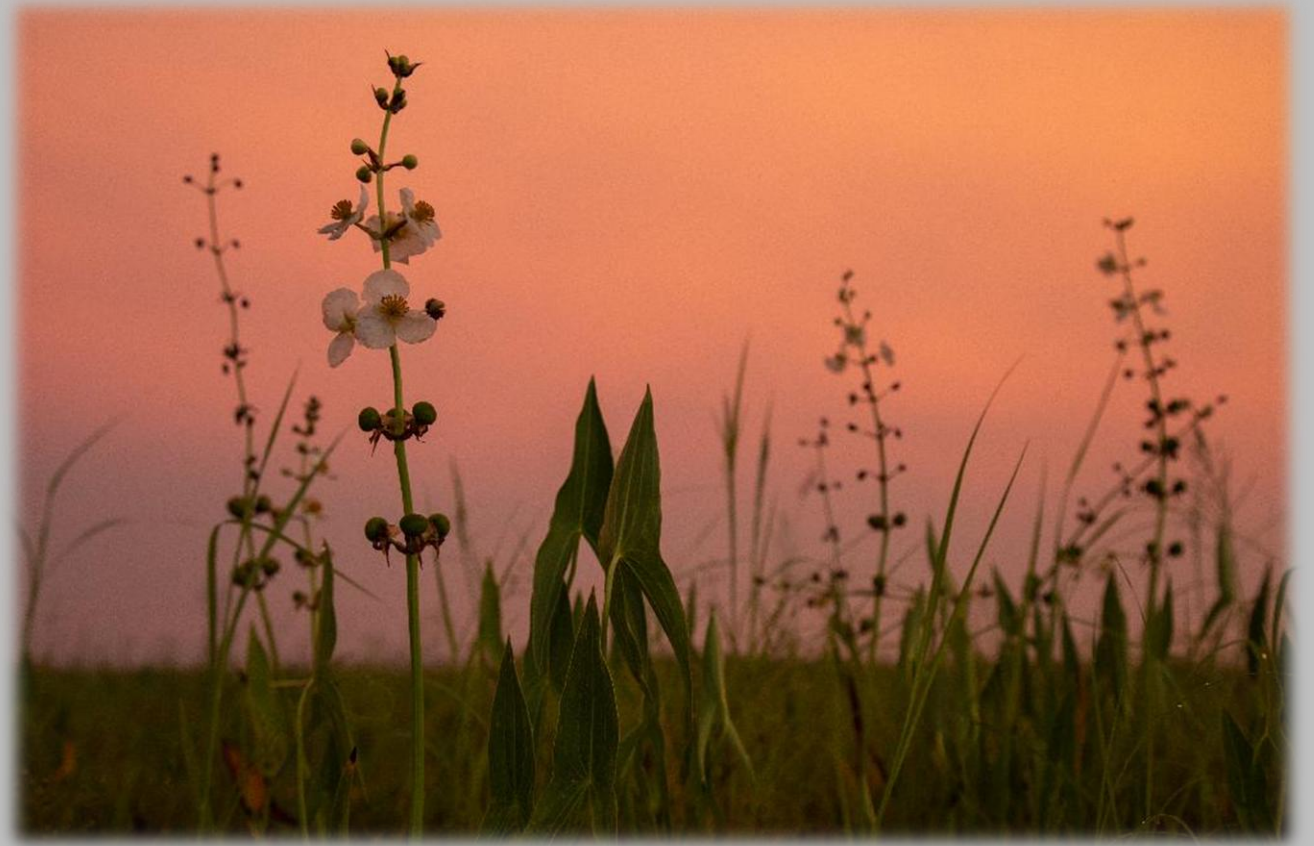


Bridging the Gap between People and Wetlands in Nebraska

Ted LaGrange – NGPC Wetland Program Manager

Grace Gaard –NGPC Aquatic Ecology Education Specialist





- **WPD Grant for *Wetlands of Nebraska Outreach and Education***
 - **Education Components**
 - **Multi-media Outputs and Metrics**
 - **WPD Grant for *Connecting Nebraskans to Wetland Resources and Experiences***
 - **Lessons Learned**

Thanks EPA!

We greatly appreciate the Wetland Program Development (WPD) Grant Program and it has greatly benefited Nebraska's wetlands!



