resources District office, 111 South Dewey Street, North Platte, Nebraska.

The Platte Basin Coalition purpose is to create a cooperative body to assist the Platte Basin NRDs and the Department with resource management and efficient implementation of the basin-wide management plan and the individual integrated management plans for the overappropriated area of the Platte River Basin.

An agenda of the meeting is being kept continually current and is available for public inspection during normal business hours at the offices of the Platte Basin NRDs and the Department and at the following website: www.dnr.nebraska.gov. Please refer to the websites and phone numbers listed below for further information.

CPNRD: http://www.cpnrd.org or phone (308) 385-6282
215 Kaufman Avenue, Grand Island, NE 68803

NPNRD: http://www.npnrd.org or phone (308) 632-2749
100547 Airport Road, Scottsbluff, NE 69363

SPNRD: http://www.spnrd.org or phone (308) 254-2377
551 Parkland Drive, Sidney, NE 69162

TBNRD: http://www.tribasinnrd.org or phone (308) 995-6688
1723 Burlington Street, Holdrege, NE 68949

TPNRD: http://www.tpnrd.org or phone (308) 535-8080
111 S Dewey Street, North Platte, NE 69101

Department: http://www.dnr.nebraska.gov or phone (402) 471-2363
301 Centennial Mall South, 4th Floor, Lincoln, NE 68508

Individuals with disabilities may request auxiliary aids and services necessary for participation by contacting Melissa Mosier at the Nebraska Department of Natural Resources, 301 Centennial Mall South, PO Box 94676, Lincoln, NE 68509-4676, telephone (402) 471-3948 or e-mail melissa.mosier@nebraska.gov.

Agenda

Platte Basin Coalition Meeting

October 2, 2017, 1:30 p.m. Central Time
TPNRD Office, Great Western Bank Building, North Platte, NE

1. Welcome and Open Meetings Act
2. Publication of Meeting Notices
3. Agenda Modifications
4. Approval of August 7, 2017, PBC Meeting Minutes
5. Budget Update (NeDNR)
    A. Funding
        i. NPNRD_Project Requests
        ii. TBNRD_Project Requests
    B. Studies
        i. Conservation Measures
            a. Approval of Flatwater Group invoice(s)
        ii. Difference Between Current and Fully Appropriated
            a. Approval of HDR invoice(s)
        iii. 2nd Increment Planning Facilitation
            a. Approval of HDR invoice(s)
        iv. Robust Review
            a. Approval of Flatwater Group invoice(s)
6. Project Updates
    A. N-CORPE (TPNRD)
    B. J-2 Regulating Reservoir (NeDNR)
    C. Tri-Basin NRD Phase II Augmentation - North Dry Creek (TBNRD)
    D. Oliver Reservoir Streamflow Enhancement (SPNRD)
    E. Western ID Intentional Recharge Pilot Project
    F. Excess Flow Diversion Updates
7. 2018 PBC Meeting Dates
8. Public Comments
9. Adjourn

Date	Meeting	Time	Location
November 15, 2017	SPG	10:30 a.m.	Holiday Inn Express, North Platte
December 4, 2017	POAC/PBC	10:30 a.m. / 1:30 p.m.	TPNRD Office, North Platte

Platte Basin Coalition Committee
Minutes

August 7, 2017, 1:30 p.m. Central Time
TPNRD Office, Great Western Bank Building, North Platte, NE

Call to order and attendance: Miller called the meeting to order at 1:30 p.m., Central Time. Sponsors and partners in attendance (Attachment A) were:

Duane Woodward	CPNRD	Elizabeth Miller	NPNRD
Brandi Flyr	CPNRD	Rod L. Horn	SPNRD
Jennifer Schellpeper	NeDNR	Travis Glanz	SPNRD
Jessie Strom	NeDNR	Ryan Reisdorff	SPNRD
Kathy Benson	NeDNR	John Thorburn	TBNRD
Tracy Zayac	NPNRD	Kent O. Miller	TPNRD
John Berge	NPNRD	Ann Dimmitt	TPNRD

Guests in attendance were:

Isaac Mortensen, The Flatwater Group Marc Groff, The Flaterwater Group

1. **Welcome and Open Meetings Act:** Miller noted that a copy of the Open Meetings Act was available in the meeting room.

2. **Publication of Meeting Notices:** The NeDNR published a public notice (Attachment B) of the PBC meeting in the Grand Island Independent on July 31, 2017, the North Platte Telegraph on August 1, 2017, and the Scottsbluff Star Herald on August 1, 2017.

3. **Agenda Modifications:** No revisions were made to the agenda (Attachment C)**.**

4. **Approval of the June 5, 2017, PBC Meeting Minutes:**
   Motion: To approve the June 5, 2017, PBC meeting minutes (Attachment D).
   Schellpeper motioned to approve and Woodward seconded. Motion passed with all ayes.

5. **Budget Update (NeDNR) (Attachment E):**

   A. **Funding:** Schellpeper went over the budget figures and pointed out updates to the budget sheets. The NRDs are to review the spreadsheets for Years 1-3 and 4-6 and send back any edits or questions so the sheets can be updated with the most accurate information. Additional money in the amount of five million dollars has become

available from the general fund for Fiscal Year 2017-18, these are WRCF general fund dollars which need a 40% match from the NRDs. NRDs need to come to the October PBC meeting with project proposals for these funds.

Actions:

1. NRDs are to review the budget sheets and send any edits or comments back to NeDNR.

B. Studies:

i. Conservation Measures

a. Approval of the The Flatwater Group Invoice in the amount of $4,092.78. (Attachment F)

Motion: To approve and pay the conservation measures invoice. **Berge motioned to approve and Woodward seconded. Motion passed with all ayes.**

ii. Difference Between Current and Fully Appropiated: No current invoices at this time

iii. 2nd Increment Planning Facilitation:

a. Approval of HDR Invoices (2) in the amounts of $15,729.93 & $6,469.70. (Attachments G & H)

Motion: To approve and pay the two facilitation invoices. **Berge motioned to approve and Woodward seconded. Motion passed with all ayes.**

iv. Robust Review:

a. Approval of Flatwater Group Invoices (2) in the amounts of $8,445.00 & $27,843.75. (Attachments I, J)

Motion: To approve and pay the Robust Review invoices. **Berge motioned to approve and Woodward seconded. Motion passed with all ayes.**

Actions:

1. NeDNR will send individual invoices to the NRDs.

6. Project Updates

A. N-CORPE (TPNRD):

i. Miller stated the north pipeline is near completion and all the pipe is in the ground. Within the next month connection will be made to the NPPD canal. The wellfield has experienced some significant declines due to heavy pumping.

B. J-2 Regulating Reservoir (NeDNR):

i. Schellpeper reported the next quarterly report will be out in September. A rough estimate of 17.2 million dollars is now available for reallocation to other projects.

C. Tri-Basin NRD Phase II Augmentation-North Dry Creek (TBNRD):

i. Thorburn reported both wells ran most of the summer and were recently shut off due to flows being above targets.

D. **Oliver Reservoir Streamflow Enhancement (SPNRD):** Horn reported that the two options (berm or augmentation well) being considered for stream

depletion use were not feasible to pursue. Possibly the answer will now be to decertify some irrigated acres. NeDNR is currently reviewing a reimbursement request for this project.

E. Western ID Intentional Recharge Pilot Project:

i. Miller reported that 12 reuse pits have been expanded to 25 pits. Some pits were cleaned out, and gauges were installed. NeDNR and TPNRD are working on a contract for this project.

F. Excess Flow Diversion Updates:

i. Schellpeper reported that excess flows are possible this fall. This will depend on rainfall and when the canals stop diverting for irrigation. The gauges and target flows will be monitored. NeDNR will set up conference calls to discuss how flows are progressing and what opportunites there will be for excess flow diversions.

Action:

1. NeDNR will set up conference calls as needed for this fall

7. Public Comments: There were no public comments.

8. Adjourn: The meeting adjourned at 1:50 p.m. The next meeting is October 2, 2017, at 1:30 p.m. at the Twin Platte NRD office.

Action Item Summary:

1) NRDs will review the budget sheets and return any edits to NeDNR,
2) NeDNR will email individual invoices to the NRDs,
3) NeDNR will set up conference calls as needed to discuss opportunities for excess flow diversions.

The PBC meeting schedule is as follows:

Date	Meeting	Time	Location
October 2, 2017	POAC/PBC	10:30 a.m. / 1:30 p.m.	TPNRD Office, North Platte
December 4, 2017	POAC/PBC	10:30 a.m. / 1:30 p.m.	TPNRD Office, North Platte

Meeting times may adjust depending on the Agenda

PBC Years 4 to 6 Budget Review

Updated 9/29/2017

PBC Budget Summary	CPNRD	NPNRD	SPNRD	TBNRD	TPNRD	Total NRD	DNR (NET Transfer)	NRD / NET total	NET %	DNR General Fund	Total by Year	PRRIP
Budget Year 4	$ 301,400.00	$ 708,400.00	$ 61,600.00	$ 444,400.00	$ 684,200.00	$ 2,200,000.00	$ 3,300,000.00			$ 2,217,386.16	$ 7,717,386.16	
Budget Year 5	$ 301,400.00	$ 708,400.00	$ 61,600.00	$ 444,400.00	$ 684,200.00	$ 2,200,000.00	$ 3,300,000.00			$ 131,301.00	$ 5,631,301.00	
Budget Year 6	$ 301,400.00	$ 708,400.00	$ 61,600.00	$ 444,400.00	$ 684,200.00	$ 2,200,000.00	$ 3,300,000.00			$ 20,050.00	$ 5,520,050.00	$ 60,150.00
Total 3 Year Budget	**$ 904,200.00**	**$ 2,125,200.00**	**$ 184,800.00**	**$ 1,333,200.00**	**$ 2,052,600.00**	**$ 6,600,000.00**	**$ 9,900,000.00**	**$ 16,500,000.00**		**$ 2,368,737.16**	**$ 18,868,737.16**	**$ 60,150.00**

PBC Project	Cnt #	CPNRD	NPNRD	SPNRD	TBNRD	TPNRD	Total NRD	DNR (NET Transfer)	NRD/NET total	NET %	DNR General Fund	Total by Project	PRRIP	Invoices Paid	NDNR Amount Paid	Project Status	NDNR Remaining	Meeting Motion Ref.
North Platte NRD Lease/Recharge - Cow Camp total	904	$ -	$ 310,733.83	$ -	$ -	$ -	$ 310,733.83	$ 466,100.75	$ 776,834.58	60.00%		$ 776,834.58			$ -		$ 158,361.50	Jun 2013 pg 2 #7 C
Orchard-Alfalfa Canal Rehabilitation	615	$ 501,038.88	$ -	$ -	$ -	$ -	$ 501,038.88	$ 488,106.29	$ 989,145.17	49.35%	$ -	$ 989,145.17			$ 488,106.29	Paid - March 9, 2016	$ -	Jun 2013 Pg 2 #7 B
Amendment 2 - increase to 4,977,456.48							$ -		$ -			$ -						
N-CORPE	778	$ -	$ -	$ -	$ -	$ 1,730,071.10	$ 1,730,071.10	$ 2,595,106.65	$ 4,325,177.75	60.00%	$ -	$ 4,325,177.75			$ 177,254.91	Partial Payment - May 18, 2017	$ 2,417,851.74	Aug 2013 pg 3 #8 B
J-2 Reregulating Reservoir	574	$ 403,161.12	$ -	$ -	$ 403,161.12	$ 322,528.90	$ 1,128,851.14	$ 1,693,276.70	$ 2,822,127.84	60.00%	$ 2,217,386.16	$ 5,039,514.00			$ 3,910,662.86	Paid June 30, 2016	$ -	Aug 2013 Pg 3 #8 A
Fall/Winter 2014-2015 E65 Canal and Elwood Reservoir (17,000 acre ft) [1]	800	$ -	$ -	$ -	$ 353,850.74	$ -	$ 353,850.74	$ 353,850.74	$ 707,701.48	50.00%	$ -	$ 707,701.48			$ 353,850.74	Paid - October 14, 2015	$ -	Aug 2015 Pg 2 #5 C
NPNRD Retirement Agreement - Hardt and Tighe	925	$ -	$ 1,129,347.00	$ -	$ -	$ -	$ 1,129,347.00	$ 1,608,866.00	$ 3,173,338.33	50.70%	$ -	$ 3,173,338.33			$ 1,782,116.00	Paid - December 21, 2016	$ (173,250.00)	June 2015 Pg 4 #7 A
2015-2016 - E65 Canal and Elwood Reservoir (5,000 acre ft) [2]	571	$ -	$ -	$ -	$ 104,229.00	$ -	$ 104,229.00	$ 104,229.00	$ 208,458.00	50.00%	$ -	$ 208,458.00			$ 104,229.00	Paid - July 14, 2016	$ -	Dec 2015 Pg 3 #5 C
Oliver Reservoir Streamflow Enhancement Project	887	$ -	$ -	$ 184,800.00	$ -	$ -	$ 184,800.00	$ 277,200.00	$ 462,000.00	60.00%	$ -	$ 462,000.00			$ 62,847.23	Partial Payment - May 26, 2017	$ 214,352.77	Dec 2015 Pg 4 #7 A
2016-2017 - E65 Canal and Elwood Reservoir	948	$ -	$ -	$ -	$ 164,800.00	$ -	$ 164,800.00	$ 247,200.00	$ 412,000.00	60.00%	$ -	$ 412,000.00			$ 247,200.00	Paid - May 31, 2017	$ -	Oct 2016
2016 - Phelps Canal	571	$ -	$ -	$ -	$ -	$ -	$ -		$ -	N/A	$ 131,301.00	$ 131,301.00			$ 51,100.00	Paid - May 18, 2016	$ 80,201.00	Dec 2015 Pg 3 #5 C
2017 - Phelps Canal (10,666 acre ft) --> (NeDNR 2,666 acre ft)	924	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	N/A	$ 20,050.00	$ 80,200.00	$ 60,150.00		$ 41,732.68	Parital payment - May 31, 2017	$ -	Oct 2016
TBNRD/CNPPID - Rainwater Basin Joint Venture					$ 307,159.14		$ 307,159.14											
NPNRD Excess Flows, Groundwater Recharge	985		$ 86,192.80				$ 86,192.80	$ 129,289.20	$ 215,482.00	60.00%		$ 215,482.00					$ 129,289.20	
Totals by Contributor		**$ 904,200.00**	**$ 1,526,273.63**	**$ 184,800.00**	**$ 1,333,200.00**	**$ 2,052,600.00**	**$ 6,001,073.63**	**$ 7,963,225.33**	**$ 14,092,265.15**	56.51%	**$ 2,368,737.16**	**$ 16,521,152.31**						
Remaining Financial Commitments by Contributor		$ -	$ 598,926.37	$ -	$ -	$ -	$ 598,926.37	$ 1,936,774.67	$ 2,407,734.85		$ -	$ 2,347,584.85	$ 2,407,734.85					

[1] Fall/Winter 2014-2015 E65 Canal and Elwood Reservoir was a 50/50 split between NeDNR and TBNRD instead of the PBC 60/40 split

[2] 2015-2016 - E65 Canal and Elwood Reservoir was a 50/50 split between NeDNR and TBNRD instead of the PBC 60/40 split

PBC Year 6 Additional Funds Budget Review (FY 2017-2018)

Updated 9/29/2017

PBC Budget Summary		CPNRD	NPNRD	SPNRD	TBNRD	TPNRD	Total NRD	DNR NET Transfer	NRD match	DNR General Fund	Total by Year	WRCF match	Other Match
Budget Year 6 Additional Funds		$ 456,666.67	$ 1,073,333.33	$ 93,333.33	$ 673,333.33	$ 1,036,666.67	$ 3,333,333.33	$ -	40.00%	$ 5,000,000.00	$ 8,333,333.73	60.00%	

PBC Project	Cnt #	CPNRD	NPNRD	SPNRD	TBNRD	TPNRD	Total NRD	NET Transfer		General Fund	Total by Project	% match	
NPNRD: Blue Creek Recharge Project			$ 250,000.00				$ 250,000.00	$ -	40.00%	$ 375,000.00	$ 625,000.00	60.00%	
TPNRD and SPNRD: Technology & Recharge Pits				$ 12,000.00		$ 28,000.00	$ 40,000.00	$ -	40.00%	$ 60,000.00	$ 100,000.00	60.00%	
TPNRD: N-CORPE						$ 1,036,666.67	$ 1,036,666.67	$ -	40.00%	$ 1,555,000.01	$ 2,591,666.68	60.00%	
TBNRD/CNPPID - Rainwater Basin Joint Venture					$ 213,550.86		$ 213,550.86	$ -	40.00%	$ 320,326.29	$ 533,877.15	60.00%	
TBNRD: Excess Flow					$ 459,782.47								
CPNRD:Recharge Pits / Detention Ponds		$ 456,666.67					$ 456,666.67	$ -	40.00%	$ 685,000.01	$ 1,141,666.68	60.00%	
Totals by Contributor		**$ 456,666.67**	**$ 250,000.00**	**$ 12,000.00**	**$ 673,333.33**	**$ 1,064,666.67**	**$ 1,996,884.20**	**$ -**	**40.00%**	**$ 2,995,326.30**	**$ 4,992,210.50**	60.00%	
Remaining Financial Commitments by Contributor		$ (0.00)	$ 823,333.33	$ 81,333.33	$ 0.00	$ (28,000.00)	$ 1,336,449.13	$ -		$ 2,004,673.70	$ 3,341,123.23		

	9.1333%	21.4667%	1.8667%	13.4667%	20.7333%	66.6667%
	13.7000%	32.2000%	2.8000%	20.2000%	31.1000%	100.0000%

The key elements of the authorizing statutes for limit the use of WRCF expenditures is contained in Neb. Rev. Stat. 61-218. Section three of this statute outlines the specifications for eligible expenditures by the Department.

(3) The fund shall be expended by the department (a) to aid management actions taken to **reduce consumptive uses of water** or to **enhance streamflows** or **ground water recharge** in river basins, subbasins, or reaches which are deemed by the department **overappropriated** pursuant to section 46-713 or **fully appropriated** pursuant to section 46-714 or are bound by an interstate compact or decree or a formal state contract or agreement, (b) for purposes of projects or proposals described in the grant application as set forth in subdivision (2)(h) of section 81-15,175, and (c) to the extent funds are not expended pursuant to subdivisions (a) and (b) of this subsection, the department may conduct a statewide assessment of short-term and long-term water management activities and funding needs to meet statutory requirements in sections 46-713 to 46-718 and 46-739 and any requirements of an interstate compact or decree or formal state contract or agreement.

