Projects Committee Meeting
Thursday, October 28, 2021 7:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS
   None
2. SWCP

   A. SWCP Application Approvals
      None
   B. SWCP Payments
      None
   C. SWCP Cancellations
      None
   D. Wahoo Creek Cost Share Approvals
      None
3. WATERSHEDS

   A. Shell Creek

      1. Shell Creek Environmental Enhancement Plan Implementation
         There are several county and landowner projects underway or being planned. As reported last month, the Shell Creek South Channel Enhancement/Benching Project is planned to be completed this fall, after harvest. This portion of the project was initially estimated at around $225,000, of which LPNNRD paid $60,000 to Colfax County for work completed thus far.

         JEO sent the attached $2,986 invoice and a progress report on updating the Shell Creek Watershed Water Quality Plan. After this payment, $7,831.50 will remain on our $31,630 contract.

         Another effort is a Shell Creek watershed survey which has been completed and attached. Below are a few survey highlights:

         - The response rate was 22% - this is great and meets industry standard. 93.5 % of respondents were male, 76.6% have farmed for 21 years or more. Or rented ground, 27.7% crop share land. 87.8% of respondents own some of the ground they farm. 46.6% of respondents identified themselves as neither early or late adopters of conservation practices.
         - 17.7% of respondents are very concerned about water quality affecting their farm management.
         - 32.6% of respondents were concerned about drinking water quality in the watershed.

- 67.4% currently implement BMPs, only 12.7% of respondents received a cost share payment for the BMP.
- 54.3% of respondents would be more likely to adopt/maintain a BMP if they knew it would improve their profitability. 46.9% of respondents would be more likely to adopt/maintain a BMP if they knew it would NOT reduce yield.
- 71.3% of the respondents use the FSA when selecting conservation practices, while 66.5% use the NRCS, 58.6% use family, and 50.9% use other farmers.
- When asked how influential the following sources are on farming decisions, consultants were most influential (38.7%) followed by family (38.5%) and chemical dealer (33.3%).
- When asked "How likely are you to try the following conservation practices," 21.5% are very likely to try cover crops. All other practices were less than 15% for responses of very likely to try.
- 38% of respondents (70) raise livestock.
- When asked "How likely respondents would be to try each of the following conservation practices if money and time were not an issue" the top responses were manure management (16.5%), water diversion (15.8%) and prescribed grazing (14.9%).
- There were additionally some hand written comments summarized at the end of the survey that are interesting and provide a wide array of thoughts on water quality in the Shell Creek Watershed.

a. Shell Creek Grant Funding Update
No new information to report. As reported last month, we have been using available EPA 319 and NET grant funding to assist with various Shell Creek projects, with the largest being the South Shell Creek channel improvement/benching project south of the U.P. Railroad bridge replacement near Colfax County Road 15. Bill Bos continues to line up several landowner projects as well.

b. Shell Creek Environmental Enhancement Practice Payment

c. AUGUST RUNGE JR

d. $7,555.93

e. LIVESTOCK - PUMP, WELL, TANKS,

f.

B. Wahoo Creek Watershed

1. Wahoo Creek Dam Site Planning Update & FYRA Invoices
Janel Kaufman, FYRA, reports that during this invoicing period, they coordinated with NRCS and began addressing additional comments from the State review. They are finishing up the 'clean' document and it should go out for external agency comment/review within the next week. Attached is FYRA's invoice totaling $3,962.50 for work completed through 10/15/21. After this payment, $15,012.75 will remain under contract.

2. Wahoo Creek Watershed Water Quality Plan Phase II
We will be using our remaining EPA 319 funds toward landowner conservation projects, Lands for Conservation payments and for the Watershed Water Quality

Plan update.

JEO has submitted a $4,500 invoice and a progress report for updating our Wahoo Creek Watershed Water Quality Plan, as attached. After this payment, $6,560.50 will remain on our $31,630 contract.

3. Olsson Design Update and Invoice
   Nothing to report as Olsson is on hold until the Wahoo Creek Watershed Plan is approved by NRCS. The committee discussed the need to begin geo-tech field work this fall/winter at the seven remaining dam sites. Sites 26a, 26b & 27 have geo-tech work completed, but NRCS put remaining design activities on hold until the Watershed Plan is officially approved. Mountford will contact NRCS to discuss the possibility of moving forward on the seven remaining sites in December, 2021.

4. JOINT WATER MANAGEMENT ADVISORY BOARD

   A. Platte River Cameras/Gauges Project Update
      We are moving forward with working with USGS to establish up to five cameras and two additional water level gauges along the Platte River. Attached are minutes from the partner Zoom meeting conducted on October 15th to coordinate the work. On October 20th, Heimann, Mountford and Paul Woodward, PMRNRD, met with USGS representatives at HW 64 and 77 bridges to discuss placement of equipment. USGS went on to inspect HW 79 and 15 bridge locations. Cameras will be placed at all bridge locations and on one possible private landowner's site near the confluence of the Loup Power Canal and Platte River. The additional gauges will be placed at HW 15 & 77.

      A partner Zoom meeting is scheduled for 1:00 p.m., Friday, November 5th.

   B. Rawhide Creek Work Plan-Environmental Assessment Update
      JEO has been working with JWMAB partners Dodge County, Fremont and LPNRD as they begin the Rawide Watershed Assessment. Elliott accompanied JEO on a visual inspection of the watershed earlier this month. Attached are minutes from JEO's monthly meeting held on October 18th.

      There will be a JWMAG Meeting at 1:00 pm on November 18th, followed by a Rawhide Watershed Assessment Agency (virtual at 2-4 pm) and a public (6-8 pm) meeting all held at the Fremont City Auditorium on November 18th.

5. HAZARD MITIGATION PLAN UPDATE
   No new information to report.
6. EROSION AND SEDIMENT RULES AND REGULATIONS
   No new issues to report.
7. OTHER

   A. Platte Center Channel Project Request
      Over the past several years, LPNNRD has been a partner with Platte Center for improving and stabilizing Elm Creek as it flows through the town. We were aware that they had an interest in doing some more additional channel work on the

northern part of town, so placed $25,000 in our approved budget in anticipation of a formal request. Attached is Platte Center's request for 50% assistance on a proposed $30,000 total project, to remove fallen trees in the creek and reduce the risk of flooding.

B. Bellwood Drainage DItch #4 Request
The Bellwood Ditch 4 system is approximately 4.5 miles in length from the bluffs to the south, to the Platte River. It was proposed by the SCS/NRCS in the mid 60's that the ditches from the Bellwood Watershed Dams be improved and maintained. The only segment that LPNNRD easements were obtained was on a 3/4 mile segment of ditch 4 (see attached map). Landowner Dennis Kucera has reminded us that we have O & M on this 3/4 of a mile. There are numerous trees to be taken out, a breach on the west bank and a large beaver dam that should be removed. The O & M crew is making plans to cut and remove trees this Fall.
Mr. Kucera may make a request for the NRD to clear more of the ditch, specifically the last 1/2 mile to the Platte River.

C. Platte River Corridor Alliance Meeting
The PRCA had a quarterly meeting on October 25th. While LPNNRD is no longer a formal dues-paying member, we are asked to attend meetings as a non-member to discuss joint efforts, projects and issues that we are involved with LPSNRD, PMRNRD and others. The PRCA has not had a paid coordinator for several years and is not actively involved with Platte River projects as in the past. Mourtford attended this meeting and the agenda and other information is attached.

8. ADJOURNMENT
The Projects Committee adjourned at 8:40 a.m.

Shell Creek Watershed Survey Report

Prepared: June 2021

Bureau of Sociological Research
Department of Sociology
PO Box 880325 • Lincoln, NE 68588-0325
402-472-3672 (local) • 800-480-4549 (toll free)
email: bosr@unl.edu • http://bosr.unl.edu

Contents

Introduction

This report presents a detailed account of the design of the Shell Creek Watershed Survey. The project was commissioned and administered by researchers at the School of Natural Resources at the University of Nebraska-Lincoln (UNL) and conducted by the Bureau of Sociological Research (BOSR) at the University of Nebraska-Lincoln. The purpose of this project was to assess the water quality of the Shell Creek area and to understand the knowledge local residents have about their watershed.

Sampling Design

A sample of 977 producers in and around the Shell Creek Watershed was provided by the researchers. Of the 977 sample provided, there were 91 duplicates, resulting in a sample of 886. This sample included potential respondents' names, contact information, and other demographic information. The sample was cleaned by BOSR project staff.

Questionnaire Design

The final questions were determined as the outcome of a joint effort between researchers of this project at UNL and BOSR, with reference to the 2020 Wilber-Turkey Creek Watershed Survey. The final form was an eight-page mail survey. The survey questions focused on water quality and different chemicals. The survey was in English only. A copy of the survey can be found in Appendix A.

Data Collection Process

The data collection process involved three mailings. In the initial contact, a survey packet including a cover letter explaining the survey, a copy of the survey, a brochure containing information about the Shell Creek Watershed, along with a postage pre-paid addressed business reply envelope for the survey to be mailed back to BOSR was mailed to each producer. The initial invitation was sent on April 7, 2021. For each address, we asked the person who was managing or renting the land to complete the questionnaire. One week after the first mailing, all addresses were mailed a postcard reminding them to complete the survey or expressing appreciation if they had already completed the survey. This reminder postcard was sent on April 14, 2021. Finally, a survey package, which contained the same contents as the initial mailing, was sent to all non-respondents. The final mail survey package was sent out on April 28, 2021. All communication materials were in English and can be found in Appendix B. The Shell Creek brochure can be found in Appendix C.

Response Rate

In total, 196 surveys were completed by the end of the field period on June 16, 2021. The response rate of 22.1% was calculated using the American Association for Public Opinion Research's (AAPOR) standard definition for Response Rate 2. Of the 886 addresses sampled, 1.5% (n=13) were undeliverable addresses with unknown eligibility. Refusals (e.g., blank survey returned; letter, phone call, or e-mail stating refusal to participate) and refused mail were obtained from 0.8% (n=7) of the sample.

Data Processing

Mail survey data were entered using Epi Info 6 software with data saved on BOSR's secure networked file server. Data entry was completed by experienced data-entry staff. All of the data-entry workers had previous experience in data entry using Epi Info 6 on other mail survey projects. The data-entry staff was supervised by full-time BOSR project staff.

Data entry was completed in two steps. First, one data-entry worker would enter responses from a single survey. Second, another data-entry worker would re-key the survey and be alerted to any discrepancies with the first entry. Supervisory staff members were available to answer questions about discrepancies or illegible responses. The data-entry staff is paid by the hour, not by the number of surveys entered. This method of payment is used so that we can ensure the high quality of the data collected by our staff.

Data Cleaning

The data was recorded and stored on a secure server located within the Sociology Department at UNL. The Statistical Package for the Social Sciences (SPSS) software package was used to process and document the dataset. The dataset was exported from Epi Info 6 into an SPSS system file. BOSR removed any cases that were duplicate or blank. The first step in data cleaning was to run frequency distributions on each of the variables in the survey. The second step was to generate variable and value labels. The final step in data cleaning was to check for out-of-range values on all survey items. Recoding was done to correct for the most obvious errors/inconsistencies in the data.

Questions

Any questions regarding this report or the data collected can be directed to the Bureau of Sociological Research (BOSR) at the University of Nebraska-Lincoln by calling (402) 472-3672 or by sending an e-mail to bosr@unl.edu.

Findings

When respondents were asked whether they had their drinking water tested for nitrates in the past five years, Figure 1 shows more than half (57.5%), said they had not.

Figure 1. Whether respondents had their drinking water tested for nitrates in the past five years (n=193)

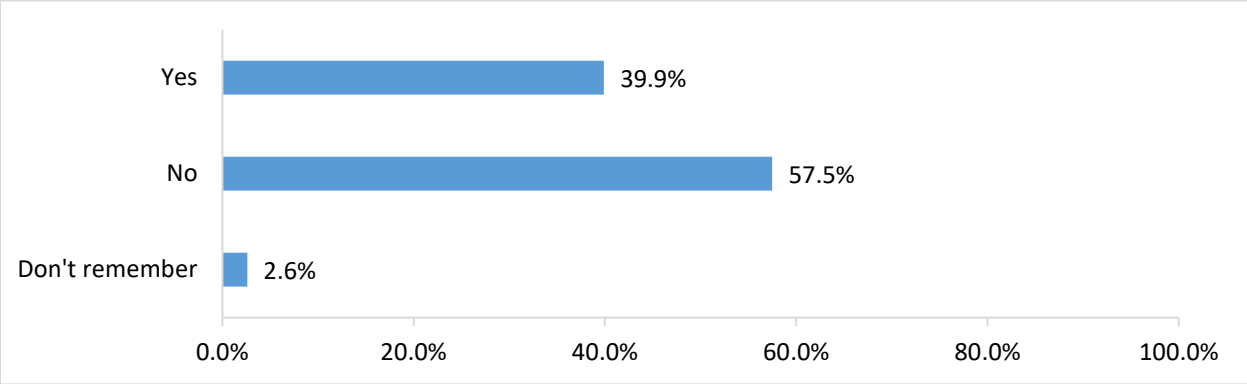
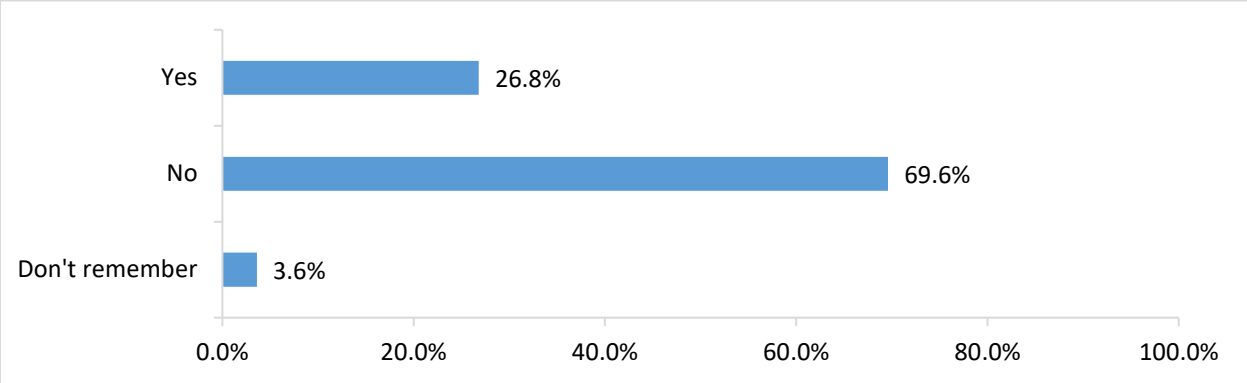


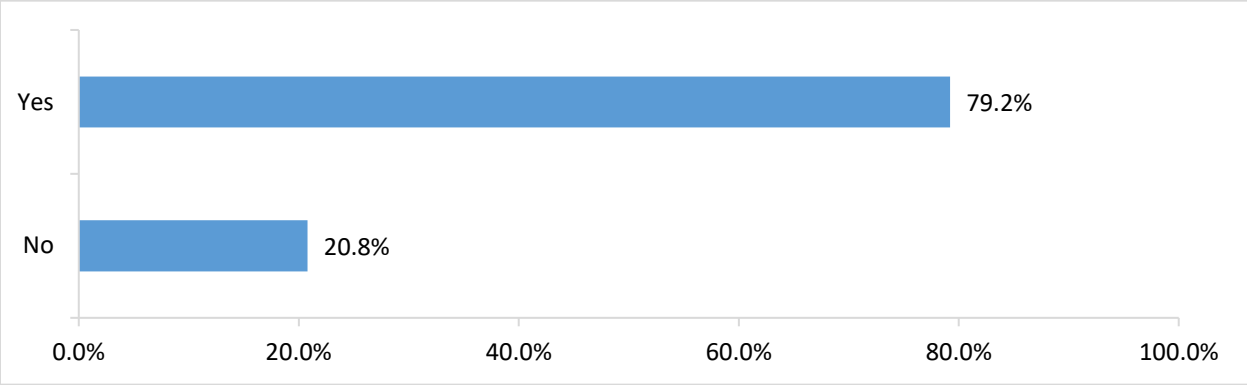
Figure 2 displays that several (69.6%) respondents have not had their drinking water tested for *E. coli* in the past five years.

Figure 2. Whether respondents had their drinking water tested for *E. coli* in the past five years (n=194)



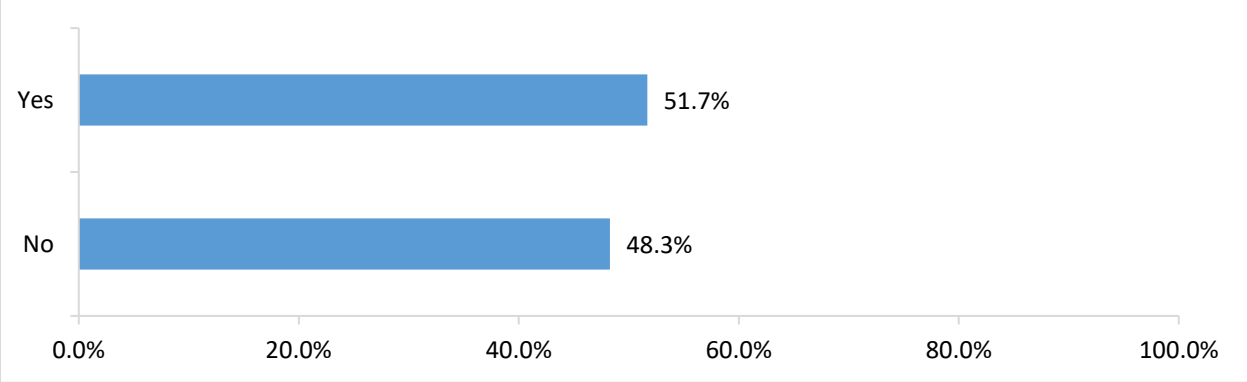
Over three quarters of respondents (79.2%) wastewater has been treated with a septic system (Figure 3).

Figure 3. Whether respondents' wastewater is treated with a septic system (n=183)



In figure 4, half (51.7%) of respondents septic system was installed prior to January 1, 2020.

Figure 4. Whether respondents' septic systems were installed prior to January 1, 2020 (n=147)



Over half of respondents' (65.6%; Figure 5) septic systems or lagoons have not been inspected within the last five years.

Figure 5. Whether respondents' septic system or lagoon has been inspected within the last five years (n=151)

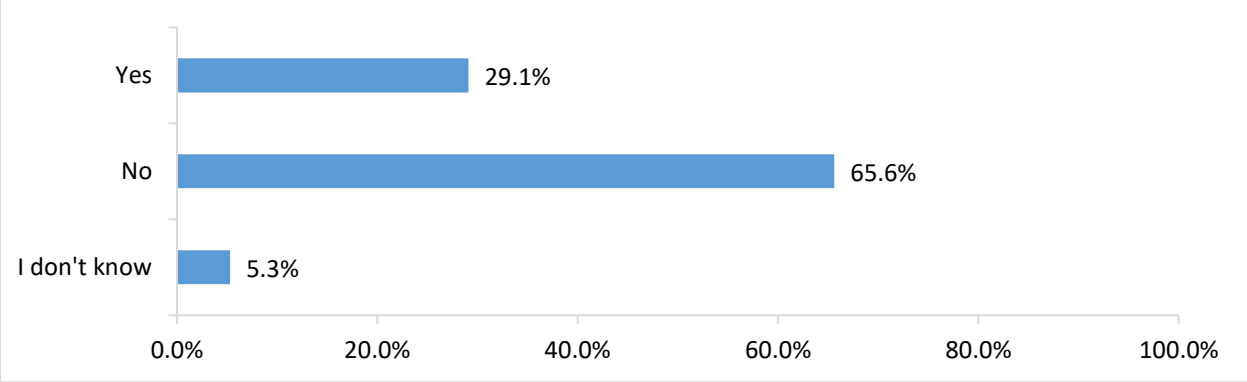
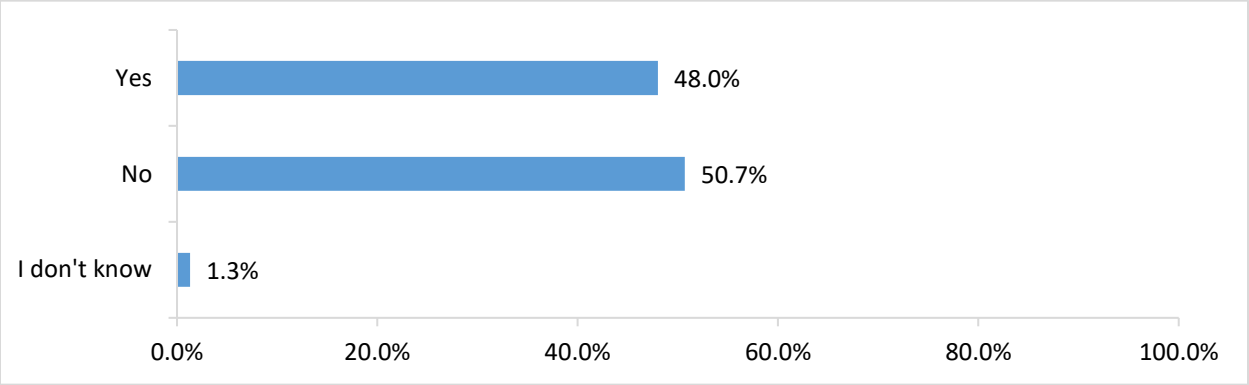


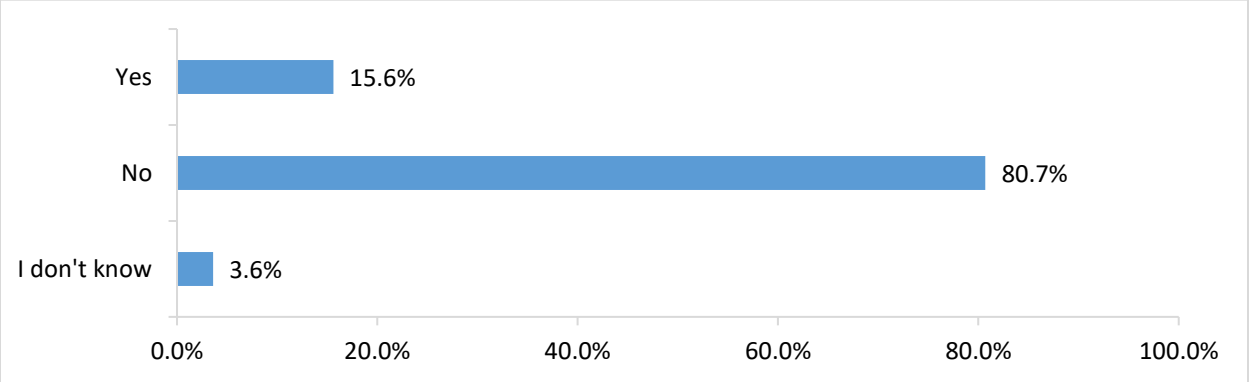
Figure 6 shows half of respondents' (50.7%) septic systems have not been pumped within the last 5 years.

Figure 6. Whether respondents' septic systems have been pumped within the last 5 years (n=152)



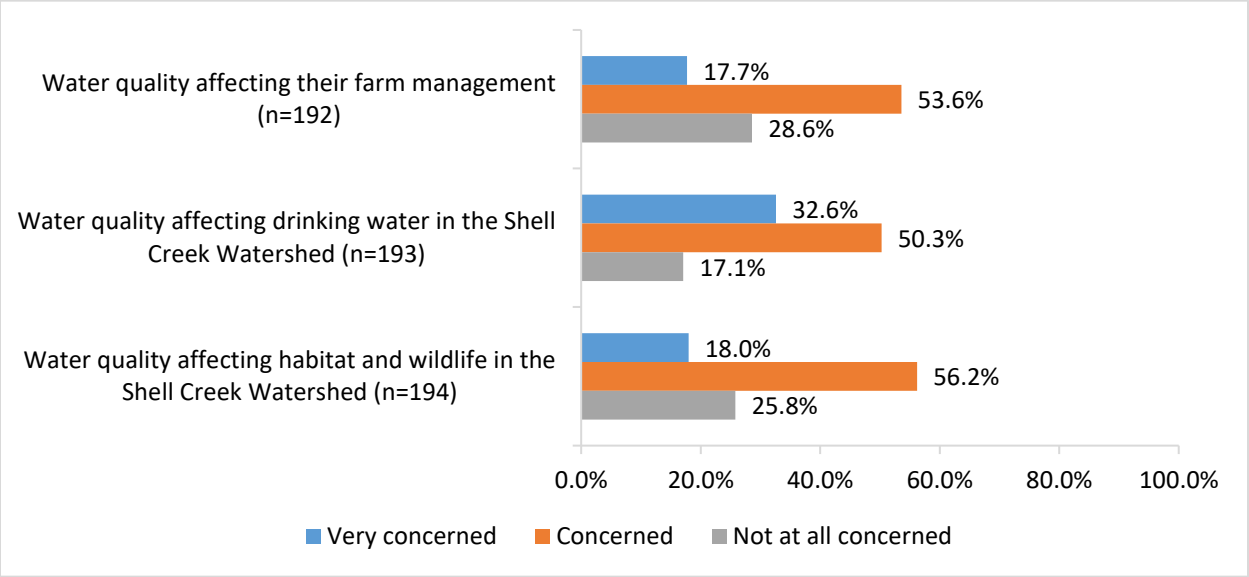
According to Figure 7, most respondents (80.7%) do not have an unused or abandoned well on a farm they own or rent.