Nebraska has a diversity of wetland types





Photos by Platte Basin Timelapse Producers

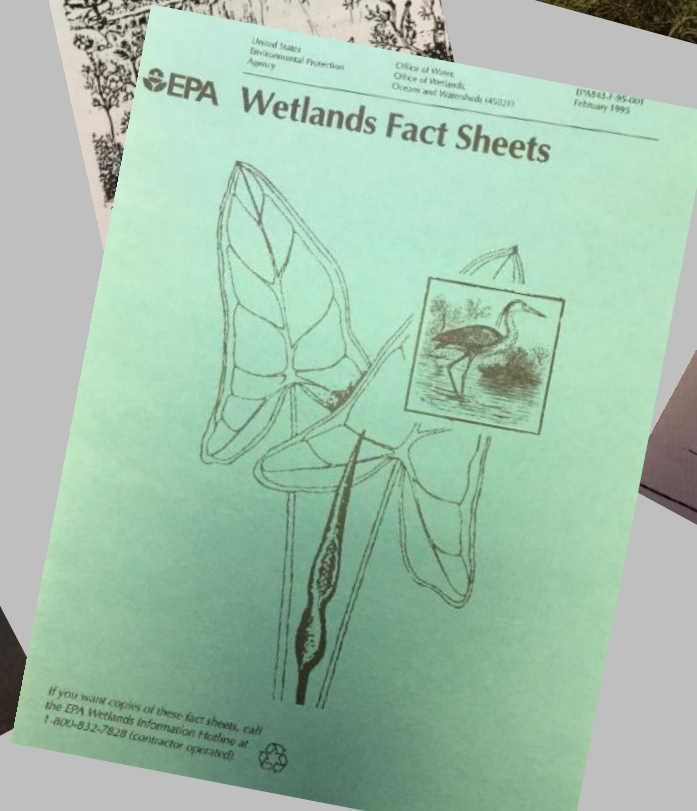
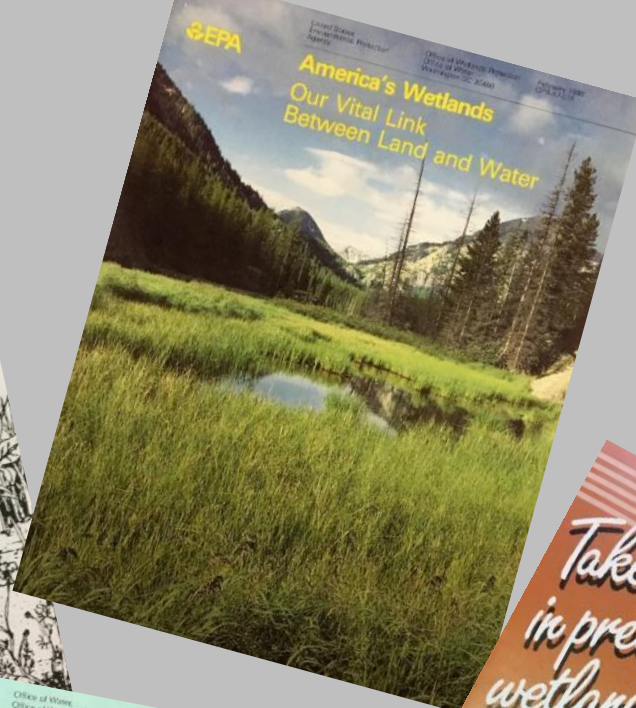
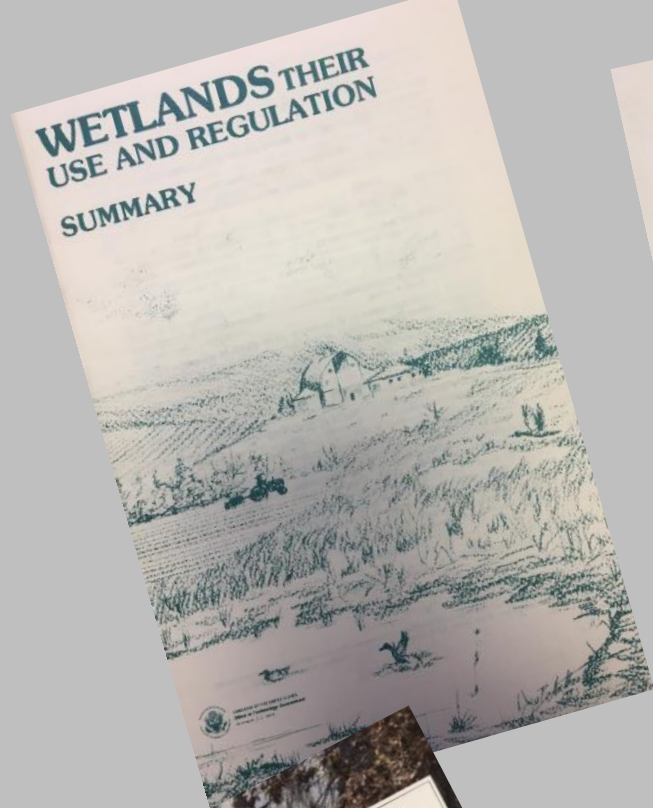