NPNRD Proposed Projects

PBC Budget Summary		CPNRD	NPNRD	SPNRD	TBNRD	TPNRD	Total NRD	DNR NET Transfer	NRD match	DNR General Fund	Total by Year	WRCF match	Other Match
Budget Year 6 Additional Funds		$ 456,666.67	$ 1,073,333.33	$ 93,333.33	$ 673,333.33	$ 1,036,666.67	$ 3,333,333.33	$ -	40.00%	$ 5,000,000.00	$ 8,333,333.73	60.00%	
Carry over cash from 4-6 year spreadsheet			$ 598,926.37										
Total budget			$ 1,672,259.70										

PBC Project	Cnt #	CPNRD	NPNRD	SPNRD	TBNRD	TPNRD	Total NRD	NET Transfer		General Fund	Total by Project	% match	
NPNRD-Blue Creek Recharge Project			$ 250,000.00				$ 250,000.00	$ -	40.00%	$ 375,000.00	$ 625,000.00	60.00%	
NPNRD-Retirement Projects			$ 372,389.10				$ 372,389.10		40.00%	$ 558,583.65	$ 930,972.75	60.00%	
NPNRD-Nine-Mile/Wrangler Irrigation District			$ 105,000.00				$ 105,000.00		40.00%	$ 157,500.00	$ 262,500.00	60.00%	
NPNRD-Enterprise Irrigation			$ 70,000.00				$ 70,000.00		40.00%	$ 105,000.00	$ 175,000.00	60.00%	
NPNRD-Minatare Mutual Canal			$ 105,000.00				$ 105,000.00		40.00%	$ 157,500.00	$ 262,500.00	60.00%	
NPNRD-Technology+Allocation Reduction			$ 200,000.00				$ 200,000.00		40.00%	$ 300,000.00	$ 500,000.00	60.00%	
Totals by Contributor			**$ 1,102,389.10**				**$ 1,102,389.10**	**$ -**	**40.00%**	**$ 1,653,583.65**	**$ 2,755,972.75**	60.00%	
Remaining Financial Commitments by Contributor			$ 569,870.60				$ 2,230,944.23	$ -		$ 3,346,416.35	$ 5,577,360.98		

From: John Berge, North Platte NRD
Date: September 27, 2017
Subject: WRCF Requests for FY 2018

I am writing today to request that the Administrators of the Platte Basin Coalition (PBC) consider the following projects for funding in FY 2018.

EXISTING PROJECTS INFORMATION

1. The North Platte NRD requests $558,583.65 to reimburse (at a 60% rate) existing surface water, ground water and commingled lease and retirement projects that we entered into for the purpose of reducing consumptive use in our District. Beyond the reimbursement for previous payments, we are also requesting a 60% reimbursement for FY 18 payments.

NAME		ACRES	AMT PAID OUT	AMT PAID OUT *60%	FY 18 TOTAL	PER FY 18 * 60%
Orvin & Carol Lake	**GW**	**83.3**	$31,237.50	$18,742.50	$6,247.50	$3,748.50
CCPN Lapaseotes LTD	**GW**	**97.4**	$101,296.00	$60,777.60	$50,648.00	$30,388.80
Marvin & Carol Ziegler	**GW**	**99.9**	$300,000.00	$180,000.00	$150,000.00	$90,000.00
Jay L Rogers & Georgene Rogers	**SW**	**5**	$5,500.00	$3,300.00	$687.50	$412.50
Darlene Meyers,	**SW**	**75**	$33,750.00	$20,250.00	$8,437.50	$5,062.50
Darlene Miller, &						
Walter Strauch						
Doris L Rush Living Trust	**SW**	**64.9**	$71,390.00	$42,834.00	$8,923.75	$5,354.25
Beth Everett &	**CM**	**88.1**	$88,587.00	$53,152.20	$59,058.00	$35,434.80
Nathan Clark						
Conrad Steven Schaneman	**CM**	**25.1**	$0.00	$0.00	$4,894.50	$2,936.70
LRK	**CM**	**52.9**	$0.00	$0.00	$10,315.50	$6,189.30
			$646,970.50	**$388,182.30**	$284,002.25	**$170,401.35**
60% TOTALS				**$558,583.65**		

2. Blue Creek Surface Water Project – NPNRD, in conjunction with Ducks Unlimited, proposes to construct a multi-purpose aquifer recharge complex along Blue Creek, a tributary to the North Platte River, to sustain long-term agricultural viability, support strong environmental and recreational opportunities, and help to meet the Integrated Management Plan (IMP) goals of narrowing the consumptive use gap. Specifically, we propose to construct groundwater recharge ponds on

historically irrigated lands, to retime the surface water diversions through the alluvial aquifer. The focus area is comprised of several farms near Lewellen, NE, totaling approximately 400 acres. The retiming of surface water through alluvial recharge ponds will help to sustain future groundwater supplies for agricultural producers in the area and create shallow water habitat for migratory birds and local wildlife. WRCF resources will be used to lease water rights, complete the land survey, develop the engineering plan sets, acquire and install the water control and conveyance infrastructure, accomplish the earthwork, and provide construction management. The proposed project timeline is five years. The cost for the project is $625,000 over those five years, and the breakdown of costs follows:

WCRF: $375,000
North Platte NRD: $250,000

The NRD will also dedicate personnel to work with the ditches and land owners, and monitor the long-term operations and maintenance of the complex.

DU will be responsible for engineering and construction of the recharge ponds, which includes cadastral surveys, AutoCAD designs, construction bidding and contracting, and construction management.

We propose to commit WRF in FY 2018 and the NPNRD will set up a sequestered account used to reimburse the project for leases, engineering and construction over the five-year project timeline.

3. NPNRD requests $420,000 in WRCF resources to complete the following surface water leases. Similar to the Blue Creek Surface Water Project, we propose to commit WRCF in FY 2018 and the NPNRD will set up a sequestered account used to reimburse the project for leases, engineering and construction over the five-year project timeline.

   Nine-Mile/Wrangler Irrigation District Intentional Recharge – Lease 300 acres, impound the diversion into one or more intentional recharge ponds to maintain historic return flows. Total cost estimate for this project is $262,500 over five years. The breakdown of costs follows:

   WRCF: $157,500
   NPNRD: $105,000

   Enterprise Irrigation District – Lease an additional 200 acres on the Enterprise canal. Diversions would be impounded into existing ponds on the canal for intentional recharge, and to maintain historic return flows. Total cost estimate is $175,000 over five years. Breakdown of costs follows:

   WRCF: $105,000
   NPNRD: $70,000

   Minatare Mutual Canal Project Expansion – Lease an additional 300 acres on the Minatare canal. Existing diversions would be direct-returned to the river using existing facilities and measuring devices. Total cost estimate is $262,500 over five years. Breakdown of costs follows:

   WRCF: $157,500
   NPNRD: $105,000

4. Technology + Allocation Reduction – Develop a new NRD cost-share program for technology upgrades/pivot package upgrades with the caveat that the landowners who utilize this cost share program agree to a short-term allocation reduction. Total cost estimate is $500,000 over five years. Breakdown of costs follows:

   WRCF: $300,000
   NPNRD: $200,000

Revenue breakdown for total costs in this request follow:

Total Costs: $2,755,972.75
WRCF: $1,653,583.65
NPNRD: $1,102,389.10

NEBRASKA NATURAL RESOURCES COMMISSION

Water Sustainability Fund

Application for Funding

Section A.

ADMINISTRATIVE

PROJECT NAME: Blue Creek Groundwater Recharge Complex

PRIMARY CONTACT INFORMATION

Entity Name: **Ducks Unlimited, Inc. (DU)**

Contact Name: **Jason Roudebush**

Address: **2121 N. Webb Road #309, Grand Island, NE 68803**

Phone: **Cell - 970.231.8317; Office - 308.384.2788**

Email: **jroudebush@ducks.org**

Partners / Co-sponsors, if any: **North Platte Natural Resource District (NPNRD)**

1. Dollar amounts requested: (Grant, Loan, or Combination)

   Grant amount requested. $ **373,407**

   Loan amount requested. $ **0**

   If Loan, how many years repayment period? **N/A**

   If Loan, supply a complete year-by-year repayment schedule.
   N/A

2. Permits Needed - Attach copy for each obtained (N/A = not applicable)

Nebraska Game & Parks Commission (G&P) consultation on Threatened and Endangered Species and their Habitat	N/A☐	Obtained: YES☐	NO☒
Surface Water Right	N/A☐	Obtained: YES☐	NO☒

USACE (e.g., 404 Permit)	N/A☒	Obtained: YES☐	NO☐
Cultural Resources Evaluation	N/A☒	Obtained: YES☐	NO☐
Other (provide explanation below)	N/A☒	Obtained: YES☐	NO☐

3. Are you applying for funding for a combined sewer over-flow project?

   YES☐ NO☒

   If yes, do you have a Long Term Control Plan that is currently approved by the Nebraska Department of Environmental Quality?

   YES☐ NO☐

   If yes attach a copy to your application. **N/A**

   If yes what is the population served by your project? **N/A**

   If yes provide a demonstration of need. **N/A**

   If yes and you were approved for funding in the most recent funding cycle, then resubmit the above information updated annually but you need not complete the remainder of the application.

4. If you are or are representing an NRD, do you have an Integrated Management Plan in place, or have you initiated one?

   N/A☐ YES☒ NO☐

5. Has this application previously been submitted for funding assistance from the Water Sustainability Fund and not been funded?

   YES☐ NO☒

   If yes, have any changes been made to the application in comparison to the previously submitted application? N/A

   If yes, describe the changes that have been made since the last application. N/A

   No, I certify the application is a true and exact copy of the previously submitted and scored application. (Signature required) N/A

6. Complete the following if your project has or will commence prior to next July 1st.

As of the date of submittal of this application, what is the Total Net Local Share of Expenses incurred for which you are asking cost share assistance from this fund? $ **N/A**

Attach all substantiating documentation such as invoices, cancelled checks etc. along with an itemized statement for these expenses. **N/A**

Estimate the Total Net Local Share of Expenses and a description of each you will incur between the date of submittal of this application and next July 1st for which you are asking cost share assistance from this fund.
$ **N/A**

Section B.

DNR DIRECTOR'S FINDINGS

Does your project include physical construction (defined as moving dirt, directing water, physically constructing something, or installing equipment)?

YES☒ NO☐

1(a). If yes (structural), submit a feasibility report (to comply with Title 261, CH 2) including engineering and technical data and the following information:

A discussion of the plan of development (004.01 A);
The project requires earthwork to develop small embankments and the installation of in-line water control structures. In some instances, additional ditching and piping is necessary to connect recharge ponds with the existing network of canals. All earthwork will be balanced on-site the conceptual design is presented in Figures 2-4 of the attached Project Description.

A description of all field investigations made to substantiate the feasibility report (004.01 B); **Field reconnaissance was conducted at each of the proposed locations in Figure 1. Surface soils were field analyzed for structure and composition and the drill logs for nearby pumping wells were reviewed to determine the composition of subsurface materials. The surface soils, depth to water, and drill logs indicate a permeable aquifer with characteristics suitable for aquifer recharge operations.**

Maps, drawings, charts, tables, etc., used as a basis for the feasibility report (004.01 C); **The well drilling logs referenced above are attached to the project description as Appendix A.**

A description of any necessary water and land rights and pertinent water supply and water quality information, if appropriate (004.01 D);
As part of the Task-1 description in section D-2 of this application, the NPNRD will be entering into site-specific agreements with the participating land owners for the leasing of water rights and access for construction of recharge ponds.

A discussion of each component of the final plan including, when applicable (004.01 E);

Required geologic investigation (004.01 E 1); No geologic investigation is required. **Nearby drill logs confirm the presence of permeable alluvial sediments and depths to water ranging from 7 to 15 feet. Surface soils consist of sandy-loam textures suitable for recharge ponds.**

Required hydrologic data (004.01 E 2);

Design criteria for final design including, but not limited to, soil mechanics, hydraulic, hydrologic, structural, embankments and foundation criteria (004.01 E 3).

1(b). If no (non-structural), submit data necessary to establish technical feasibility including, but not limited to the following (004.02):

A discussion of the plan of development (004.02 A);
The project requires earthwork to develop small embankments and the installation of in-line water control structures. In some instances, additional ditching and piping is necessary to connect recharge ponds with the existing network of canals. All earthwork will be balanced on-site the conceptual design is presented in Figures 2-4 of the attached Project Description.

A description of field or research investigations utilized to substantiate the project conception (004.02 B);

A description of the necessary water and/or land rights, if applicable (004.02 C); **Field reconnaissance was conducted at each of the proposed locations in Figure 1. Surface soils were field analyzed for structure and composition and the drill logs for nearby pumping wells were reviewed to determine the composition of subsurface materials. The surface soils, depth to water, and drill logs indicate a permeable aquifer with characteristics suitable for aquifer recharge operations.**

A discussion of the anticipated effects, if any, of the project upon the development and/or operation of existing or envisioned structural measures including a brief description of any such measure (004.02 D). **Project development is outside of any existing structural measures.**

2. Provide evidence that there are no known means of accomplishing the same purpose or purposes more economically, by describing the next best alternative. **Without combining the NPNRD's water leasing program with the construction of the proposed recharge ponds, this project will not be possible. The only alternative would be for Ducks Unlimited to obtain land and water via fee title acquisition, which would make the project economically unfeasible.**

3. Document all sources and report all costs and benefit data using current data, (commodity prices, recreation benefit prices, and wildlife prices as prescribed by the Director) using both dollar values and other units of

measurement when appropriate (environmental, social, cultural, data improvement, etc.). The period of analysis for economic feasibility studies shall be fifty (50) years or with prior approval of the Director, up to one hundred (100) years [T261 CH 2 (005)].

- Describe any relevant cost information including, but not limited to the engineering and inspection costs, capital construction costs, annual operation and maintenance costs, and replacement costs. Cost information shall also include the estimated construction period as well as the estimated project life (005.01). **A detailed outline of capital construction costs are presented in Table-3 of the attached Project Description. Costs include land surveying, engineering design, earthwork, installation of water control structures, riprap placement, and reseeding. The recharge pond complex will be built over a period of a month with a total life expectancy of 30+ years. The first DU recharge project built on the South Platte River of Colorado is 30 years old and remains functioning at a high level.**

  The engineer's estimate is based on recent shallow water pond construction projects in Nebraska and Colorado. Significant cost savings to the project occurs with the utilization of DU engineering services, which are well below market rates for typical engineering consulting firms.

- Only primary tangible benefits may be counted in providing the monetary benefit information and shall be displayed by year for the project life. In a multi-purpose project, estimate benefits for each purpose, by year, for the life of the project. Describe any intangible or secondary benefits separately. In a case where there is no generally accepted method for calculation of primary tangible benefits describe how the project will increase water sustainability, such that the economic feasibility of the project can be approved by the Director and the Commission (005.02). **The monetary benefits resulting from the restoration of groundwater levels and wildlife habitat are difficult to quantify. However, groundwater recharge is a proven tool for securing long-term water sustainability through utilization of the aquifer as a storage vessel to mitigate water supplies in drought years.**

- All benefit and cost data shall be presented in a table form to indicate the annual cash flow for the life of the proposal, not to exceed 100 years (005.03). **The proposed recharge complex will not result in**

annual revenue streams for the partners (like a municipal water supply project).

- In the case of projects for which there is no generally accepted method for calculation of primary tangible benefits and if the project will increase water sustainability, the economic feasibility of such proposal shall be demonstrated by such method as the Director and the Commission deem appropriate (005.04). **Project benefits are discussed in detail in the attached project description. They include increased groundwater storage, agricultural sustainability, increased wildlife habitat, and better local control of water resources.**

4. Provide evidence that sufficient funds are available to complete the proposal.

Pease refer to the attached letter of support from the NPNRD, where $50,000 has been committed annually, for a period of five consecutive years ($250,000 total).

5. Provide evidence that sufficient annual revenue is available to repay the reimbursable costs and to cover OM&R (operate, maintain, and replace).
The NPNRD maintains a local presence in the area and is committed to maintaining the project long-term.

6. If a loan is involved, provide sufficient documentation to prove that the loan can be repaid during the repayment life of the proposal.
N/A

7. Describe how the plan of development minimizes impacts on the natural environment.

The development plan will have minimal impact to the natural environment because we will be working in historically cultivated fields with access from existing county roads. The proposed project is an improvement to the natural environment with shallow water recharge ponds supporting a variety of wildlife. We are not working within the 100-year floodplain or impacting any existing wetlands.

8. Explain how you are qualified, responsible and legally capable of carrying out the project for which you are seeking funds.

DU has been in business for over 80 years and has developed, maintained, and operated numerous groundwater recharge projects along the South Platte River in eastern Colorado. The first multi-purpose recharge project constructed by DU, the Brush Prairie Ponds, was completed 30 years ago and

remains fully operational in 2017. DU maintains a local staff comprised of five Professional Engineers, six Biologists, and a Hydrologist to accomplish all aspects of project development. DU currently has over 120 active projects in Nebraska.

The NPNRD was established in 1972 by the State of Nebraska to serve as a local unit of government tasked with conserving, protecting, developing, and managing natural resources. The NPNRD has statutory responsibility for groundwater quantity and quality management and for integrated management of the over appropriated area. The NPNRD is the only entity in the area with specific water-management goals to reach, and the NPNRD has dedicated funds this fiscal year toward the temporary leasing of surface water for the purpose of meeting those goals. The NPNRD possesses both the technical, financial, and legal capability to identify successful management strategies and implement them for the benefit of the NPNRD's citizens as a whole.

9. Explain how your project considers plans and programs of the state and resources development plans of the political subdivisions of the state.

This project will be accomplished through a partnership with the NPNRD and the utilization of their water rights leasing program. Project outcomes will directly address goals outlined in the North Platte Integrated Management Plan (IMP) and the Upper Platte Basin Wide Plan.

10. Are land rights necessary to complete your project?

YES☒ NO☒

If yes, provide a complete listing of all lands involved in the project.

All properties involved in t this project are presented in Figures 1-4 of the attached Project Description. Properties 1 & 3 are owned by Thomas Godding and Property 2 is owned by Richard Hamilton. Both landowners are committed to the project.

If yes, attach proof of ownership for each easements, rights-of-way and fee title currently held.

If the project is funded the NPNRD will enter into site specific agreements with the landowners to lease the water rights and construct the recharge ponds described in this application (Task-1). No grant funds will be spent without the agreements in-place.

If yes, provide assurance that you can hold or can acquire title to all lands not currently held.

Land acquisition is not required for the project

11. Identify how you possess all necessary authority to undertake or participate in the project.

The NPNRD will enter into site-specific agreements with area landowners to provide land, water rights, and the access necessary to construct and operate the recharge complex. Specifically, the NPNRD has created a surface water rights leasing program to provide financial incentives for producers to help reduce consumptive use. DU maintains a staff of Professional Engineers, licensed in the State of Nebraska, which will be utilized to survey, design, and construct the recharge complex.

The NPNRD has statutory responsibility for groundwater quantity and quality management and for integrated management of the over appropriated area. The NPNRD possesses taxing authority to generate funding for this and all other projects undertaken to meet its integrated-management obligations and to benefit NPNRD citizens.

12. Identify the probable environmental and ecological consequences that may result as the result of the project.

Groundwater recharge is a proven method for managing water resources in the semi-arid western United States. The positive consequences of this project include increased local groundwater storage, reduced basin consumptive use, and the addition of shallow water recharge ponds to the landscape that will provide critical wildlife habitat. The consumptive use analysis for this project is presented in the attached Project Description

Section C.