Figure 7. Whether respondents have an unused or abandoned well on a farm they own or rent (n=192)



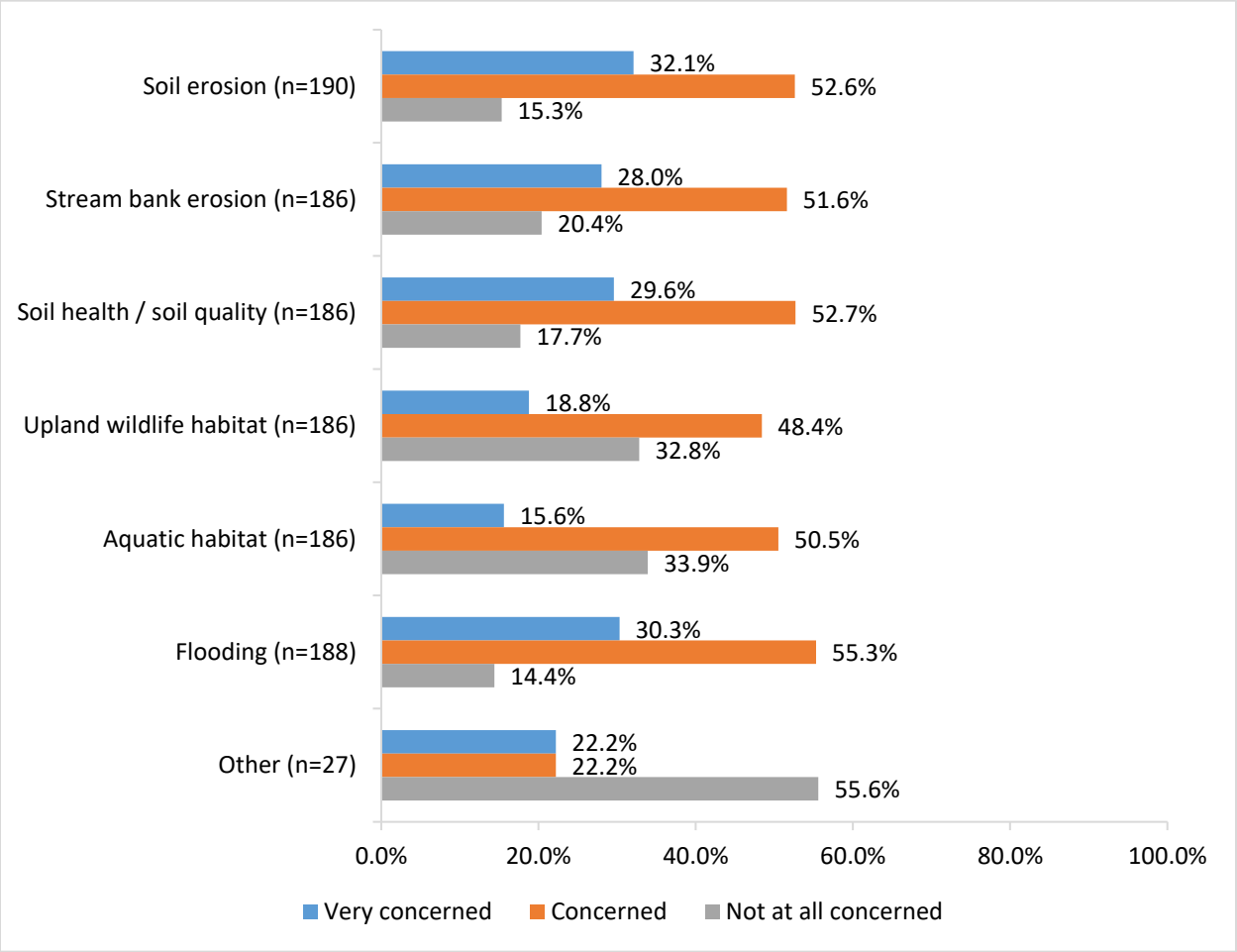
When respondents were asked how concerned they are with each of the following, half (53.6%) said they were concerned with water quality affecting their farm management. Half (50.3%) said they were concerned with water quality affecting drinking water in the Shell Creek Watershed and half (56.2%) said they were concerned about water quality affecting habitat and wildlife in the Shell Creek Watershed (Figure 8).

Figure 8. How concerned respondents are with each of the following



According to Figure 9, more than half of respondents show concern with resource issues in flooding (55.3%), soil health/soil quality (52.7%), soil erosion (52.6%), stream bank erosion (51.6%), aquatic habitat (50.5%), and upland wildlife habitat (48.4%).

Figure 9. How concerned respondents are with each of the following resource issues

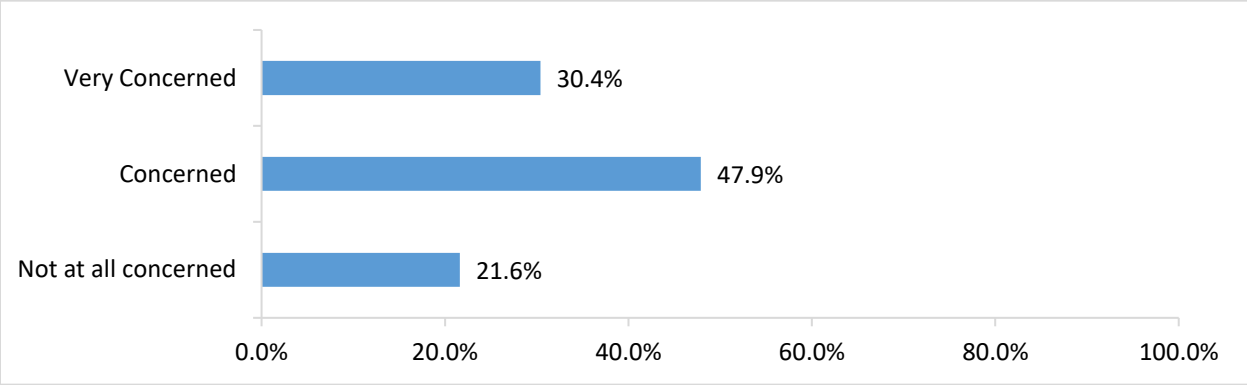


When respondents were asked what other concerns they have about resource issues in the Shell Creek Watershed, one respondent said cattle and hog waste pumped into Shell Creek and other water bodies. Other concerns were chemicals washing down the hills, lack of trees, restrictions on irrigation, water quantity, saturated soils, and a high water table.

Some other concerns were the government overreaching and too high of re-taxes do not allow for landowners to improve their property.

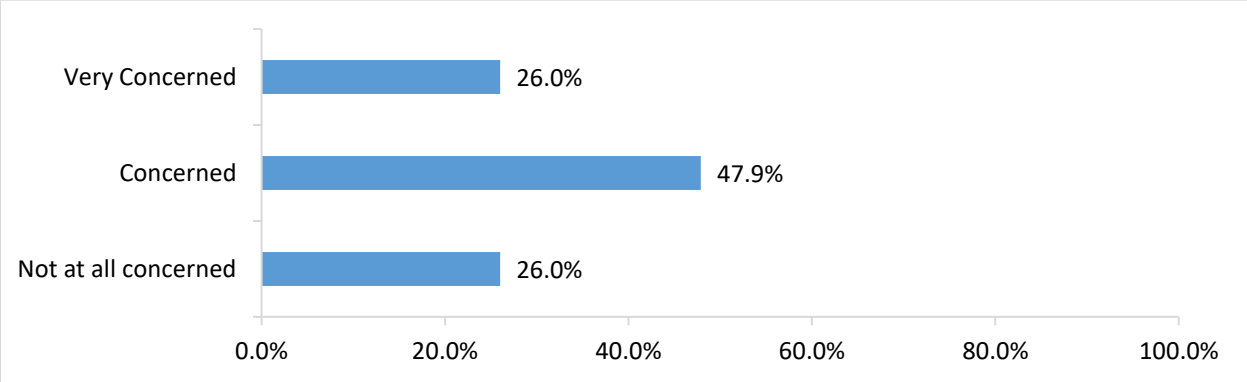
In Figure 10, close to half (47.9%) of respondents replied they are concerned with nitrate levels in their groundwater and almost a third (30.4%) are very concerned.

Figure 10. How concerned respondents are with the nitrate levels in their groundwater (n=194)



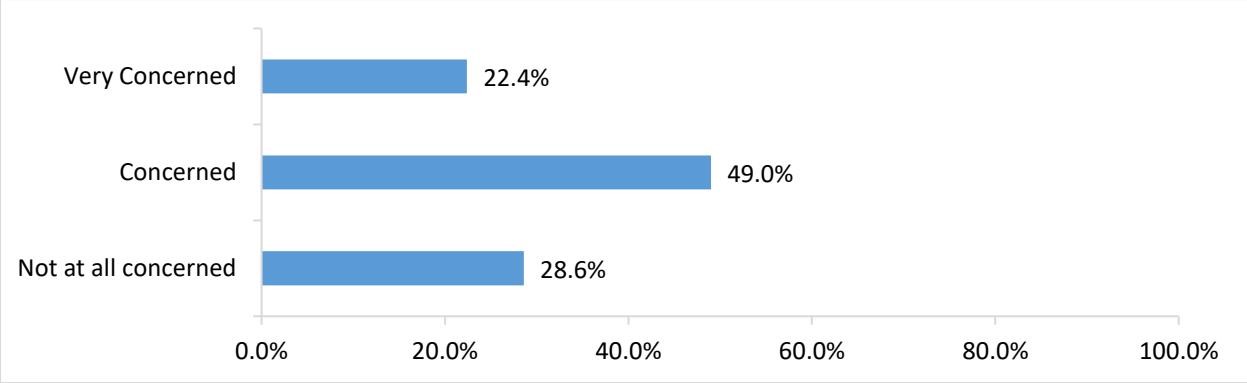
As displayed in Figure 11, almost half (47.9%) of respondents are concerned with *E. coli* in Shell Creek, while a quarter are either very concerned (26.0%) or not at all concerned (26.0%).

Figure 11. How concerned respondents are with *E. coli* in Shell Creek (n=192)



Nearly half of respondents (49.0%) are concerned with Atrazine levels in Shell Creek (Figure 12).

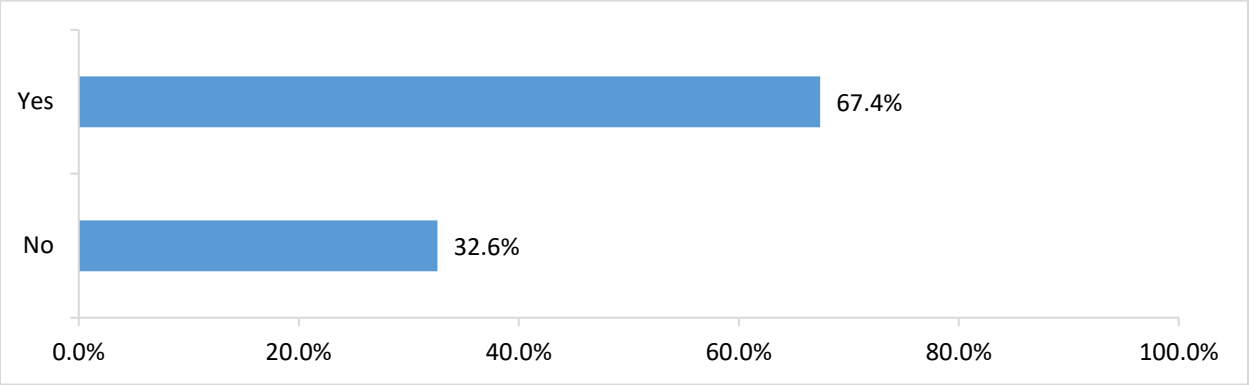
Figure 12. How concerned respondents are with Atrazine levels in Shell Creek (n=192)



Respondents were asked what issues needed to be addressed in the Shell Creek Watershed. Some common issues that were mentioned, included, soil erosion, flooding, hog confinements, water quality, and animal waste or run off from feed lots.

Figure 13 shows more than half (67.4%) of respondents are currently implementing Best Management Practices which benefit water quality.

Figure 13. Whether respondents currently implement any Best Management Practices (BMP) (n=181)



When respondents were asked if they have received a cost share payment for the BMP, most respondents (87.3%) said they have not (Figure 14).

Figure 14. Whether respondents have received a cost share payment for the BMP (n=181)

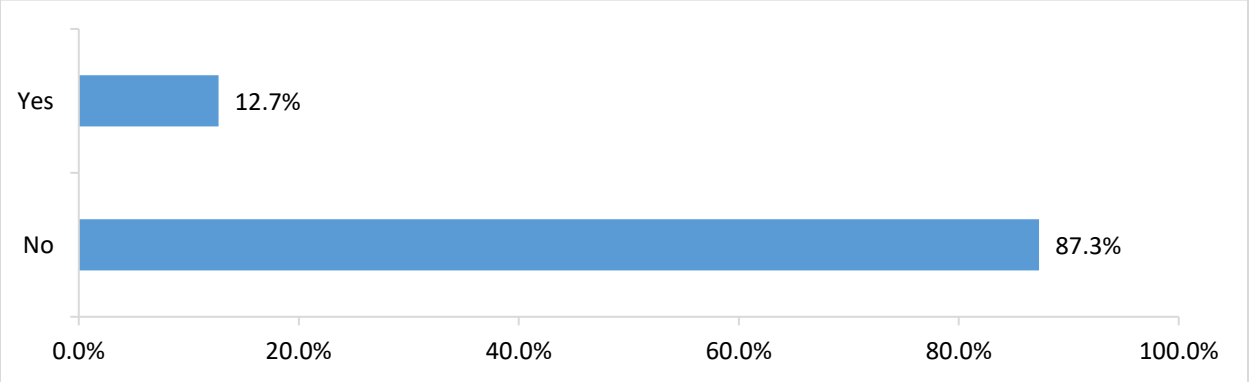


Figure 15 shows more than half of respondents are more likely to adopt or maintain a BMP or conservation practice if they had evidence that the practices would improve their profitability (54.3%). While close to half responded if they could get financial assistance to implement the practices (46.9%) and if they had evidence that the practices would not reduce yield (46.9%).

Figure 15. Whether respondents would be more likely to adopt or maintain a BMP or conservation practice if the following applied

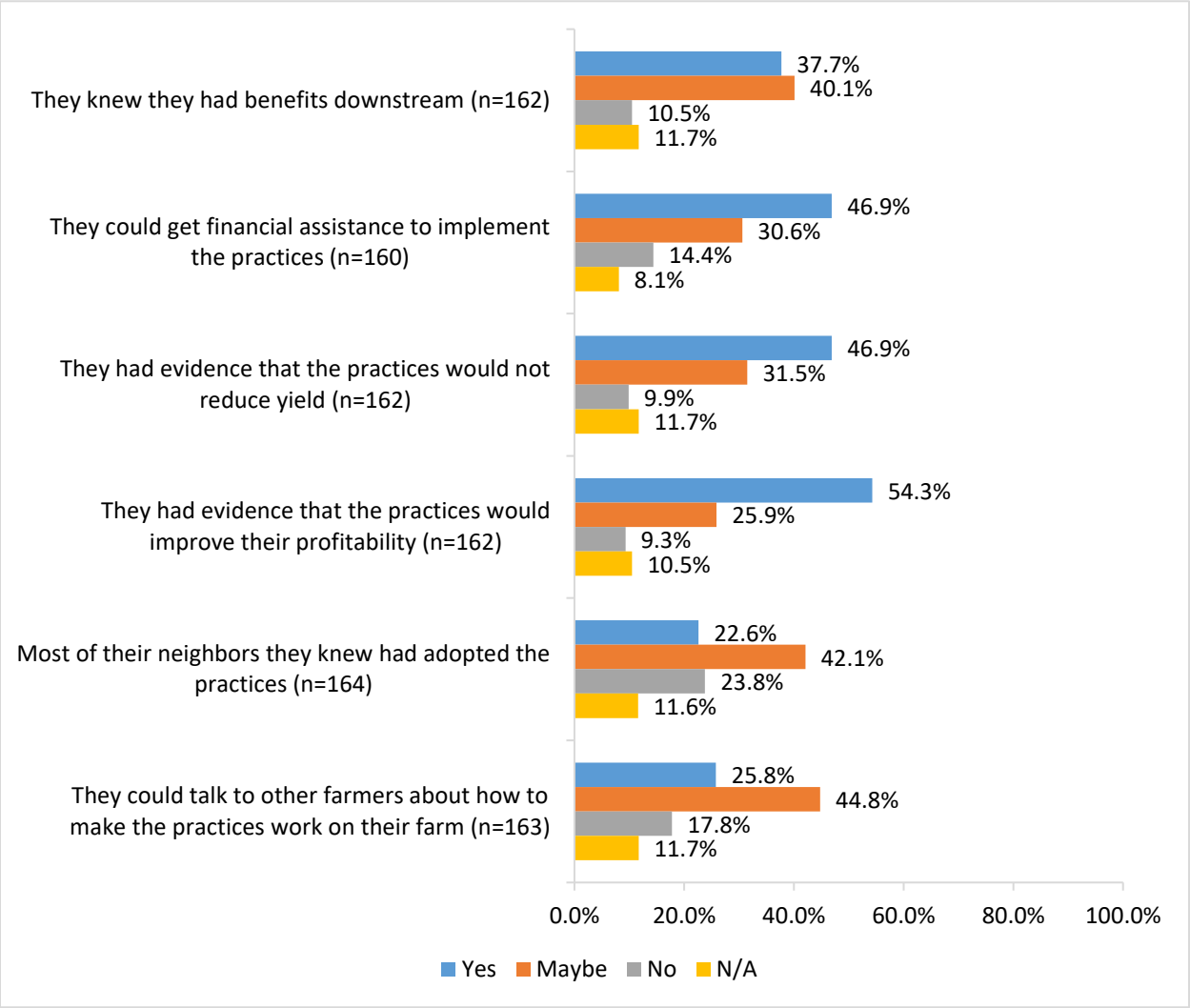
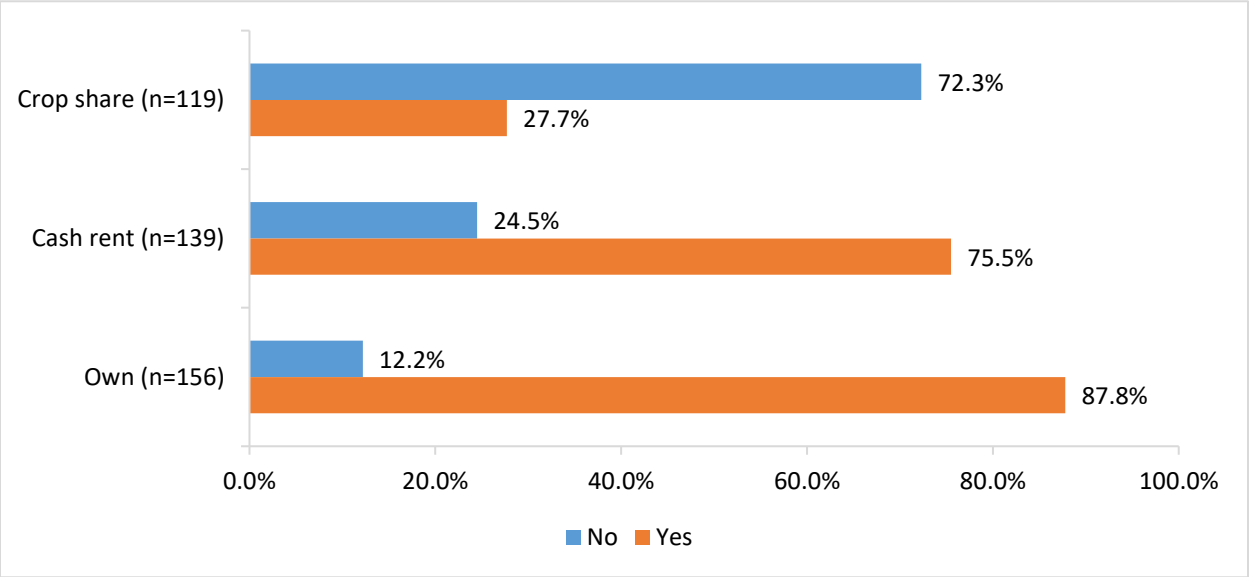


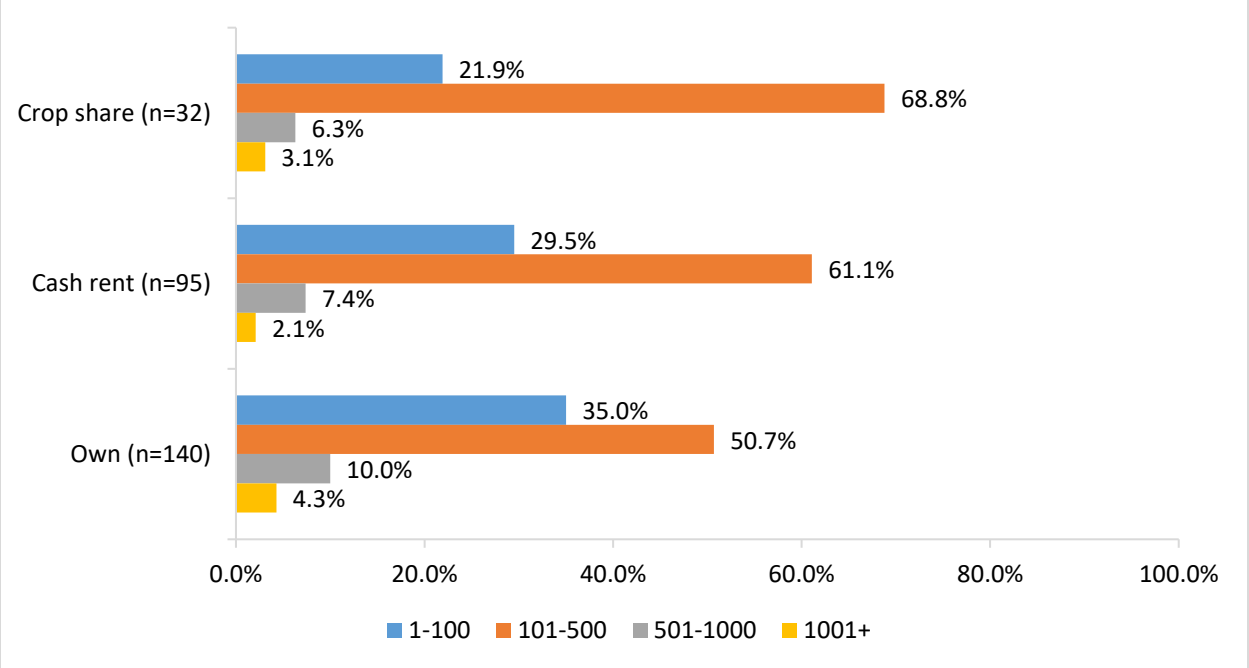
Figure 16 shows when respondents were asked to describe their ownership or management arrangements on their farm(s) in the Shell Creek Watershed, most respondents own (87.8%) and/or cash rent (75.5%) their farm(s).

Figure 16. Respondents' ownership or management arrangement of their farm in the Shell Creek Watershed



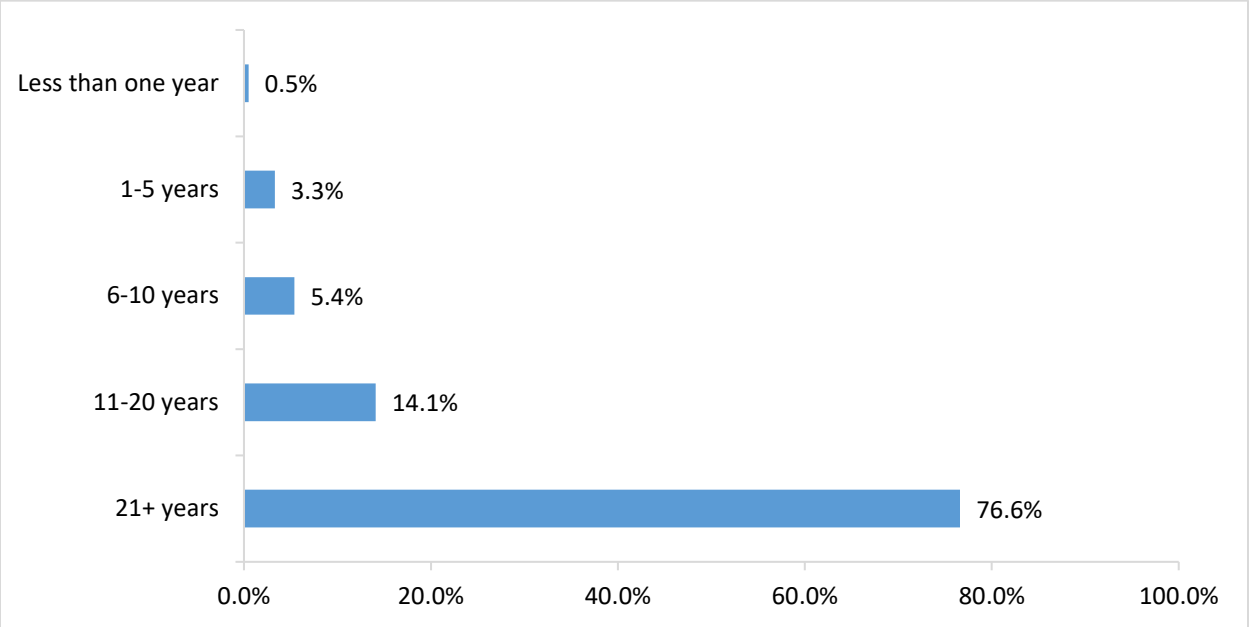
The majority of respondents have between 101 and 500 acres of farm land that they crop share (68.8%), cash rent (61.1%) or own (50.7%; Figure 17).