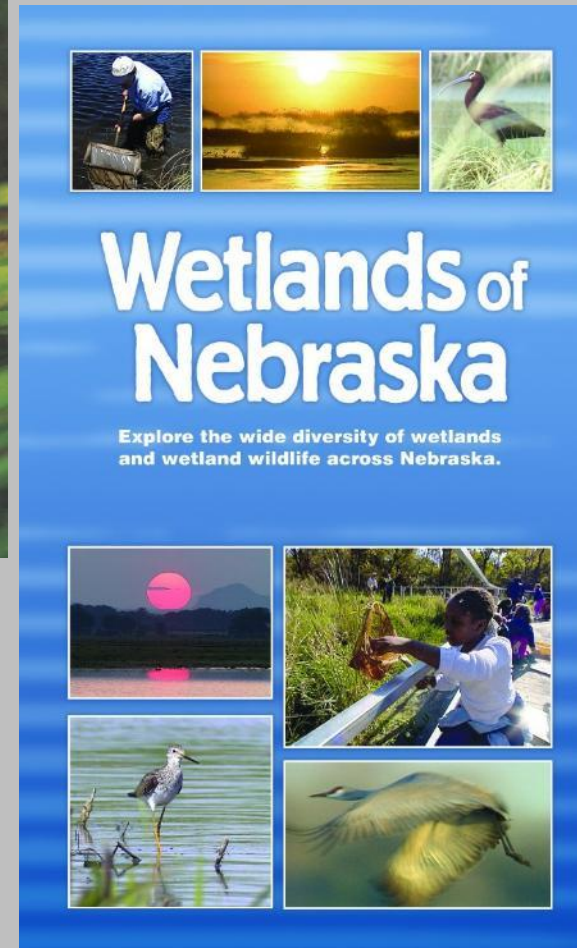
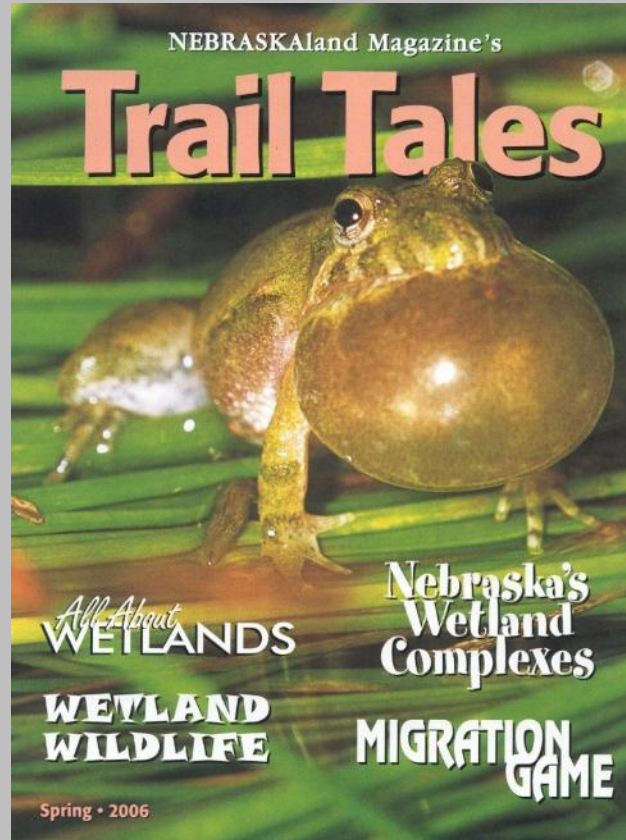
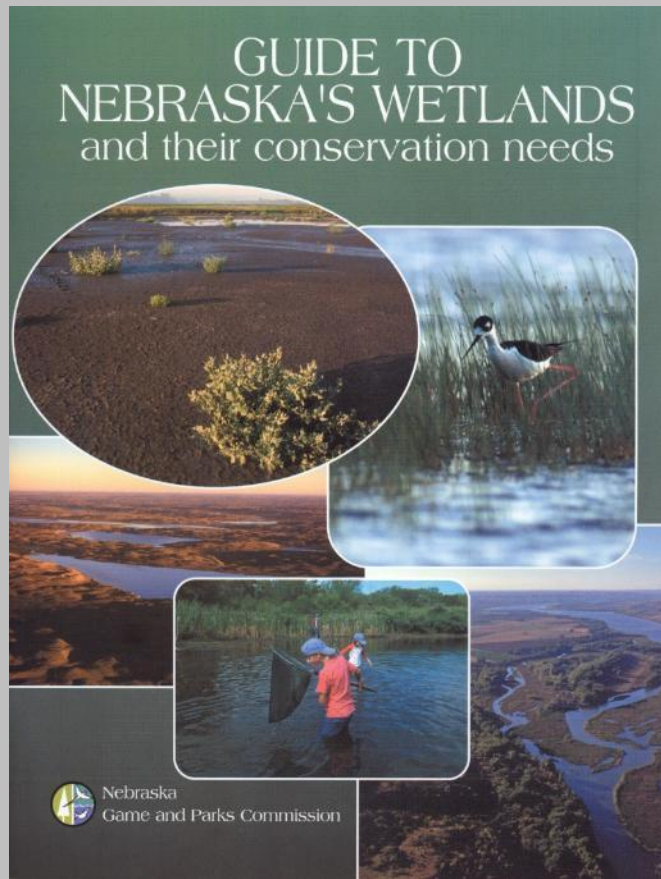
Ethan Freese | Platte Basin Timelapse