NRC SCORING

In the NRC's scoring process, points will be given to each project in ranking the projects, with the total number of points determining the final project ranking list.

The following 15 criteria constitute the items for which points will be assigned. Point assignments will be 0, 2, 4, or 6 for items 1 through 8; and 0, 1, 2, or 3 for items 9 through 15. Two additional points will be awarded to projects which address issues determined by the NRC to be the result of a federal mandate.

Notes:

- The responses to one criterion ***will not*** be considered in the scoring of other criteria. Repeat references as needed to support documentation in each criterion as appropriate. The 15 categories are specified by statute and will be used to create scoring matrixes which will ultimately determine which projects receive funding.

- There is a total of 69 possible points, plus two bonus points. The potential number of points awarded for each criteria are noted in parenthesis. Once points are assigned, they will be added to determine a final score. The scores will determine ranking.

- The Commission recommends providing the requested information and the requests are not intended to limit the information an applicant may provide. An applicant should include additional information that is believed will assist the Commission in understanding a proposal so that it can be awarded the points to which it is entitled.

Complete any of the following (15) criteria which apply to your project. Your response will be reviewed and scored by the NRC. Place an N/A (not applicable) in any that do not apply, an N/A will automatically be placed in any response fields left blank.

1. Remediates or mitigates threats to drinking water;

    - Describe the specific threats to drinking water the project will address.
    - Identify whose drinking water, how many people are affected, how will project remediate or mitigate.
    - Provide a history of issues and tried solutions.
    - Provide detail regarding long range impacts if issues are not resolved.

Many of the rural households in the Lewellen area rely solely on well water for their residential supply. This groundwater recharge project will directly benefit the local aquifer by replenishing supplies and mitigating for periods of drought.

2. Meets the goals and objectives of an approved integrated management plan or ground water management plan;

   - Identify the specific plan that is being referenced including date, who issued it and whether it is an IMP or GW management plan.
   - Provide the history of work completed to achieve the goals of this plan.
   - List which goals and objectives of the management plan the project provides benefits for and how the project provides those benefits.

In July 2004, the Legislature passed LB962 which quickly led to the designation of the North Platte River as over appropriated. As a result, the NPNRD developed an IMP outlining how the hydrologically connected river and alluvial aquifer would be managed together, and the plan was officially adopted in 2009. The first step to gaining control of the declining groundwater levels was a successful moratorium on new wells and a cap on new irrigated acreage after July 16, 2004. To further protect the precious water resources of the North Platte valley, the NPNRD and DU are proposing this groundwater recharge complex as an innovative pilot project to demonstrate the conjunctive use benefits of retiming streamflow through recharge ponds, with the goal of reversing groundwater decline. Specifically, the NPNRD program will be utilized to further reduce the consumptive use in the District, while refilling an area of the alluvial aquifer that has long been in decline.

3. Contributes to water sustainability goals by increasing aquifer recharge, reducing aquifer depletion, or increasing streamflow;

   List the following information that is applicable:

   - The location, area and amount of recharge;
   - The location, area and amount that aquifer depletion will be reduced;
   - The reach, amount and timing of increased streamflow. Describe how the project will meet these objectives and what the source of the water is;
   - Provide a detailed listing of cross basin benefits, if any.

The recharge ponds will be sited on a collection of private lands in the Blue Creek Irrigation District, near Lewellen, NE (Figure 1). The consumptive use on approximately 400 acres of irrigated cropland will be leased and the water will be delivered to the ponds through either the Union, Hooper, or Blue Creek canals. The pond locations range between 0.6 and 1.9 miles from the main channel of North Platte river, and preliminary modeling (Glover equation) indicates a range of streamflow accretion timing between 50 and 250 days. The NPNRD will utilize its Western Water Use Management Model (WWUMM) to calculate the actual benefits to streamflow from the recharge component of the project as part of its regular integrated-management accounting activities. The results from these

calculations will be shared with NeDNR in accordance with any surface water transfer permits obtained from the Department for this project.

4. Contributes to multiple water supply goals, including, but not limited to, flood control, agricultural use, municipal and industrial uses, recreational benefits, wildlife habitat, conservation of water resources, and preservation of water resources;

   - List the goals the project provides benefits.
   - Describe how the project will provide these benefits
   - Provide a long range forecast of the expected benefits this project could have versus continuing on current path.

This project is unique because it reduces consumptive use in the basin through the leasing of irrigation water rights, while also providing an innovative mechanism for recharging the declining groundwater table. The creation of recharge ponds will allow for the leased surface water to be retimed through the alluvial sediments, which will increase aquifer storage supplies for water users that rely on groundwater pumping. The same ponds used to recharge the aquifer also provide habitat for migratory birds and other wildlife in the area.

5. Maximizes the beneficial use of Nebraska's water resources for the benefit of the state's residents;

   - Describe how the project will maximize the increased beneficial use of Nebraska's water resources.
   - Describe the beneficial uses that will be reduced, if any.
   - Describe how the project provides a beneficial impact to the state's residents.

In addition to the irrigation season, the proposed recharge ponds have the potential to be operated during the spring and fall months to retime non-irrigation streamflow. This type conjunctive use management helps to firm up supplies for water users dependent on groundwater pumping and would provide critical habitat for migratory birds during the spring and fall migrations. Off-channel migratory bird habitat is an important source of food and refuge for waterfowl, cranes, and other shore birds, and will provide recreational opportunities for bird watchers, hunters, and outdoor enthusiasts. The NPNRD would have to make an additional appropriation to operate outside of the irrigation, but the option remains as a possibility.

6. Is cost-effective;

   - List the estimated construction costs, O/M costs, land and water acquisition costs, alternative options, value of benefits gained.
   - Compare these costs to other methods of achieving the same benefits.

- List the costs of the project.
- Describe how it is a cost effective project or alternative.

Survey, design, and construction costs are estimated at $223,407. Specific budget details are presented in Tables 1-3 of the attached Project Description and include earthwork, water control structures, piping, ditching, seeding, and limited riprap placement.

The partnership between the non-profit, DU and the NPNRD results in substantial cost savings to the project. The philanthropic support DU receives from its members allows for hourly rates to be more competitive that those in the private sector. For example, the 2017 hourly rate for a Senior Professional Engineer (PE) at DU is $110/hour, which is 20-40% lower than PE's with a private consulting firm. With a local Nebraska office DU engineers and biologists will not require per diem or lodging to complete any of the work. DU also owns state-of-the-art surveying equipment and engineering design software, which will be utilized at no cost to the fund.

The NPNRD maintains a local staff of water resource experts who will be contributing time (at no cost to the fund) toward groundwater modeling, landowner relations, leasing agreements, operations, and maintenance.

7. Helps the state meet its obligations under interstate compacts, decrees, or other state contracts or agreements or federal law;

- Identify the interstate compact, decree, state contract or agreement or federal law.
- Describe how the project will help the state meet its obligations under compacts, decrees, state contracts or agreements or federal law.
- Describe current deficiencies and document how the project will reduce deficiencies.

This project helps the State of Nebraska fulfill its water obligations under the Platte River Recovery and Implementation Program (PRRIP). PRRIP began on January 1, 2007 and requires Colorado, Nebraska, and Wyoming to work cooperatively to increase flows in the Central Platte by an average of 130,000 to 150,000 acre-feet per year.

8. Reduces threats to property damage or protects critical infrastructure that consists of the physical assets, systems, and networks vital to the state or the Untied States such that their incapacitation would have a debilitating effect on public security or public health and safety;

- Identify the property that the project is intended to reduce threats to.

- Describe and quantify reductions in threats to critical infrastructure provided by the project and how the infrastructure is vital to Nebraska or the United States.
- Identify the potential value of cost savings resulting from completion of the project.
- Describe the benefits for public security, public health and safety.

The network of ditches and canals that support irrigated agriculture in Nebraska are critical pieces of economic infrastructure for the local community and food supply infrastructure for the nation. The creation of recharge ponds on any the ditch systems will allow for water to be released and spread across the infiltration basins during high flow events, thus reducing the threat of failure.

9. Improves water quality;

- Describe what quality issue(s) is/are to be improved.
- Describe and quantify how the project improves water quality, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
- Describe other possible solutions to remedy this issue.
- Describe the history of the water quality issue including previous attempts to remedy the problem and the results obtained.

While not specifically designed to mitigate water quality issues, this project will benefit the overall water quality characteristics of the surface water recharged through the complex. North Platte River surface water consists of a complex speciation of comingled source water. In general, streamflow consists of wastewater effluent, snowmelt and stormwater runoff, and irrigation return flows. While they all have different chemical speciation, water that infiltrates through the recharge ponds will comingle with groundwater and take advantage of the natural treatment processes, such as biodegradation of organic chemicals, that occur as water moves through soil.

10. Has utilized all available funding resources of the local jurisdiction to support the program, project, or activity;

- Identify the local jurisdiction that supports the project.
- List current property tax levy, valuations, or other sources of revenue for the sponsoring entity.
- List other funding sources for the project.

The NPNRD is the local jurisdiction that supports this project proposal via partnership. The strong landowner relationships the NPNRD has developed over the years and the incentive based programs that they've instituted are the reason this type of collaborative multi-use project is possible.

11. Has a local jurisdiction with plans in place that support sustainable water use;

- List the local jurisdiction and identify specific plans being referenced that are in place to support sustainable water use.
- Provide the history of work completed to achieve the goals of these plans.
- List which goals and objectives this project will provide benefits for and how this project supports or contributes to those plans.
- Describe and quantify how the project supports sustainable water use, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
- List all stakeholders involved in project.
- Identify who benefits from this project.

The NPNRD's IMP has been in operation for over ten years with goal of long-term sustainable water use. To further implement the IMP goals, the surface water leasing program will be utilized to support this project due to its effectiveness in engaging land owners and reducing basin consumptive use. The target area for reducing consumptive use in the basin is marginal cropland and this project seeks to temporarily retire 400 acres of it. The landowners, irrigation district, NPNRD, and DU are the key stakeholders. The primary beneficiaries of this project are local agricultural producers who rely on groundwater pumping, rural households dependent on well water for residential use, recreational users who utilize the area for birdwatching and hunting, and area water managers who are tasked with reducing consumptive use.

12. Addresses a statewide problem or issue;

- List the issues or problems addressed by the project and why they should be considered statewide.
- Describe how the project will address each issue and/or problem.
- Describe the total number of people and/or total number of acres that would receive benefits.
- Identify the benefit, to the state, this project would provide.

The North Platte basin is an over appropriated system. This project will address water sustainability goals by retiming streamflow through the alluvial aquifer, which increases aquifer storage, sustains irrigated agriculture, and creates wildlife habitat. Approximately 400 acres of consumptive use (1,000 acre-feet) will be recharged through the ponds during the irrigation season, with the potential for increasing that total during the non-irrigation months of the spring and fall.

13. Contributes to the state's ability to leverage state dollars with local or federal government partners or other partners to maximize the use of its resources;

- List other funding sources or other partners, and the amount each will contribute, in a funding matrix.
- Describe how each source of funding is made available if the project is funded.
- Provide a copy or evidence of each commitment, for each separate source, of match dollars and funding partners.
- Describe how you will proceed if other funding sources do not come through.

N/A

14. Contributes to watershed health and function;

- Describe how the project will contribute to watershed health and function in detail and list all of the watersheds affected.

In addition to optimizing water supply management, the conservation of water in the system helps to support riparian community plant species that are critical in the attenuation of flood flows and the prevention of erosion during large rain events. Alluvial recharge has also been proven to supplement baseflows during times of drought, which support a multitude of riverine wildlife species. Recharge ponds can also be utilized to help attenuate flood flows during rain events and snowmelt runoff by providing additional surface area to spread water that threatens to blow out sections of ditches and diversion structures.

15. Uses objectives described in the annual report and plan of work for the state water planning and review process issued by the department.

- Identify the date of the Annual Report utilized.
- List any and all objectives of the Annual Report intended to be met by the project
- Explain how the project meets each objective.

N/A

16. Federal Mandate Bonus. If you believe that your project is designed to meet the requirements of a federal mandate which furthers the goals of the WSF, then:

- Describe the federal mandate.
- Provide documentary evidence of the federal mandate.
- Describe how the project meets the requirements of the federal mandate.
- Describe the relationship between the federal mandate and how the project furthers the goals of water sustainability.

N/A

Section D.

PROJECT DESCRIPTION

1. Overview

In 1,000 characters *or less*, provide a brief description of your project including the nature and purpose of the project and objectives of the project.

DU in partnership with the NPNRD, proposes to construct a multi-purpose aquifer recharge complex in the North Platte River Basin of Nebraska to sustain long-term agricultural viability, support strong environmental and recreational opportunities, and help to meet the Integrated Management Plan (IMP) goals of narrowing the agricultural consumptive use water gap. Specifically, we propose to construct groundwater recharge ponds on historically irrigated lands, to retime the surface water diversions through the alluvial aquifer. The focus area is comprised of several farms near Lewellen, NE, totaling approximately 400 acres (Figure 1). The retiming of surface water through alluvial recharge ponds will help to sustain future groundwater supplies for agricultural producers and rural households in the area, and create shallow water habitat for migratory birds and local wildlife. Water Sustainability Funds will be used to lease water rights, complete the land survey, develop the engineering plan sets, acquire and install the water control and conveyance infrastructure, accomplish the earthwork, and provide construction management. The proposed project timeline is five years, with construction of the recharge ponds occurring in year one.

2. Project Tasks and Timeline

Identify what activities will be conducted by the project. For multiyear projects please list what activities are to be completed each year.

2018 – enter into site-specific agreements with landowners; 2019 – survey, design, construction of recharge complex; 2020 – 2023 recharge operations. Final reporting on 2023, summarizing the net benefits to the North Platte system and progress toward meeting the goals set forth in the NPNRD IMP. A detailed schedule is provided in the attached Project Description.

3. Partnerships

Identify the roles and responsibilities of agencies and groups involved in the proposed project regardless of whether each is an additional funding source. List any other sources of funding that have been approached for project support and that have officially turned you down. Attach the rejection letter.

The NPNRD will manage landowner relationships, the incentive-based water leasing program, all site-specific agreements for recharge pond construction, necessary groundwater modeling, and ditch company agreements. The NRD will also dedicate personnel to work with the ditches and land owners, and monitor the long-term operations and maintenance of the complex.

DU will be responsible for engineering and construction of the recharge ponds, which includes cadastral surveys, AutoCAD engineering designs, construction bidding and contracting, and construction management.

DU and the NPNRD will work collaboratively to produce the final report to WSF, which will present the final engineering designs, operation characteristics by year (acre-feet recharged), and overall contribution toward meeting the goals of the IMP.

4. Other Sources of Funding

Identify the costs of the entire project, what costs each other source of funding will be applied to, and whether each of these other sources of funding is confirmed. If not, please identify those entities and list the date when confirmation is expected. Explain how you will implement the project if these sources are not obtained.

The NPNRD is the sole source of local matching funds for this project and has confirmed their support in the attached letter of commitment. Under their incentive-based water rights leasing program, the NRD has committed $50,000 per year, for five consecutive years ($250,000 total). We are seeking $375,000 from the WSF to cover the $30,000/year deficit required for 400 acres of water rights leasing, and to design and build the recharge complex. Please refer to the detailed project budget in the attached project description.

5. Support/Opposition

Discuss both support and opposition to the project, including the group or interest each represents.

There is no known opposition to this proposed project. DU and the NRD have met with several local agricultural producers (and ditch board members) in the Lewellen area to discuss this project and we have received their full support.

NORTH PLATTE
Natural Resources District

P.O. Box 280 • 100547 Airport Rd. • Scottsbluff, NE 69363-0280 • Phone: 308 632-2749 • Fax: 308 632-4346

July 28, 2017

Nebraska Natural Resources Commission
301 Centennial Mall South
Lincoln, NE 68509-4676

Dear Commissioners:

I am writing today to offer the commitment of the North Platte Natural Resources District (NPNRD) for the "Blue Creek Recharge Complex" proposal that we are jointly submitting with Ducks Unlimited for funding from the Water Sustainability Fund.

This project seeks to conjunctively manage surface and ground water for a dual purpose of aiding NPNRD in meeting its obligations under the Integrated Management Plan and to provide habitat for migrating water fowl in the Blue Creek drainage. The proposal seeks to accomplish those goals by temporarily leasing surface water on specific tracts of land under the Blue Creek Irrigation District, gaining credit for the consumptive use of the historical cropping on those tracts while simultaneously utilizing ponds for intentional recharge in order to maintain historic return flows to the creek and ultimately the North Platte River. Those ponds will also serve the purpose of providing habitat for migrating water fowl in the region.

NPNRD has committed $50,000 per year over five years for a total financial contribution to the project of $250,000. We will also provide services in administration of these funds and the project. Please consider this application carefully, and please do not hesitate to contact me directly if I can provide more detailed information to aid in your decision-making. I can be reached at 308-632-2749.

Sincerely,

John Berge
General Manager

BLUE CREEK RECHARGE COMPLEX

A proposal by Ducks Unlimited and the North Platte Natural Resource District

BACKGROUND

The conjunctive use of surface and groundwater is an innovative tool for optimizing water supply and conservation management in the western United States. This widely adopted strategy has several advantages, which include sustaining groundwater dependent agriculture, providing more local control over water systems, restoring groundwater dependent ecosystems, and managing evaporative losses. Moreover, the alluvial aquifer has the capacity to store a substantial amount of water for use during periods of drought.

Ducks Unlimited (DU) has been working cooperatively with agricultural producers, municipalities, and industrial enterprises for over thirty years to design, build, and operate recharge complexes on the South Platte River in Colorado, and we strongly believe this experience is directly translatable to the North Platte Basin in Nebraska. Through a partnership with the North Platte Natural Resource District (NPNRD) we propose to build and demonstrate this multi-purpose water management tool on a series of agricultural lands near Lewellen, Nebraska, referred to as the Blue Creek recharge complex.

FEASIBILITY

To obtain local support prior to project inception, the NPNRD held a meeting with a group of local landowners to discuss the idea of developing groundwater recharge ponds on their properties, where we found the landowners were keenly aware of the local water resource management issues. Several parties expressed interest in taking part in the project and we conducted site visits to several farms over the course of a month to investigate the topography, composition of surface soils, and regional water delivery options. Of the many locations we toured for potential site development, three sites in particular presented favorable conditions for recharge development. The favorable conditions included sandy surface soils, distances from the main channel of the North Platte River ranging between 0.6 and 1.9 miles, and existing surface water conveyance. To assess the suitability of the underlying aquifer for recharge operations, the NPNRD pulled Nebraska Water Survey field records for two nearby production wells, which confirmed the presence of sand and gravels from the land surface to depths greater than 25 feet. The presence of highly permeable and

continuous sand and gravel layers, a minimum depth to water of 7 to 15 feet, and the Brule shale confining unit at greater than 40 feet are all great hydrogeologic characteristics for recharge development.