Figure 17. How many acres respondents own or manage



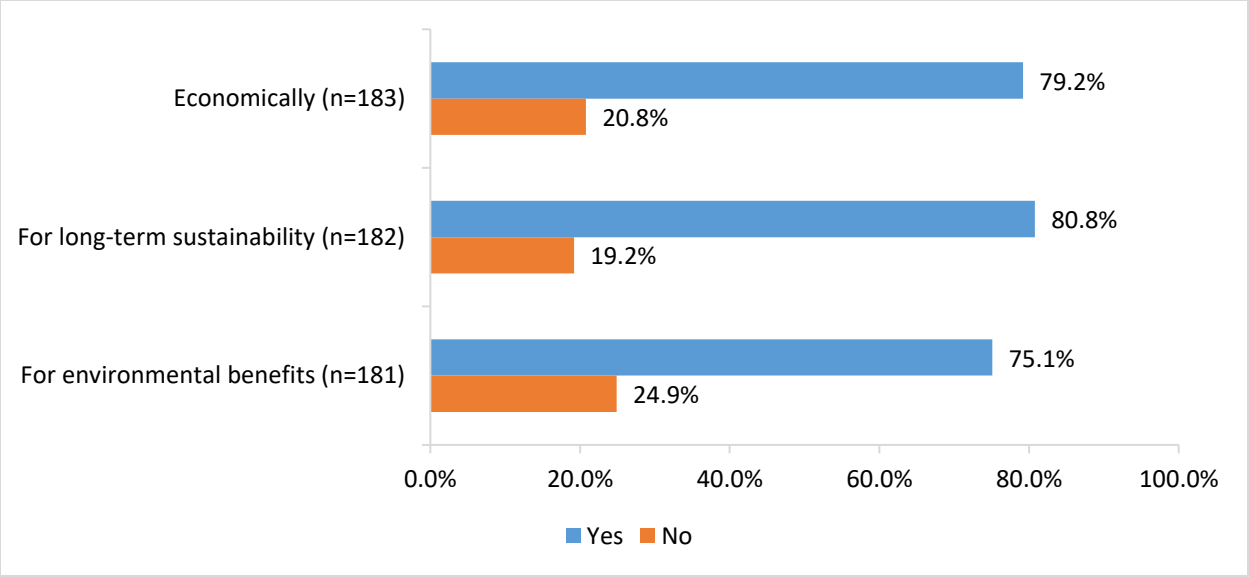
In Figure 18, most respondents (76.6%) have been farming at least twenty-one years.

Figure 18. The number of years respondents have been farming (n=184)



Over three quarters of respondents changed the way they farmed in the past five years in attempt to make their farm more successful economically (79.2%), for long-term sustainability (80.8%), and for environment benefits (75.1%; Figure 19).

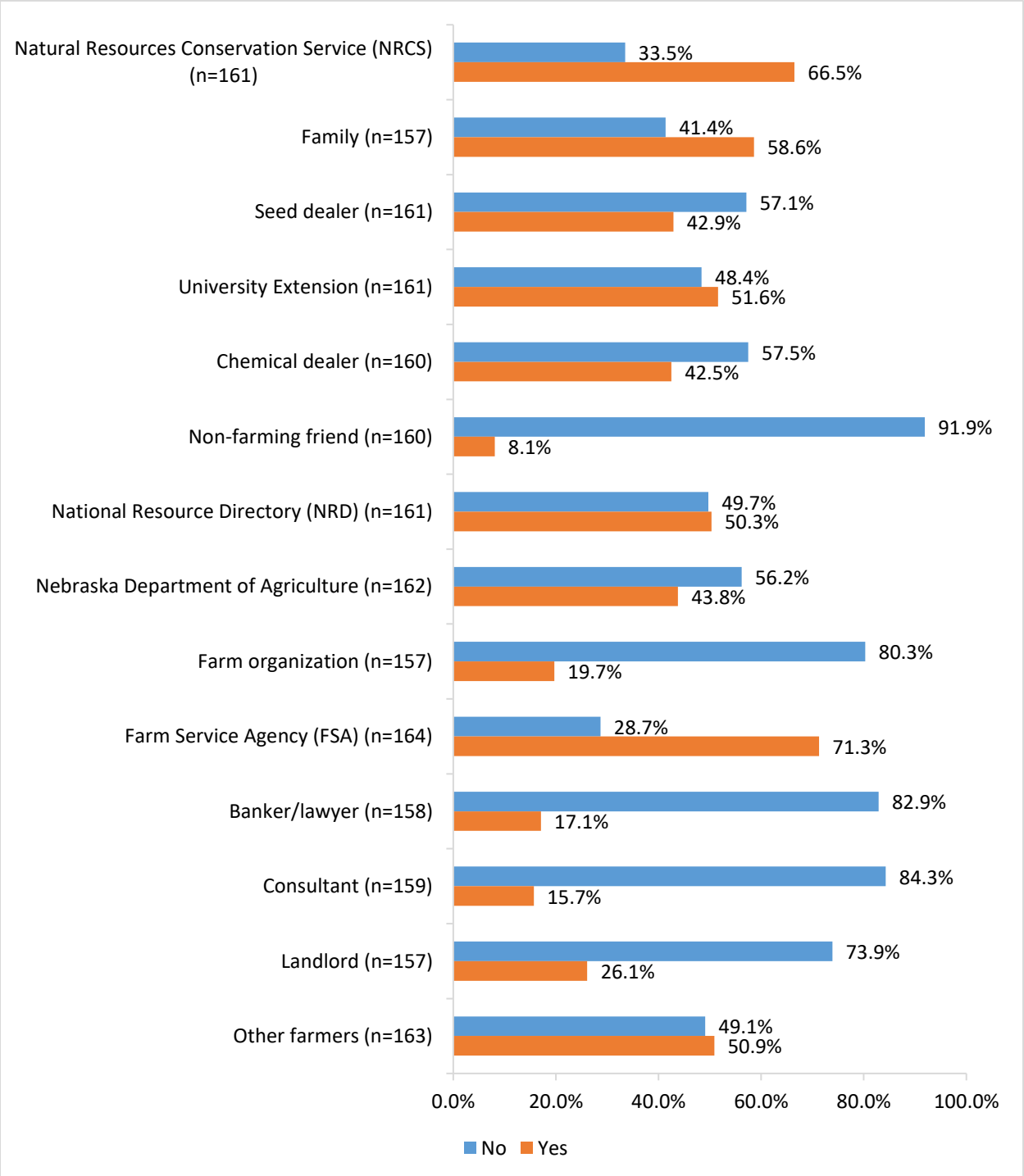
Figure 19. Whether respondents changed the way they farm in the past five years in attempt to make their farm more successful



As shown in Figure 20, almost three quarters of respondents use a Farm Service Agency (71.3%) when selecting conservation practices for their farming operation. Other main sources respondents use when selecting conservation practices for their farming operation include a Natural Resource Conservation

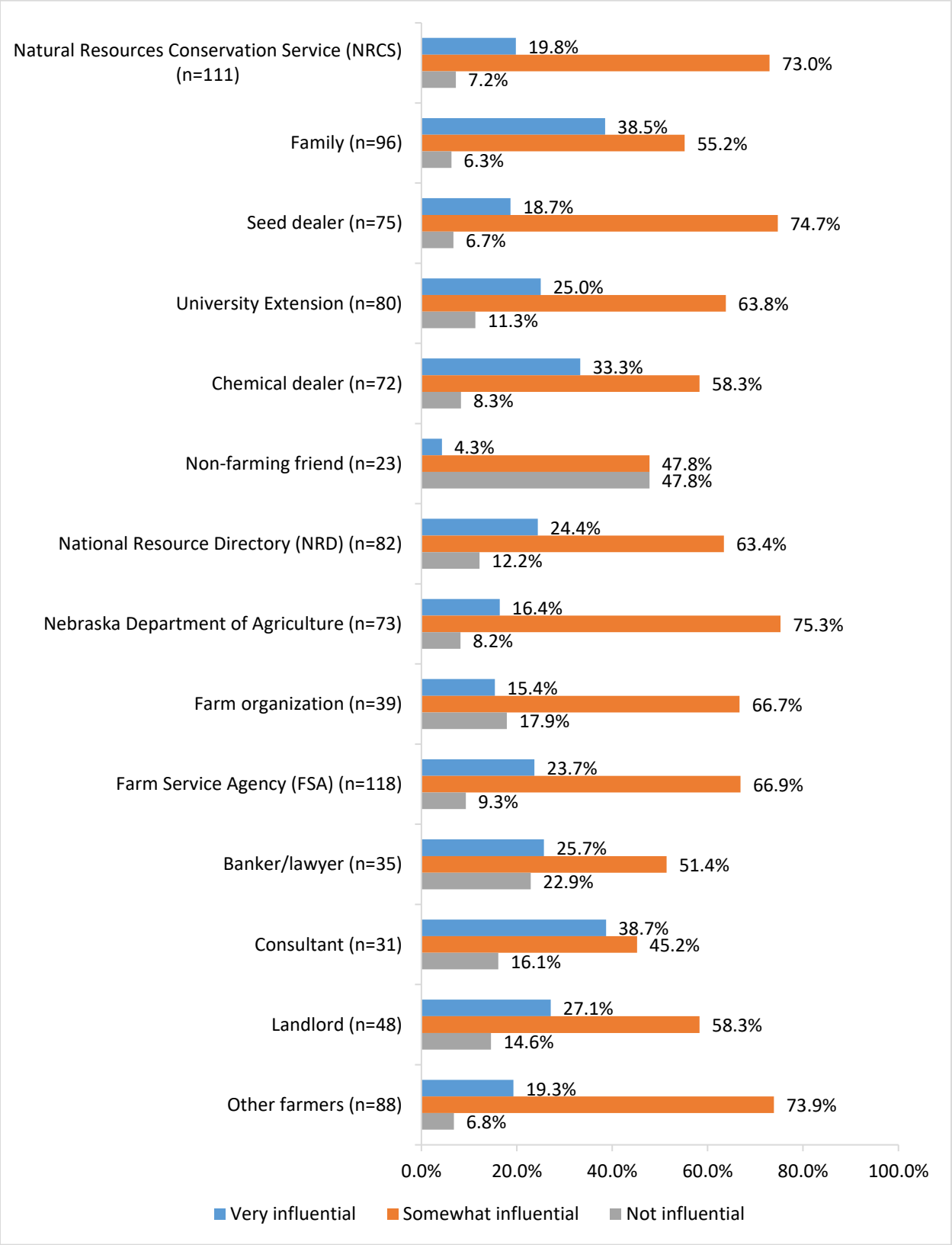
Service (NRCS) (66.5%), family (58.6%), University Extension (51.6%), other farmers (50.9%), and the National Resource Directory (NRD) (50.3%).

Figure 20. Whether respondents use the following sources when selecting conservation practices for their farming operation



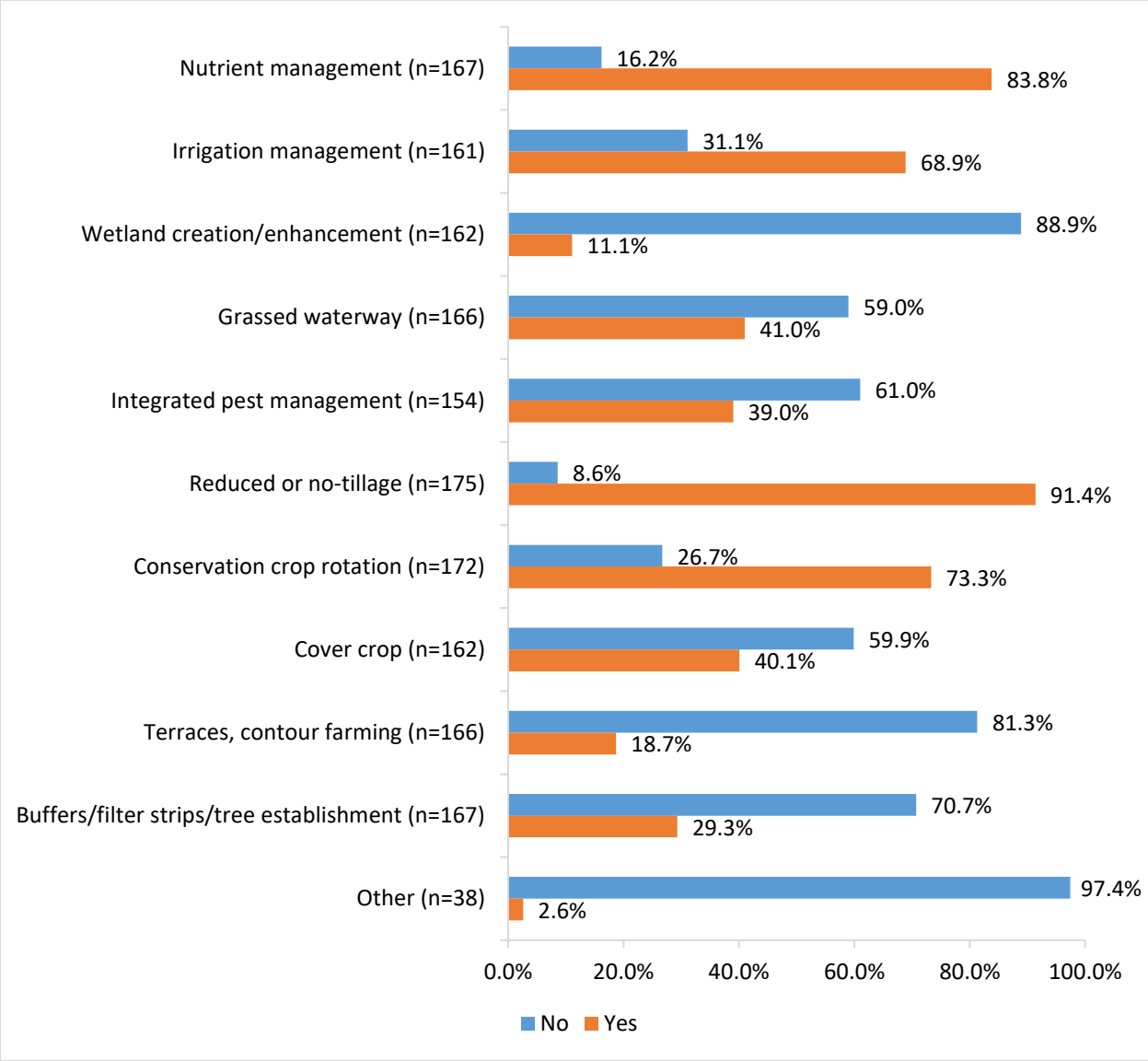
According to Figure 21, the majority of respondents feel that all sources are somewhat influential in their farming decisions. However, over a quarter of respondents feel that a consultant (38.7%), family (38.5%), and a chemical dealer (33.3%) are very influential. Nearly half (47.8%) responded that non-farming friends are not influential.

Figure 21. How influential each of the following sources are on respondents' farming decisions



As shown in Figure 22, the most used cropland practices respondents use on their farm are reduced or no-tillage (91.4%), nutrient management (83.8%), conservation crop rotation (73.3%) and Irrigation management (68.9%).

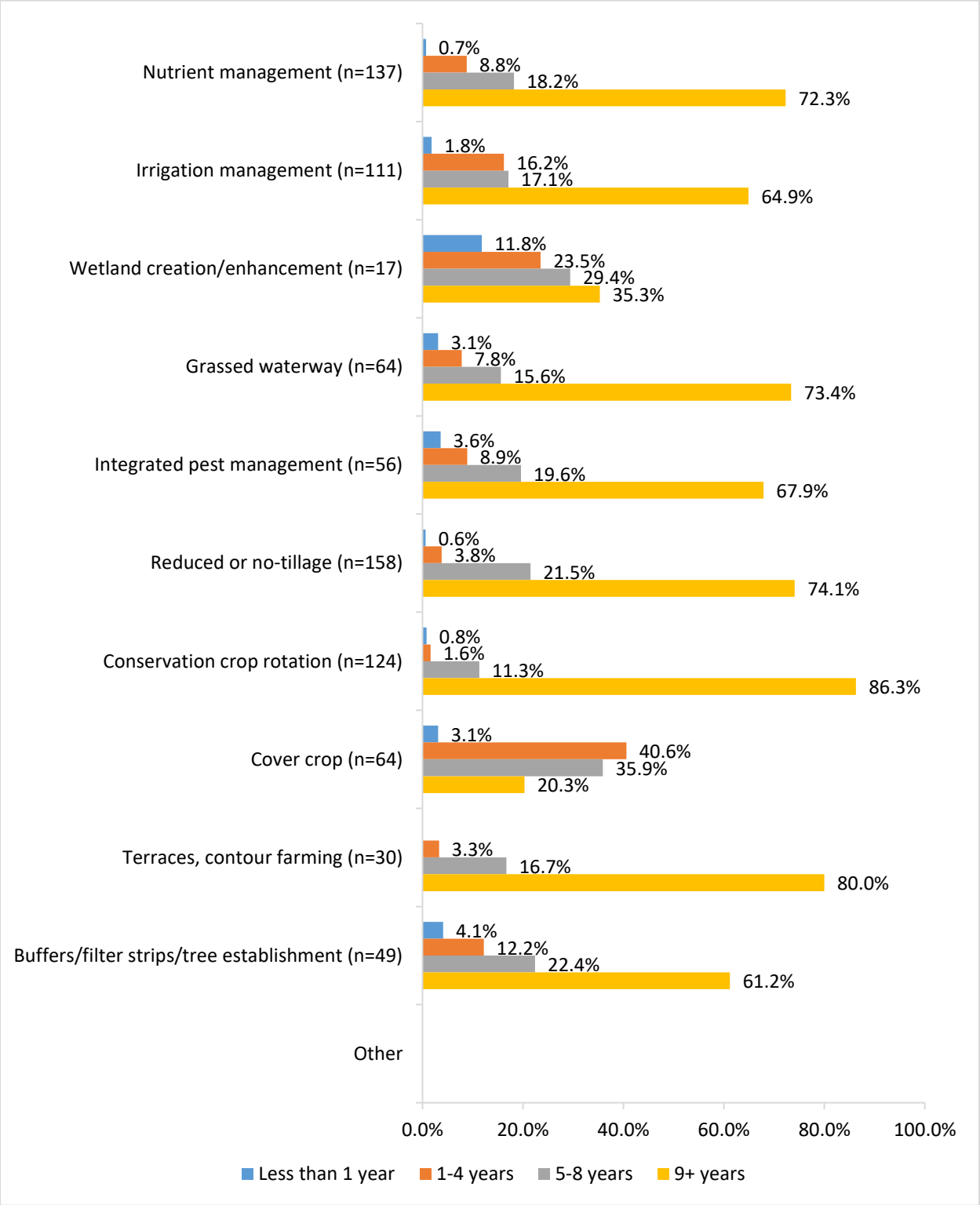
Figure 22. Whether respondents have been currently using each of the following cropland practices on their farm



A few other cropland practices respondents currently use on their farm are CRP (Conservation Reserve Program), soil sample, all pasture CRP, and trying to establish buffers (n=4).

As shown in Figure 23, many respondents who have been currently using the cropland practices have been following conservation crop rotation (86.3%) and nutrient management (72.3%) for nine or more years.

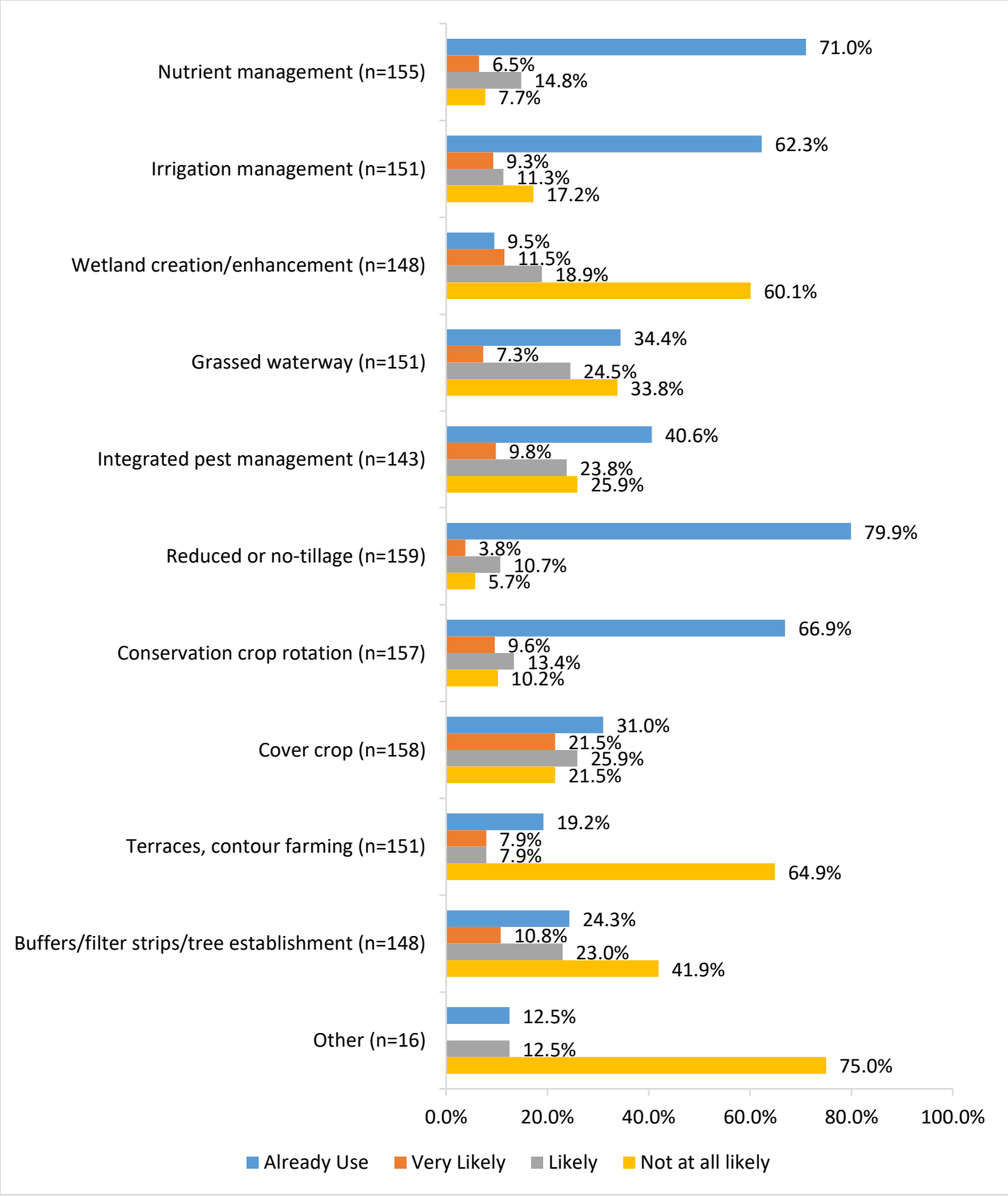
Figure 23. How long respondents have been using the following cropland practices



Respondents were asked how likely they would be to try each of the following conservation practices if money and time were not an issue. Figure 24 displays a good majority of respondents already use

reduced or no-tillage (79.9%), nutrient management (71.0%), conservation crop rotation (66.9%), and irrigation management (62.3%). Conservation practices respondents were not likely to use included terraces, contour farming (64.9%), wetland creation/enhancement (60.1%), and buffers/filter strips/tree establishment (41.9%).

Figure 24. How likely respondents would be to try each of the following conservation practices



More respondents (62.0%) do not raise livestock in the Shell Creek Watershed (Figure 25).