Photo by Amber Schiltz, NGPC







**2002-2005 education project
Funded by a WPD grant from EPA**

OUR WATER IN MOTION

EVERY DROP OF WATER TELLS A STORY

As water travels downstream, it reflects and sustains the landscapes and communities it encounters. This vital resource connects us all. Join us as we share the stories of the Platte Basin and beyond!



Mariah Lundgren / Platte Basin Timelapse

Fish and Wildlife Education Division



Educator workshops, professional development, and classroom programming



Creation of educational resources that can be used in formal and informal settings



Programming like trivia, webinars & community science designed for adults



Partnerships and community focused programs and activities

<http://outdoornebraska.gov/learn/educator-resources/>

Wetlands of Nebraska: An Outreach and Education Project

EPA grant awarded in 2019



Produce and distribute a series of integrated outreach and education products to increase awareness of the importance of wetlands in Nebraska and an understanding of the need for wetland conservation.

- **Updated *Guide to Nebraska's Wetlands***
- ***Wetlandology*: a Student Wetland Activity Booklet**
- **Multi-media products about wetlands, including 5 short films and StoryMaps**
- **An updated wetlands section of the Nebraska Game and Parks Commission's website (www.NebraskaWetlands.com) hosting the information generated**



Core Team

- **Grace Gaard and Lindsay Rogers (NGPC Fish and Wildlife Education Division)**
- **Shawna Richter-Ryerson, Nick Sauvageau, and Jeff Kurrus (NGPC Communications Division)**
- **Randy Stutheit, Molly Haas Wavada (archivist), and Ted LaGrange (NGPC Wildlife Division)**
- **Kevin Pope (U.S. Geological Survey— Nebraska Cooperative Fish and Wildlife Research Unit)**
- **Mike Forsberg, Mike Farrell, Mariah Lundgren, Ethan Freese, Grant Reiner, Dakota Altman, Brooke Talbott, and Sidney Parks (University of Nebraska- Lincoln, Platte Basin Timeplase)**



Advisory Committee

- **Betsy Barent, Lincoln Public Schools**
- **Dayna Derichs, Millard Public Schools**
- **Joey Hajda, Thedford Schools**
- **Rochelle Settles, Lincoln Public Schools**
- **Lisa Cotter, Lexington Middle School**
- **Arlys Cupp, Chase County Schools**
- **Susan Pope, Educator**
- **Audrey Webb, Nebraska Department of Education**
- **Hanna Pinneo, Nebraska Arboretum**
- **Jocelyn Harrison, Henry Doorly Zoo**
- **John Denton/Elle Nugent, Ducks Unlimited**
- **Eliodora Chamberlain/Jeanette Schafer, EPA**
- **Josh Wilhelm, Nebraska Department of Environment and Energy**
- **Melissa Panella, Nebraska Game and Parks Commission**
- **Judi Gaiashkibos, Nebraska Commission on Indian Affairs**

Partner Input

Education and Wetlands

Goal:

Increase awareness of the
value of wetlands in
Nebraska and an
understanding of the need
for wetland conservation

Finding Connections

Ethan Freese | Platte Basin Timelapse



How are we doing it?