PLAN OF DEVELOPMENT

The complex of recharge ponds will be sited on a collection of private lands in the Blue Creek Irrigation District, near Lewellen, NE (Figure 1), and be developed in year one of the project. With approximately 400 acres of historically irrigated land set to enroll in the water rights leasing program, several viable options exist for recharge pond locations. The recharge water for this proposed project will come from the consumptive use portion of leased surface water rights which were historically used to irrigate 400 acres of cropland. Water will be delivered to the sites through either the Union, Hooper, or Blue Creek canals. The property locations range between 0.6 and 1.9 miles from the main channel of North Platte River and preliminary modeling with the Glover equation indicates a range of streamflow accretion timing between 50 and 250 days, depending on exact location; final recharge benefits will be calculated using the NPNRD's Western Water Use Management Model and reported to NeDNR for integrated-management and permit-compliance purposes.

The existing canals and on-farm conveyance systems will be enhanced with new infrastructure, enabling water managers to deliver water from the canals and operate the ponds independently or in-concert, as water is available. The land surface will require earthwork to create the shallow water embankments, and installation of in-line water control structures will allow for the ponds to be managed at four-inch vertical increments. With over 30 years of experience engineering and constructing recharge ponds, DU has been able to refine the designs such that little to no maintenance is required for long-term operation. Post construction, the land around the ponds will be planted back to grassland to provide additional habitat for waterfowl, upland birds, and other wildlife. Once grasses have become established, the property will be available for grazing and haying by local livestock producers.

Water Sustainability (WS) funding will play a critical role in the construction phase which includes performing the land survey, completing the engineering drawings, constructing the recharge ponds, and installing the associated water infrastructure. WS funding is also the crucial component in reaching the 400-acre enrollment goal.

Specifically, WSF support and local matching funds from the NPNRD will be used to complete the following tasks:

Task 1 – Enter into water rights leasing agreements with landowners

Task 2 – Land surveying and engineering plan set development: site-wide cadastral survey and creation of final engineering plan sets for construction

Task 3 – Construction: solicitation of bids, contracting, construction management**,** materials and labor

Task 4 – Conduct operations and maintenance

Task 5 –Report to the WSF upon project completion

PROJECT BENEFITS

The primary benefit of this project is the increased groundwater storage resulting from recharge operations. Water supplied by the leased surface water rights will be retimed through shallow water ponds, to sustain agricultural operations dependent upon wells for irrigation and provide wildlife habitat. Considering the complex environmental permitting process and high cost of building for new reservoirs, aquifer recharge projects have become an innovative mechanism for water supply management in the western United States. This multi-purpose aquifer recharge project provides an innovative water storage alternative that will be operational in under two years and provide measurable annual supplies. With 400 acres of irrigation water, this project will contribute a minimum of 1,000 acre-feet per year and would provide a positive step towards achieving the goals set forth in the Upper Platte Basin Integrated Management Plan and consequently, the North Platte Natural resources District Integrated Management Plan. Through collaborative management of water resources outside of the irrigation season, North Platte River streamflow can also be retimed from periods of excess (spring and fall) to times of deficit (summer irrigation season). Retiming the water assists in narrowing the agricultural water supply gap in the Upper Platte Basin. The NPNRD will calculate final accretion benefits to the river using its Western Water Use Management Model.

The secondary benefit recharge ponds provide is an increased habitat base for the significant population of nonbreeding waterfowl that utilize the lower North Platte River in the fall, winter and, especially, spring. The target species for this project include mallards and northern pintails, although all dabbling ducks will benefit. The availability and quality of shallow-water habitat is in decline along Nebraska's North Platte River and this project will provide food sources critical to spring and fall migrants, such that waterfowl body condition is maintained and pre-breeding physiological demands are met.

In addition to supporting the local and state economy with new recreational bird viewing and waterfowl hunting opportunities, this project's location, upstream of the Lexington to Chapman reach, will benefit the recovery of four threatened or endangered species in the Central Platte. Under the Three States Agreement, the NPNRD is working with PRRIP to help meet Nebraska's water obligations.

CONSUMPTIVE USE ANALYSIS

On average, irrigated corn fields in the North Platte Basin consume approximately 30 inches of water during the growing season. This equates to approximately 1,000 acre-feet of consumptive use water on the 400 acres of farm ground proposed in this application. To facilitate groundwater recharge operations, we have proposed to construct six shallow water ponds (23 surface acres, in total) which the leased consumptive use water will be conveyed into and allowed to infiltrate the land surface. The following is a mass water balance for the proposed project.

Leased Irrigation Water
400 acres x 30 inches of consumptive use per year = **1,000 acre-feet** of total consumptive use

26 Acres of Recharge Ponds
Monthly Class-A Pan Evaporation measured at Kingsley Dam, Lake McConaughy, NE

May	June	July	Aug	Sep	TOTAL
6.91	**8.21**	**9.77**	**8.52**	**5.91**	**39.32 (inches)**

[Farnsworth & Thompson. 1982. NOAA Technical Report. Mean Monthly and Annual Pan Evaporation Rates for the United States]

Range of Pan Evaporation Coefficients (Apr – Sep) = **0.60 -0.82** [Hughes 1967, Kohler 1954, Ficke1972, U.S. Geological Survey 1958]

Range of Local Evaporation Rates
Low: 39.32 inches x 0.60 = **23.6 inches**
High: 39.32 inches x 0.82 = **32.2 inches**

Range of Total Recharge Pond Complex Evaporation
23 acres x 23.6 inches = **45.2 acre-feet**
23 acres x 32.2 inches = **61.7 acre-feet**

In summary, 400 acres of irrigated corn consumes approximately 1,000 acre-feet of water annually. The maximum expected evaporation from 23 acres of recharge ponds is approximately 61.7 acre-feet. The

total consumptive use savings for this project is approximately **938.3** acre-feet during the typical irrigation season of May through September.

ALTERNATIVES

WS grant funds will play a critical role in moving this project forward. Without WSF assistance, in combination with the NPNRD's limited water leasing program funds, this project will not be possible. The only alternative would be for Ducks Unlimited to obtain the land and water via fee title acquisition, which would make the project economically unfeasible.

DELIVERABLES

We will provide annual progress reports and deliver a final report to the WSF Commission detailing the completed project, operational characteristics, wildlife and recreational benefits, annual recharge yield, and the cumulative impact toward full implementation of the NPNRD IMP and Upper Platte Basin Wide Plan.

BUDGET

Project costs total **$623,407.** The NPNRD is contributing **$250,000** over five years in net local share and we are seeking **$373,407** in Water Sustainability Funds to complete the project. The summary tables below provides the specific budget details of all project activities.

Table 1. Project Budget Summary by Task

Task	Funding Source	Project Cost	Local Share	WS Funds Needed
1.0 Site-Specific Agreements	NPNRD &WSF	$400,000	$250,000	$150,000
2.0 Land Survey & Plan Set Development	WSF	$11,000	$0	$11,000
3.0 CONSTRUCTION				
3.1 Construction Quantities	WSF	$200,857	$0	$200,857
3.2 Construction Bidding, Contracting, Management	WSF	$11,550	$0	11,550
4.0 Operations & Maintenance	NPNRD	$0*	$0*	$0*
5.0 Report to WSF	DU	$0	$0	$0
TOTALS	**All Partners**	**$623,407**	**$250,000**	**$373,407**

*Operations and maintenance covered by local NPNRD personnel

Table 2. Project Personnel Budget Summary

Personnel	Regional Biologist	Regional Engineer	**TOTAL**
Hourly Rate	$110	$110	
Tasks			
1.0 - Site Specific Agreements	0	0	**0**
2.0 - Land Survey & Plan Set Development	60	40	**100**
3.0 - Construction	40	60	**100**
4.0 - Operations & Maintenance	0	0	**0**
5.0 - Final Report to WSF	16		**16**
1.0 - Site Specific Agreements	$0	$0	**$0**
2.0 - Land Survey & Plan Set Development	$6,600	$4,400	**$11,000**
3.0 - Construction	$4,400	$6,600	**$11,000**
4.0 - Operations & Maintenance	$0	$0	**$0**
5.0 - Final Report to WSF	$1,760	$0	**$1,760**
Total Hours	116	100	**216**
Direct Personnel Costs	$12,760	$11,000	**$23,760**

Table 3. Project Construction Budget Summary

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION	1	L.S.	$10,000.00	$10,000.00
2	SITE PREPARATION	1	L.S.	$5,000.00	$5,000.00
3	**EXCAVATION**				
3.1	Conveyance Ditches	3326	C.Y.-P	$5.00	$16,630.00
4	**EMBANKMENT CONTRUCTION**				
4.1	Embankment #1 (Property 1)	2,997	C.Y.-P.	$4.00	$11,988.00
4.2	Embankment #2 (Property 1)	3,248	C.Y.-P.	$4.00	$12,992.00
4.3	Embankment #3 (Property 1)	4,187	C.Y.-P.	$4.00	$16,746.67
4.4	Embankment #4 (Property 2)	2,395	C.Y.-P.	$4.00	$9,580.00
4.5	Embankment #5 (Property 2)	3,126	C.Y.-P.	$4.00	$12,504.00
4.6	Embankment #6 (Property 3)	5,067	C.Y.-P.	$4.00	$20,266.67
5	**WATER CONTROL STRUCTURES - SUPPLY & INSTALL**				
5.2	18" ø Agri-Drain Inline Structure - 5' Tall	6	EA.	$6,000.00	$36,000.00
6	**CULVERT AND PIPE - SUPPLY & INSTALL**				
6.1	18" ø PVC SDR 51 (80 psi)	505	L.F.	$30.00	$15,150.00
11	**RIPRAP - SUPPLY & PLACEMENT - SUPPLY & INSTALL**				
11.1	DU Class II (Agri-Drains)	32	C.Y.-P	$125.00	$4,000.00
13	**SEEDING & MULCH - SUPPLY & INSTALL**				
13.1	Approximate 1.0 Acres	30	ACRE	$1,000.00	$30,000.00
				TOTAL	**$200,857**

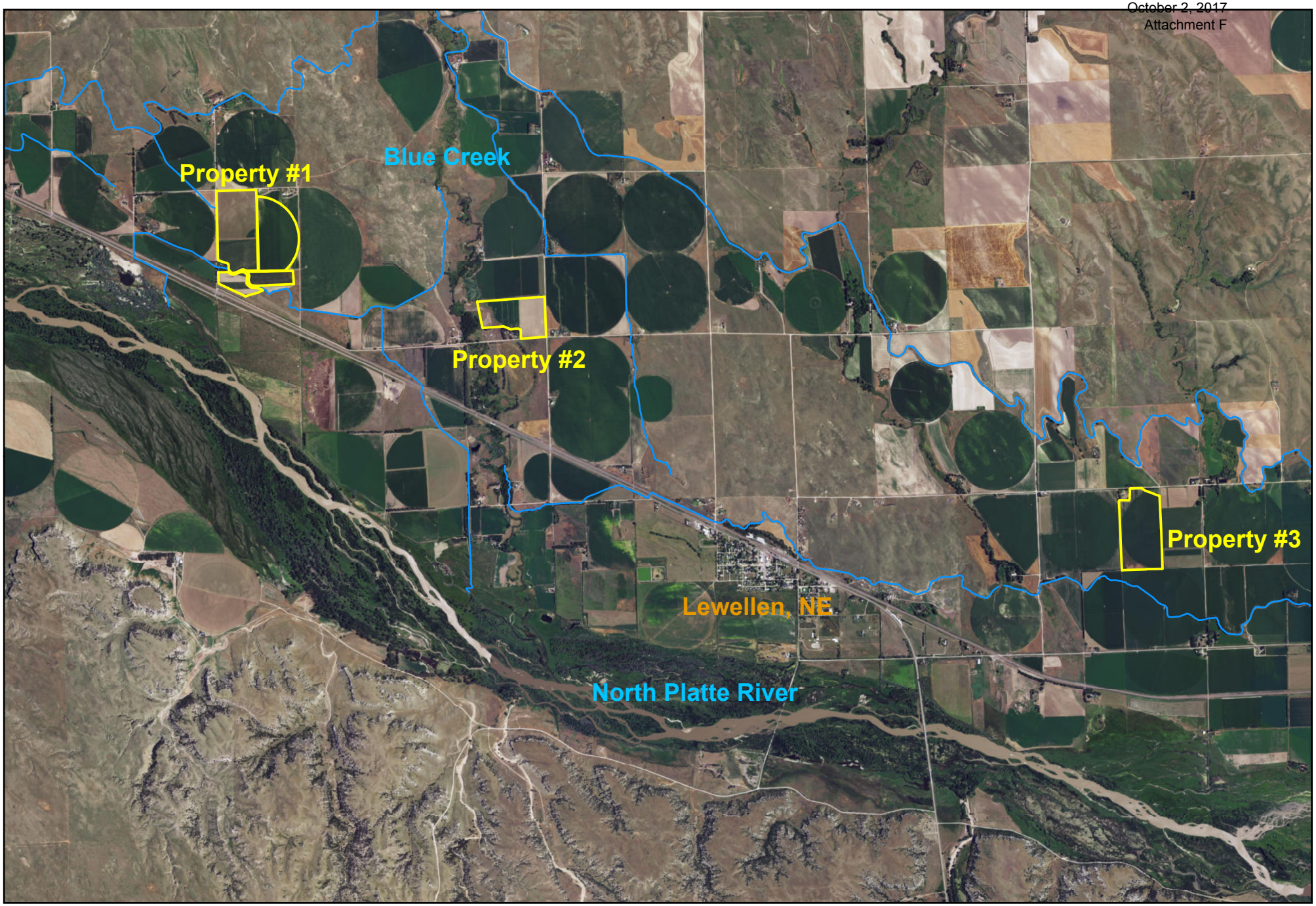
TIMELINE

Begin: At time of contracting (approximately Fall 2017)
End: December 2022

Table 4. Project Timeline

	2017	2018	2019	2020	2021	2022
Task 1: Site Specific Agreements with Landowners						
Task 2: Land Survey & Engineering Plan Set Development						
Task 3: Project Construction						
Task 4: Project Operations						
Task 5: Final Report to WSF						

FIGURES



DUCKS UNLIMITED

PROJECT:	NE-382-1
DATE:	July 2017
LOCATION:	Garden County, NE
DESIGN:	J. Roudebush

Figure 1.

Blue Creek Recharge Complex

LEGEND

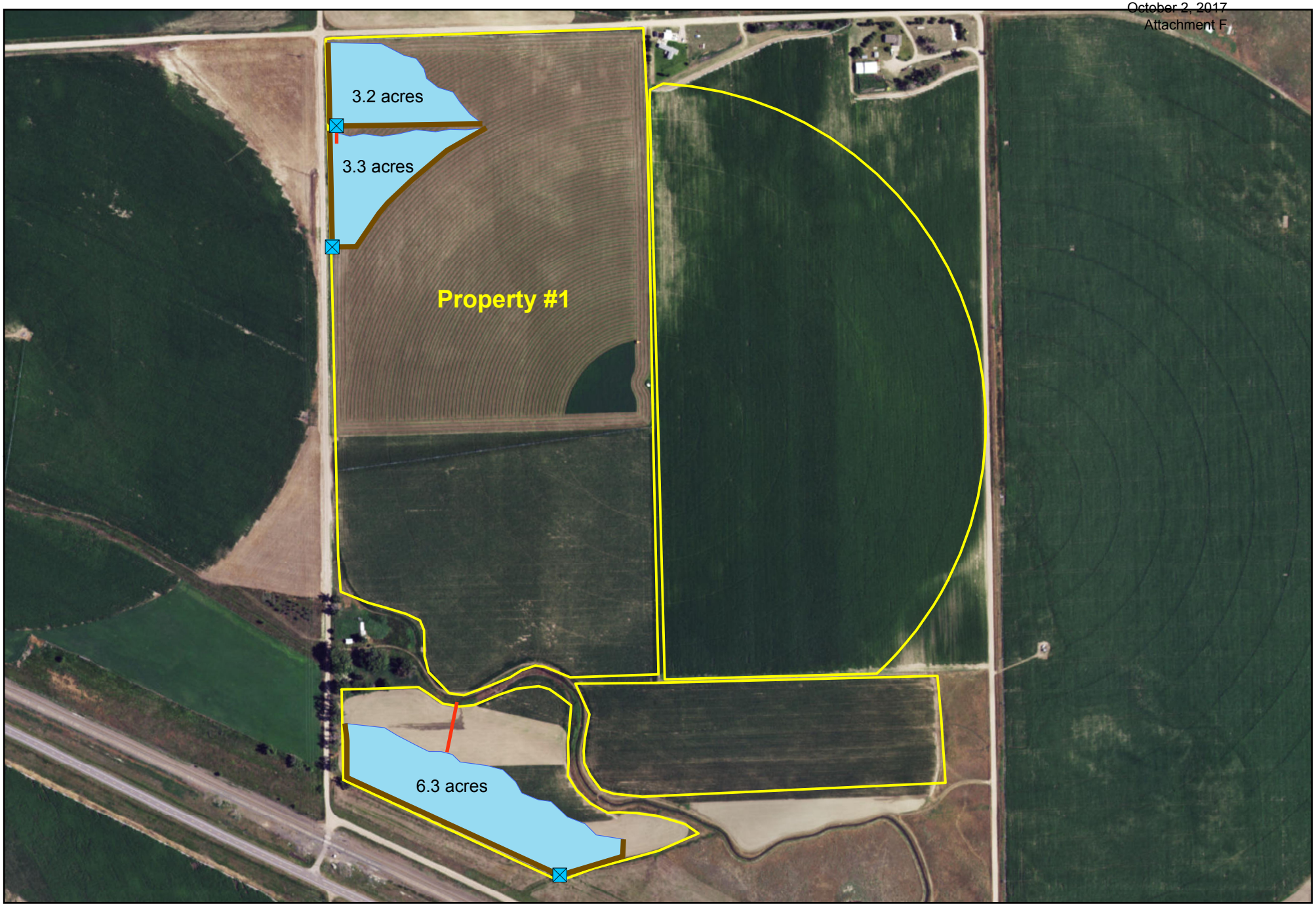
Canals & Ditches

NOTES

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 0.5 1 2 Miles

N



DUCKS UNLIMITED

PROJECT:	NE-382-1
DATE:	July 2017
LOCATION:	Garden County, NE
DESIGN:	J. Roudebush

Figure 2.

Recharge Property 1

LEGEND

- Water Control Structure
- Water Conveyance
- Embankment
- Recharge Pond Footprint

NOTES

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 0.05 0.1 0.2 Miles

N

DUCKS UNLIMITED

PROJECT: NE-382-1
DATE: July 2017
LOCATION: Garden County, NE
DESIGN: J. Roudebush

Figure 3.