Figure 25. Whether respondents raise livestock in the Shell Creek Watershed (n=184)

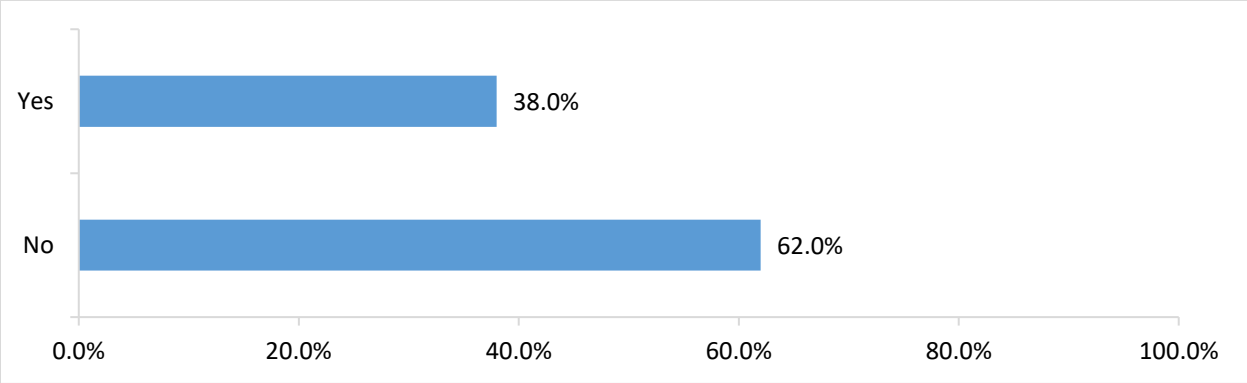
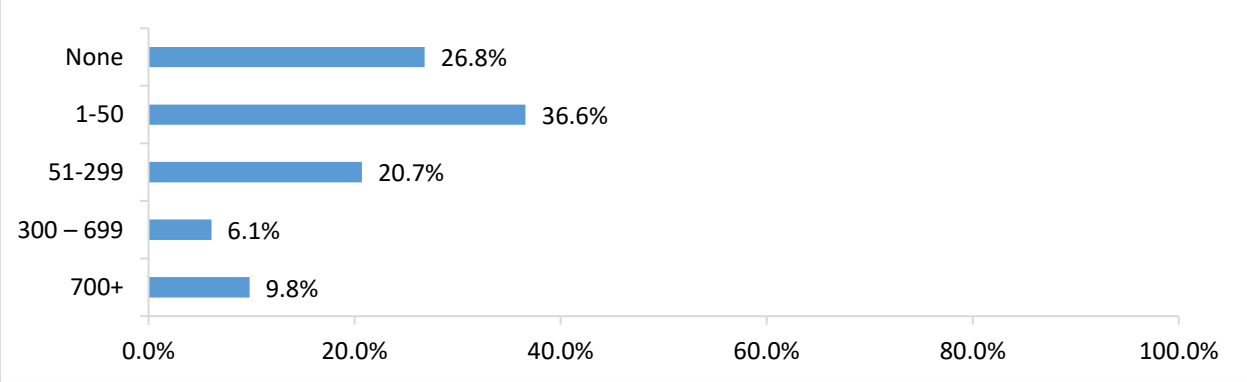


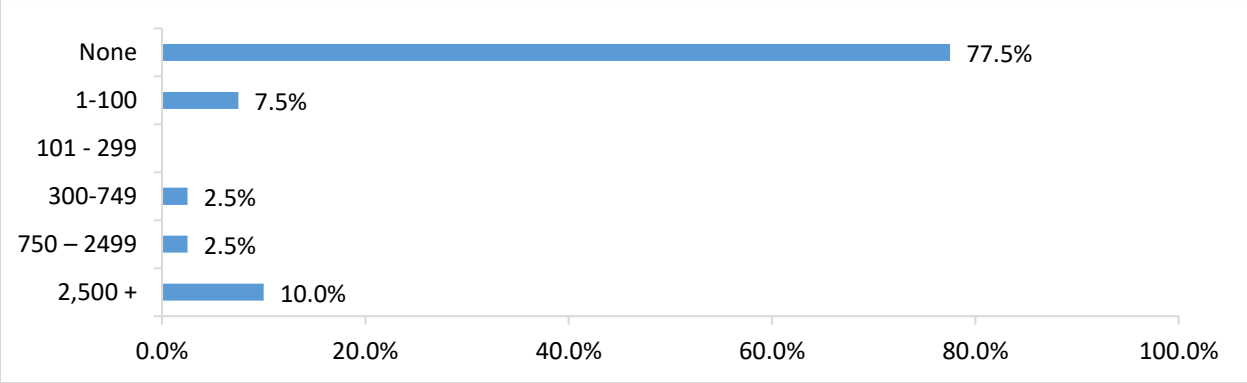
Figure 26 displays the majority (36.6%) of those who raise livestock in the Shell Creek Watershed raise between one and fifty cattle.

Figure 26. How many cattle respondents raise in the Shell Creek Watershed (n=82)



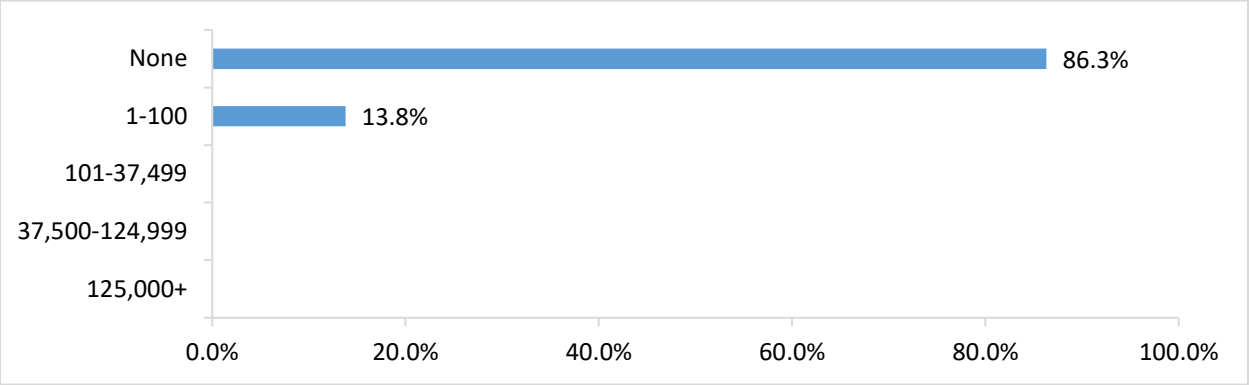
Of those who raise livestock, more than three quarters (77.5%) of respondents do not raise hogs. For those who do raise hogs, most (10.0%) raise 2,500 or more (Figure 27).

Figure 27. How many hogs respondents raise in the Shell Creek Watershed (n=80)



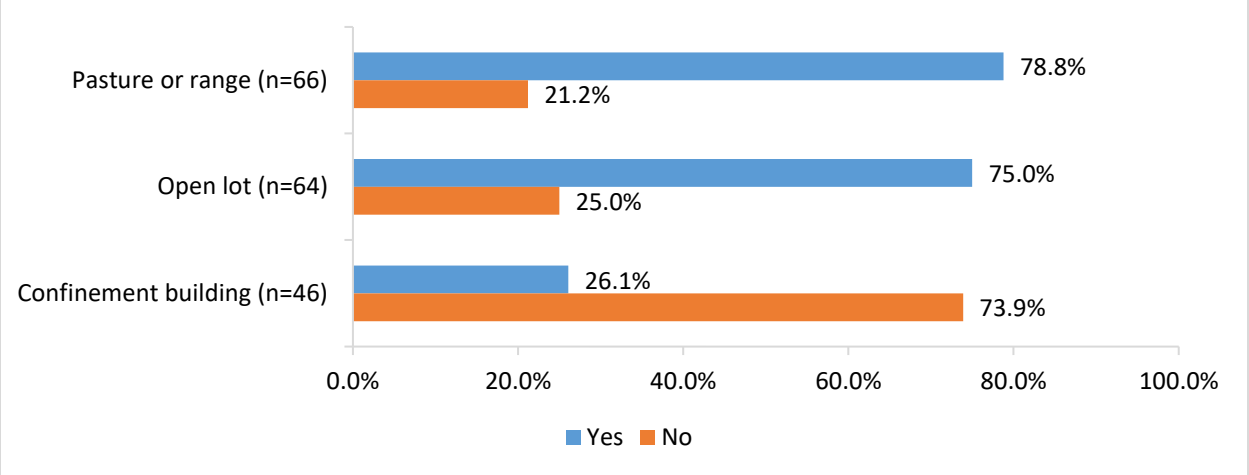
In Figure 28, respondents either do not raise poultry (86.3%) or raise between one and one hundred (13.8%).

Figure 28. How much poultry respondents raise in the Shell Creek Watershed (n=80)



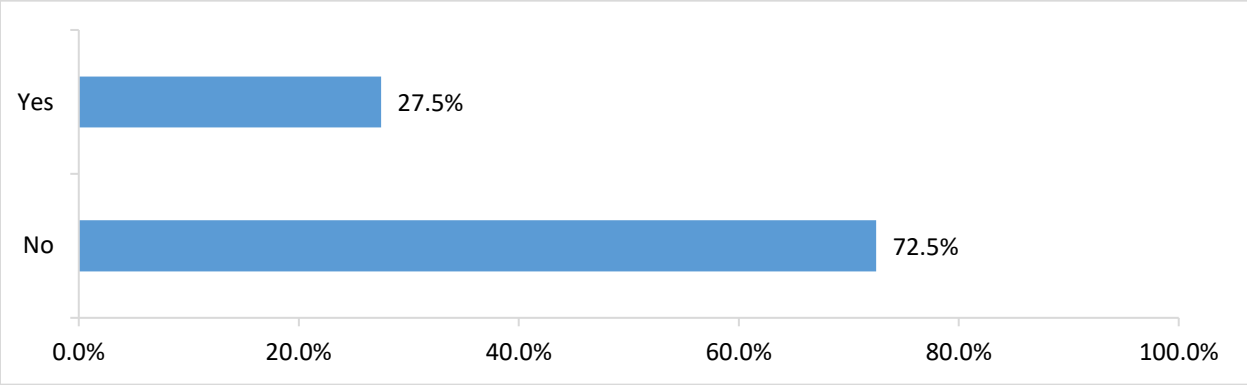
When respondents were asked where they maintain their livestock, several responded on a pasture or range (78.8%), or an open lot (75.0%; Figure 29).

Figure 29. Where respondents maintain their livestock



According to Figure 30, almost three quarters (72.5%) of respondents' livestock do not have access to an intermittent stream which flows after a rain storm.

Figure 30. Whether respondents livestock have access to an intermittent stream (n=80)



Most respondents (78.8%) do not have access to a perennial stream or continuously flowing water for their livestock (Figure 31).

Figure 31. Whether respondents' livestock have access to a perennial stream (n=80)

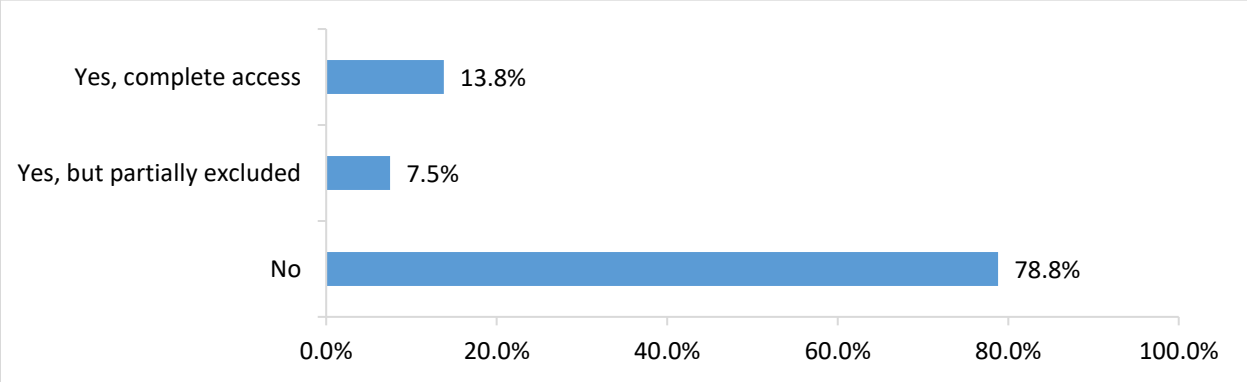
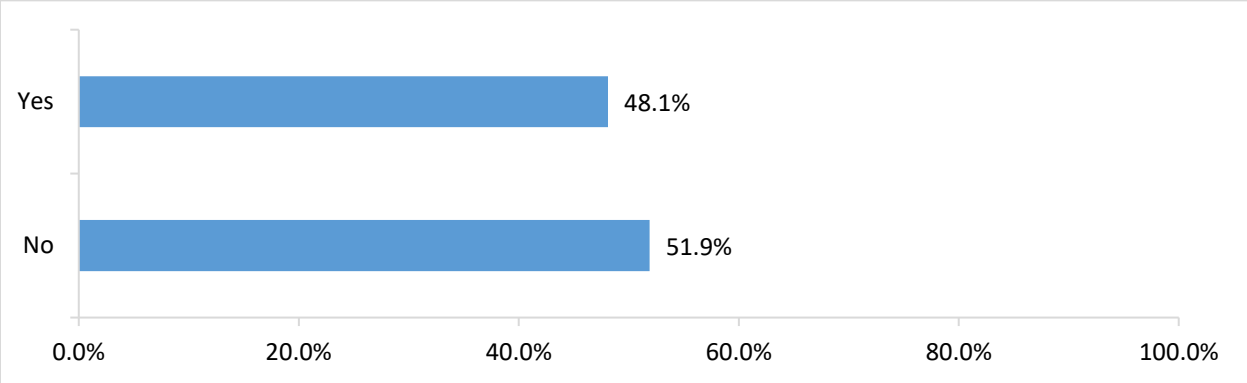


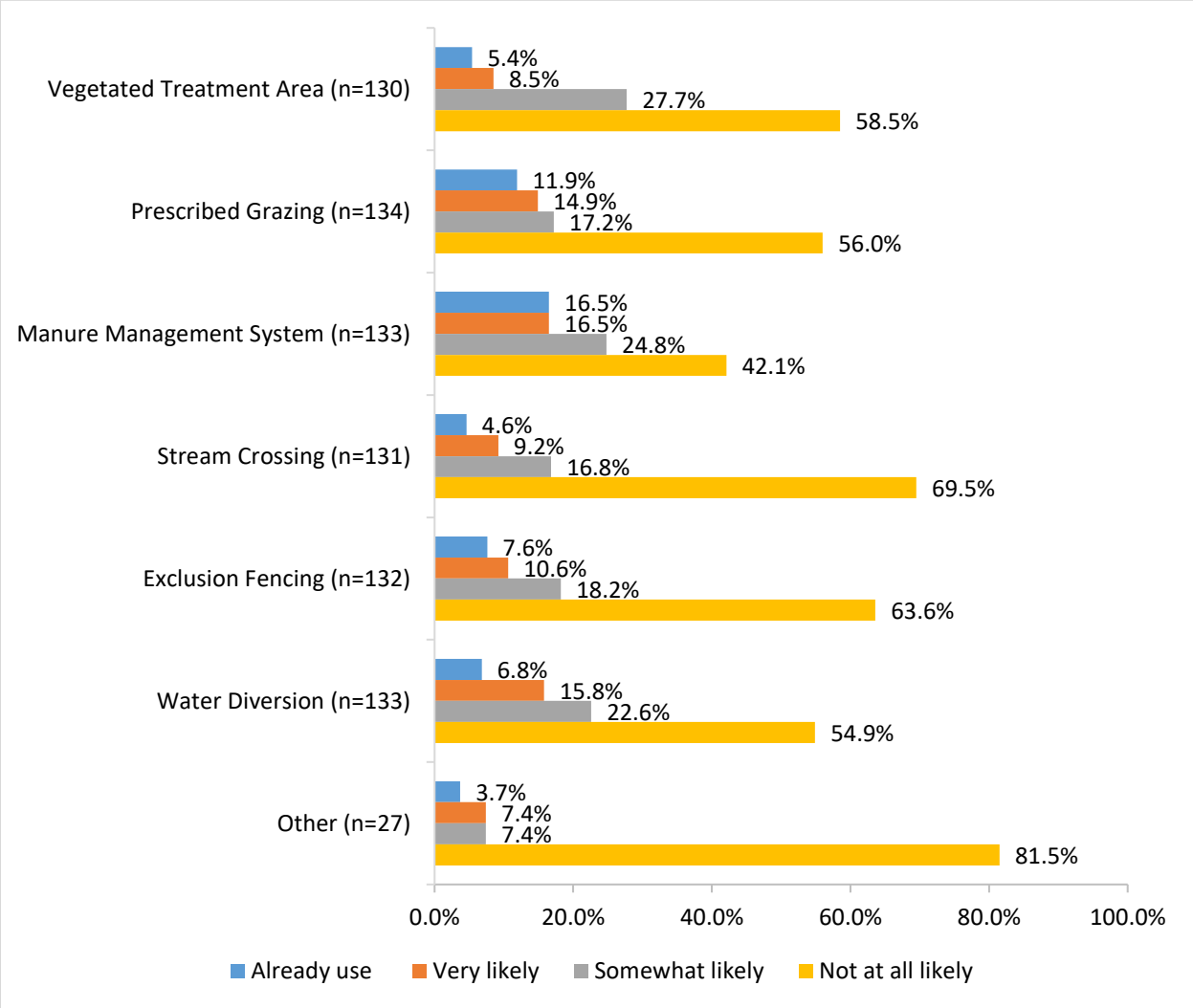
Figure 32 displays when respondents were asked whether their pastured livestock are in a rotational or managed grazing system, about half (48.1%) said they do while just over half (51.9%) said they do not.

Figure 32. Whether respondents' pastured livestock are in a rotational or managed grazing system (n=79)



More than half of respondents are not at all likely to use stream crossing (69.5%), exclusion fencing (63.6%), vegetated treatment areas (58.5%), prescribed grazing (56.0%), or water diversion (54.9%) conservation practices as seen in Figure 33.

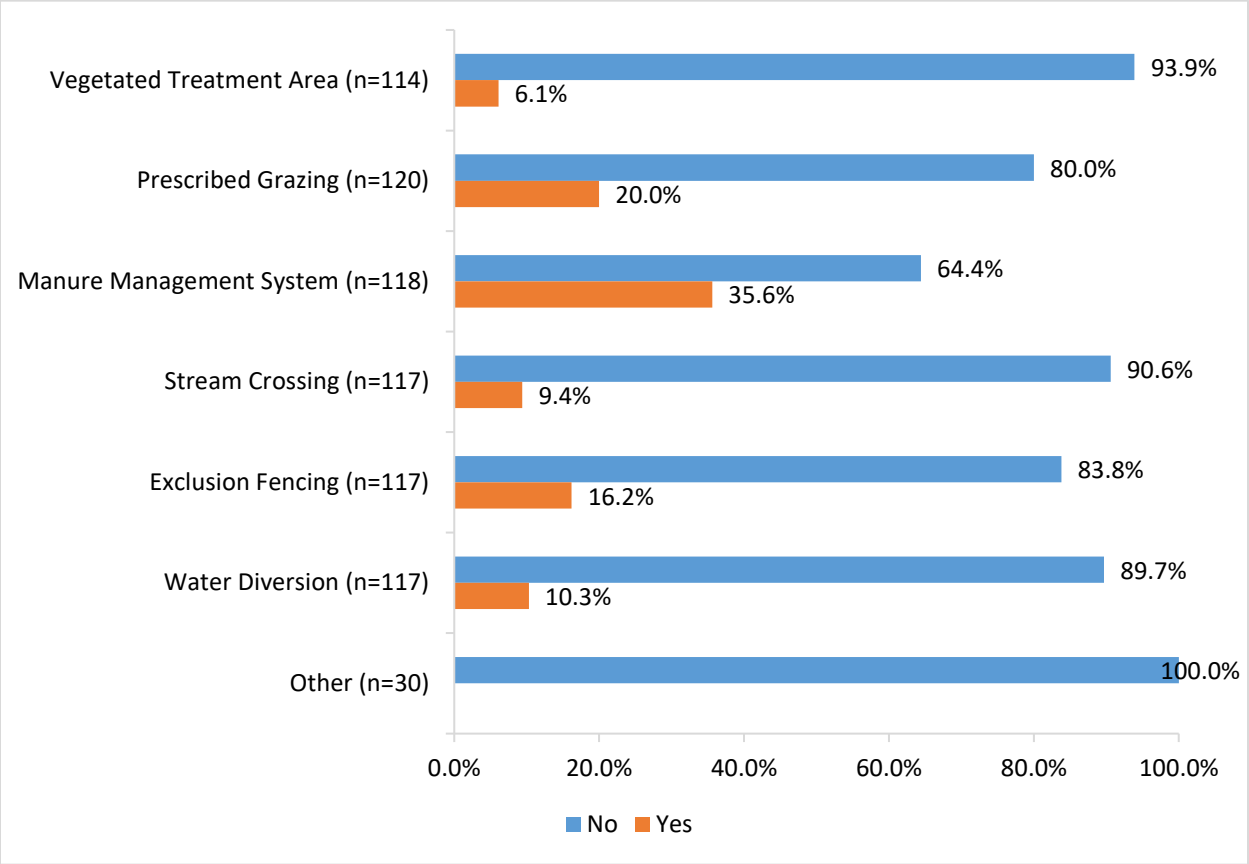
Figure 33. How likely respondents would be to try each of the following conservation practices if money and time were not an issue



When respondents were asked how likely they would be to try other practices if money and time were not an issue, one mentioned a rotational grazing with tank well water and another said a Conservation Reserve Program (CRP).

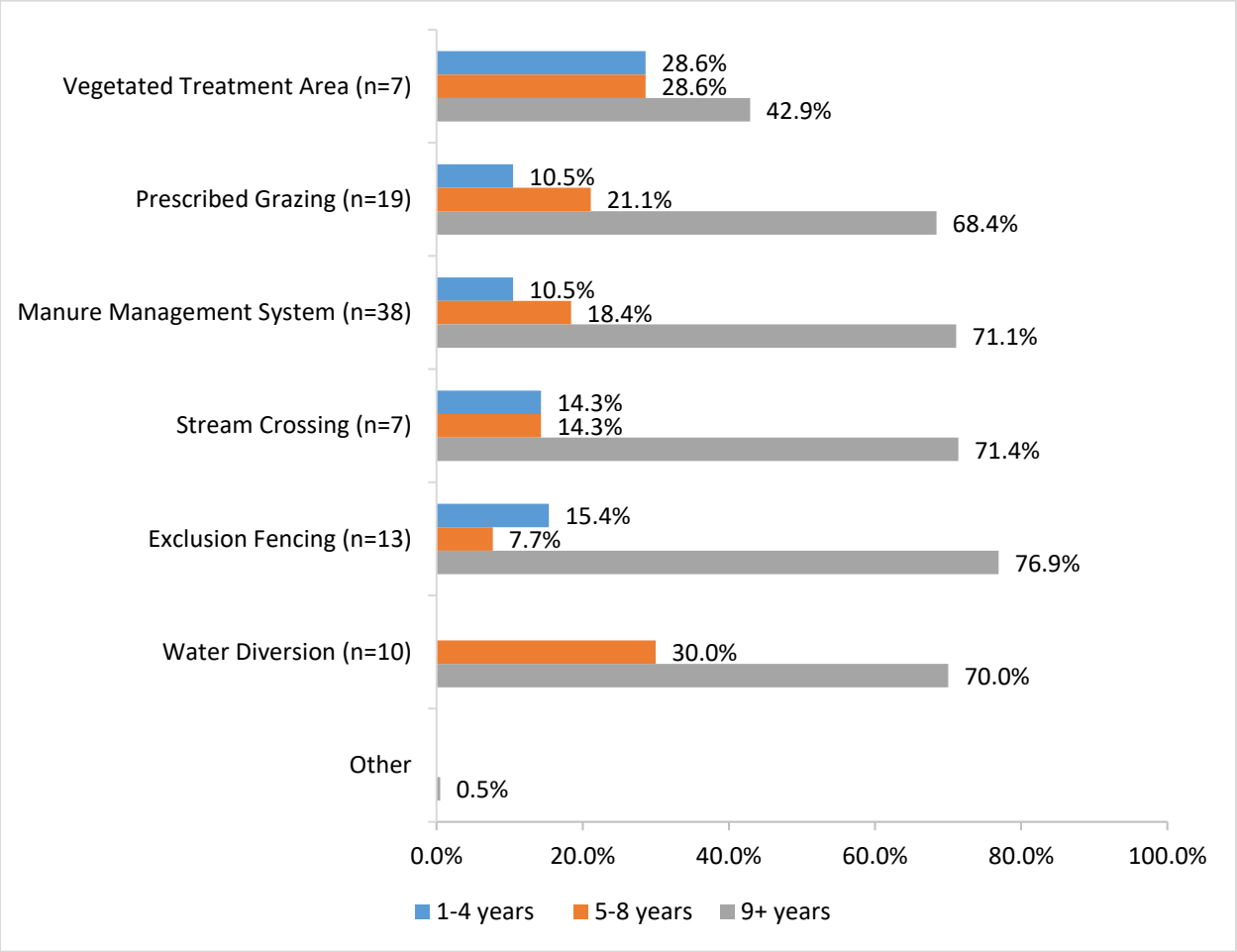
The majority of respondents shown in Figure 34 do not currently follow these livestock practices on their farms.

Figure 34. Whether respondents currently use each of the following livestock practices on their farm



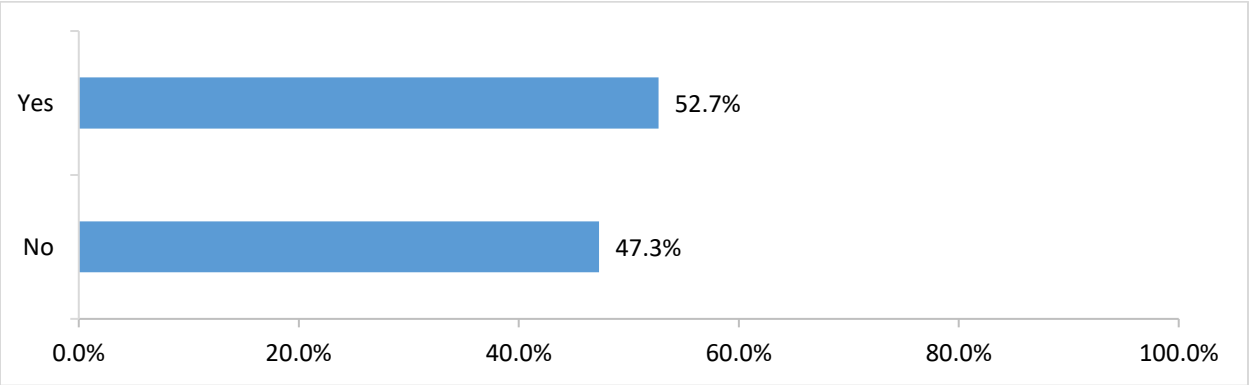
Of those respondents who currently use the following livestock practices, the majority answered they have been using vegetated treatment areas (42.9%), prescribed grazing (68.4%), a manure management system (71.1%), stream crossing (71.4%), exclusion fencing (76.9%), and water diversion (70.0%) on their farm for at least nine years (Figure 35).

Figure 35. How long respondents have been using each of the following livestock practices on their farm



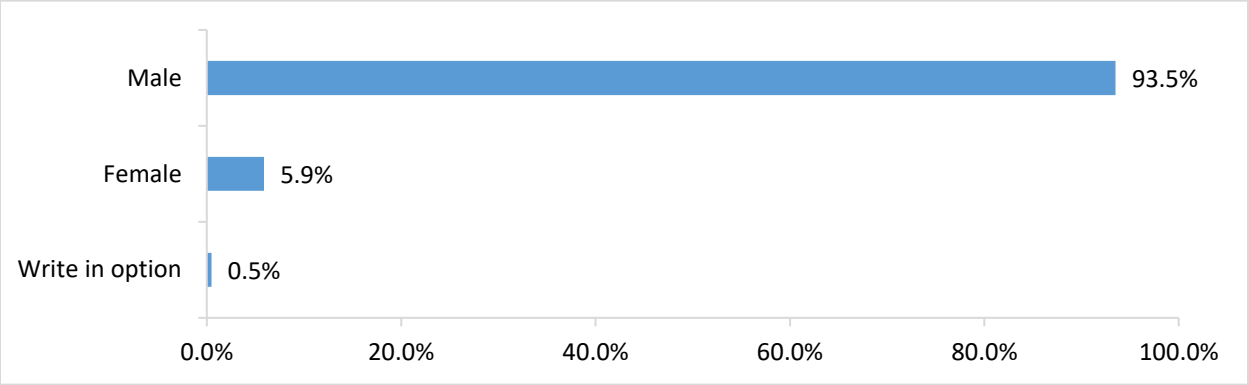
In Figure 36, just over half (52.7%) of respondents answered that they or someone else graze livestock on their cropland after harvest.

Figure 36. Whether respondents or someone else graze livestock on their cropland after harvest (n=165)



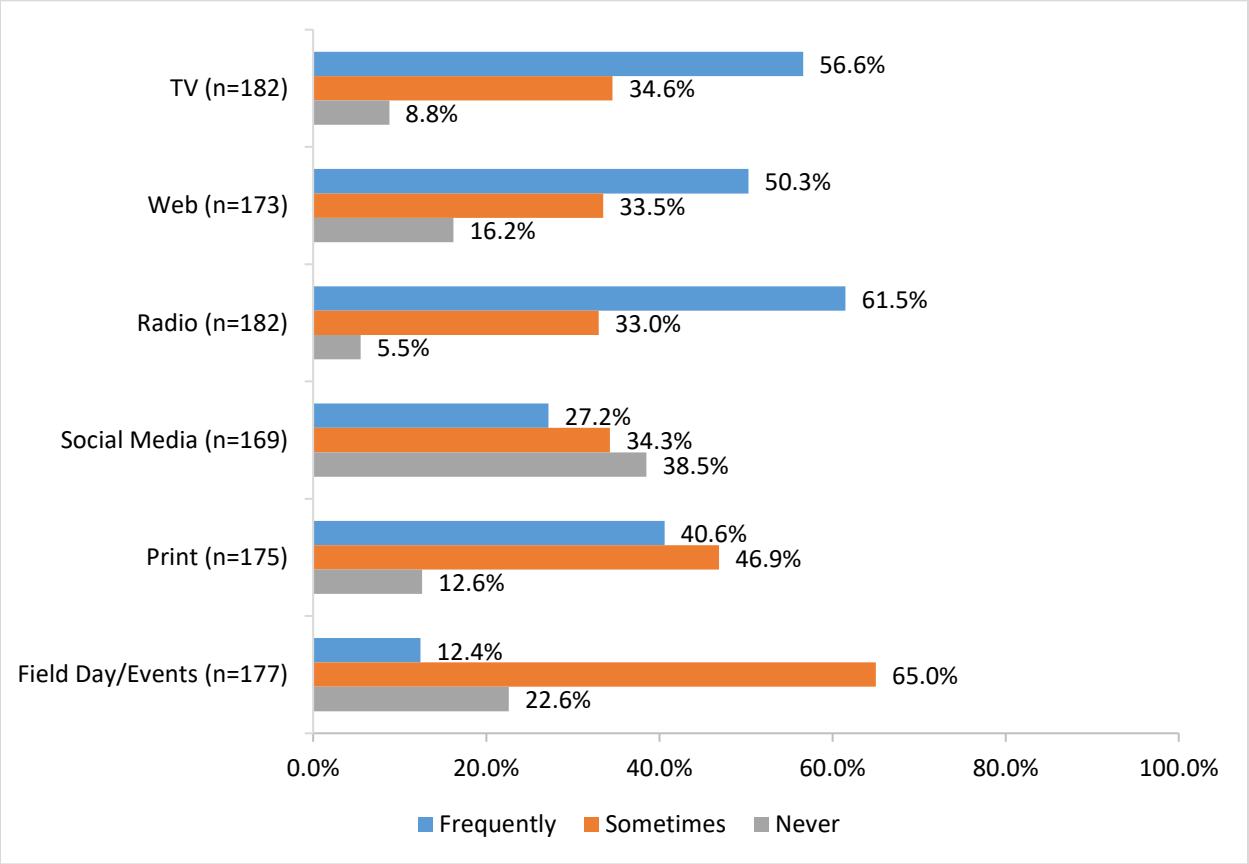
The majority of respondents who completed this Shell Creek survey are male (93.5%; Figure 37).

Figure 37. Respondent's gender (n=185)



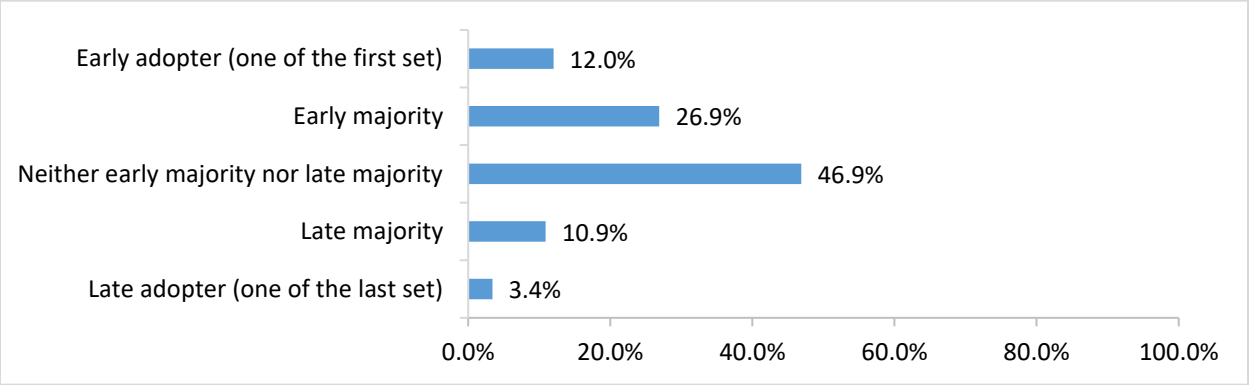
As displayed in Figure 38, respondents most frequently use the radio (61.5%), TV (56.6%), and Web (50.3%) media platforms. More than half of respondents (65.0%) use field day/events and almost half (46.9%) use print. Over a quarter or respondents never use social media (38.5%).

Figure 38: How often respondents use the following media formats



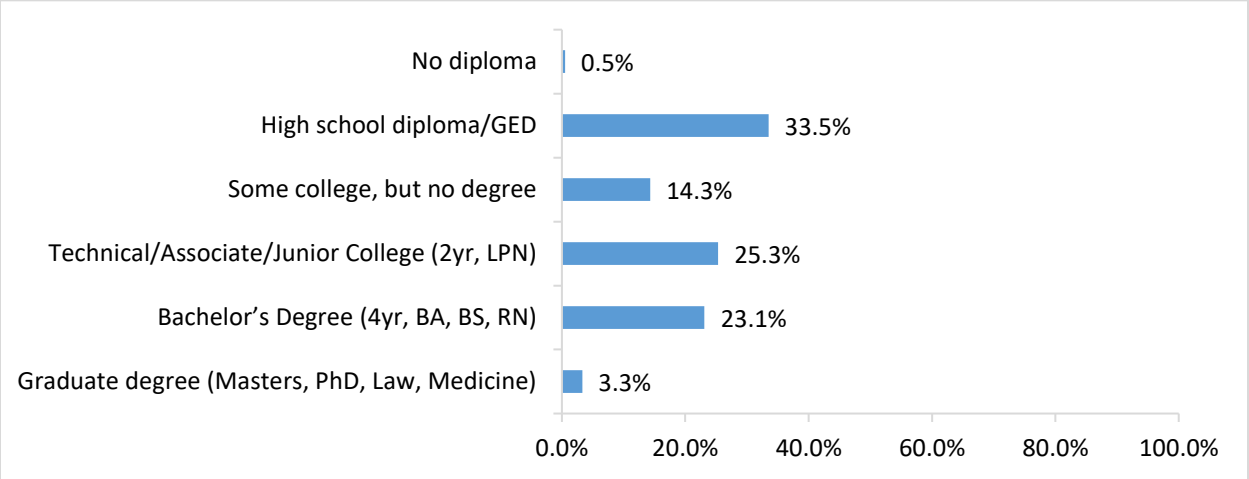
Most respondents (46.9%) placed themselves into neither early nor late majority when asked when they adopted new technologies compared to when other farmers adopt conservation technologies (Figure 39).

Figure 39. Where respondents place themselves into adopting conservation technology (n=175)



As seen in Figure 40, one-third of respondents have a high school diploma/GED (33.5%), while a quarter (25.3%) have technical/Associate/Junior College (2yr., LPN) education, and just under a quarter (23.1%) have a bachelor's degree (4yr, BA, BS, RN).

Figure 40. The highest level or education producers have completed (n=182)



Respondents were then asked to provide any feedback or comments. One person brought up that the feed lot east of Lindsay is too close to town while another said control is needed for runoff on cattle feeders and dairymen who chop all their corn off and plant no cover crops. It was also mentioned that CRP food plot buffers strip trees. One individual feels that those who work and till highly erodible land should be dealt with more strictly. They also mentioned that some NRCS and FSA employees could be more friendly and down to earth and that it would be more helpful if they could explain information rather than just telling people what they are in violation of or what they have done wrong.

One respondent said they test all their wells and they keep getting better, while another said they do not want to be told what to do with or on their land or water resources they own.

Another respondent brought up that their land is near Chad Creek in Grand Prairie Township where it is flat with very little run-off evidence. There is evidence of water pooling and only one area at run-off. Someone else said, the land that they owned and rented drains to the Looking Glass Watershed, in which the divide goes through their property.

It was brought up that if real estate taxes were lower, more landowners/farmers could afford management practices on marginal acres. They also said that Nebraska is one of the highest taxed states in the nation and it affects how the gets farmed.

One person said programs such as SWIG, NRD and Nebraska buffer programs are not a one size fits all and the programs need to be adjusted to fit different needs because not all areas experience the same problems or degree of flood damage. It was also said that the NRD does not utilize the volumes of data to analyze trends as a result of that program.

One person was thankful for continued work on environment and water quality. Someone also said that SCWIG has been a model organization for with a high level of success. One respondent included that both print and online farm trade magazines are a major source of information.

Appendix A: Shell Creek Watershed Survey

Shell Creek Watershed

Water Quality

1. Have you had your drinking water tested for nitrates in the past 5 years?
   - ○ Yes
   - ○ No
   - ○ Don't remember
2. Have you had your drinking water tested for bacteria *(E. coli)* in the past 5 years?
   - ○ Yes
   - ○ No
   - ○ Don't remember
3. Is your wastewater treated with a septic system?
   - ○ Yes
   - ○ No (skip to question 7)
4. Was your septic system installed prior to January 1, 2000?
   - ○ Yes
   - ○ No
5. Has your septic system or lagoon been inspected within the last 5 years?
   - ○ Yes
   - ○ No
   - ○ I don't know
6. Has your septic system been pumped within the last 5 years?
   - ○ Yes
   - ○ No
   - ○ I don't know
7. Do you have an unused or abandoned well on a farm you own or rent?
   - ○ Yes
   - ○ No
   - ○ I don't know
8. How concerned are you about each of the following?

	Very concerned	Concerned	Not at all concerned
a. Water quality affecting your farm management	○	○	○
b. Water quality affecting drinking water in the Shell Creek Watershed	○	○	○
c. Water quality affecting habitat and wildlife in the Shell Creek Watershed	○	○	○

9. How concerned are you about the following resource issues in the Shell Creek Watershed?

	Very concerned	Concerned	Not at all concerned
a. Soil erosion	○	○	○
b. Stream bank erosion	○	○	○
c. Soil health / soil quality	○	○	○
d. Upland wildlife habitat	○	○	○
e. Aquatic habitat	○	○	○
f. Flooding	○	○	○
g. Other, please specify:	○	○	○

Nitrate

Nitrate is both a natural and manmade inorganic compound. It may originate from fertilizer, manure, human waste and decaying organic matter. It enters groundwater through infiltration through the soil and enters streams through overland runoff.

10. How concerned are you with the nitrate levels in your groundwater?

- ○ Very concerned
- ○ Concerned
- ○ Not at all concerned

E. coli

E. coli bacteria are excreted in the feces of humans and animals. It enters a stream, river, or lake by direct deposit from livestock, wildlife, and/or runoff from animal feedlots or land application of manure. Discharges also may come from municipal and private wastewater systems.

11. How concerned are you with E. coli in Shell Creek?

- ○ Very concerned
- ○ Concerned
- ○ Not at all concerned

Atrazine

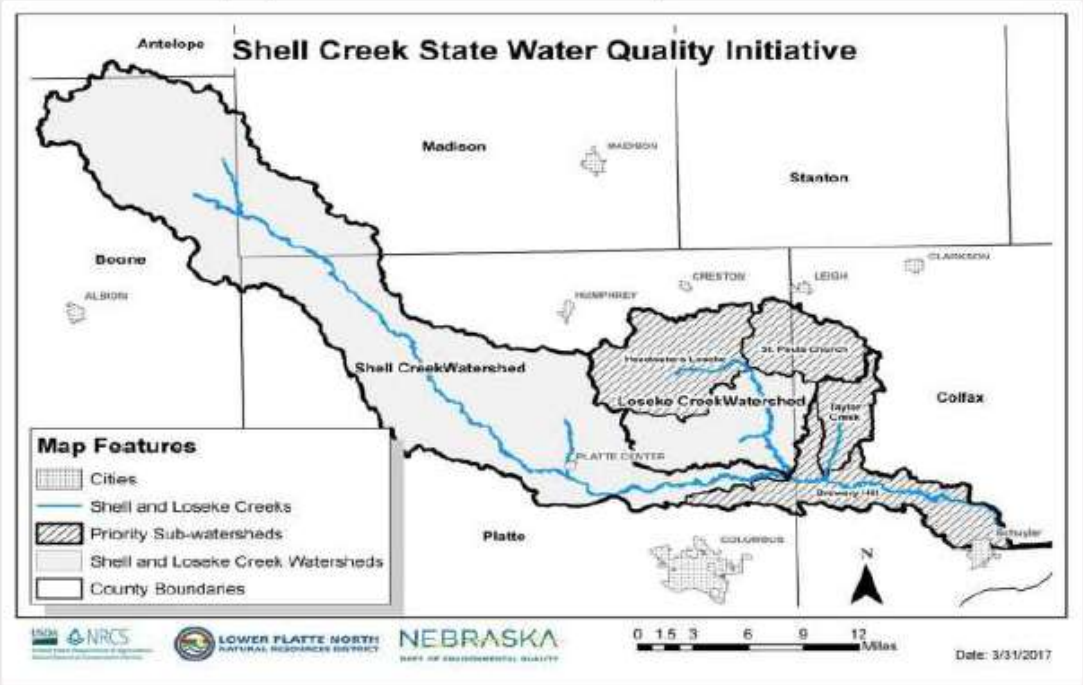
Atrazine is a manmade compound that does not naturally occur in nature. It enters streams through spills, over-spray and runoff of land application.

12. How concerned are you with Atrazine levels in Shell Creek?

- ○ Very concerned
- ○ Concerned
- ○ Not at all concerned

Shell Creek Watershed Needs

13. Please circle on the map any area of the Shell Creek Watershed that you feel needs attention.



14. What issues need to be addressed in the area(s) you circled?

15. If would you like to meet with someone to talk about specific issues you would like to see addressed in the Shell Creek Watershed, please provide your contact information below.

Name:

Email address:

Phone number:

Best Management Practices

16. Do you currently implement any best management practices (BMPs) which benefit water quality?
    - ○ Yes
    - ○ No

17. Have you received a cost share payment for the BMP?
    - ○ Yes
    - ○ No

18. Would you be more likely to adopt or maintain a BMP or conservation practice if...

	Yes	Maybe	No	N/A
a. You knew they had benefits downstream	○	○	○	○
b. You could get financial assistance to implement the practices	○	○	○	○
c. You had evidence that the practices would not reduce yield	○	○	○	○
d. You had evidence that the practices would improve your profitability	○	○	○	○
e. Most of your neighbors you knew had adopted the practices	○	○	○	○
f. You could talk to other farmers about how to make the practices work on your farm	○	○	○	○

Farming

19. Please describe the ownership or management arrangement of your farm(s) in the Shell Creek Watershed. Do you:

	No	Yes		How many acres?
a. Crop share	○	○	If yes →	
b. Cash rent	○	○	If yes →	
c. Own	○	○	If yes →	

20. How many years have you been farming?
    - ○ Less than one year
    - ○ 1-5 years
    - ○ 6-10 years
    - ○ 11-20 years
    - ○ 21+ years

21. Have you changed the way you farm in the past 5 years in an attempt to make your farm more successful...

	Yes	No
a. Economically?	○	○
b. For long-term sustainability?	○	○
c. For environmental benefits?	○	○

22. Do you use the following sources when selecting conservation practices for your farming operation? If yes, how influential are the following on your farming decisions?

Source of conservation information	Use: No	Use: Yes		Influence on your farming decisions: Very influential	Somewhat influential	Not influential
a. Natural Resources Conservation Service (NRCS)	○	○	If yes →	○	○	○
b. Family	○	○	If yes →	○	○	○
c. Seed dealer	○	○	If yes →	○	○	○
d. University Extension	○	○	If yes →	○	○	○
e. Chemical dealer	○	○	If yes →	○	○	○
f. Non-farming friend	○	○	If yes →	○	○	○
g. National Resource Directory (NRD)	○	○	If yes →	○	○	○
h. Nebraska Department of Agriculture	○	○	If yes →	○	○	○
i. Farm organization	○	○	If yes →	○	○	○
j. Farm Service Agency (FSA)	○	○	If yes →	○	○	○
k. Banker/lawyer	○	○	If yes →	○	○	○
l. Consultant	○	○	If yes →	○	○	○
m. Landlord	○	○	If yes →	○	○	○
n. Other farmers	○	○	If yes →	○	○	○

Cropland

23. Do you currently use each of the following cropland practices on your farm? If yes, how long have you been using each practice?

Conservation Practice	Use: No	Use: Yes		Length of practice: Less than 1 year	1-4 years	5-8 years	9+ years
a. Nutrient management	○	○	If yes →	○	○	○	○
b. Irrigation management	○	○	If yes →	○	○	○	○
c. Wetland creation/enhancement	○	○	If yes →	○	○	○	○
d. Grassed waterway	○	○	If yes →	○	○	○	○
e. Integrated pest management	○	○	If yes →	○	○	○	○
f. Reduced or no-tillage	○	○	If yes →	○	○	○	○
g. Conservation crop rotation	○	○	If yes →	○	○	○	○
h. Cover crop	○	○	If yes →	○	○	○	○
i. Terraces, contour farming	○	○	If yes →	○	○	○	○
j. Buffers/filter strips/tree establishment	○	○	If yes →	○	○	○	○
k. Other, please specify:	○	○	If yes →	○	○	○	○

24. If money and time were not an issue, how likely would you be to try each of these practices?

Conservation Practice	Already Use	Very Likely	Likely	Not at all likely
a. Nutrient management	○	○	○	○
b. Irrigation management	○	○	○	○
c. Wetland creation/enhancement	○	○	○	○
d. Grassed waterway	○	○	○	○
e. Integrated pest management	○	○	○	○
f. Reduced or no-tillage	○	○	○	○
g. Conservation crop rotation	○	○	○	○
h. Cover crop	○	○	○	○
i. Terraces, contour farming	○	○	○	○
j. Buffers/filter strips/tree establishment	○	○	○	○
k. Other, please specify:	○	○	○	○

Livestock

25. Do you raise livestock in the Shell Creek Watershed?
- ○ Yes
- ○ No → Go to #33

26. How many cattle do you raise in the Shell Creek Watershed?
- ○ None
- ○ 1-50
- ○ 51-299
- ○ 300 – 699
- ○ 700+

27. How many hogs do you raise in the Shell Creek Watershed?
- ○ None
- ○ 1-100
- ○ 101 - 299
- ○ 300-749
- ○ 750 – 2499
- ○ 2,500 +

28. How much poultry do you raise in the Shell Creek Watershed?
- ○ None
- ○ 1-100
- ○ 101-37,499
- ○ 37,500-124,999
- ○ 125,000+

29. Where do you maintain your livestock?

	Yes	No
a. Pasture or range	○	○
b. Open lot	○	○
c. Confinement building	○	○

30. Do your livestock have access to an intermittent stream (only flows after rain storm)?
- ○ Yes
- ○ No

31. Do your livestock have access to a perennial stream (continuously flowing water)?
- ○ Yes, complete access
- ○ Yes, but partially excluded
- ○ No

32. Are your pastured livestock in a rotational, or managed, grazing system?
- ○ Yes
- ○ No

33. If money and time were not an issue, how likely would you be to try each of these practices?

Conservation Practice	Already Use	Very Likely	Somewhat Likely	Not at all likely
a. Vegetated Treatment Area	○	○	○	○
b. Prescribed Grazing	○	○	○	○
c. Manure Management System	○	○	○	○
d. Stream Crossing	○	○	○	○
e. Exclusion Fencing	○	○	○	○
f. Water Diversion	○	○	○	○
g. Other, please specify:	○	○	○	○

34. Which of the following livestock practices do you currently use on your farm?

Conservation Practice	Use: No	Use: Yes		Length of practice: 1-4 years	5-8 years	9+ years
a. Vegetated Treatment Area	○	○	If yes →	○	○	○
b. Prescribed Grazing	○	○	If yes →	○	○	○
c. Manure Management System	○	○	If yes →	○	○	○
d. Stream Crossing	○	○	If yes →	○	○	○
e. Exclusion Fencing	○	○	If yes →	○	○	○
f. Water Diversion	○	○	If yes →	○	○	○
g. Other, please specify:	○	○	If yes →	○	○	○

35. Did you or someone else graze livestock on your cropland after harvest?

- ○ Yes
- ○ No

Demographics

36. What is your gender?

- ○ Male
- ○ Female
- ○

37. How often do you use the following media formats?

	Frequently	Sometimes	Never
a. TV	○	○	○
b. Web	○	○	○
c. Radio	○	○	○
d. Social Media	○	○	○
e. Print	○	○	○
f. Field Day/Events	○	○	○

38. On a continuum of early conservation adopter to late adopter, where "Early Adopter" is adopting a new technology along with the first set of farmers and "Late Adopter" is adopting the technology after most farmers adopt it, where would you place yourself?

- ○ Early adopter (one of the first set)
- ○ Early majority
- ○ Neither early majority nor late majority
- ○ Late majority
- ○ Late adopter (one of the last set)

39. What is the highest level of education you have completed?

- ○ No diploma
- ○ High school diploma/GED
- ○ Some college, but no degree
- ○ Technical/Associate/Junior College (2yr, LPN)
- ○ Bachelor's Degree (4yr, BA, BS, RN)
- ○ Graduate degree (Masters, PhD, Law, Medicine)

40. Please use the space below to provide any comments or feedback.

Thank you!

Please use the postage-paid return envelope included in your survey packet to return your questionnaire.
Questions or requests from this survey can be directed to:

Bureau of Sociological Research
University of Nebraska-Lincoln
907 Oldfather Hall | PO Box 880325
Lincoln, NE 68588-0325
Phone: 1-800-480-4549 (toll free)
E-mail: bosr@unl.edu

Appendix B: Communication Language

Invitation Letter

DATE

«City» Producer
«Addy1» «Addy2»
«City», «STATE_ABBR» «ZIP»-«ZIP4»

Dear «City» Producer,

The Shell Creek Watershed Improvement Group (SCWIG) has been working with producers, landowners, and communities since 1999 to address flooding, water quality, and identify & promote priority conservation practices. We are conducting a survey to examine conservation attitudes and identify actions which should be taken to continue to improve the Shell Creek Watershed.

The Bureau of Sociological Research at the University of Nebraska-Lincoln is conducting this survey on behalf of the Institute of Agriculture and Natural Resources (IANR), in cooperation with the Shell Creek Watershed Improvement Group and Lower Platte North NRD.

This survey is to be filled out by the person who is managing or renting the land. If you have received this questionnaire and are a land owner, but are not the person actively working it, we would appreciate you giving it to the correct individual (i.e. renter, operator, etc.) or contacting us to let us know to whom we should send it (402-472-3672 or bosr@unl.edu).