Recharge Property 2

LEGEND

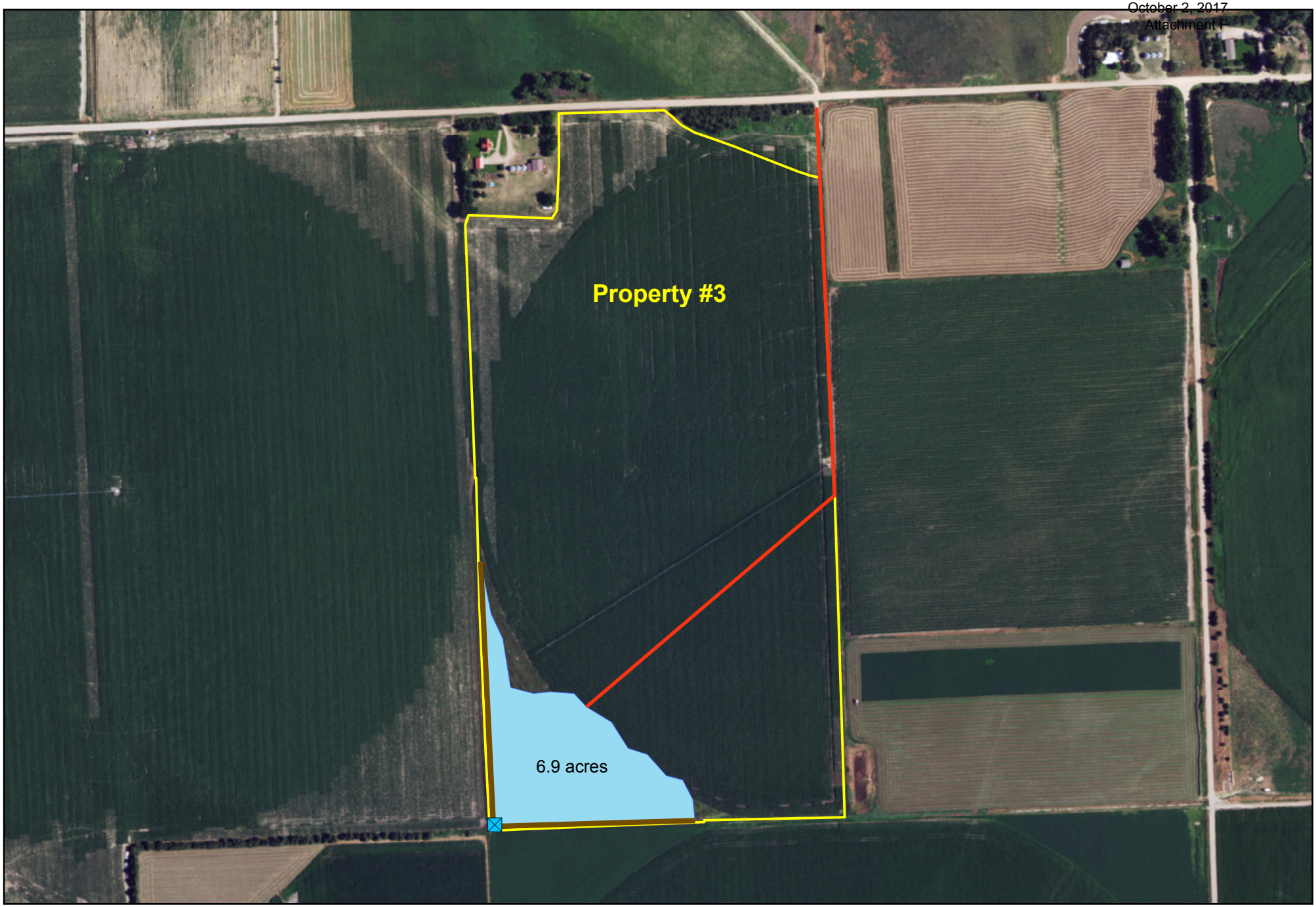
- Water Control Structure
- Water Conveyance
- Embankment
- Recharge Pond Footprint

NOTES

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 0.05 0.1 0.2 Miles

N



DUCKS UNLIMITED

PROJECT: NE-382-1
DATE: July 2017
LOCATION: Garden County, NE
DESIGN: J. Roudebush

Figure 4.

Recharge Property 3

LEGEND

- Water Control Structure
- Water Conveyance
- Embankment
- Recharge Pond Footprint

NOTES

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 0.05 0.1 0.2 Miles

N

APPENDIX A

WELL LOGS

Report No. Qa

NEBRASKA WATER SURVEY—FIELD LOG

Altitude 3333

Well Number 11 T.D. 140 Date 5-7-93

County Cheyenne Loc.: ACCB Sec. 14, T. 16 N., R. 43 E (W)

Loc. in section: (circle and cross out) N S ft. S of N quarter, half or section line.

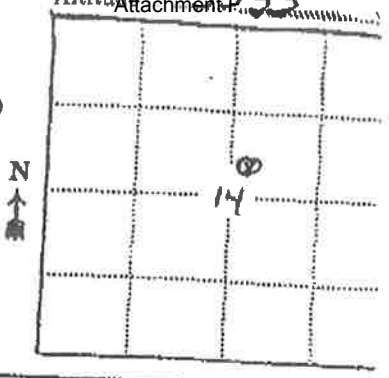
W E ft. E of W quarter, half or section line.

Located in (circle): Upland, side slope, terrace, bottomland, ravine, sand dunes.

Local Description:

Recorder: C.V. Steele

Drilling Crew: CHASE



SYMBOLS

CALC. CONTENT	HYD. PRESS.	DRILLING ACTION	
N: Non calc.	Blank: None	E: Even, smooth	F: Slightly rough
S: Slightly	L: Low	C: Crunchy	R: Med. rough
M: Moderately	M: Medium	I: Intermittently rough	H: Very rough
V: Very	F: Full		

WATER LEVEL MEASUREMENTS

Date
Time
Tape Held
Water Cut
Depth to water
Hole open to ft. *
*C = caved; P = plugged.

DRILLING TIME RECORD DEPTH From	DEPTH To	TIME From	TIME To	TIME min.	DEPTH From	DEPTH To	Hydraulic Pressure	Drilling Action	FIELD LOG Description and Driller's Notes: (Material, color, texture, hardness, and other notes)	Color	Calc. Cont.
30# Bent.		(1025)			0	5			sand vf w/ cl some gravel m - coarse		
					5	10			more clay		
					10	15		R	gravel & sm bs subrdd poorly sorted lenses pbls grav f-med		
					15	20			gravel, f to vc w/ silt lenses 65% fsld 20% lgts 15% mafic		
					20	25			sand, f ma to med w/ f grav < 10% rdd well sorted		
					25	30			do silt lenses		
					30	35					
					35	40			do more f to med gravel		
					40	45			sand, f to vc w/ med gravel rdd ~ 40% sm pbls		
					45	50			do some calc clasts silt lenses - red brwn		mica
					50	55			do		
					55	60			gravel, med well sorted sub rdd coarse some fine sm pbls angular		
30# Bent.		(1045)			60	65			do more calc clasts		
					65	70			sand, f to m w/ some c-s		
					70	75			gravel, m to coarse well rdd & mod sorted		
					75	80			do more w/ vc-s		
					80	85			coarse sand to vc gravel rdd to angular brwn clast poorly sorted		
					85	90			sand, c to vc with cg some m-s		
					90	95			do		

NEBRASKA WATER SURVEY—FIELD LOG

mber 11 T.D. 140 ft. Date 5-7-93

CALCAREOUS CONTENT
N: Non-calcareous
S: Slightly calc.
M: Moderately calc.
V: Very calcareous

HYDRAULIC PRESSURE
Blank: No pressure
L: Low pressure
M: Medium pressure
F: Full pressure

DRILLING ACTION
E: Even, smooth
C: Crunchy
I: Intermittently rough
r: Slightly rough
R: Moderately rough
R: Very rough

DRILLING TIME RECORD DEPTH From	DEPTH To	TIME From	TIME To	TIME min.	DEPTH From	DEPTH To	Hydraulic Pressure	Drilling Action	FIELD LOG Description and Driller's Notes: (Material, color, texture, hardness, and other notes)	Color	Calc. Cont.
					95	100			do sm. pbls angular feldsp		
		(1105)			100	105		R	sand, med to coarse 10% vcs sm pbls		
					105	110			gravel, med to fine w/ some vcs well sorted		
					110	115			gravel, f to m w/ 30% vcs		
					115	120			do sm some vcg		
50# Bent (1115)					120	125		R	do more vcg angular		
					125	130			gravel, vc 40% vcs f fg poorly sorted		
					130	135			do Some Brule clay		
					135	140			do		
						TD					
									Well only drilled to 140'		
									some Brule clay noted, however,		
									minor amounts.		
									Screened to 130'		

Report No.

NEBRASKA WATER SURVEY ---- FIELD LOG

Altitude 3333±2

Well Number NPGC 14 T.D. 55' Date 9-12-96

County Garden Loc. ABBB Sec. 26, T. 16 N, R. 42 E/W (W circled)

Loc. in Section (circle and cross out) ~2250 ft S of N quarter, half or section line. (N, section circled)

~2400 ft E of W quarter, half or section line. (W, section circled)

2 Bags of Super Gel-X

Located in (circle): Upland, side slope, terrace, bottomland, ravine, sand dunes. (Upland circled)

Legal Description: 4120101020604 Ruthton

Recorder: JCC KS

Drilling Crew: Nelson Wells Rick, Jim, Clark

SYMBOLS	CALC. CONTENT	HYD. PRESS.	DRILLING ACTION	
	M: Non-calc. S: Slightly M: Moderately V: Very	Blank: None L: Low M: Medium F: Full	E: Even, smooth C: Crunchy I: Intermittently rough	r: Slightly rough R: Mod. rough R: Very rough

WATER LEVEL MEASUREMENTS

Date

Time

Tape Held

Water Cut

Depth to Water

Hole open to ft. *

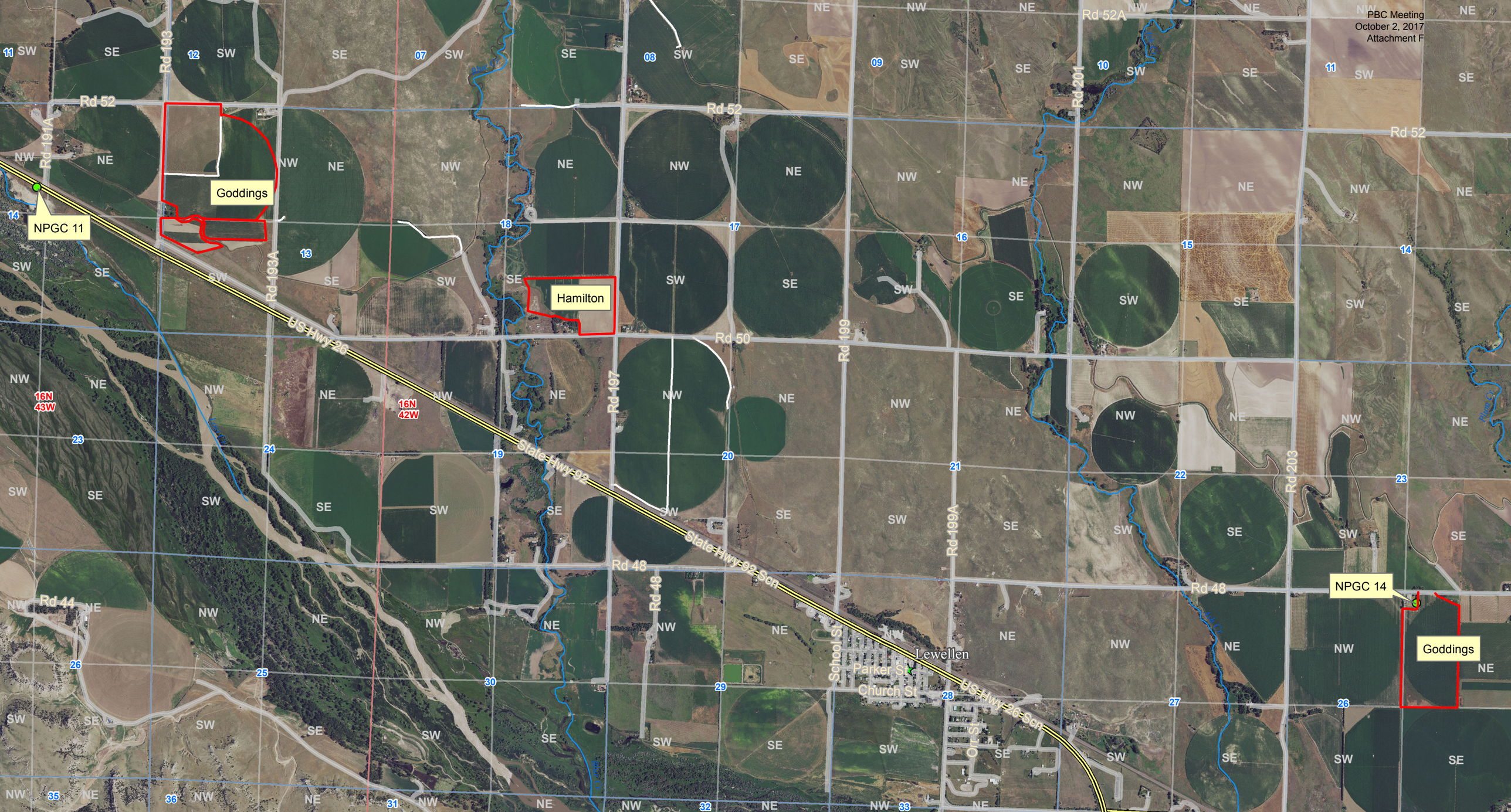
*C=Caved; P= pegged

DRILLING TIME RECORD DEPTH FROM	DEPTH TO	TIME FROM	TIME TO	MIN	DEPTH FROM	DEPTH TO	HYDRAULIC PRESSURE	DRILLING PRESSURE	FIELD LOG: DESCRIPTION AND DRILLER'S NOTES: (Material, color, texture, hardness, and other notes)	COLOR	CALC.	CONT.
0	5	1205	1206	1				E	drk brn top soil, silty sand → lt brn 4'-5'.			
5	10	1207	1208	1				E	lt brn silty snd			
10	15	1209	1210	1				E	rig chatter 14', do drk brn silty snd 14'-15'			
15	20	1210	1211	1				E	lt-drk brn silty snd			
20	25	1214	1215	1				E	lt brn silty snd			
25	30	1216	1217	1				E	lt brn-grey silty snd, fin grvl poor recovery			
30	35	1218	1219	1				E	fm grvl, 50% quartz, rnd-subrnd, poor recovery			
35	40	1219	1220	1				E	fm grvl, poor recovery			
40	45	1223	1224	1				E	rig chatter @ 43', do, poor recovery			
45	46	1225	1226	1			L	E	do, 46' → brule → lt tan sticky			
46	50	1226	1228	2			L	E	do			
50	55	1229	1233	4			L	E	do			

Hit Brule at 46'

TD at 55'

PBC Meeting
October 2, 2017
Attachment F



NEBRASKA
Good Life. Great Water.
DEPT. OF NATURAL RESOURCES

Pete Ricketts, Governor

DATE: October 2, 2017

TO: PBC Administrators

FROM: Jennifer J. Schellpeper, Water Planning Division Head/
John Thorburn, Tri-Basin NRD Manager

SUBJECT: WSF Application

Overview

Excess water to target flows in the Platte River will be delivered through Central's irrigation canals as it becomes available to five USFWS-owned Waterfowl Production Areas in the Tri-Basin NRD; Victor Lake, Cottonwood, Linder, Johnson and Funk Lagoon. The short-term, intermittent water source will provide multiple benefits; improving the health and function of the wetlands to benefit native and migratory waterfowl and shorebirds, including the endangered whooping cranes that use all five sites, providing groundwater recharge, retiming water back to the stream to help mitigate streamflow depletions to target flows, diluting high-nitrate groundwater with low-nitrate surface water to improve drinking water quality and helping to maintain the groundwater mound for Republican River Compact accounting. Five pipelines will be constructed between the Central canals and the five USFWS wetlands; sized for 7-day fills to best use short-term excess flows and prevent late fall icing issues.

Project Tasks and Timeline

Upon NRC approval of the WSF grant in June 2018, Central will begin acquiring easements, finalize the five pipeline designs, order construction materials including pipe, structures, risers and valves and schedule pipeline construction at the five sites for the fall of 2018 and the spring of 2019. We will reserve the right to request written permission from the NRC for in-kind installation expenses at the five sites. Central has a workforce and heavy, medium and light equipment, has installed most of the pipelines on its system and can build and install headwalls and outlets. However, time may be an issue for us with this project and we will likely need outside help. Central will complete construction work order estimates for the installations and get quotes from other contractors; several reputable firms have helped Central in the past with this type of work and have met our specifications. If the quotes come in below our cost; Central will let bids for all five projects. In that case, Central may still want to build the inlet and outlet structures to meet specifications. Depending on the amount of outside help and the weather, the five sites could possibly be completed in the fall of 2018 but it is more likely completion will come in the spring of 2019. The energy dissipating structure design and construction at the Funk Lagoon WPA will be completed by an outside contractor; this structure is not an eligible cost and was not included in the cost calculation of this grant application.

The first deliveries can be scheduled after the pipelines are complete. Central and USFWS will work together with the other partners on a delivery schedule as excess flow conditions develop in the Platte

River and deliveries are needed at the wetlands. The partners are interested in the potential for a November delivery for the fall migration with an assumed carryover of water at the wetlands into spring. The project pipelines are sized to prepare for that scenario. Also in 2019, Central will cost share with NRC on the services of a hydrologist to model the fate of the recharge to determine the accumulating recharge credits. RWBJV will add up to ten observation wells to the existing network.

The pipelines are estimated to have a 50-year life; with long-term OM&R funding in place, the delivery of the recharge water to the wetlands will continue as the excess flow conditions develop.

Partnerships

Central – owns and maintains its infrastructure that will be used to convey the excess flows to the wetlands. Central is the sole funding source for the 40% cost match of this grant application for partial construction costs and partial hydrology work to determine the fate of the recharge water. Central will own, operate, inspect, maintain and replace the pipeline and its structures as needed. Central will be responsible to advise the USFWS that excess flows in the Platte River are available or will likely be available soon, schedule deliveries of the recharge water as requested and provide the personnel to move water to the sites and manage the canals and the deliveries.

TBNRD – will budget and provide funding for OM&R in the form of delivery fees on a per AF basis. TBNRD will maintain funding agreements with the other partners and track the accumulating and used credits available with this recharge. The TBNRD funding is not an eligible cost for this grant application.

DU – will pay a share of the delivery fees and is setting up a perpetual endowment in conjunction with the RWBJV to help fund delivery of water into these and other wetlands in the RWB.

RWBJV – will pay $50,000 for the design, construction and installation of the dissipating structure and up to ten observation wells at the Funk Lagoon WPA. These are not eligible costs for this grant.

USFWS – owns and maintains the five WPAs where new storage for excess flows will be available.

USFWS manages the five WPAs and will schedule water deliveries with Central as excess flow conditions develop. The agency is paying the cost of pipeline materials at the Funk Lagoon WPA and will pay a share of the delivery fees. These are not eligible costs for this grant.