Participation in the survey is voluntary, but can help guide actions taken to improve the Shell Creek Watershed. This survey should only take about 15 minutes. The answers you provide will be kept confidential. There are no known risks to participating in the survey.

Questions? We are happy to answer any questions you may have about the survey. You can contact the Bureau of Sociological Research at 1-800-480-4549 or email bosr@unl.edu with any questions about filling out or returning your survey. If you have questions about the purpose of the survey, you may contact one of the members of SCWIG: Gene Wissenburg 402-750-1796, Matt Bailey 402-615-0376 or Katie Pekarek, Water Quality Extension Educator (402) 413-1166 / kpekarek2@unl.edu. In addition, this study has been reviewed and approved by the Institutional Review Board (IRB# 20210321011EX). If you have questions about your rights as a participant, you may contact the IRB office at 402-472-6965.

Sincerely,

Lindsey Witt-Swanson

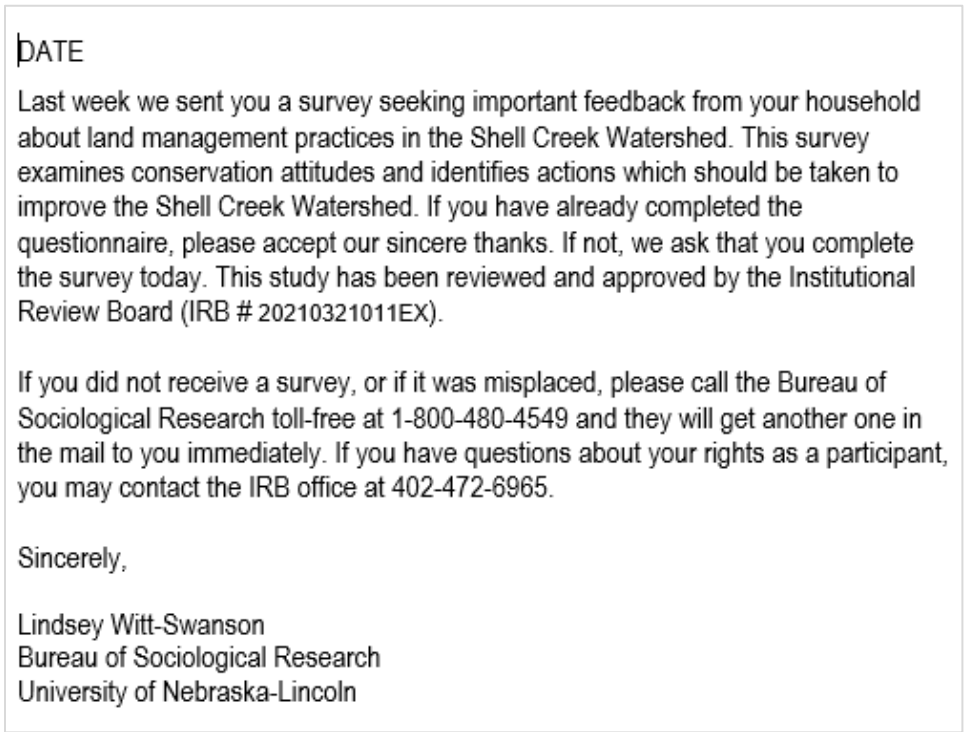
Lindsey Witt-Swanson
Assistant Director
Bureau of Sociological Research
University of Nebraska-Lincoln

University of Nebraska Lincoln
Bureau of Sociological Research
907 Oldfather Hall | P.O. Box 880325 | Lincoln, NE 68588-0325 | 402.472.3672 | 1.800.480.4549 | bosr@unl.edu
unl.edu

Postcard Reminder

Front

Back



DATE

Last week we sent you a survey seeking important feedback from your household about land management practices in the Shell Creek Watershed. This survey examines conservation attitudes and identifies actions which should be taken to improve the Shell Creek Watershed. If you have already completed the questionnaire, please accept our sincere thanks. If not, we ask that you complete the survey today. This study has been reviewed and approved by the Institutional Review Board (IRB # 20210321011EX).

If you did not receive a survey, or if it was misplaced, please call the Bureau of Sociological Research toll-free at 1-800-480-4549 and they will get another one in the mail to you immediately. If you have questions about your rights as a participant, you may contact the IRB office at 402-472-6965.

Sincerely,

Lindsey Witt-Swanson
Bureau of Sociological Research
University of Nebraska-Lincoln

Reminder Letter

DATE

«City» Producer
«Addy1» «Addy2»
«City», «STATE_ABBR» «ZIP»-«ZIP4»

Dear [City] Producer,

A few weeks ago we asked your household to complete the Shell Creek Watershed survey. To the best of our knowledge a member of your household has not yet returned the questionnaire.

Please help the Shell Creek Watershed Improvement Group with this important study, which aims to identify actions which should be taken to improve the Shell Creek Watershed and examine conservation attitudes.

Your feedback is of critical importance to this data collection effort. Please complete and return the questionnaire in the postage-paid, addressed return envelope enclosed in the survey packet as soon as possible.

This survey is to be filled out by the person who is currently working and managing the land. If you have received this questionnaire and are a land owner, but are not the person actively working it, we would greatly appreciate you giving it to the correct individual (i.e. renter, active irrigator, etc.) or contacting us to let us know to whom we should send it (402-472-3672 or bosr@unl.edu).

Participation in the survey is voluntary, but can help guide actions taken to improve the Shell Creek Watershed. This survey should only take about 15 minutes. The answers you provide will be kept confidential. There are no known risks to participating in the survey.

Questions? We are happy to answer any questions you may have about the survey. You can contact the Bureau of Sociological Research at 1-800-480-4549 or email bosr@unl.edu with any questions about filling out or returning your survey. If you have questions about the purpose of the survey, you may contact one of the members of SCWIG: Gene Wissenburg 402-750-1796, Matt Bailey 402-615-0376 or Katie Pekarek, Water Quality Extension Educator (402) 413-1166 / kpekarek2@unl.edu. In addition, this study has been reviewed and approved by the Institutional Review Board (IRB# 20210321011EX). If you have questions about your rights as a participant, you may contact the IRB office at 402-472-6965.

Sincerely,

Lindsey Witt-Swanson

Lindsey Witt-Swanson
Assistant Director
Bureau of Sociological Research

University of Nebraska Lincoln
Bureau of Sociological Research
907 Oldfather Hall | P.O. Box 880325 | Lincoln, NE 68588-0325 | 402.472.3672 | 1.800.480.4549 | bosr@unl.edu
unl.edu

Appendix C: Shell Creek Brochure

The Shell Creek covers almost 110 miles, running through 5 different counties in Nebraska, and drains approximately 304,873 acres of surrounding farmland.

240+

producers have have participated in conservation efforts in the Shell Creek Watershed.

340+

conservation management practices have been implemented in the Shell Creek Watershed.

Shell Creek Watershed Improvement Group

CONTACT INFO

Shell Creek Watershed Improvement Group

Bill Bos
NRCS Program Assistant
(402) 564-0506 Ext. 3
william.bos@ne.usda.gov

SHELL CREEK WATERSHED IMPROVEMENT GROUP

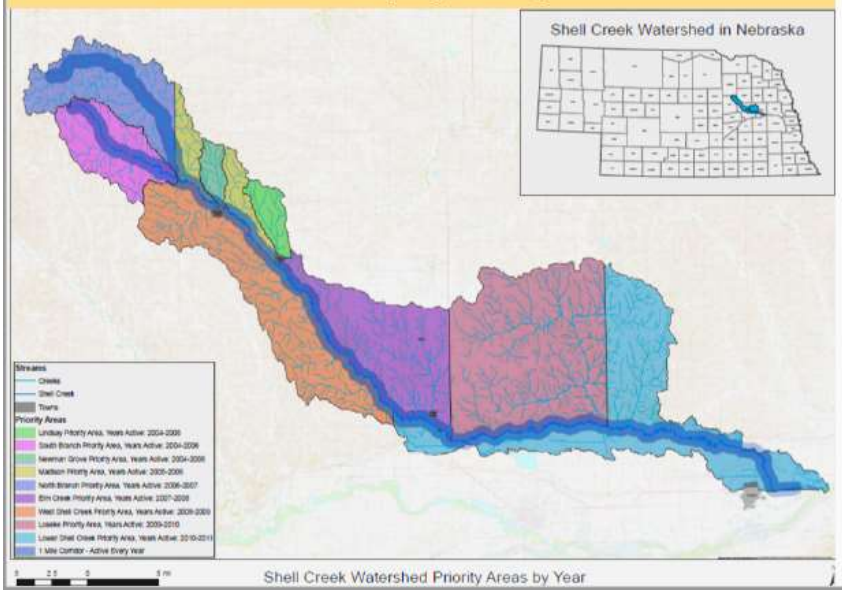
PUTTING THE SHELL BACK IN SHELL CREEK!

BACKGROUND

Over the last 20 years, concerns about poor water quality and the effect of erosion on agriculture production led to the formation of a local group and grassroots efforts to identify and promote essential conservation practices in the Shell Creek Watershed.

The Shell Creek Watershed Improvement Group (SCWIG) was initiated in 1999 to works with landowners and producers in the watershed to identify and promote priority conservation practices and engages various agencies on the local, state, and federal level to provide additional assistance.

Engaging youth, families and communities is a priority for the SCWIG. In 2002, SCWIG engaged two local high schools and their science and ag instructors, to develop the Shell Creek Watershed Monitoring Program, for high school students.



Shell Creek Watershed Priority Areas by Year

OUR VALUES

COLLABORATIVE CONSERVATION

Combined efforts by the Shell Creek Watershed Improvement Group, landowners, partners, and agencies have collectively spent more than $3.7 million on land and water conservation practices since the SCWIG formed in 1999.

PARTNERS

Partners historically involved in this project include: SCWIG, Lower Platte North NRD, NDEE, NET, Nebraska Extension, USDA NRCS, US EPA, Nebraska Game & Parks Commission, Pheasants Forever, Prairieland RC&D, USGS, and the Newman Grove and Schuyler High School Science Programs.

LOCALLY DRIVEN SOLUTIONS

Local conservation management practices are key in improving the water quality in the Shell Creek Watershed.

Appendix D: AAPOR Transparency Initiative Immediate Disclosure Items

1. Who sponsored the research study.
   Introduction
2. Who conducted the research study.
   Introduction
3. If who conducted the study is different from the sponsor, the original sources of funding will also be disclosed.
   Introduction
4. The exact wording and presentation of questions and response options whose results are reported. This includes preceding interviewer or respondent instructions and any preceding questions that might reasonably be expected to influence responses to the reported results.
   Appendix B
5. A definition of the population under study and its geographic location.
   Sampling Design
6. Dates of data collection.
   Data Collection Process
7. A description of the sampling frame(s) and its coverage of the target population, including mention of any segment of the target population that is not covered by the design. This many include, for example, exclusion of Alaska and Hawaii in U.S. surveys; exclusion of specific provinces or rural areas in international surveys; and exclusion of non-panel members in panel surveys. If possible the estimated size of non-covered segments will be provided. If a size estimate cannot be provided, this will be explained. If no frame or list was utilized, this will be indicated.
   Sampling Design
8. The name of the sample supplier, if the sampling frame and/or the sample itself was provided by a third party.
   Sampling Design
9. The methods used to recruit the panel or participants, if the sample was drawn from a pre-recruited panel or pool of respondents.
   Not applicable
10. A description of the sample design, giving a clear indication of the method by which the respondents were selected, recruited, intercepted or otherwise contacted or encountered, along with any eligibility requirements and/or oversampling. If quotas were used, the variables defining the quotas will be reported. If a within-household selection procedure was used, this will be described. The description of the sampling frame and sample design will include sufficient detail to determine whether the respondents were selected using probability or non-probability methods.
    Sampling Design
11. Method(s) and mode(s) used to administer the survey (e.g., CATI, CAPI, ACASI, IVR, mail survey, web survey) and the language(s) offered.
    Questionnaire Design

12. Sample sizes (by sampling frame if more than on was used) and a discussion of the precision of the findings. For probability samples, the estimates of sampling error will be reported, and the discussion will state whether or not the reported margins of sampling error or statistical analyses have been adjusted for the design effect due to weighting, clustering, or other factors. Disclosure requirements for non-probability samples are different because the precision of estimates from such samples is a model-based measure (rather than the average deviation from the population value over all possible samples). Reports of non-probability samples will only provide measures of precision if they are accompanied by a detailed description of how the underlying model was specified, its assumptions validated and the measure(s) calculated. To avoid confusion, it is best to avoid using the term "margin of error" or "margin of sampling error" in conjunction with non-probability samples.

    Sampling Design

13. A description of how the weights were calculated, including the variables used and the sources of weighting parameters, if weighted estimates are reported.

    Not applicable to this project

14. If the results reported are based on multiple samples or multiple modes, the preceding items will be disclosed for each.

    Not applicable to this project.

15. Contact for obtaining more information about the study.

    Questions

JEO CONSULTING GROUP

Engineering | Architecture | Surveying | Planning

Invoice

October 28, 2021
Project No: R210166.00
Invoice No: 128301
Invoice Amount: 2,986.00

Lower Platte North NRD
511 Commercial Park Road
PO Box 126
Wahoo, NE 68066

Project Manager Adam Rupe

Project R210166.00 Lower Platte North NRD: Shell Creek Watershed Plan Update

Professional Services through October 22, 2021

- Progress Report attached

	Contract Amount	Percent Complete	Billed-to-Date	Previous Billing	Current Billing
Lump Sum Phase(s)					
Task 1: Evaluate Water Quality Data	$4,540.00	100 %	$4,540.00	$4,540.00	0.00
Task 2: Quantify Pollutant Loads	$13,240.00	85 %	$11,240.00	$11,240.00	0.00
Task 3: Quantify Pollutant Reductions	$11,420.00	50 %	$5,710.00	$3,210.00	$2,500.00
Task 4: Project Management	$2,430.00	95 %	$2,308.50	$1,822.50	$486.00
Total	**$31,630.00**		**$23,798.50**	**$20,812.50**	**$2,986.00**

Total Amount Due Upon Receipt : $2,986.00

Email invoice to : tmountford@lpnnrd.org and jbreunig@lpnnrd.org

ENGINEERING ■ ARCHITECTURE ■ SURVEYING ■ PLANNING

Monthly Progress Report
Shell Creek Watershed WQMP Update
Lower Platte North NRD

JEO Project #: 210166.00
Through: October 25, 2021

1. Work completed during current period

- Ongoing coordination with LPNNRD and NDEE.
- Internal project management.
- Held meeting with LPNNRD and NDEE to reviewed existing work and plan next steps for project completion.

2. Planned accomplishments for next period

- Finalize water quality modeling.
- Update and finalize technical documentation report.
- Begin building and refining BMP Calculator Tool.

3. Project schedule

- Schedule has been updated to reflect additional time to gather BMP data.

4. Information needed from project partners

- None at this time

5. Next Meeting Date and Time

- None at this time

6. Other Notes

- Project team will continue to monitor COVID-19 health directives and recommendations, as they may relate to any meetings

Please contact Adam Rupe at 402.322.0377 or at arupe@jeo.com for any questions or concerns regarding this progress report

FYRA ENGINEERING

FYRA Engineering, LLC
12702 Westport Parkway, Suite 300
Omaha, NE 68138
402-502-7131

Lower Platte North NRD
Tom Mountford
511 Commercial Park Road
Wahoo, NE 68066

Invoice number: 022-069
Date: 10/27/2021

Project: 022-17-02 WAHOO CREEK WATERSHED PLAN/EA

For Services Through October 15, 2021

SITE 83 REMOVAL

	Hours	Rate	Billed
Engineer Intern			
Anna Bakke	4.75	$110.00	$522.50
Senior Environmental Engineer			
Janel Kaufman	21.50	$160.00	$3,440.00
Phase subtotal			$3,962.50

Invoice total	$3,962.50

Make all checks payable to:
FYRA Engineering, LLC
12702 Westport Parkway, Suite 300
Omaha, NE 68138

FYRA
ENGINEERING

INVOICE SUMMARY

Description	Contracted Fee	Previously Billed	This Invoice	Total To Date	% Complete
Coord Meetings w/LPNNRD	$5,724.00	$16,175.49	$0.00	$16,175.49	282.59
Coord Meetings w/NRCS	$8,904.00	$11,366.25	$0.00	$11,366.25	127.65
Project Meetings	$49,372.00	$23,605.04	$0.00	$23,605.04	47.81
Monthly Invoicing/Schedule	$7,875.00	$13,550.50	$0.00	$13,550.50	172.07
Project Scoping	$7,170.00	$7,068.75	$0.00	$7,068.75	98.59
Plan Review	$6,740.00	$24,541.09	$0.00	$24,541.09	364.11
Develop, Write & Summarize Plan	$60,100.00	$83,011.48	$0.00	$83,011.48	138.12
Maintain Admin Record	$3,560.00	$914.25	$0.00	$914.25	25.68
Develop and Describe Purpose & Need	$2,320.00	$1,820.00	$0.00	$1,820.00	78.45
19239.2Formulate, Describe & Compare Alternatives	$27,270.00	$19,239.25	$0.00	$19,239.25	70.55
Collect & Analyze Social/Demographic Data	$1,435.00	$1,562.50	$0.00	$1,562.50	108.89
Historic & Cultural Resources	$675.00	$9,869.00	$0.00	$9,869.00	1,462.07
Prime & Unique Farmland	$675.00	$2,404.75	$0.00	$2,404.75	356.26
Identify Wetlands & Other Water Bodies	$117,145.00	$102,862.36	$0.00	$102,862.36	87.81
Collect Soils Data	$810.00	$0.00	$0.00	$0.00	0.00
Identify and Anlyze Soil Erosion	$810.00	$1,952.75	$0.00	$1,952.75	241.08
Collect & Analyze Floodplain Data	$3,900.00	$6,521.00	$0.00	$6,521.00	167.21
Collect & Analyze Data on Critical Areas	$6,300.00	$3,071.00	$0.00	$3,071.00	48.75
Identify Land Use and Crop Inventory	$810.00	$1,125.00	$0.00	$1,125.00	138.89
T&E Species & Migratory Birds	$11,500.00	$12,192.50	$0.00	$12,192.50	106.02
Consumptive Use Data	$1,840.00	$1,366.50	$0.00	$1,366.50	74.27
Effects on Public Health & Safety	$4,440.00	$1,936.00	$0.00	$1,936.00	43.60
Effects to Homes/Bus/Ag	$4,440.00	$4,124.75	$0.00	$4,124.75	92.90
Cummulative Impacts	$11,080.00	$2,821.25	$0.00	$2,821.25	25.46
Federal, State & Local Permits	$1,790.00	$1,775.00	$0.00	$1,775.00	99.16
38Relationship/Conflicts w/Other Plans	$4,460.00	$3,822.50	$0.00	$3,822.50	85.71
Interagency & Public Involvement	$2,940.00	$5,197.02	$0.00	$5,197.02	176.77
Risk & Uncertainty	$4,880.00	$4,292.00	$0.00	$4,292.00	87.95
Preferred Alternatives Discussion	$11,840.00	$14,006.00	$0.00	$14,006.00	118.29
Mitigation Features	$6,760.00	$4,486.00	$0.00	$4,486.00	66.36
Hydrologic Investigation	$26,460.00	$33,403.25	$0.00	$33,403.25	126.24
Economic Data & Discussion	$14,640.00	$51,211.00	$0.00	$51,211.00	349.80
Installation & Financing	$2,600.00	$775.00	$0.00	$775.00	29.81
Operations, Maintenance & Replacment	$3,240.00	$740.00	$0.00	$740.00	22.84
Project Maps	$24,850.00	$28,438.25	$0.00	$28,438.25	114.44
Utility Investigations	$5,200.00	$1,940.00	$0.00	$1,940.00	37.31
Recreation Site 77 Planning	$7,350.00	$0.00	$0.00	$0.00	0.00
Interagency Scoping Mtg	$10,720.00	$6,396.50	$0.00	$6,396.50	59.67

FYRA
ENGINEERING

INVOICE SUMMARY

Description	Contracted Fee	Previously Billed	This Invoice	Total To Date	% Complete
Agency Coord	$7,680.00	$6,181.00	$0.00	$6,181.00	80.48
Breach Analysis	$26,343.00	$36,054.50	$0.00	$36,054.50	136.87
Hydraulics/Structure Sizing	$19,244.00	$30,321.25	$0.00	$30,321.25	157.56
Develop Land Rights & Structure Costs	$29,784.00	$29,048.25	$0.00	$29,048.25	97.53
Land Rights Assessment	$4,534.00	$1,496.25	$0.00	$1,496.25	33.00
Site Survey	$14,779.00	$5,080.00	$0.00	$5,080.00	34.37
Additional Services Watershed Plan EA	$48,000.00	$6,289.27	$0.00	$6,289.27	13.10
Additional Services-Economic-Project Management	$8,329.00	$5,570.00	$0.00	$5,570.00	66.87
Additional Services-Econcomics-Flood Damage Reduction Economics	$64,690.00	$66,770.50	$0.00	$66,770.50	103.22
Additional Services-Economics-Revised Plan Economics	$22,450.00	$10,187.75	$0.00	$10,187.75	45.38
Site 83 Removal	$22,305.00	$15,205.00	$3,962.50	$19,167.50	85.93
Total	$740,763.00	$721,787.75	$3,962.50	$725,750.25	97.97

Aging Summary

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
022-069	10/27/2021	3,962.50	3,962.50				
	Total	3,962.50	3,962.50	0.00	0.00	0.00	0.00

Engineering | Architecture | Surveying | Planning

JEO CONSULTING GROUP

Invoice

October 28, 2021
Project No: R170124.00
Invoice No: 128300
Invoice Amount: 4,500.00

Lower Platte North NRD
511 Commercial Park Road
PO Box 126
Wahoo, NE 68066

Project Manager Adam Rupe

Project R170124.00 Lower Platte North NRD Wahoo Creek WQMP Update

Professional Services through October 22, 2021

- Progress Report attached

	Contract Amount	Percent Complete	Billed-to-Date	Previous Billing	Current Billing
Lump Sum Phase(s)					
Task 1: Evaluate Water Quality Data	$4,540.00	100 %	$4,540.00	$4,540.00	0.00
Task 2: Quantify Pollutant Loads	$13,240.00	100 %	$13,240.00	$11,240.00	$2,000.00
Task 3: Quantify Pollutant Reductions	$11,420.00	50 %	$5,710.00	$3,210.00	$2,500.00
Task 4: Project Management	$2,430.00	65 %	$1,579.50	$1,579.50	0.00
Total	**$31,630.00**		**$25,069.50**	**$20,569.50**	**$4,500.00**

Total Amount Due Upon Receipt : $4,500.00

Email invoice to : tmountford@lpnnrd.org and jbreunig@lpnnrd.org

ENGINEERING ■ ARCHITECTURE ■ SURVEYING ■ PLANNING

Monthly Progress Report
Wahoo Creek Watershed WQMP Update
Lower Platte North NRD

JEO Project #: 170124.00
Through: October 25, 2021

1. Work completed during current period

- Ongoing coordination with LPNNRD and NDEE.
- Internal project management.
- Held meeting with LPNNRD and NDEE to reviewed existing work and plan next steps for project completion.

2. Planned accomplishments for next period

- Finalize water quality modeling.
- Update and finalize technical documentation report.
- Begin building and refining BMP Calculator Tool.

3. Project schedule

- Schedule updated to reflect additional time to gather BMP data.

4. Information needed from project partners

- None at this time

5. Next Meeting Date and Time

- None at this time

6. Other Notes

- Project team will continue to monitor COVID-19 health directives and recommendations, as they may relate to any meetings

Please contact Adam Rupe at 402.322.0377 or at arupe@jeo.com for any questions or concerns regarding this progress report

Platte River Cameras/Gauges Kick-Off (Zoom) Meeting
11:00 a.m., October 15, 2021
Minutes

Present (Zoom): USGS: Steve Peterson, Jason Lambrecht ; Dodge County: Tom Smith, Pat Tawney; PMRNRD: Rich Tesar, Paul Woodward, Marlin Petermann; City of Fremont: Brian Newton; LPNNRD: Bill Saeger, Eric Gottschalk, Bob Heimann, Sean Elliott, Tom Mountford

1. Purpose:

To coordinate activities with USGS to establish cameras and additional monitoring gauges along the Lower Platte River for ice/flood observation.

2. Review of Partner Interlocal and USGS Agreements (Attachments):

Mountford reported that Dodge County, City of Fremont, Papio-Missouri River NRD and Lower Platte NRD have all approved an Interlocal Agreement. On behalf of the partners, LPNNRD has approved a three year Joint Funding Agreement with USGS. Both agreements extend until September 30, 2024.

3. Update on FEMA Grant Assistance – Tom Smith:

Dodge County Emergency Manager Tom Smith reported on his work with NEMA/FEMA to use approved grant assistance toward USGS equipment costs. NEMA has submitted this request to FEMA for a determination, hopefully by November 1. The group discussed the importance of moving forward on establishing equipment in November.

4. Locations for Cameras/Gauges:

The partners discussed locations for up to five cameras and two gauges along the Lower Platte River. It was decided to establish camera locations at or near HW 15, 79, 77, 64 and on at a private property site near Columbus, south of the confluence of the Loup and Platte Rivers. If the private property location doesn't work out, a second option would be near that location on Loup Power Canal property.

5. Moving Forward:

a. USGS Schedule for establishing equipment:

USGS will be obtaining equipment for placement in November.

b. Placement of equipment:

USGS indicated that placing both cameras and gauges off HW bridges is preferable. Using the existing established brackets at HW 64, 77 & 79 will be determined after a site visit.

c. NDOT Permits obtained for (HW 64, 77, 79) and permit remaining (HW 15):

USGS will obtain the NDOT permit for equipment placement on HW 15 at Schuyler.

d. Written Agreement needed to place one camera on private property if selected? (LPNNRD has verbal permission):

It was discussed that at the private property location, a written agreement should be obtained with a statement that the landowner has no liability.

e. Future field meeting with partners:

It was decided that USGS will meet with LPNNRD representatives and other interested partners on Wednesday, October 25th, to inspect desired equipment locations.

6. Other Topics:

a. Additional Future Partners:

The partners will consider adding other future partners to the group including Loup Power Canal, Lincoln Well Field, OPPD, MUD and USACE.

7. Next Partner Meeting Date:

The next Partner Meeting (Zoom) will be Friday, November 5, at 1:00 p.m. LPNNRD will send out the Zoom invite.

8. Meeting Adjourned @ 12:00 p.m.

Rawhide Creek WFPO Plan-EA
Monthly Meeting - MINUTES

DATE AND TIME | October 18, 2021; 1:00 p.m. – 2:30 p.m.
PROJECT | Rawhide Creek WFPO Plan-EA
JEO PROJECT NO. | 200881.00
LOCATION | **Virtual via Teams**

Primary Discussion Topics

1. Nov 18th Agency and Public Meeting Details
2. Ongoing effort of data collection

1. Project Milestones and Schedule Overview

Milestone	Meeting Name	Focus	Schedule
Kick-off Meeting	Kickoff Meeting	Project Overview & Planning Process	September 22, 2021
Public & Agency Scoping Meetings	Scoping Meetings #1	Scoping	November 18, 2021
Post-Discussion of Scoping Review Data Collection Needs Alternatives Discussion	Post-Scoping	Hydrology & Hydraulics Purpose & Need Refinement Alternatives Identification	*Tentative:* *End December 2021*
Plan-EA Development Phase 30%	30%	Hydrology & Hydraulics Alternatives Identification.	*Tentative:* *March 2022*
Review Conceptual Design Alternatives *Cost/logistics/technology* *Avoid/minimize/mitigate*	Alternatives Review	Wetland/Aquatic Impacts 404(b)(1) analysis	*Tentative:* *May 2022*
Plan-EA Development Phase 60%	60%	Alternatives Evaluation Economic Analysis	*Tentative:* *June 2022*
Review Clean Water Act (CWA) *Requirements [including 404(b)(1)]*	Clean Water Act Review	Wetland/Aquatic Impacts 404(b)(1) analysis	*Tentative:* *August 2022*
Plan-Development Phase 90%	90%	Alternative Selection Mitigation and other issues Next Steps in Process	*Tentative:* *September 2022*
Prepare Draft Plan-EA for NRCS submittal to NWMC	n/a	n/a	*Tentative:* *October 2022*
Public & Agency Scoping Meetings	Scoping Meetings #2	Presenting preferred alternative	*Tentative:* *December 2022*

Rawhide Creek WFPO Plan-EA
Monthly Meeting - MINUTES

Addressing NWMC review comments	Comment Review Meeting	Developing responses to comments from NWMC	
Public & interagency review	n/a	n/a	*March 2023*
Finalization of Plan-EA			
Prepare Final Plan-EA for NRCS submittal for Authorization			

2. Public Involvement

a. Begin set-up for ArcGIS StoryMap
b. Flooding impact data and photo collection to support the H & H analysis -
c. Agency Scoping Meetings (2)
d. Public Open House Meetings (2) – same day as agency meeting
   i. Partners to review the Agency Invite, Press Release, and Invite List documents. Comments due by Friday (Oct. 22). These to be sent out by 10/27 +/-.
      1. Initial comment was to change from "Rawhide Creek" to "Rawhide Creek Watershed"
   ii. Auditorium has wi-fi
   iii. JWMAB to hold meeting at same time as the public meeting so that everybody is in attendance

e. Community meetings (4)
   i. We will follow-up on this at next month's meeting, but tentative plan is for January timeframe (before 30% is finalized)
f. One-on-one property owners meetings
g. Meeting Notification Responsibilities
   i. Dodge County to send press releases, emails, etc.
   ii. JEO send all letters except a few required to be from NRCS
   iii. Everybody to share information via social media for Public Meeting

3. H&H Modeling / Economic Analysis

a. JEO working on data gathering/ site visit to develop hydrology & hydraulics (H&H) modeling
   i. Site visit follow-up: Rawhide has been farmed over in many locations.
b. First H&H steps include model development to identifying flooding extents for multiple storm frequencies.
c. Initial economic analysis will use H&H model to identify effective and economically feasible alternatives.

4. Alternative Identification & Analysis (work is yet to start)

5. Plan-EA Document & NEPA Review

6. Data to Gather (see attached list)

a. JEO distributed an excel spreadsheet with data needs/requests. Please review and coordinate delivery of items on the list.
b. Tom Smith sent Shared Drive during the meeting to JEO.
c. Silver Jackets model could be shared. Brian will try to obtain for us.

7. Budget Updates

a. This will be included in future agendas

-

8. Questions/Needs/Next Steps

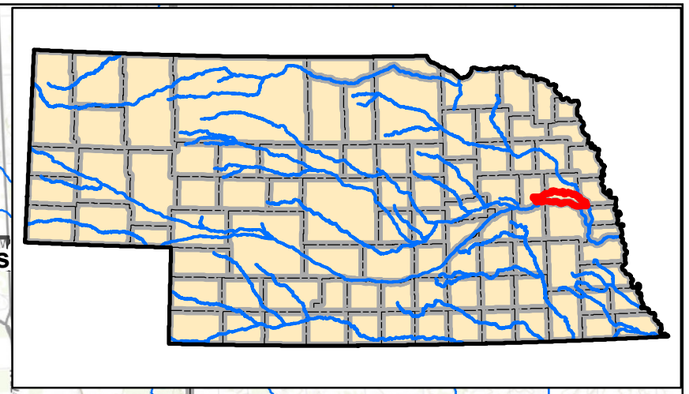
a. Next Progress Meeting (Recurring meeting)
   i. November 15th, 2021; 1 PM to 2PM @ EM Office and Zoom/Teams

b. Public and Agency Scoping Meetings:
   i. Meet via Zoom or Microsoft Teams
   ii. Tentative – November 18, 2 PM and 6 PM
      1. Agency is all virtual
      2. Public to be in-person (no online option for public) and NRCS will join via Teams
      3. Location: West Community Room Auditorium
c. Review Action Item Tracking Sheet (attached)
d. Summarize Action Items from today's meeting

Legend

- Rawhide Creek Watershed
- Communities
- County Boundaries
- Ditches
- Rawhide Creek
- Platte River

Dodge County, Nebraska
Rawhide Creek Watershed:
142,528-acres



Scribner
Hooper
Wins
Colfax County
Dodge County
Washington County
Nickerson
Fontanelle
Rogers
North Bend
Ames
Fremont
Arlington
Schuyler
Morse Bluff
Inglewood
Linwood
Cedar Bluffs
Butler County
Saunders County
Douglas County
Octavia
Abie
Prague
Colon
Leshara
Valley
King Lake

Pebble Creek
Silver Creek
Crystal Creek
East Fork Maple Creek
West Fork Maple Creek
Dry Creek
Pond Creek
Skull Creek
Bone Creek
Sand Creek
Duck Creek
Elm Creek
Otoe Creek
Little Papillion Creek
Bell Creek

Scribner State Airport
Fremont Lakes State Recreation Area
Pines Country Club

0 4.5 9 Miles

N

FOR IMMEDIATE RELEASE

For more information, contact:
Dodge County Emergency Management
Tom Smith, Director
(402) 727-2785 dodgecoema@gmail.com

Fremont, Neb. ([date], 2021) – The Dodge County Joint Water Management Advisory Board (JWMAB) and the Natural Resources Conservation Service (NRCS) will hold a public meeting regarding the Rawhide Creek Watershed Work Plan – Environmental Assessment (Plan-EA). The meeting will be held on Thursday, November 18, 2021, from 6:00 – 8:00 p.m. at the Fremont City Auditorium – West Community Room, 925 N Broad Street, Fremont. All are welcome to attend and provide comments or questions to the JWMAB or NRCS.

The JWMAB is partnering with the NRCS to conduct a planning process that will address flooding concerns and effectively evaluate new strategies for flood prevention and watershed protection for the Rawhide Creek Watershed focusing on agricultural areas in Dodge County spanning approximately from the City of North Bend east to Fremont. During the public meeting, attendees will be able to learn more from project personnel, as well as ask questions and provide feedback. Written comments will be accepted for up to 14 days after the meeting.

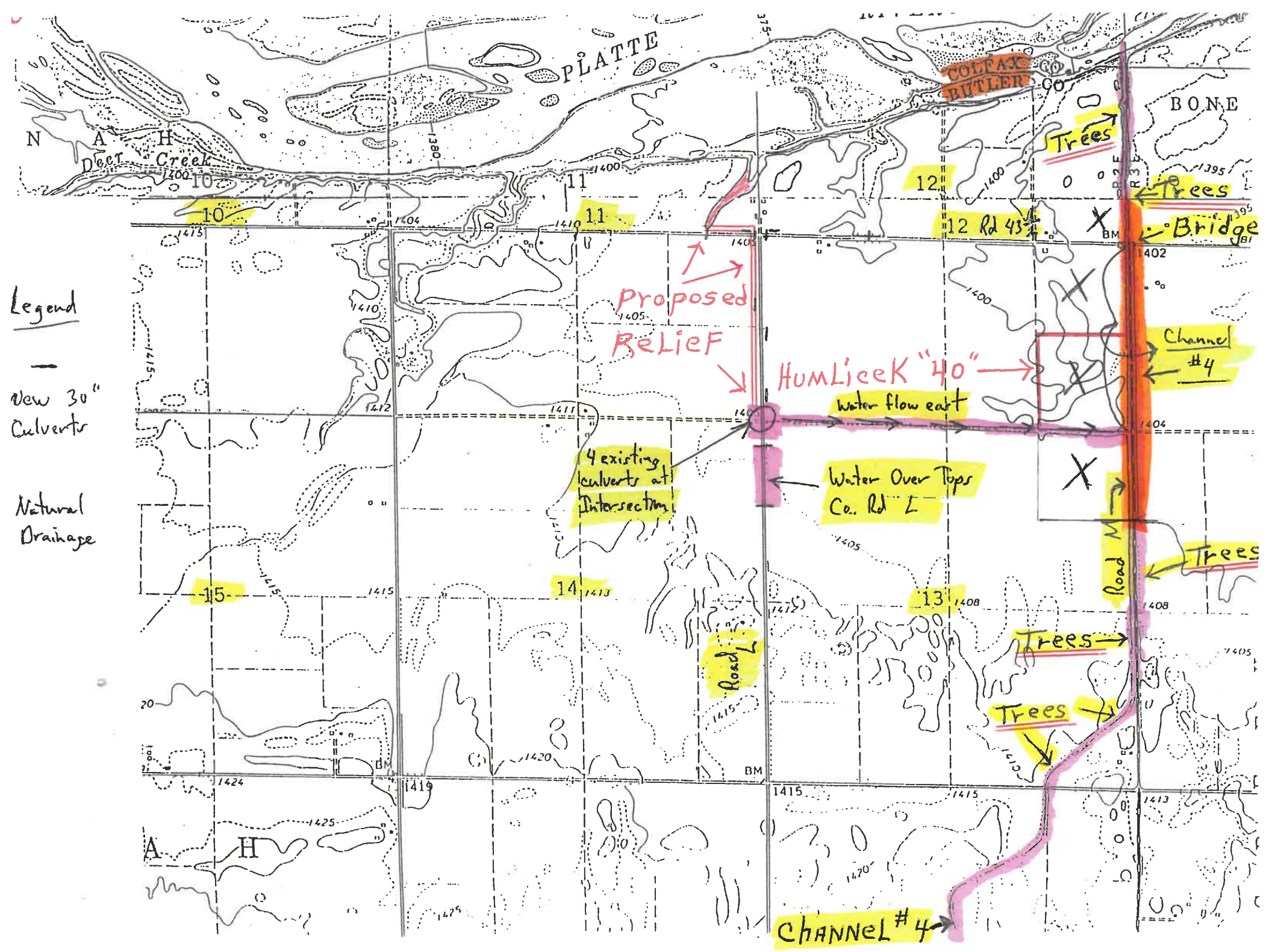
Catastrophic flooding occurred in March 2019 along the Platte and Elkhorn Rivers and their tributaries, affecting the communities of North Bend, Fremont, and Inglewood. The Dodge County JWMAB was created to support inter-agency collaborative efforts to identify and implement measures to reduce area flood risks.

The Plan-EA is being prepared to fulfill National Environmental Policy Act (NEPA) responsibilities pertaining to federal financial assistance received through the NRCS's Watershed and Flood Prevention Operations (WFPO) Program. Part of this project includes an evaluation of environmental resources and impact considerations, and all information gathered during the public meeting will help guide the planning process.

Any written comments or requests regarding the project should be submitted to John Petersen with JEO at jpetersen@jeo.com, 402.392.9923, or mailed directly to the JEO Omaha office at 11213 Davenport Street Ste. 200, Omaha, NE 68154.

For more information, please visit [xxxx].

###


Legend
New 30" Culverts
Natural Drainage
PLATTE
COLFAX CO
BUTLER CO
BONE
N A H
Deer Creek
Trees
Trees
Bridge
12 Rd 43
Proposed ReLieF
HumLiceK "40"
Water flow east
Channel #4
4 existing Culverts at Intersection
Water Over Tops Co. Rd L
Road M
Trees
Road L
Trees
Trees
CHANNEL # 4
A H

Lower Platte River
CORRIDOR ALLIANCE

LEAD. ORGANIZE. INSPIRE. The voice of the Lower Platte.

LPRCA MEETING (DRAFT) MINUTES

Monday, October 25, 2021 – 10:00 a.m.
Bi-Annual Meeting held at LPSNRD

1. Welcome / Introductions: David Potter welcomed everyone and thanked the members for attending the meeting. Corridor Alliance member representatives participating included: Marlin Petermann-PMRNRD, Eric Williams-PMRNRD, Paul Woodward-PMRNRD, Jim Swenson-NGP, Bob Bergholz-NGP, Tom Riley-NeDNR, Shuhai Zheng-NeDNR, Andy Kahle-DEE, Ryan Chapman-DEE, Tara Anderson-DEE, Brandon Beethe-DEE, Ron Yoder-UNL, Paul Zillig-LPSNRD, Tracy Zayac-LPSNRD, and David Potter-LPSNRD. Others present included: Tom Mountford-LPNNRD, Jennifer Swanson-NARD, Dustin Wilcox-NARD, Matt Pillard-HDR, Matt Moser-USGS, and Gary Aldridge-LPSNRD Director. Invites were sent out to at least two individuals from each of the eight members/agencies of the Alliance, including the person that was authorized to sign any documents. Alternates were recommended to participate if the two individuals could not attend. A meeting notice was published in the Lincoln Journal Star on October 13, 2021. Six of the eight Alliance members/agencies were represented at the meeting. The purpose of the meeting was also stated. The LPRCA meeting began at 10:01 a.m.

2. Review of May 14, 2021 Meeting and Approval of Minutes: Potter stated that the minutes of the last meeting were distributed prior to the meeting and are on the LPRCA website. There were no changes or corrections. Minutes were approved by consensus. Minutes from the bi-annual meetings will continue to serve as the newsletters/correspondence.

3. Financials/Budget Update: Potter reviewed the FY2022 budget. Each of the eight agencies were invoiced $1,000 for dues and six were paid earlier this year. It was noted there are certain limitations on State agencies. All but DEE and DHHS paid their dues. The dues are deposited into the administrative fund and pay for the costs of ESRI, the website, and memberships. A copy of the budget was sent to each member agency so they could budget accordingly. Besides the administrative costs, the only active projects currently are the stream gages with USGS. It was noted that some share of payments by the agencies are handled through separate agreements. Invoices are usually sent out in November or December to those NRDs and agencies participating in the various stream gage agreements. The project fund holds monies for current and future projects. In addition, the Reserve funds are in place to initiate potential projects such as the Lower Platte River Restoration and Resiliency Study.

4. LPRCA Interlocal Agreement and Membership, DHHS status: There was not a representative from DHHS at the meeting, however Potter shared an email with the group stating that DHHS has elected to withdraw from the LPRCA given that the Nebraska Department of Environment and Energy is now responsible for water-related programs. DHHS will be sending written notice of this decision soon. Potter stated the Public Drinking Water Division officially moved to the NDEE on July 1, 2021 (LB-148).

The Alliance discussed the possible directions to take. The current amended interlocal agreement will be reviewed and the item will be discussed and possibly acted on at the next meeting.

5. Current LPRCA Activities/Projects

   A. Status of USGS Stream Gages/Monitors, Reports from Gages: Matt Moser with USGS provided an update on the current stream gages contracted through the Alliance. He described the data being collected from the various stream gages and when that information is being collected. Moser stated the two agreements are set to expire in June 2022. If new three-year contracts for the Leshara and three long-term sites are approved, monitoring will begin in late spring of 2022 which will allow for continued data collection.

   B. Agreements for Gages at Leshara and Three Long-Term Sites: Potter briefly discussed the agreements for the various stream gages. The agreements for the 3 long-term sites and Leshara will expire June 30, 2022. The Leshara site is jointly (and now equally) funded by LPSNRD, LPNNRD, PMRNRD, LWS, and MUD, and also by USGS. The joint funding agreements with each agency will expire in December 2021. Potter will contact each agency and propose another 3-year funding agreement. The three long-term sites are jointly funded by LPSNRD, PMRNRD and USGS. The cost-share information on the gages was identified in the FY22 budget presented by Potter. The new agreements will need to be considered at the meeting in March so LPSNRD can take action on them in April. Expenditures for the new agreements will not occur until FY23. Members present and associated with the gages all agreed to move forward with new agreements.

6. Reports on Related Corridor Activities and Projects

   A. Lower Missouri River General Investigation Study: Tom Riley with NeDNR provided an update on a various studies and plans that NDR is involved in. The Lower Missouri River GI study between Nebraska, Kansas, Iowa, Missouri and the Corps of Engineers (USACE) on the Missouri River identifies flooding areas along the Lower Missouri River and potential solutions by engaging stakeholders. Final Planning Assistance to States (PAS) Study Report is expected in January 2022. Information gathered and findings from the PAS report will be used to inform the GI Study. The purpose of this GI study is to develop a systemic plan for Lower Missouri flood reduction. Expected completion is in 2025. FY22 major project tasks would include gathering historic flood damage data, inventorying hydrology and hydraulic (H&H) models, and conducting preliminary H&H assessments. This will form the framework of the study and selection of alternatives for evaluation. Once alternative solutions are identified, additional reach-specific feasibility studies (FS) will be initiated. The USACE Missouri River Flow-Frequency Update Study is anticipated to be completed at the end of the year. Provisional results suggest flows higher than those in the 2003 Study for a specified frequency. If anyone is interested in interim information, they can contact Tony Krause with the USACE. The Platte River Recovery & Implementation Program involved a governance committee that just approved contracting with Southern Illinois University and UNL for pallid sturgeon work. The program is working to quickly identify native vs hybridized strains and distinguish from shovelnose. Field work is expected in 2022. Riley also provided an update on the State Flood Hazard Mitigation Plan and shared some meeting dates and other related information. The target date for completion and a final plan is June 2022. Information can be found at their website:

https://dnr.nebraska.gov/floodplain/nebraska-flood-hazard-mitigation-plan. Monthly updates also available at that site.

B. Statewide Tourism and Recreational Water Access and Resource Sustainability Committee, a.k.a. "STAR WARS" (LB406) and Statewide Flood Hazard Mitigation Plan: Matt Pillard with HDR presented a power point on Star Wars bill and the project activities. There are three specific recreational areas in the state being examined: the Lake McConaughy region, the area around Lewis and Clark Lake and Niobrara State Park, and the Lower Platte River. HDR was awarded the contract and a draft of the plan is expected to be completed by the end of the year. Tom Riley discussed the Statewide Flood Hazard Mitigation Plan in his DNR Report.

C. Camp Ashland - Post Flood Building Rehab Project, Floodwall Extension Project, and Platte River Chutes/USGS gage: Larry Vrtiska was not able to attend the meeting and there was no representation from the Nebraska National Guard in attendance. Potter and Moser informed the Alliance the agreement for the gage(s) on the Platte River Chutes funded by the National Guard expired April 30, 2021. The Guard decided to continue monitoring the chutes and entered into a separate agreement with the USGS to continue the gage. LPRCA is not involved in this particular agreement. Moser and Potter also stated that the possible sandbar study discussed at the last meeting was now not needed after a meeting with U.S. Fish and Wildlife on the status of the chutes.

D. State Parks and Trails: Swenson announced the appointment of Tim McCoy as the new NGPC Director to replace Jim Douglas who is retiring at the end of the year. Swenson gave an update on the parks along the corridor. The pandemic has generated more park use and NGPC is updating numerous RV sites. He also reported that a conceptual design is in the works for a water and hike/bike trail network and provided an update on the Adventure Park project. The NGPC is celebrating their centennial anniversary and there are many activities being held throughout the year at various parks.

E. Hwy 34 Platte River Bridge Trail and Lied Platte River Bridge: Williams provided an update on the status of the two bridge projects. The Platte River Bridge Trail project is Federally funded with 20% local match and PMRNRD, LPSNRD, Sarpy County, Cass County, Plattsmouth, Bellevue and others participating in the project. Plans are at 60%. Project was originally estimated at $2 million but will need to be reviewed in the next few months and an amendment to the agreement(s) may be needed. Bid letting is expected in November 2022 with construction in Spring 2023. The Lied Platte River Bridge repairs are completed and the bridge was opened in time for the Market-to-Market race. The Highway 31 Connecting Link Trail on the north/east side in Sarpy County is also completed and open. Now that the flood repairs are completed, other components of the bridge need to be looked at, including the railings, for long-term structural recommendations.

F. Updates from DEE, Sampling: Chapman discussed the surface water sampling being done in the Lower Platte Basin and also groundwater sampling across the state. A map was displayed and distributed showing locations of the surface water sampling that was done. These included the Basin Rotation Monitoring Program (42 sites in the Lower Platte and Nemaha River basins), Wahoo Creek Special Study (LPNNRD is collecting these samples for Wahoo Creek WQMP), Public Drinking Water Special Study (two sites in the Corridor include North Bend and Louisville), Ambient Stream Monitoring Program (monthly grab samples collected at 101 sites statewide and year-round), and the Stream

Biological Program (45 sites monitored in the Lower Platte and Nemaha river basins with invasive carp found in Oak Creek near Lincoln, Salt Creek near Greenwood, and the Platte River near Louisville). Fish tissue monitoring was also conducted in 2021 within the Lower Platte and Nemaha river basins. Parameters analyzed included mercury and selenium. One sampling location was on the Platte River at Louisville and a number of larger tributary streams (Shell, Salt and Wahoo Creeks). Most data will be available at the end of this year or early 2022. Sampling next year will be concentrated in the Missouri Tribs and Elkhorn River Basin. The Nebraska Groundwater Quality Clearinghouse, released in April 2021, can be found at www.clearinghouse.nebraska.gov

G. Update from UNL: Yoder discussed briefly the Deadmans Run project through East Campus and the joint effort with LPSNRD, the city, and USACE. The University is also working on the tributary through East Campus between Holdrege and Deadmans Run. In addition to the bank stabilization, there will be a new pedestrian bridge replacing the one removed due to the channel improvement project. The overall project is approximately 75% complete. He also stated that the University continues to monitor their property near Mead for water quality related to the issue/contamination of the ethanol plant.

H. Lower Platte River Cameras / Stream Gage Project Update: Mountford reported that the River cameras will assist in observing river flows and ice movement. The project is funded by LPNNRD, PMRNRD, Dodge County and the City of Fremont, and group is also working with USGS. Timelapse cameras are installed on bridges at Highways 15, 77, 79 and 64. The project is also looking at some private locations for the cameras.

7. Future Projects/Studies:

A. Water Quality Management Plan – 319 Projects and Implementation, Application to EPA: Potter and Pillard informed the group the WQMP is a five-year plan, so development of the next LPRCA WQMP will be budgeted in FY24 and FY25. With an approved WQMP, projects within the priority 1 areas of the plan within the corridor are eligible for 319 funding. Any community or agency within the corridor is eligible to apply. To date, there has not been any Project Implementation Plans (PIP) submitted to EPA, however PMRNRD has started preparing two of them. One of the PIPs would be for Turkey Creek-Platte River Watershed and with LPSNRD. This particular watershed is on both sides of the river so there has been coordination between LPSNRD and PMRNRD. LPNNRD is also looking at submitting a PIP for their watersheds. NDEE has developed a recent PIP Preparation Guide and will get that to the NRDs to assist them in their applications/submittals.

B. Lower Platte River Watershed Restoration and Resiliency Study – Update/Status, schedule meeting with NRDs: Zillig briefly discussed the possible Restoration and Resiliency Study and its current status. There has been no change and a meeting is still needed between the three NRDs to determine whether the project is still viable. They will wait on a meeting until after the DNR studies are completed; as a change in direction with the study may be warranted.

C. Discussion of Any Other Possible Projects for LPRCA: Potter asked the group to identify and consider any other projects for the LPRCA. No additional projects were identified at this time.

8. Schedule Next Meeting: The next meeting is tentatively scheduled for March 2022. A doodle poll to the members will be used to determine the best date to have a meeting.