No other sources of funding have been approached for project support nor has anyone turned us down. Development of the project has been a collaborative effort.

Other Sources of Funding

All partners have confirmed their intentions to pay delivery fees, the partial construction costs at the Funk Lagoon WPA and up to ten new observation wells. The project will go forward if the NRC funds this WSF grant proposal in full. Firm agreements will be in place with all partners prior to construction or funds will not be spent and the WSF will be notified of the termination of the project. Table D-1 below, also shown in this application as Table C-4, summarizes project costs over 50 years.

Table D-1. Grant Total and Project Total Costs.

Description	Central	WSF	Grant Total	USFWS	RWBJV	TBNRD	DU	Total ($)
	$	$	$	$				
Pipe	166,331	249,496	415,827	101,309				517,136
Installation	80,000	120,000	200,000					200,000
Structures (all)	92,000	138,000	230,000		50,000			280,000
Risers/Valves (all)	60,000	90,000	150,000					150,000
Contingency (30%)	119,499	179,249	298,748					298,748
Hydrologists Services	2,880	4,320	7,200					7,200
Observation Wells[1]								0
OM&R[2] (50 yr)						5,000,000		5,000,000
OM&R[2] (50 yr)				625,000			625,000	1,250,000
Total	**520,710**	**781,065**	**1,301,775**	**726,309**	**50,000**	**5,000,000**	**625,000**	**7,703,084**

[1]Observation well cost is included with the RWBJV structure cost.
[2]Assumes a fixed annual rate of $125,000 rather than using the 2% escalator for 50 years.

THE FLATWATER GROUP INC.

Tax ID# 47-0833338
8200 Cody Dr Ste A
LINCOLN, NE 68512-9550

Invoice

Date	Invoice #
7/31/2017	**17-2120**

Bill To
Department of Natural Resources **301 Centennial Mall South** **PO Box 94676** **Lincoln, NE 68509-4676**

PROJECT DESCRIPTION	BILLING PERIOD	TERMS
POAC Conservation Study		**Net 30**

Employee Class	Work Description	Qty	Rate	Amount
Subs	Subcontractor Fee - HDR Invoice 1200064578	1	5,140.79	5,140.79

RECEIVED
AUG 01 2017
DEPARTMENT OF NATURAL RESOURCES

Total	$5,140.79
Balance Due	**$5,140.79**

Invoice

Reference Invoice Number with Payment

HDR Engineering Inc.
Omaha, NE 68114-4098
Phone: (402) 399-1000

HDR Invoice No.	1200064578
Invoice Date	24-JUL-2017
Invoice Amount Due	$5,140.79
Payment Terms	30 NET
Remit To	PO Box 74008202 Chicago,IL 60674-8202
Wire Transfer To	Bank of America ML US ABA# 081000032 Account# 355004076604

Flatwater Group, Inc
Thomas Riley
8200 Cody Drive, Suite A
Lincoln, NE 68512

For Services Related to the COHYST and WWUM Model Runs.

Professional Services
From: 28-MAY-2017 To: 01-JUL-2017

Professional Services Summarization	Hours	Billing Rate	Amount
Engineer Water Resources	29.50		3,699.04
Project Manager	6.00		1,310.40
	35.50		**$5,009.44**
		Total Professional Services	**$5,009.44**

Expense Summarization	Quantity	Billing Rate	Amount
Technology Charge	35.50		131.35
			$131.35
		Total Expenses	**$131.35**

Amount Due This Invoice (USD)	**$5,140.79**

Fee Amount	$41,000.00
Fee Invoiced to Date	$21,817.50
Fee Remaining	$19,182.50

HDR Internal Reference Only	
Client Number	3426
Cost Center	10134
Project Number	10027670

Invoice

HDR Invoice No. 1200064578
Invoice Date 24-JUL-2017

Professional Services and Expense Detail

Project Number: 10027670 Project Description: TFG-COHYST WWUM Model Runs

Professional Services		Hours	Billing Rate	Amount
Engineer Water Resources	Nelson, Abby M	22.00	114.08	2,509.76
Engineer Water Resources	Jones, Russell D	7.50	158.57	1,189.28
Project Manager	Engel, John J	6.00	218.40	1,310.40
		35.50		**$5,009.44**
			Total Professional Services	**$5,009.44**

Expense	Qty	Billing Rate	Amount
Technology Charge	35.5	3.70	131.35
			$131.35
		Total Project	**$5,140.79**

Conservation Study Phase II Total Budget	$ 22,600.00	$ 22,600.00	$ 22,600.00	$ 22,600.00	$ 22,600.00	$ 113,000.00	$ 113,000.00	$ 226,000.00
Conservation Study Phase II Contracted (#915)	**CPNRD**	**NPNRD**	**SPNRD**	**TBNRD**	**TPNRD**	**NRD Total**	**NDNR**	**Total**
Invoice 15-1764 (Phase II) #1	$ 1,783.45	$ 1,783.45	$ 1,783.45	$ 1,783.45	$ 1,783.45	$ 8,917.25	$ 8,917.25	$ 17,834.50
Invoice 15-1798 (Phase II) #2	$ 678.00	$ 678.00	$ 678.00	$ 678.00	$ 678.00	$ 3,390.00	$ 3,390.00	$ 6,780.00
Invoice 15-1829 (Phase II) #3	$ 2,047.12	$ 2,047.12	$ 2,047.12	$ 2,047.12	$ 2,047.12	$ 10,235.60	$ 10,235.65	$ 20,471.25
Invoice 16-1859 (Phase II) #4	$ 1,073.00	$ 1,073.00	$ 1,073.00	$ 1,073.00	$ 1,073.00	$ 5,365.00	$ 5,365.00	$ 10,730.00
Invoice 16-1870 (Phase II) #5	$ 2,488.00	$ 2,488.00	$ 2,488.00	$ 2,488.00	$ 2,488.00	$ 12,440.00	$ 12,440.00	$ 24,880.00
Invoice 16-1893 (Phase II) #6	$ 467.75	$ 467.75	$ 467.75	$ 467.75	$ 467.75	$ 2,338.75	$ 2,338.75	$ 4,677.50
Invoice 16-1910 (Phase II) #7	$ 2,503.50	$ 2,503.50	$ 2,503.50	$ 2,503.50	$ 2,503.50	$ 12,517.50	$ 12,517.50	$ 25,035.00
Invoice 16-1932 (Phase II) #8	$ 2,636.17	$ 2,636.17	$ 2,636.17	$ 2,636.17	$ 2,636.17	$ 13,180.85	$ 13,180.86	$ 26,361.71
Invoice 16-1956 (Phase II) #9	$ 1,878.00	$ 1,878.00	$ 1,878.00	$ 1,878.00	$ 1,878.00	$ 9,390.00	$ 9,390.00	$ 18,780.00
Invoice 16-1976 (Phase II) #10	$ 395.76	$ 395.76	$ 395.76	$ 395.76	$ 395.76	$ 1,978.80	$ 1,978.87	$ 3,957.67
Invoice 16-1988 (Phase II) #11	$ 1,523.00	$ 1,523.00	$ 1,523.00	$ 1,523.00	$ 1,523.00	$ 7,615.00	$ 7,615.00	$ 15,230.00
Invoice 17-2032 (Phase II) #12	$ 2,099.85	$ 2,099.85	$ 2,099.85	$ 2,099.85	$ 2,099.85	$ 10,499.25	$ 10,499.22	$ 20,998.47
Invoice 17-2115 (Phase II) #13	$ 409.28	$ 409.28	$ 409.28	$ 409.28	$ 409.28	$ 2,046.40	$ 2,046.39	$ 4,092.78
	$ 514.08	$ 514.08	$ 514.08	$ 514.08	$ 514.08	$ 2,570.40	$ 2,570.40	$ 5,140.79
Total	$ 20,496.96	$ 20,496.96	$ 20,496.96	$ 20,496.96	$ 20,496.96	$ 102,484.80	$ 102,484.89	$ 204,969.67
Remaining totals by Contributor	**$ 2,103.04**	**$ 2,103.04**	**$ 2,103.04**	**$ 2,103.04**	**$ 2,103.04**	**$ 10,515.20**	**$ 10,515.11**	**$ 21,030.33**

THE FLATWATER GROUP INC.

Tax ID# 47-0833338
8200 Cody Dr Ste A
LINCOLN, NE 68512-9550

Invoice

Date	Invoice #
9/22/2017	**17-2149**

Bill To

Department of Natural Resources
301 Centennial Mall South
PO Box 94676
Lincoln, NE 68509-4676

PROJECT DESCRIPTION	BILLING PERIOD	TERMS
POAC Conservation Study		**Net 30**

Employee Class	Work Description	Qty	Rate	Amount
Subs	Subcontractor Fee - HDR Invoice 1200069934	1	706.68	706.68

Total	$706.68
Balance Due	**$706.68**

Invoice

Reference Invoice Number with Payment

HDR Engineering Inc.
Omaha, NE 68114-4098
Phone: (402) 399-1000

HDR Invoice No.	1200069934
Invoice Date	23-AUG-2017
Invoice Amount Due	$706.68
Payment Terms	30 NET
Remit To	PO Box 74008202 Chicago,IL 60674-8202
Wire Transfer To	Bank of America ML US ABA# 081000032 Account# 355004076604

Flatwater Group, Inc
Thomas Riley
8200 Cody Drive, Suite A
Lincoln, NE 68512

For Services Related to the COHYST and WWUM Model Runs.

Professional Services
From: 02-JUL-2017 To: 05-AUG-2017

Professional Services Summarization	Hours	Billing Rate	Amount
Engineer Water Resources	6.00		684.48
	6.00		**$684.48**
		Total Professional Services	**$684.48**

Expense Summarization	Quantity	Billing Rate	Amount
Technology Charge	6.00		22.20
			$22.20
		Total Expenses	**$22.20**

Amount Due This Invoice (USD)	**$706.68**

Fee Amount	$41,000.00
Fee Invoiced to Date	$22,524.18
Fee Remaining	$18,475.82

HDR Internal Reference Only	
Client Number	3426
Cost Center	10134
Project Number	10027670

Invoice

HDR Invoice No. 1200069934
Invoice Date 23-AUG-2017

Professional Services and Expense Detail

Project Number: 10027670 Project Description: TFG-COHYST WWUM Model Runs

Professional Services		Hours	Billing Rate	Amount
Engineer Water Resources	Nelson, Abby M	6.00	114.08	684.48
		6.00		**$684.48**
		Total Professional Services		**$684.48**

Expense	Qty	Billing Rate	Amount
Technology Charge	6	3.70	22.20
			$22.20
		Total Project	**$706.68**

Invoice

Reference Invoice Number with Payment

HDR Engineering Inc.
Omaha, NE 68114-4098
Phone: (402) 399-1000

HDR Invoice No.	1200070763
Invoice Date	28-AUG-2017
Invoice Amount Due	$11,860.15
Payment Terms	30 NET
Remit To	PO Box 74008202 Chicago,IL 60674-8202
Wire Transfer To	Bank of America ML US ABA# 081000032 Account# 355004076604

Platte Basin Coalition
Kent Miller
111 S Dewey St. 2nd Floor
PO Box 1347
North Platte, NE 69103-1347

For services in connection with the Basinwide Plan Facilitation and Engineering Support for the Overapprpriated Area of the Platte River.

Professional Services
From: 02-JUL-2017 To: 05-AUG-2017

Professional Services Summarization	Hours	Billing Rate	Amount
Facilitation Coordinator	29.50		1,998.92
Facilitator	1.00		130.31
Project Controller	1.00		87.77
Project Manager	43.00		8,823.93
Water Resource Engineer	1.00		113.41
	75.50		**$11,154.34**
		Total Professional Services	**$11,154.34**

Expense Summarization	Quantity	Billing Rate	Amount
Technology Charge	75.50		279.35
			$279.35
Car Rental			85.12
Car Rental/Hdr Vehicle Fuel			68.24
Lodging	2.00		228.40
Meals			7.54
Printing/Reprographics			37.16
		Total Expenses	**$705.81**

Fee Amount	$434,409.00
Fee Invoiced to Date	$184,589.40
Fee Remaining	$249,819.60

Amount Due This Invoice (USD)	**$11,860.15**

HDR Internal Reference Only	
Client Number	20165
Cost Center	10134
Project Number	10034266

Invoice

HDR Invoice No. 1200070763
Invoice Date 28-AUG-2017

Professional Services and Expense Detail

Project Number: 10034266 Project Description: PBC-UpperPlatteBasinPlanDevel
Task Number: 1.0 Task Description: Project Management

Professional Services		Hours	Billing Rate	Amount
Project Controller	Clifton, Rachel M	0.50	99.58	49.79
Project Controller	Yost, Heidi M	0.50	75.95	37.98
Water Resource Engineer	Rock, Simone A	1.00	113.41	113.41
		2.00		**$201.18**
			Total Professional Services	**$201.18**

Expense		Qty	Billing Rate	Amount
Technology Charge		2.00	3.70	7.40
				$7.40
Printing/Reprographics	ARC Document Solutions LLC			33.30
			Total Expense	**$40.70**
			Total Task	**$241.88**

Invoice

HDR Invoice No. 1200070763
Invoice Date 28-AUG-2017

Professional Services and Expense Detail

Project Number: 10034266 Project Description: PBC-UpperPlatteBasinPlanDevel
Task Number: 2.0 Task Description: Meeting Coordination and Facilitation

Professional Services		Hours	Billing Rate	Amount
Facilitation Coordinator	Beermann, Cristina Marie	29.50	67.76	1,998.92
Facilitator	Bettale, Tara Lynn	1.00	130.31	130.31
Project Manager	Engel, John J	15.00	216.99	3,254.85
Project Manager	Obermueller, Kristen L	6.00	72.38	434.28
Project Manager	White, Stephanie L	22.00	233.40	5,134.80
		73.50		**$10,953.16**
			Total Professional Services	**$10,953.16**

Expense		Qty	Billing Rate	Amount
Technology Charge		73.50	3.70	271.95
				$271.95
Car Rental	Engel, John J			85.12
Car Rental/Hdr Vehicle Fuel	Engel, John J			68.24
Lodging	Beermann, Cristina Marie	1.00	200.00	200.00
Lodging	Beermann, Cristina Marie	1.00	28.4	28.40
Meals	Engel, John J			7.54
Printing/Reprographics	ARC Document Solutions LLC			3.86
			Total Expense	**$665.11**
			Total Task	**$11,618.27**

Status Report

Project:	Upper Platte River Basin-Wide Plan Development
Subject:	Monthly Status Report
Date:	Efforts for July 2 – August 5, 2017 HDR Job Number: 10034266

1.0 Project Management and Coordination

- Managed ongoing project activities.
- Conducted weekly team meetings.
- Completed invoicing, status report and earned value reports.

2.0 Meeting Coordination and Facilitation

- Attendance at July 19, 2017 SPG meeting
- Preparation for August 7, 2017 POAC meeting

3.0 Basin-Wide Water Management Plan

- No activity.

4.0 Basin-Wide Water Management Plan Document

- Annotated updates to plan.

Summary of Specific Staff Activities

J. Engel	Project management, preparation of materials and attendance at POAC/SPG meetings, basin plan document update, INSIGHT supporting information
S. White	Preparation of materials, coordination of facilitation staff, basin plan document update, POAC meeting material preparation, SPG meeting faciliation
K. Obermueller	SPG coordination materials and communication
T. Bettale	SPG coordination materials and communication
R. Clifton	Project accounting/invoicing/reporting
H. Yost	Project accounting/invoicing/reporting
S. Rock	INSIGHT supporting materials
C Beerman	SPG meeting material preparation/meeting attendance/meeting notes

Subconsultant Activities

The Flatwater Group

- No invoiced activity included in this invoice.

JEO

- No invoiced activity included in this invoice.

Schedule Status

- Next SPG meeting is scheduled for September 20, 2017
- POAC meeting October 2, 2017

Budget Status

- Project is estimated to be 42% complete.
- Estimated earned value is tracking below cost to date.

Expense Report Rebilling Report

Employee Name:	Engel, John J
Supplier Number:	35791
Expense Report Number:	181327
Purpose:	UPB SPG meeting in NOrth Platte
Approver:	Engelbert, Patrick
Project:	10034266
Task:	2.0
Project Expenditure Organization:	10134_ENG-Omaha NE
Report Submitted Date:	20-Jul-17
Status:	Ready for Payment
Expense Report Total:	160.90 USD
Header Attachment:	

Cash Expenses

Date	Expense Type	Receipt Amount	Attendees	Justification	Merchant Name	Location	Project	Task	Receipt
19-Jul-17	Meals - Dinner	7.54 USD	John Engel; Ann Williams	snacks on trip to North Platte	Nebraskaland Tire	Lexington,Nebraska	10034266	2.0	
19-Jul-17	Car Rental	85.12 USD		rental car for trip to North Platte	enterprise	omaha, nebraska	10034266	2.0	
19-Jul-17	Fuel - Car Rental	68.24 USD		gas for trip to North Platte	Flying J	Gretna,Nebraska	10034266	2.0	

Per Diem Expenses

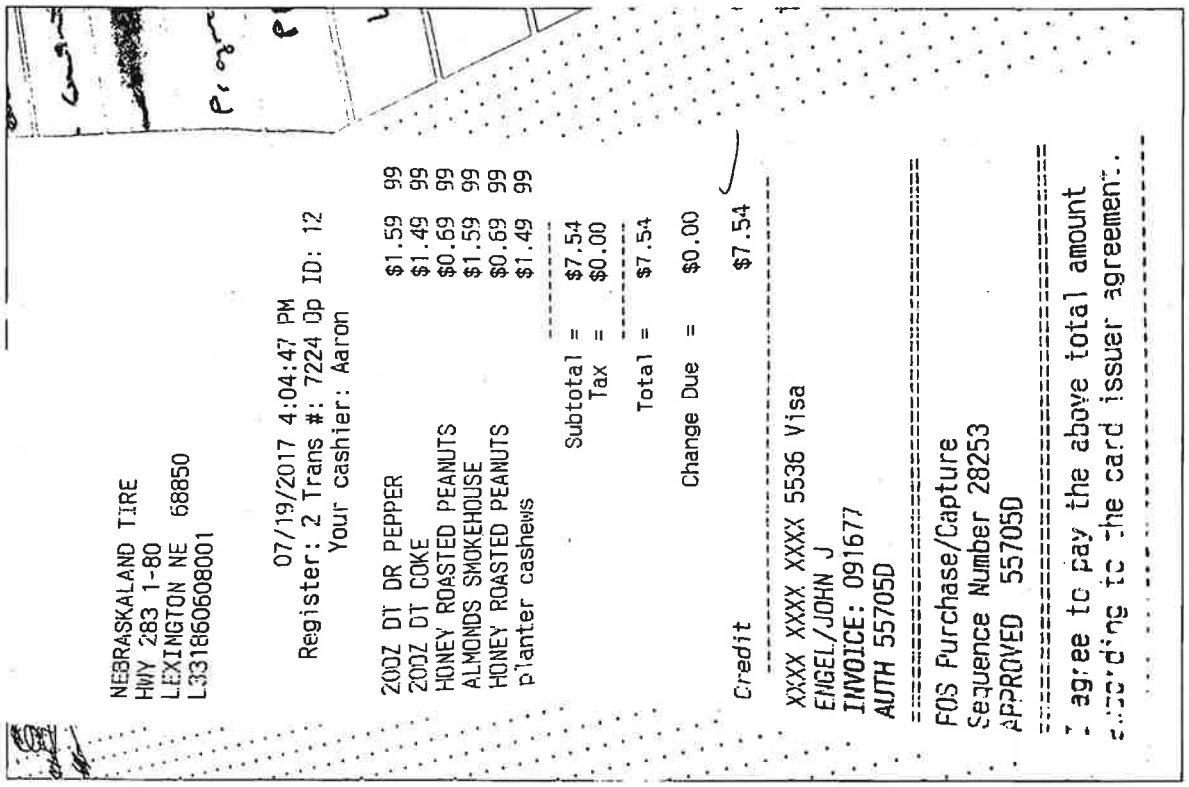
Start Date	End Date	Expense Type	Amount	Number of Days	Rate	Justification	Location	Project	Task	Receipt

Mileage Expenses

Start Date	End Date	Expense Type	Trip Distance	Amount	Rate	Justification	Project	Task	Receipt

Expense Report Rebilling Report

Receipt Name: 20170720_145656.jpg



NEBRASKALAND TIRE
HWY 283 1-80
LEXINGTON NE 68850
L3318606080001

07/19/2017 4:04:47 PM
Register: 2 Trans #: 7224 Op ID: 12
Your cashier: Aaron

20OZ DT DR PEPPER	$1.59	99
20OZ DT COKE	$1.49	99
HONEY ROASTED PEANUTS	$0.69	99
ALMONDS SMOKEHOUSE	$1.59	99
HONEY ROASTED PEANUTS	$0.69	99
planter cashews	$1.49	99
Subtotal =	$7.54	
Tax =	$0.00	
Total =	$7.54	
Change Due =	$0.00	
Credit	$7.54	

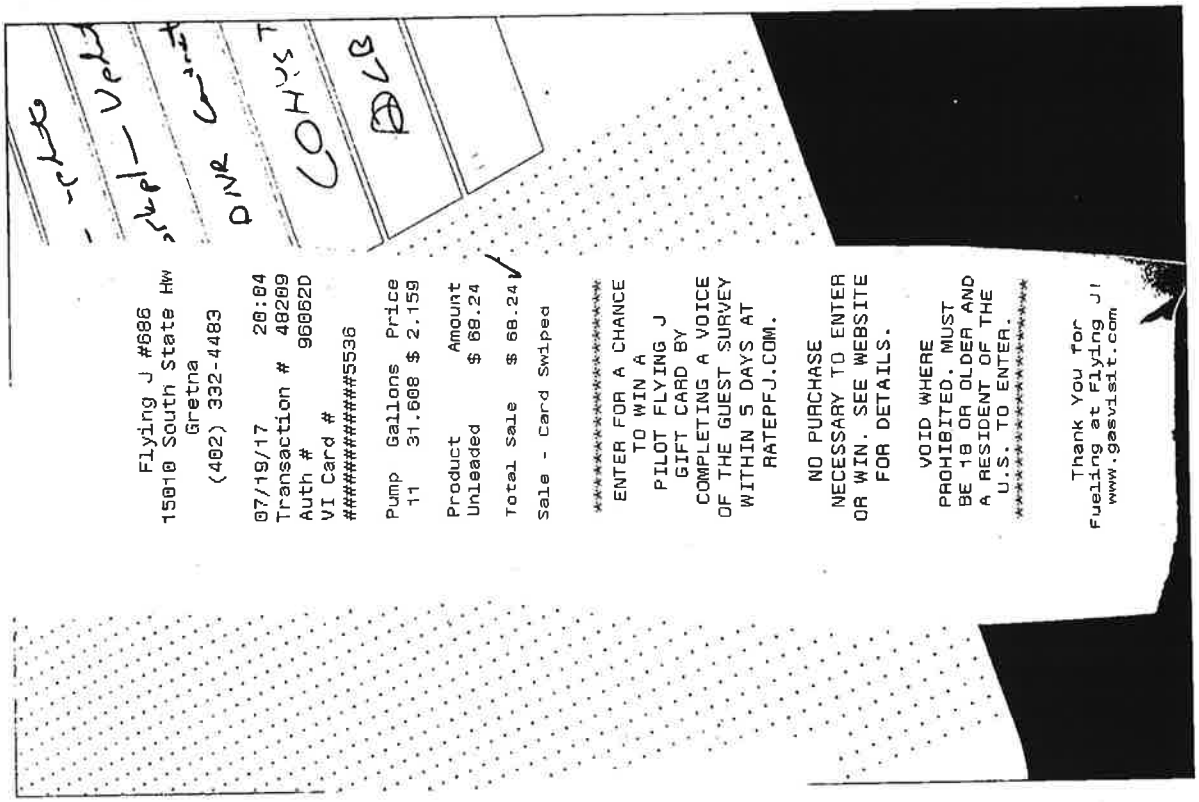
XXXX XXXX XXXX 5536 Visa
ENGEL/JOHN J
INVOICE: 091677
AUTH 55705D

FOS Purchase/Capture
Sequence Number 28253
APPROVED 55705D

I agree to pay the above total amount
according to the card issuer agreement.

Expense Report Rebilling Report

Receipt Name: 20170720_145713.jpg



Flying J #686
15010 South State Hw
Gretna
(402) 332-4483

07/19/17 20:04
Transaction # 48209
Auth # 96662D
VI Card #
##########5536

Pump Gallons Price
11 31.608 $ 2.159

Product Amount
Unleaded $ 68.24

Total Sale $ 68.24

Sale - Card Swiped

****
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TO WIN A
PILOT FLYING J
GIFT CARD BY
COMPLETING A VOICE
OF THE GUEST SURVEY
WITHIN 5 DAYS AT
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NECESSARY TO ENTER
OR WIN. SEE WEBSITE
FOR DETAILS.

VOID WHERE
PROHIBITED. MUST
BE 18 OR OLDER AND
A RESIDENT OF THE
U.S. TO ENTER.
****

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Fueling at Flying J!
www.gasvisit.com

ENTERPRISE RENT-A-CAR COMPANY - MIDWEST, 8602 W DODGE RD, OMAHA, NE 681143406 (402) 397-3232

RENTAL AGREEMENT REF#

238910 8HBK6H

RENTER

ENGEL, JOHN

DATE & TIME OUT

07/18/2017 12:47 PM

DATE & TIME IN

07/19/2017 05:00 PM

BILLING CYCLE

24-HOUR

VEH #1 2017 FORD EXEL XLT4

VIN# 1FMJK1JT2HEA01478

LIC# 059UXV

MILES DRIVEN 170

SUMMARY OF CHARGES

Charge Description	Date	Quantity	Per	Rate	Total
TIME & DISTANCE	07/18 - 07/19	1	DAY	$68.00	$68.00
REFUELING CHARGE	07/18 - 07/19				$0.00

Subtotal:	$68.00

Taxes & Surcharges

OMAHA OCCUPATION TAX	07/18 - 07/19	1	RENTAL	$8.00	$8.00
SALES TAX	07/18 - 07/19	7%	$5.32		
STATE RENTAL FEE	07/18 - 07/19		5%	$3.80	

Total Charges:	$85.12 ✓

Total Amount Due	$0.00

PAYMENT INFORMATION

AMOUNT PAID	TYPE	CREDIT CARD NUMBER
$85.12	Visa	xxxxxxxxxxxx5536 PENDING

Expense Report Rebilling Report

Employee Name:	Beermann, Cristina Marie
Supplier Number:	39573
Expense Report Number:	181294
Purpose:	Hotel Reimbursement
Approver:	Bettale, Tara
Project:	10034266
Task:	2.0
Project Expenditure Organization:	10031_ENG-Denver CO
Report Submitted Date:	24-Jul-17
Status:	Ready for Payment
Expense Report Total:	228.40 USD
Header Attachment:	

Cash Expenses

Date	Expense Type	Receipt Amount	Attendees	Justification	Merchant Name	Location	Project	Task	Receipt
18-Jul-17	Hotel/Lodging Tax	28.40 USD					10034266	2.0	
18-Jul-17	Hotel/Lodging	200.00 USD					10034266	2.0	

Per Diem Expenses

Start Date	End Date	Expense Type	Amount	Number of Days	Rate	Justification	Location	Project	Task	Receipt

Mileage Expenses

Start Date	End Date	Expense Type	Trip Distance	Amount	Rate	Justification	Project	Task	Receipt

40 07-19-17

Cristina Beermann	Folio No. : **337167**	Room No. :	**346**
2163 Beechnut Place	A/R Number :	Arrival :	**07-18-17**
Castle Rock Co	Group Code :	Departure :	**07-19-17**
Castle Rock CO 80108	Company :	Conf. No. :	**63046452**
United States	Membership No. :	Rate Code :	**IGCOR**
	Invoice No. :	Page No. :	**1 of 1**

Date	Description		Charges	Credits
07-18-17	*Accommodation		200.00	
07-18-17	Sales Tax - Room		14.00	
07-18-17	Lodging Tax - Room		10.00	
07-18-17	Occupancy Room Tax		4.40	
07-19-17	MasterCard	XXXXXXXXXXXX2957		228.40
		Total	**228.40**	**228.40**
		Balance	**0.00**	

Guest Signature: _____

I have received the goods and / or services in the amount shown heron. I agree that my liablity for this bill is not waived and agree to be held personally liable in the event that the indicated person, company, or associate fails to pay for any part or the full amount of these charges. If a credit card charge, I further agree to perform the obligations set forth in the cardholder's agreement with the issuer.

Holiday Inn Express Hotel & Suites
300 Holiday Frontage Road
P O Box 788
North Platte, NE 69103

INVOICE

ARC Premier Accounts

ARC Central NE On-Site
8404 Indian Hills Drive
Omaha, NE 68114

DATE REQUIRED 06/29/17

INVOICE NUMBER AFM5403385

DATE 06/30/17

Page 1

BILL TO
HDR (NE) OMAHA
8404 Indian Hills Dr
Omaha, NE 68114

SHIP TO
HDR (NE) OMAHA
8404 Indian Hills Dr
Omaha, NE 68114

ORDER DATE	WORK ORDER NO.	PURCHASE ORDER NO.	REQUESTED BY
06/29/17	AFM5403385		On-Site Services

JOB NO./JOB NAME	SHIP VIA
10034266 / PBC-UpperPlatteBasinPlanDevel	FM

LI#	PROD CODE	DESCRIPTION	ORIG	COPY QTY	ORIG SIZE	TOTAL SQ FT	UM	UNIT PRICE	EXTENSION
		Activity/Phase#: 2 Department# 10134							
1	3066.01	B&W 8.5x11 30% RECYCLED	2	1			EACH	0.038	0.08
2	3067.01	COLOR 30% RECYCLED 8.5x11	2	1			EACH	0.135	0.27

BILLER	SUBTOTAL	SALES TAX	INVOICE TOTAL
Rob Schramm	0.35	0.02	0.37

INVOICE

ARC Premier Accounts

ARC W CO Blake St
1855 Blake Street Suite 50
Denver, CO 80202

DATE REQUIRED 07/20/17

INVOICE NUMBER AFM5447540

DATE 07/25/17

Page 1

BILL TO
HDR (NE) OMAHA
8404 Indian Hills Dr
Omaha, NE 68114

SHIP TO
HDR (CO) DENVER
1670 Broadway
Denver, CO 80202

ORDER DATE	WORK ORDER NO.	PURCHASE ORDER NO.	REQUESTED BY
07/20/17	AFM5447540		On-Site Services

JOB NO./JOB NAME	SHIP VIA
10034266 / PBC-UpperPlatteBasinPlanDevel	FM

LI#	PROD CODE	DESCRIPTION	ORIG	COPY QTY	ORIG SIZE	TOTAL SQ FT	UM	UNIT PRICE	EXTENSION
		Activity/Phase#: 2 Department# 10134							
1	3067.01	COLOR 30% RECYCLED 8.5x11	24	1			EACH	0.135	3.24

BILLER	SUBTOTAL	SALES TAX	INVOICE TOTAL
David Kanbara	3.24	0.25	3.49

INVOICE

ARC Premier Accounts

ARC Central NE Old Mill SFC
10605 Burt Circle
Omaha, NE 68114

DATE REQUIRED 06/28/17

INVOICE NUMBER 397327

DATE 06/28/17

Page 1

BILL TO
HDR (NE) OMAHA
8404 Indian Hills Dr
Omaha, NE 68114

SHIP TO
HDR (NE) OMAHA MARKETING DEPAR
8404 Indian Hills
Omaha, NE 68114

ORDER DATE	WORK ORDER NO.	PURCHASE ORDER NO.	REQUESTED BY
06/26/17	SFC7475		Kristen Obermueller

JOB NO./JOB NAME	SHIP VIA
10034266 / PBC-UpperPlatteBasinPlanDevel	ARC Delivery

LI#	PROD CODE	DESCRIPTION	ORIG	COPY QTY	ORIG SIZE	TOTAL SQ FT	UM	UNIT PRICE	EXTENSION
		Activity/Phase#: 1 Department# 10134							
1	2502	COLOR COPIES 12X18	2	17			EACH	0.600	20.40
2	2512	SPECIAL STOCK	17	1			EACH	0.160	2.72
3	1963.03	CUTTING (PER CUT)	8	1			EACH	1.000	8.00

BILLER	SUBTOTAL	SALES TAX	INVOICE TOTAL
Jim Amato	31.12	2.18	33.30

Invoice

Reference Invoice Number with Payment

HDR Engineering Inc.
Omaha, NE 68114-4098
Phone: (402) 399-1000

HDR Invoice No.	1200075888
Invoice Date	22-SEP-2017
Invoice Amount Due	$9,675.68
Payment Terms	30 NET
Remit To	PO Box 74008202 Chicago,IL 60674-8202
Wire Transfer To	Bank of America ML US ABA# 081000032 Account# 355004076604

Platte Basin Coalition
Kent Miller
111 S Dewey St. 2nd Floor
PO Box 1347
North Platte, NE 69103-1347

For services in connection with the Basinwide Plan Facilitation and Engineering Support for the Overapprpriated Area of the Platte River.

Professional Services
From: 06-AUG-2017 To: 02-SEP-2017

Professional Services Summarization	Hours	Billing Rate	Amount
Facilitation Coordinator	11.50		779.24
Project Controller	1.50		151.39
Project Manager	38.00		8,478.44
	51.00		**$9,409.07**
		Total Professional Services	**$9,409.07**

Expense Summarization	Quantity	Billing Rate	Amount
Technology Charge	51.00		188.70
			$188.70

Car Rental	52.64
Car Rental/Hdr Vehicle Fuel	25.27
Total Expenses	**$266.61**

Amount Due This Invoice (USD)	**$9,675.68**

Fee Amount	$434,409.00
Fee Invoiced to Date	$194,265.08
Fee Remaining	$240,143.92

HDR Internal Reference Only	
Client Number	20165
Cost Center	10134
Project Number	10034266

Invoice

HDR Invoice No. 1200075888
Invoice Date 22-SEP-2017

Professional Services and Expense Detail

Project Number: 10034266 Project Description: PBC-UpperPlatteBasinPlanDevel
Task Number: 1.0 Task Description: Project Management

Professional Services		Hours	Billing Rate	Amount
Project Controller	Rock, Simone A	1.00	113.41	113.41
Project Controller	Yost, Heidi M	0.50	75.95	37.98
		1.50		**$151.39**
			Total Professional Services	**$151.39**

Expense		Qty	Billing Rate	Amount
Technology Charge		1.50	3.70	5.55
				$5.55
			Total Expense	**$5.55**
			Total Task	**$156.94**

Professional Services and Expense Detail

Project Number: 10034266 Project Description: PBC-UpperPlatteBasinPlanDevel
Task Number: 2.0 Task Description: Meeting Coordination and Facilitation

Professional Services		Hours	Billing Rate	Amount
Facilitation Coordinator	Beermann, Cristina Marie	11.50	67.76	779.24
Project Manager	Engel, John J	14.00	216.99	3,037.86
Project Manager	Obermueller, Kristen L	1.00	72.38	72.38
Project Manager	White, Stephanie L	23.00	233.40	5,368.20
		49.50		**$9,257.68**
			Total Professional Services	**$9,257.68**

Expense		Qty	Billing Rate	Amount
Technology Charge		49.50	3.70	183.15
				$183.15
Car Rental	Engel, John J			52.64
Car Rental/Hdr Vehicle Fuel	Engel, John J			25.27
			Total Expense	**$261.06**
			Total Task	**$9,518.74**

Status Report

Project:	Upper Platte River Basin-Wide Plan Development
Subject:	Monthly Status Report
Date:	Efforts for August 6 – September 2, 2017 HDR Job Number: 10034266

1.0 Project Management and Coordination

- Managed ongoing project activities.
- Conducted weekly team meetings.
- Completed invoicing, status report and earned value reports.

2.0 Meeting Coordination and Facilitation

- Attendance at August 7, 2017 POAC meeting
- Preparation for September 20, 2017 SPG meeting

3.0 Basin-Wide Water Management Plan

- No activity.

4.0 Basin-Wide Water Management Plan Document

- Annotated updates to plan.

Summary of Specific Staff Activities

J. Engel	Project management, preparation of materials and attendance at POAC/SPG meetings, basin plan document update, INSIGHT supporting information
S. White	Preparation of materials, coordination of facilitation staff, basin plan document update, POAC meeting material preparation, SPG meeting faciliation
K. Obermueller	SPG coordination materials and communication
H. Yost	Project accounting/invoicing/reporting
S. Rock	INSIGHT supporting materials
C Beerman	SPG meeting material preparation/meeting attendance/meeting notes

Subconsultant Activities

The Flatwater Group

- No invoiced activity included in this invoice.

JEO

- No invoiced activity included in this invoice.

Schedule Status

- Next SPG meeting is scheduled for September 20, 2017
- POAC meeting October 2, 2017

Budget Status

- Project is estimated to be 45% complete.
- Estimated earned value is tracking below cost to date.