9. Comments, Questions, General Discussion, Adjournment: Potter shared an article with the group on removal of pipeline supports in the river near Fremont by Northern Natural Gas. With no further questions or comments, the meeting ended at approximately 11:45 a.m.

Submitted by: David Potter, Assistant General Manager LPSNRD and Interim LPRCA Coordinator

Lower Platte River
CORRIDOR ALLIANCE

LEAD. ORGANIZE. INSPIRE. The voice of the Lower Platte.

LPRCA MEETING AGENDA

Monday, October 25, 2021, 10:00 a.m.
@ Lower Platte South NRD

1. Welcome / Introductions (David Potter-LPSNRD)
2. Review May 14, 2021 Meeting and Approval of Minutes (David Potter-LPSNRD) *[ACTION]*
3. Financials/Budget Update (David Potter-LPSNRD)
4. LPRCA Interlocal Agreement and Membership, DHHS status (David Potter-LPSNRD) *[ACTION]*
5. Current LPRCA Activities/Projects
    A. Status of USGS stream gages/monitors, reports from gages (Matt Moser and Dave Rus-USGS)
    B. Agreements for gages at Leshara and three long-term sites (David Potter-LPSNRD) *[ACTION]*
6. Reports on Related Corridor Activities and Projects
    A. Lower Missouri River General Investigation Study - Update (NeDNR rep)
    B. Statewide Tourism and Recreational Water Access and Resource Sustainability Committee, a.k.a. "STAR WARS" (LB406) and Statewide Flood Hazard Mitigation Plan (Matt Pillard-HDR)
    C. Camp Ashland Update – Post Flood Building Rehab Project, Floodwall Extension Project, and Platte River Chutes/USGS gage (Larry Vrtiska-NE National Guard)
    D. State Parks and Trails (Jim Swenson and Bob Bergholz-NGPC)
    E. Hwy 34 Platte River Bridge Trail and Lied Platte River Bridge (Eric Williams- PMRNRD)
    F. Updates from DEE - Sampling (Ryan Chapman-NeDEE)
    G. Update from UNL (Ron Yoder-UNL)
    H. Lower Platte River Cameras / Stream Gage Project Update (Tom Mountford-LPNNRD)
    I. Other
7. Future Projects/Studies
    A. Water Quality Management Plan - 319 Projects and Implementation, Application to EPA (NRD reps, Matt Pillard-HDR, and Ryan Chapman-DEE)
    B. Lower Platte River Watershed Restoration Study – update/status, schedule meeting with NRDs (Paul Zillig, LPSNRD)
    C. Discussion of any other possible projects for LPRCA
8. Schedule Next Meeting (March-April 2022)
9. Comments, Questions, General Discussion
10. Adjourn

*CONTACT INFO - LPRCA Office – 3125 Portia * PO Box 83581 * Lincoln, NE 68501 * (402) 476-2729*
*E-mail – dpotter@lpsnrd.org * Website – www.lowerplatte.org*

Lower Platte River
CORRIDOR ALLIANCE

LEAD. ORGANIZE. INSPIRE. The voice of the Lower Platte.

LPRCA MEETING MINUTES

Friday, May 14, 2021 – 10:00 a.m.
Virtual Zoom Bi-Annual Meeting

1. Welcome / Introductions: David Potter welcomed everyone and thanked the members for attending the meeting. Corridor Alliance member representatives participating included: Marlin Petermann-PMRNRD, Eric Williams-PMRNRD, Paul Woodward-PMRNRD, Larry Vrtiska-NE National Guard, Bob Bergholz-NGP, Shuhai Zheng-NeDNR, Andy Kahle-DHHS, Ryan Chapman-DEE, Zach Reid-DEE, Tara Anderson-DEE, Brandon Beethe-DEE, Ron Yoder-UNL, Rachel Herpel-UNL (Water Center), Paul Zillig-LPSNRD, and David Potter-LPSNRD. Others present included: Tom Mountford-LPNNRD, Jennifer Swanson-NARD, Matt Pillard-HDR, Dave Rus-USGS, Matt Moser-USGS, Steve Peterson-USGS, and Kathy Hauschild-LPSNRD. Invites were sent out to at least two individuals from each of the eight members/agencies of the Alliance, including the person that was authorized to sign any documents. Alternates were recommended to participate if the two individuals could not attend. A meeting notice was published in the Lincoln Journal Star on May 4, 2021. All eight Alliance members/agencies were represented at the meeting. The purpose of the meeting was also stated. The LPRCA meeting began at 10:07 a.m.

2. Review of December 3, 2020 Meeting and Approval of Minutes: Potter stated that the minutes of the last meeting were distributed prior to the meeting and are on the LPRCA website. There were no changes or corrections. Minutes were approved by consensus. Minutes from the bi-annual meetings will continue to serve as the newsletters/correspondence.

3. Budget Update: Potter presented the Draft FY2022 budget. Each of the eight agencies were invoiced $1,000 for dues and six were received. It was noted that there are certain limitations on State agencies. All but DEE and DHHS paid their dues. The dues are deposited into the administrative fund and pay for the costs of ESRI, website, and memberships. A draft budget spreadsheet was displayed during the meeting and explained. A copy of the draft budget will be sent to each member agency. Besides the administrative costs, the only active projects currently are the stream gages with USGS and a possible sandbar study. It was noted that some share of payments by the agencies are handled through separate agreements. Invoices are usually sent out in November or December to those NRDs and agencies participating in the various stream gage agreements. The project fund holds monies for current and future projects. In addition, the Reserve funds are in place to initiate potential projects such as the Lower Platte River Restoration and Resiliency Study.

4. Current LPRCA Activities/Projects

   A. Agreements for Gages at Leshara, 3 Long-Term Sites, and Platte River Chutes: Potter briefly discussed the agreements for the various stream gages. The agreements for the 3 long-term sites and

Leshara will expire June 30, 2022. The Leshara site is jointly (and now equally) funded by LPSNRD, LPNNRD, PMRNRD, LWS, and MUD, and also by USGS. The three long-term sites are jointly funded by LPSNRD, PMRNRD and USGS. The cost-share information on the gages was identified in the FY22 budget presented by Potter. The new agreements will need to be considered at the meeting in April/May. Expenditures for the new agreements will not occur until FY23. The agreement for the gage(s) on the Platte River Chutes funded by the National Guard expired April 30, 2021 (It was set to expire in 2020 but was extended for one year due to the flood damage at no additional cost). As of now, no agreement for continuation of the gage(s) is expected. If the National Guard wants to continue monitoring the chutes, they will likely enter into a contract directly with USGS.

B. Status of USGS Stream Gages/Monitors, Reports from Gages: Matt Moser provided information and an update on the current stream gages contracted through the Alliance and what information/data they're providing. Moser went through some of the data being collected from the various stream gages. He discussed the preliminary estimates and work to begin in late spring of 2022. Moser also explained how monitoring the chutes is now not possible due to the sandbar at the entrance(s). More information on the sandbar was discussed later in the meeting.

5. Reports and Updates on Related Corridor Activities and Projects

A. Flooding/Levees/Recovery on the Missouri River and Statewide Levee Update: Shuhai Zheng with NeDNR provided an update on a study between Nebraska, Kansas, Iowa, Missouri and the Corps of Engineers (USACE) on the Missouri River. This study identifies flooding areas along the Lower Missouri River and potential solutions by engaging stakeholders. The study is wrapping up and should be completed soon. Shuhai reminded the group that NeDNR and other three states' representing agencies signed a feasibility cost share agreement last September with USACE to develop flood reduction alternatives that are feasible and implementable. This Lower Missouri River General Investigation Study will be kicked off soon and it is expected to be completed in three years. USACE is also planning for a study to update the stage-frequency of the Missouri River. NeDNR will be involved in the Lower Platte River Infrastructure Task Force as outlined in LB-406. Shuhai provided an update on the state flood mitigation plan and shared some meeting dates and other related information. NeDNR's levee inventory (USACE levees, public levees, and private levees) is not moving forward as efforts found the information for private levees is very limited. Related to this, Petermann stated that PMRNRD has developed a cost-share program to help repair private levees.

B. NRD Updates on Platte River Flood Repair Projects: Petermann and Mountford provided updates on PMRNRD and LPNNRD projects, respectively. Most of the projects resulting from the flooding have been completed. There are a couple USACE warranty projects underway and will be completed soon. Petermann also informed the Alliance members that the operation and maintenance manual for the Western Sarpy/Clear Creek Flood Control Project is nearing completion. Mountford commented specifically on the completed flood repairs to the Clear Creek Levee and the Fuse Plug and some projects near North Bend and Schuyler.

C. Camp Ashland - Post Flood Building Rehab Project and Floodwall Extension Project: Vrtiska provided an update on Camp Ashland, including the repairs to the levee/river bank (now completed) and reconstruction of the camp and buildings. He also noted that there is an issue now with outflow

from Turner Lake to the Platte River. Part of it has to do with fill in the Salt Creek Floodway and is now part of the USACE warranty project. Construction to resolve the issue should begin soon.

D. State Parks: Bergholz gave an update on the parks along the corridor. All flood repairs have been completed, for the most part. Potential projects include more canoe launch areas. Bergholz also informed the Alliance of Director Douglas' retirement at the end of the year.

E. Hwy 34/75 Platte River Bridge Trail and Lied Platte River Bridge Repair: Williams provided an update on the status of the two bridge projects. The Platte River Bridge Trail is out for public comment until June 10th and bid letting is expected in November 2021 with construction in Spring 2022. The project is Federally funded with 20% local match and PMRNRD, LPSNRD, Sarpy County, Cass County, Plattsmouth, Bellevue and others participating in the project. The Lied Platte River Bridge is currently open from the south/west end in Cass County but remains closed on the north/east end. The Highway 31 Connecting Link Trail on the north/east side in Sarpy County will be completed by July 2nd, just in time for the July 4th weekend. The FEMA assisted repairs on the bridge were placed in three phases – 1) debris removal, 2) super structure repair, and 3) substructure repair including ice breakers.

F. Updates from DHHS and DEE, Sampling: Chapman discussed the surface water sampling being done Lower Platte Basin and also and groundwater sampling across the state. Kahle updated the group on the new organization of the DEE and DHHS. He explained that DHHS drinking water division will now fall under DEE as of July 1st (LB-148) and all of DEE is now in the new facility located in Fallbrook in Lincoln. There was some discussion if DHHS would want to continue as a LPRCA member now. DHHS will be contacted. Chapman and Kahle also presented the new agency organizational chart.

G. Update from UNL: Yoder gave a brief update on the issue with the ethanol plant at Mead and it's effect on UNL property. He also explained their role in the current Deadmans Run project through East Campus. Herpel shared information about the support the Daugherty Water for Food Global Institute provides to faculty. A competitive process is used to award funding to DWFI Faculty Fellows throughout the NU system for research (student) support. Faculty match the funds 1:1. Nearly 40 such support agreements are planned for FY 2022. She mentioned a few of the projects during the meeting and stated they will publish a complete list of the faculty, students, and the titles of their projects early in the fiscal year.

6. Future Projects/Studies:

A. Status of Platte River Chutes, Morphodynamic Study, and Possible Sandbar Study: Vrtiska, Rus and Petermann all discussed the status of the chutes and the two studies. The Platte River chutes on the east side of the river are not functioning as they were before the flood. Flow into the chutes is now blocked by a sandbar and therefore restricting water flow through them. The chutes were created for habitat for the levee project and coordinated with US Fish and Wildlife. Rus provided technical information on both studies. The Morphodynamic Study is currently funded by the National Guard and USGS. Rus indicated that the Sandbar Study was specific to the area near the chutes and would help provide information on the operation and maintenance of the chutes. Potter commented that the study cost was placed in the draft budget but would now be less based on proposed scope and fees provided by USGS. It would be a two-year project with recommended participation from LPSNRD, PMRNRD, LPNNRD and the National Guard, along with USGS. This potential study could expand on or

use information that was found in the Lower Platte River Sandbar Dynamics Study recently completed by Jason Alexander. It was suggested that a meeting be scheduled with the proposed participants. A meeting with PMRNRD and the Guard with FWS and USACE is scheduled for May 20th at noon, so such a meeting should be scheduled after that but before the NRD's subcommittees meet. Potter will send out a doodle poll and get a meeting scheduled.

B. Water Quality Management Plan – 319 Projects and Implementation, Application to EPA: Potter informed the group that there have been a couple meetings (Feb. and March) between LPSNRD, PMRNRD, LPNNRD and HDR to discuss possible 319 Projects within the priority areas identified in the LPRCA Water Quality Management Plan. With an approved WQMP, projects within the priority 1 areas of the plan within the corridor are now eligible for 319 funding. Any community or agency within the corridor is eligible to apply. To date, there has not been any Project Implementation Plans (PIP) submitted to EPA but PMRNRD is preparing two of them. LPSNRD is also budgeting for possible implementation in the Turkey Creek-Platte River Watershed. This particular watershed is on both sides of the river so there has been coordination between LPSNRD and PMRNRD. LPNNRD is also looking at submitting a PIP for their watersheds. The WQMP is a five-year plan, so development of the next LPRCA WQMP will be budgeted in FY24 and FY25. Ryan Chapman reminded the Alliance members again of the Septic Tank Program stated in the WQMP. More information and discussion will be given on the Septic Tank Program and on the 319 projects at the next LPRCA meeting.

C. Lower Platte River Watershed Restoration and Resiliency Study – Update/Status: Zillig briefly discussed the possible Restoration and Resiliency Study and its current status. There has been no change and a meeting is still needed between the three NRDs to determine whether the project is still viable.

D. Discussion of Any Other Possible Projects for LPRCA: Potter asked the group to identify and consider any other projects for the LPRCA. No additional projects were identified at this time.

7. Schedule Next Meeting: The next meeting is tentatively scheduled for October 2021. A doodle poll to the members will be used to determine the best date to have a meeting.

8. Comments, Questions, Adjourn: No questions or comments. The meeting ended at approximately 12:35 p.m.

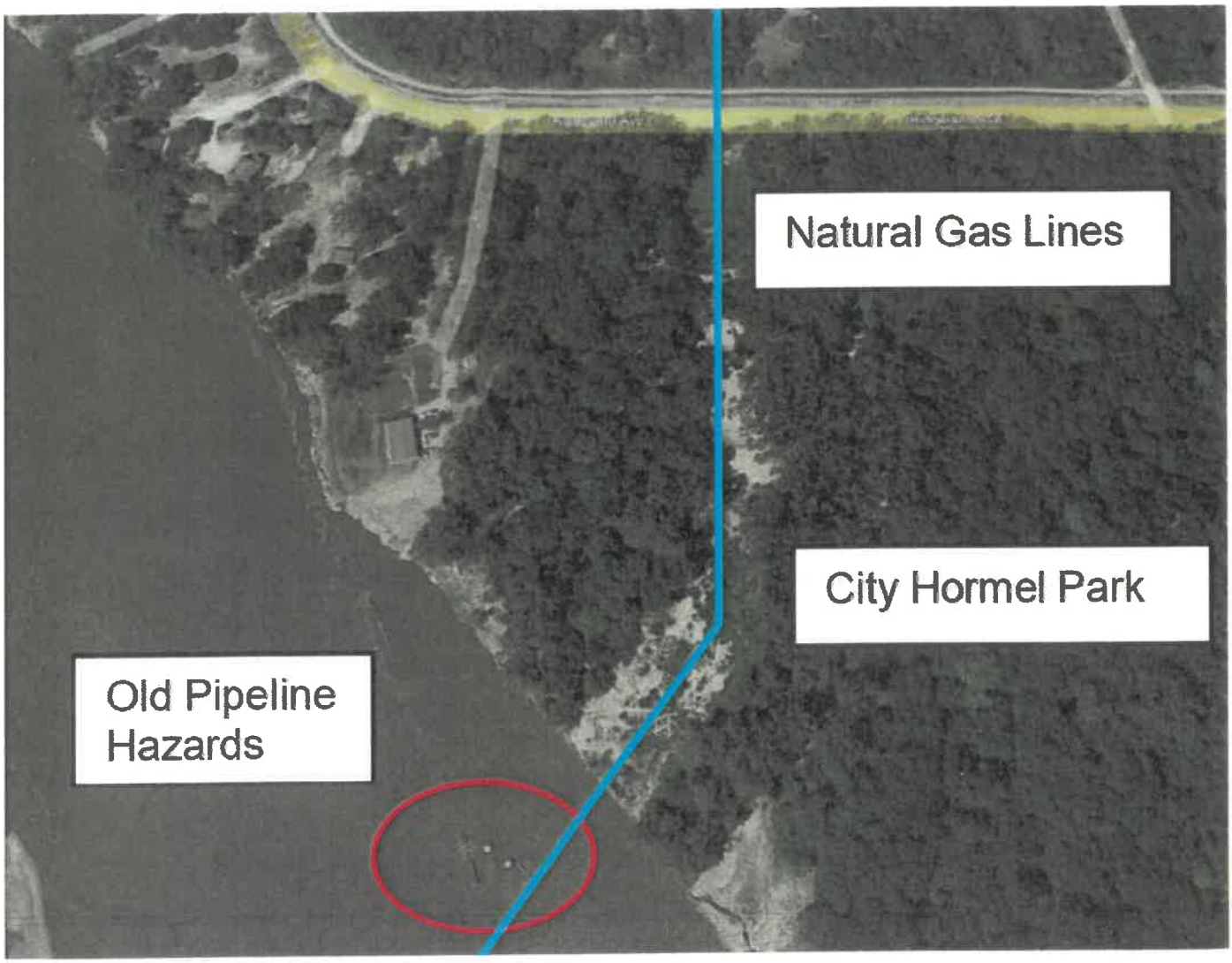
Submitted by: David Potter, Assistant General Manager LPSNRD and Interim LPRCA Coordinator

https://fremonttribune.com/news/local/unused-pipeline-supports-to-be-removed-from-platte-river-in-attempt-to-stop-ice-jams/article_02339da8-003a-5496-b113-9747a2126d99.html

EDITOR'S PICK

Unused pipeline supports to be removed from Platte River in attempt to stop ice jams

COLLIN SPILINEK Fremont Tribune
Oct 11, 2021



Northern Natural Gas will remove unused pipeline stanchions from the Platte River near Fremont in the following weeks in an attempt to prevent ice jams.

Courtesy

COLLIN SPILINEK Fremont Tribune

Unused pipeline supports will soon be removed from the Platte River near Fremont i an effort to prevent future ice jams.

The pipeline stanchions will be removed by Northern Natural Gas, and the project is expected to be finished in the next few weeks.

The stanchions and bridge piers held up previous pipelines over the river south of Fremont.

"You talk to some people, and they remember it being hung across above the Platte, but I think it's got to be 20 years ago or more," Fremont City Administrator Brian Newton said. "It's been a long time."

Although the two concrete stanchions are not in use, Newton said, they can still be seen protruding above the surface 6 feet below the riverbed.

"It used to be closer to the bank, but now with all of the flooding and the high waters we've had, the bank is cut out there and now they're out in the river more," he said.

After the state's flooding in 2019 and an ice jam on the river, Newton said, the city started speculating as to whether the stanchions contributed to or caused the jams.

"A couple of people said, 'Hey, listen, I airboat down there all the time,'" he said. "'Not only are those things dangerous, but we think it's contributing to the ice jams.'"

Newton reached out about the city's concerns to Northern, who responded earlier this year that it would remove the stanchions, as well as associated piling and piers, and stabilize some of the erosion on the north bank.

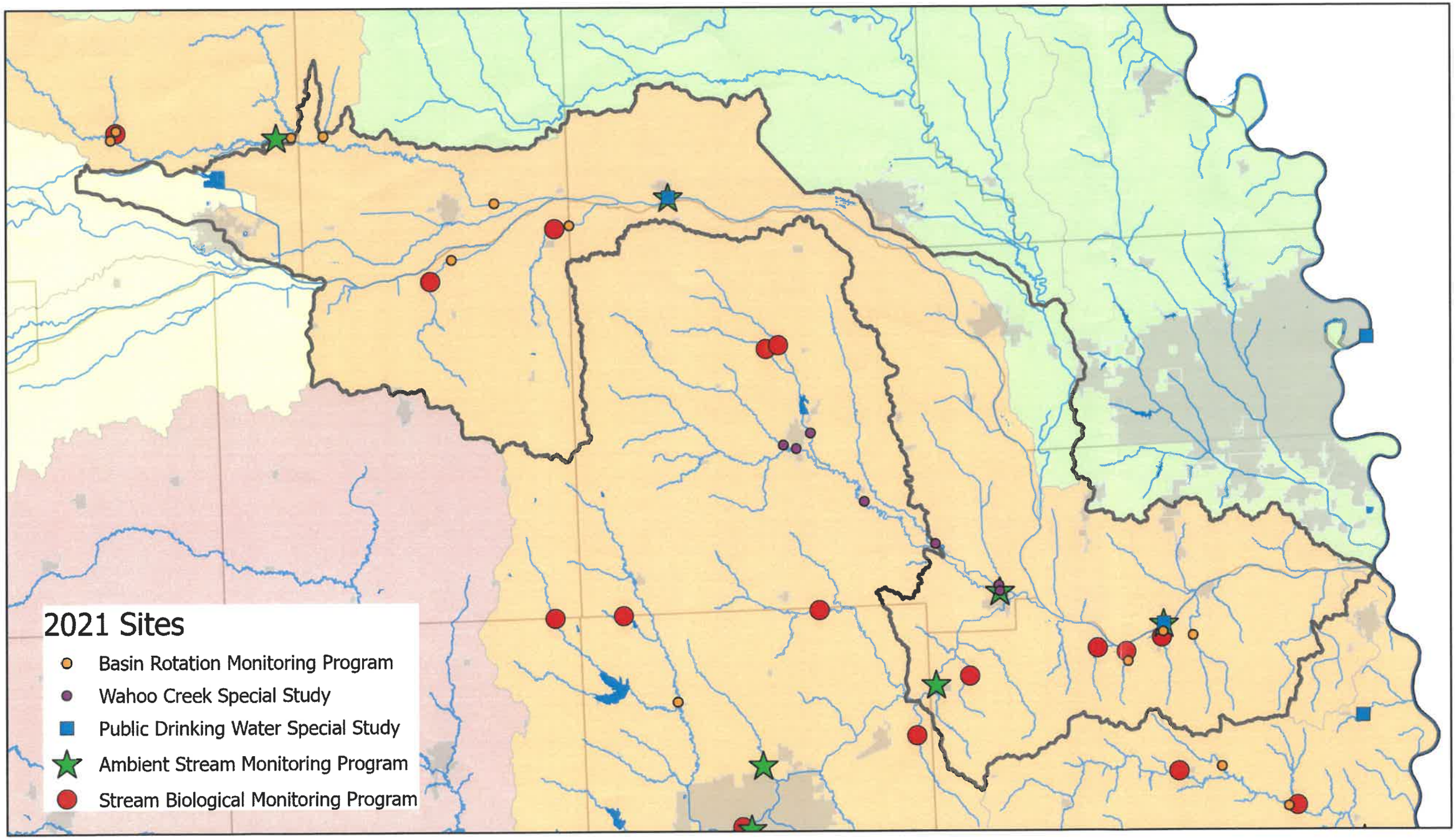
"It has nothing to do with the transportation of natural gases," said Mike Loeffler, senior director of external affairs for Northern. "There'll be no interruptions and it does not impact our pipeline delivery at all."

Newton said he's happy to see action being taken and hopes it will result in safer navigation on the river and removal of ice jams.

Newton said Northern has applied for a floodplain development permit and that the project will begin once it's obtained.

"They got all the permits they need from the Army Corps of Engineers," he said, "and I think ours is the last permit they need."

Lower Platte River Corridor Alliance FY22 Budget (Prepared May 2021)		**LPSNRD**	**PMRNRD**	**National Guard**	**Game & Parks**	**UNL**	**NeDNR**	**DEE**	**DHHS**	**LPNNRD**	**LWS**	**MUD**	**LPRCA**
Stream Gages:	3 Long term sites Expires: June 30, 2022	$31,612	$31,612	-	-	-	-	-	-	-	-	-	$63,224
	Leshara Expires: June 30, 2022 (funding agreements)	$4,807	$4,807	-	-	-	-	-	-	$4,807	$4,807	$4,807	$24,031
	PR Chutes near Guard w/ Agreement Extension Expired: April 30, 2021	-	-	$0	-	-	-	-	-	-	-	-	$0
Website Hosting		-	-	-	-	-	-	-	-	-	-	-	$2,010
ESRI Agreement		-	-	-	-	-	-	-	-	-	-	-	$2,500
* LPRCA Dues. Pays for Website, ESRI & Memberships. (In FY21 was paid by 6 of 8 members: LPSNRD, PMRNRD, National Guard, Game &Parks, UNL, NeDNR for total $6,000)		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	-	-	-	-
Lower Platte Tour		$500	$500	-	-	-	-	-	-	-	-	-	$1,000
Memberships		-	-	-	-	-	-	-	-	-	-	-	$500
Restoration & Resiliency Study		-	-	-	-	-	-	-	-	-	-	-	$200,000 (from reserves)
	TOTALS	**$37,919**	**$37,919**	**$1,000**	**$1,000**	**$1,000**	**$1,000**	**$1,000**	**$1,000**	**$4,807**	**$4,807**	**$4,807**	**$293,265**


2021 Sites
Basin Rotation Monitoring Program
Wahoo Creek Special Study
Public Drinking Water Special Study
Ambient Stream Monitoring Program
Stream Biological Monitoring Program