Expense Report Rebilling Report

Employee Name:	Engel, John J
Supplier Number:	35791
Expense Report Number:	188582
Purpose:	UPB POAC meeting
Approver:	Engelbert, Patrick
Project:	10034266
Task:	2.0
Project Expenditure Organization:	10134_ENG-Omaha NE
Report Submitted Date:	09-Aug-17
Status:	Ready for Payment
Expense Report Total:	102.29 USD
Header Attachment:	

Cash Expenses

Date	Expense Type	Receipt Amount	Attendees	Justification	Merchant Name	Location	Project	Task	Receipt
07-Aug-17	Car Rental	52.64 USD		trip to north platte	enterprise	Omaha,nebraska	10034266	2.0	
[redacted]									
07-Aug-17	Fuel - Car Rental	25.27 USD		trip to north platte	loves	north platte, nebraska	10034266	2.0	

Per Diem Expenses

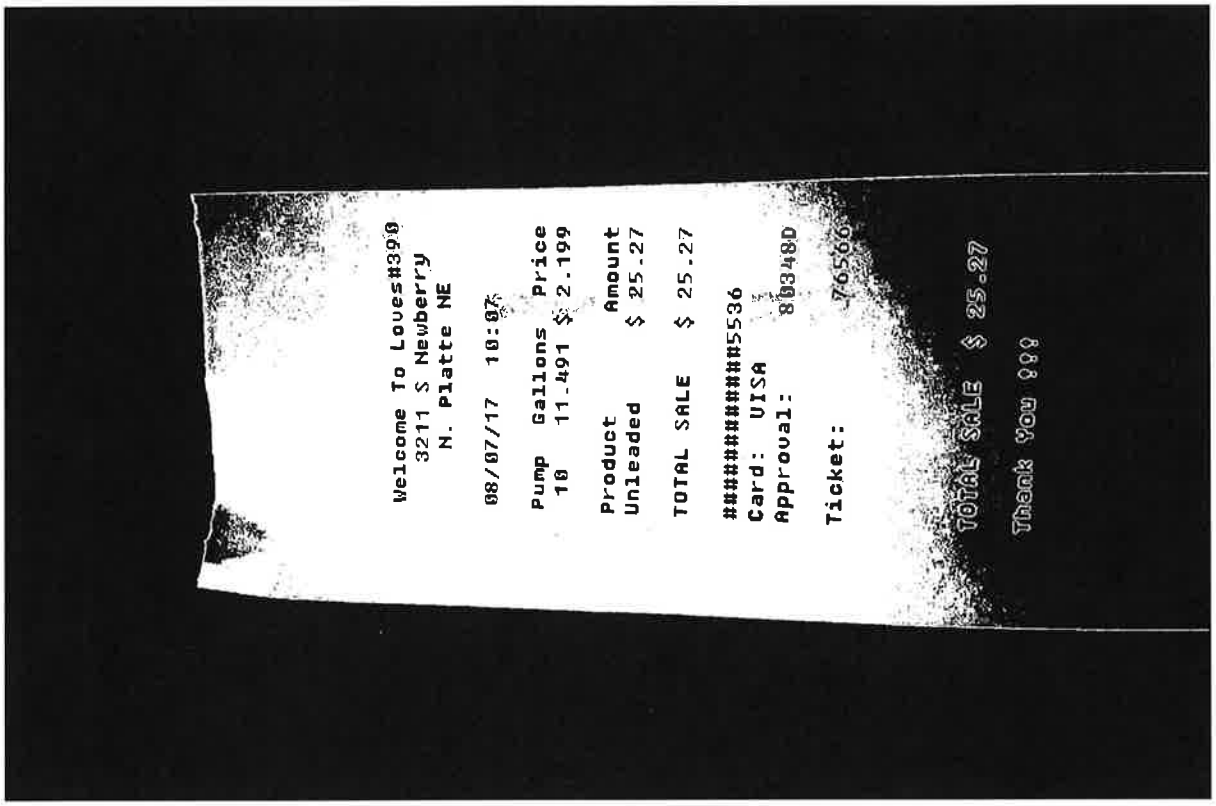
Start Date	End Date	Expense Type	Amount	Number of Days	Rate	Justification	Location	Project	Task	Receipt

Mileage Expenses

Start Date	End Date	Expense Type	Trip Distance	Amount	Rate	Justification	Project	Task	Receipt

Expense Report Rebilling Report

Receipt Name: 20170807_185704.jpg



ENTERPRISE RENT-A-CAR COMPANY - MIDWEST, 8602 W DODGE RD, OMAHA, NE 681143406 (402) 397-3232

RENTAL AGREEMENT REF#

239248 8NWT2G

RENTER

ENGEL, JOHN

DATE & TIME OUT

08/04/2017 04:40 PM

DATE & TIME IN

08/07/2017 06:00 PM

BILLING CYCLE

24-HOUR

VEH #1 2017 HYUN SANF SPT4

VIN# 5XYZTDLB9HG439478

LIC# WH5S5M

MILES DRIVEN 598

SUMMARY OF CHARGES

Charge Description	Date	Quantity	Per	Rate	Total
TIME & DISTANCE	08/07 - 08/07	1	DAY	$39.00	$39.00
REFUELING CHARGE	08/07 - 08/07				$0.00

Subtotal: $39.00

Taxes & Surcharges

OMAHA OCCUPATION TAX	08/07 - 08/07	1	RENTAL	$8.00	$8.00
SALES TAX	08/07 - 08/07	7%	$3.29		
STATE RENTAL FEE	08/07 - 08/07		5%	$2.35	

Total Charges: $52.64

Total Amount Due $0.00

PAYMENT INFORMATION

AMOUNT PAID	TYPE	CREDIT CARD NUMBER
$52.64	Visa	xxxxxxxxxxxx5536 PENDING

THE FLATWATER GROUP INC.

8200 Cody Drive, Suite A
Lincoln, Nebraska 68512-9550

Phone: 402.435.5441
Fax: 402.435.7108

MEMORANDUM

To: Ms. Jessie Strom
Nebraska Department of Natural Resources
P.O. Box 94676
Lincoln, NE 68509-4676

From: Marc Groff

Date: 26 September 2017

Re: Progress Report – Contract #947

Period: 1 July 2017 – 15 September 2017: TFG Labor
Subcontractor Invoices received through 25 September 2017

Work Completed this Period:

1. Efforts this period were focused on

    a. Continued review and development of acreage datasets.
        i. Memos summarizing acreage retirements/transfers/variances for the Twin Platte NRD, the Central Platte NRD, and the Tri-Basin NRD were developed by TFG which provided comparisons of acreage values provided by the NRDs and those provided by DNR. A series of meetings was held with each NRD and DNR to discuss the values contained in the memos. Several datasets between TFG, the NRDs, and DNR were exchanged as part of this process. Work is continuing on the effort to reconcile the numbers between the various agencies – primarily focused on acreage transfers occurring post 2010.
        ii. ARI developed a memo summarizing retirements for the North Platte NRD and the South Platte NRD. Work on variances and transfers is continuing.

    b. Continued M&I modeling approach datasets discussion
        i. Memorandums and presentations focused on livestock related pumping were developed and provided. A decision to remove livestock pumping from the M&I analysis was made based on the presented analysis.

Billings for this period are $36,082.50 -- for a billing-to-date of $121,256.08.

Deliverables

1. On 6 July 2017 acreage summary memorandums were provided by TFG to the Twin Platte NRD, the Central Platte NRD, and the Tri-Basin NRD.
2. On 7 July 2017 the POAC technical committee held a conference call to discuss that status of land-use changes, livestock water use, the allocation analysis, and the post-97 allocation analysis.
3. On 20 July 2017 a memo summarizing retirement acreage in the North Platte NRD and the South Platte NRD was provided to the POAC technical group by ARI.

4. On 21 July 2017 ARI provided a draft memo on a proposed Confined Animal Feeding Operation (CAFO) ground water pumping estimation methodology for use in the WWUM area of the model domain.
5. On 27 July 2017 the POAC technical committee held a conference call to discuss the status of the land-use acreage datasets and livestock water use.
6. On 28 July 2017 ARI provided a final version of their 21 July 2017 CAFO pumping memorandum to the POAC technical committee.
7. On 7 August 2017 TFG provided a memo to the POAC administrators group which evaluated livestock related pumping in the COHYST model domain using the methodology followed by ARI in the WWUM area. As a result of the conclusions drawn in the two memos (the ARI memo provided on 28 July 2017 and the TFG memo provided on 7 August 2017), the Administrators agreed to remove livestock pumping from the M&I analysis for each model area.
8. On 7 August 2017, following the POAC administrators meeting, TFG met with staff from the Twin Platte NRD and DNR to discuss reconciling acreage numbers between the NRD and DNR.
9. On 9 August 2017 TFG met with staff from the Central Platte NRD and DNR to discuss reconciling acreage numbers between the NRD and DNR.
10. On 10 August 2017 TFG met with DNR staff regarding the availability of CREP/EQUIP funded retirements that were tracked only by DNR. A GIS coverage was provided to TFG on 17 August 2017 and provided to ARI on 22 August 2017 after resolving a couple of follow up questions about the data with DNR.
11. On 17 August 2017 TFG met with staff from the Tri-Basin NRD and DNR to discuss reconciling acreage numbers between the NRD and DNR.
12. On 29 August 2017 TFG had a follow up meeting with staff from the Central Platte NRD and DNR to continue discussions on reconciling acreage values between the two agencies.

Concerns: Concerns related to the acreage information expressed on the last billing remain. Information related to the acreage retirements/transfers and variances from the various data sources are not in full agreement. Further evaluation is continuing and there will be schedule and cost implications related to these issues.

Work Projected for Next Period:

1. Continue developing datasets for the baseline model run.
    a. Focus on reconciling post 2010 transfers to allow for the development of the baseline land use coverages for 2011 – 2013 within the COHYST modeling area.
    b. Confirm that the acreage discussions/decisions related to the COHYST modeling area are reflected in the WWUM modeling area and vice versa.

THE FLATWATER GROUP INC.

Tax ID# 47-0833338
8200 Cody Dr Ste A
LINCOLN, NE 68512-9550

Invoice

Date	Invoice #
9/26/2017	**17-2150**

Bill To

Department of Natural Resources
301 Centennial Mall South
PO Box 94676
Lincoln, NE 68509-4676

PROJECT DESCRIPTION	BILLING PERIOD	TERMS
POAC Robust Review	**7/1/2017 - 9/15/2017**	**Net 30**

Employee Class	Work Description	Qty	Rate	Amount
	COHYST Area Effort			
	Task 100			
Water Resources Special...	Dataset Review and Analysis; meetings/conference calls	151.25	110.00	16,637.50
Junior Engineer	Data formatting; meetings and conference calls	31.5	90.00	2,835.00
Designer/GIS Specialist	General GIS / Database Support	3	95.00	285.00
Senior Engineer		54	165.00	8,910.00
	COHYST Area Sub-Total			28,667.50
	WWUM Area Effort			
Water Resources Special...	Meetings/Conference calls. Review of provided information	2.5	110.00	275.00
Senior Engineer	Project Coordination; meetings/conference calls	11	165.00	1,815.00
Subs	Subcontractor Fee - ARI Invoice 4236	1	3,097.50	3,097.50
Subs	Subcontractor Fee - ARI Invoice # 4242	1	2,227.50	2,227.50
	WWUM Area Effort Sub-Total			7,415.00

Total	$36,082.50
Balance Due	**$36,082.50**

Adaptive Resources, Inc.

Invoice

Adaptive Resources, Inc.
229 E Kiowa Ave
FORT MORGAN, CO 80701-3109

(970) 370-2481
chelli@adaptiveresourcesinc.com
ari-water.com

Date	Invoice #
08/26/2017	4236
Terms	**Due Date**
Net 30	09/25/2017

Bill To

The Flatwater Group, Inc.
8200 Cody Dr, Ste A
Lincoln, NE 68512-9550

Amount Due	Enclosed
$26,598.75	

Please detach top portion and return with your payment.

Date	Account Summary	Amount
07/26/2017	Balance Forward	$40,640.00
	Payments and credits between 07/26/2017 and 08/26/2017	-17,138.75
	New charges (details below)	3,097.50
	Total Amount Due (activity through 08/26/2017)	26,598.75

Date	Activity	Quantity	Rate	Amount
	2-Land Use Analysis			
	Week starting 08/21/2017			
08/22/2017	CREP retirement info review and coordination with TFG., 30 mins @ $150.00/hr	0:30	150.00	75.00
	SUBTOTAL - 2-Land Use Analysis = $75.00			
	6-Muni, Ind, and CAFO Baseline & Transfer Analysis			
	Week starting 08/21/2017			
08/24/2017	Industrial pumping data and analysis review., 30 mins @ $150.00/hr	0:30	150.00	75.00
	SUBTOTAL - 6-Muni, Ind, and CAFO Baseline & Transfer Analysis = $75.00			
	9-Documentation			
	Week starting 07/24/2017			
07/26/2017	Documentation for CAFO memo and work with analysis., 3 hrs @ $150.00/hr	3:00	150.00	450.00
07/26/2017	Work on CAFO documentation., 4 hrs @ $150.00/hr	4:00	150.00	600.00
07/26/2017	Generation of pumping estimates from multiple data sources, and comparison of estimates; update of draft memo., 5 hrs 15 mins @ $110.00/hr	5:15	110.00	577.50

Continue to the next page

Date	Activity	Quantity	Rate	Amount
	Week starting 08/14/2017			
08/17/2017	Communication with NRDs; compilation and distribution of pumping for limited industrial/commercial pumping; Documentation., 4 hrs 30 mins @ $110.00/hr	4:30	110.00	495.00
08/18/2017	Updates to draft of industrial/commercial memo; QC and corrections to process (splitting pumping across multiple missing years)., 3 hrs 30 mins @ $110.00/hr	3:30	110.00	385.00
	Week starting 08/21/2017			
08/23/2017	Corrections to industrial pumping distribution; documentation., 3 hrs @ $110.00/hr	3:00	110.00	330.00
08/24/2017	Corrections to industrial pumping distribution; documentation., 1 hr @ $110.00/hr	1:00	110.00	110.00
	SUBTOTAL - 9-Documentation = $2,947.50			

We appreciate your business.

Total Of New Charges	$3,097.50
Total Amount Due	$26,598.75

Adaptive Resources, Inc.

Invoice

Adaptive Resources, Inc.
229 E Kiowa Ave
FORT MORGAN, CO 80701-3109

(970) 370-2481
chelli@adaptiveresourcesinc.com
ari-water.com

Date	Invoice #
09/01/2017	4242
Terms	**Due Date**
Net 30	10/01/2017

Bill To

The Flatwater Group, Inc.
8200 Cody Dr, Ste A
Lincoln, NE 68512-9550

Amount Due	Enclosed
$28,826.25	

Please detach top portion and return with your payment.

Date	Account Summary	Amount
08/26/2017	Balance Forward	$26,598.75
	Payments and credits between 08/26/2017 and 09/01/2017	0.00
	New charges (details below)	2,227.50
	Total Amount Due (activity through 09/01/2017)	28,826.25

Date	Activity	Quantity	Rate	Amount
	1-Modification to the Baseline WWUM Modeling			
	Week starting 08/28/2017			
08/31/2017	**Review previous estimates of flooding days and percent recharge for comparison to recorded and modeled values			2,227.50
	**Begin development of revised river and farm headgate diversion files to remove the effect of the flooding in 2011 and 2013			
	SUBTOTAL - 1-Modification to the Baseline WWUM Modeling = $2,227.50			

We appreciate your business.

Total Of New Charges	$2,227.50
Total Amount Due	$28,826.25

	Jr Engineer $90	GIS/DB $95	Water Resources Specialist $110	Sr Engineer $165	
Development of Responses to additional technical questions	40		20	12	$7,780.00
Preparation and Participation In Additional Meetings with Technical Staff(s) (Assume 2 meetings in Lincoln)	12		8	8	$3,280.00
				Total ->	$11,060.00

THE CENTRAL NEBRSKA PUBLIC POWER AND IRRIGATION DISTRICT

MEMORANDUM

To: Jerry Kenny, PH.D., Executive Director - PRRIP
Jeff Fassett, Director - Nebraska Department of Natural Resources
Diane Wilson, COO/CFO - Nebraska Community Foundation
From: Don Kraus, PE, General Manager - CNPPID
Subject: Quarterly J-2 Regulating Reservoir Report - through June 2017
Date: August 10, 2017

Progress Report

RJH has maintained the project website and processed well data. Central mowed the grass around the small J-2 Project property.

Financial Report

Funds received to date	$	20,475,000.00
J-2 Operating Fund	$	10,067,002.24
Construction Phase Decommissioning Fund		2,252,443.50
Construction Phase Reserve Fund		2,653,158.21
Construction Phase Project Fee		357,297.14
Total	**$**	**15,329,901.09**
June Expenses not Reflected in Bank Balance		-
Adjusted Quarterly Balance as of June 30	**$**	**15,329,901.09**
J2 Project Expense 1st Quarter 2017		3,407.09
J2 Project Expense 2nd Quarter 2017		21,361.46
J2 Project Expenses 2013		77,400.79
J2 Project Expenses 2014		1,570,395.85
J2 Project Expenses 2015		2,715,099.35
J2 Project Expenses 2016		757,434.37
Total J-2 Project Expenses Paid Through June 2017	**$**	**5,145,098.91**

Annual Financial Report

The annual reports are attached.

Quarterly J2 Project Expense Report

July, 2016 thru June, 2017

	3196001 Land Acquisition	3196002 Engineering	3196003 Permitting	3196004 Project Outreach	3196005 Construction-Gen	Total
Alfred Benesch			6,943.51			6,943.51
CHS Agri Svc Center			3.90			3.90
CNPPID Petty Cash			32.20			32.20
Equipment Use		7,858.00				7,858.00
Fraser Stryker	1,413.42					1,413.42
Kleinschmidt			11,566.75			11,566.75
Mammoth Archaeology Cons			675.00			675.00
McCormick, Robert	131.25					131.25
Midwest Right of Way	190.00					190.00
Payroll	418.09	21,848.33	567.23	188.27	3,150.21	26,172.13
RJH Consultants		123,851.27				123,851.27
Sunbelt		931.85				931.85
Vehicle Use		3,144.82	23.94		22.04	3,190.80
Project Construction Fee	51.14	3,743.76	470.54	4.47	75.98	4,345.89
Total	**2,203.90**	**161,378.03**	**20,283.07**	**192.74**	**3,248.23**	**187,305.97**

Annual J2 Project Fund Balance Report

July, 2016 thru June, 2017

Contributions from the Parties

Wire from Foundation-PRRIP 9-30-13	$14,606,250.00
Wire from CNPP&ID 10-2-13	$1,000,000.00
Wire from Foundation-State 10-15-13	$4,868,750.00
	$20,475,000.00

Parties' Remaining Fund Balances

CNPP&ID	$748,630.20
Foundation-PRRIP	$10,935,953.18
Foundation-State (NDNR)	$3,645,317.71
	$15,329,901.09

Project Accounts	Initial Balance	Remaining Funds Available 6-30-16	Remaining Funds Available 6-30-17
J2 Operating Fund (Construction Phase Fund)	$15,094,398.29	$10,249,962.32	$10,067,002.24
Construction Phase Decommissioning Fund	$2,252,443.50	$2,252,443.50	$2,252,443.50
Construction Phase Reserve Fund	$2,653,158.21	$2,653,158.21	$2,653,158.21
Project Construction Fee Fund	$475,000.00	$361,643.03	$357,297.14
Total	$20,475,000.00	$15,517,207.06	$15,329,901.09

PBC Meeting
October 2, 2017
Attachment N