- Collaboration
 - Wetland stakeholders
 - Scientists
 - Educators
 - State Standards
 - Artists/Storytellers
 - Graphic Designers
 - Social Media and Marketing professionals



The need for this approach

- Wetlands provide benefits to everyone, but many are not aware of why.
- **“... the key to effective science communication isn’t the science. It’s communication.”** – Maggie Ryan Sandford



Ethan Freese | Platte Basin Timelapse



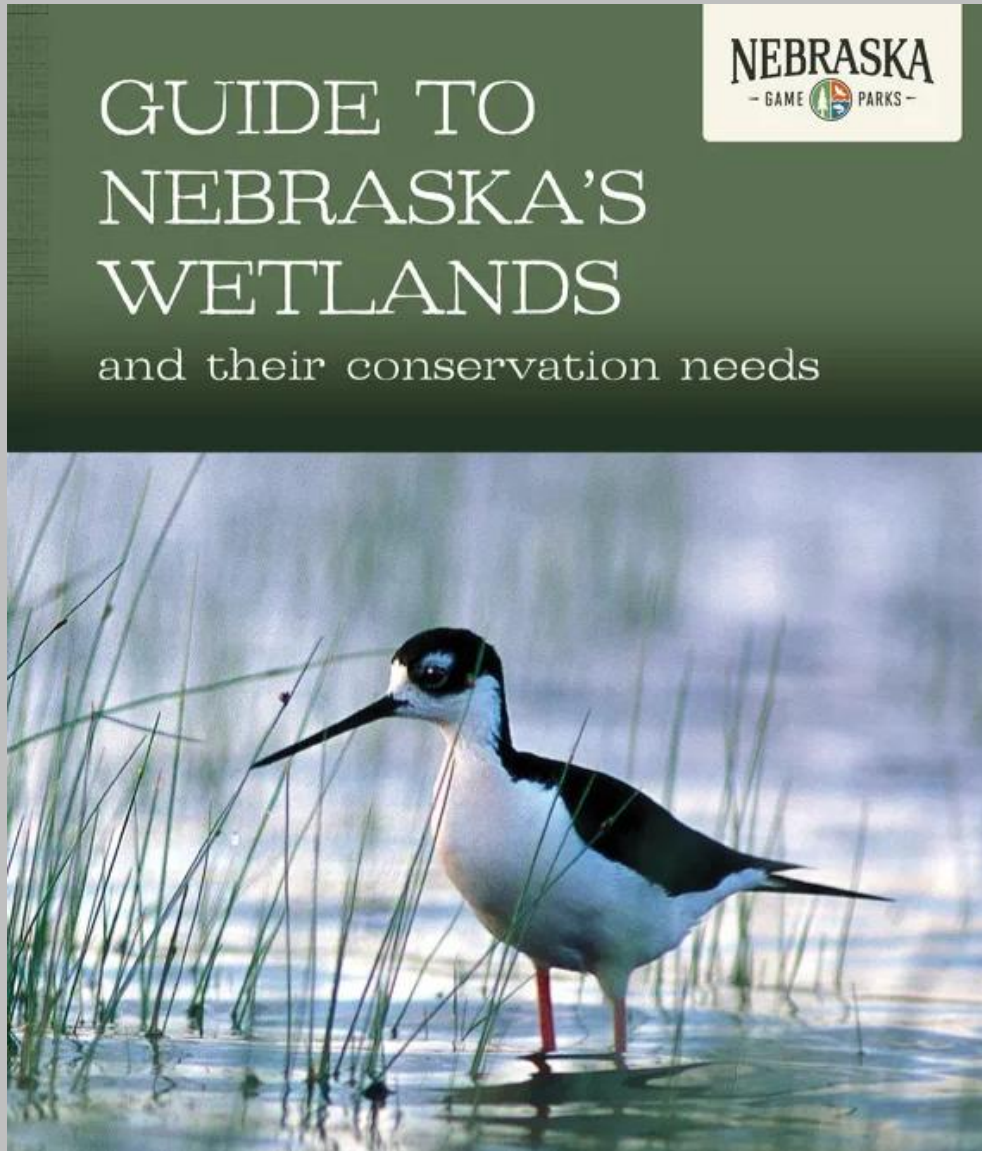
Product release was on February 2, 2023



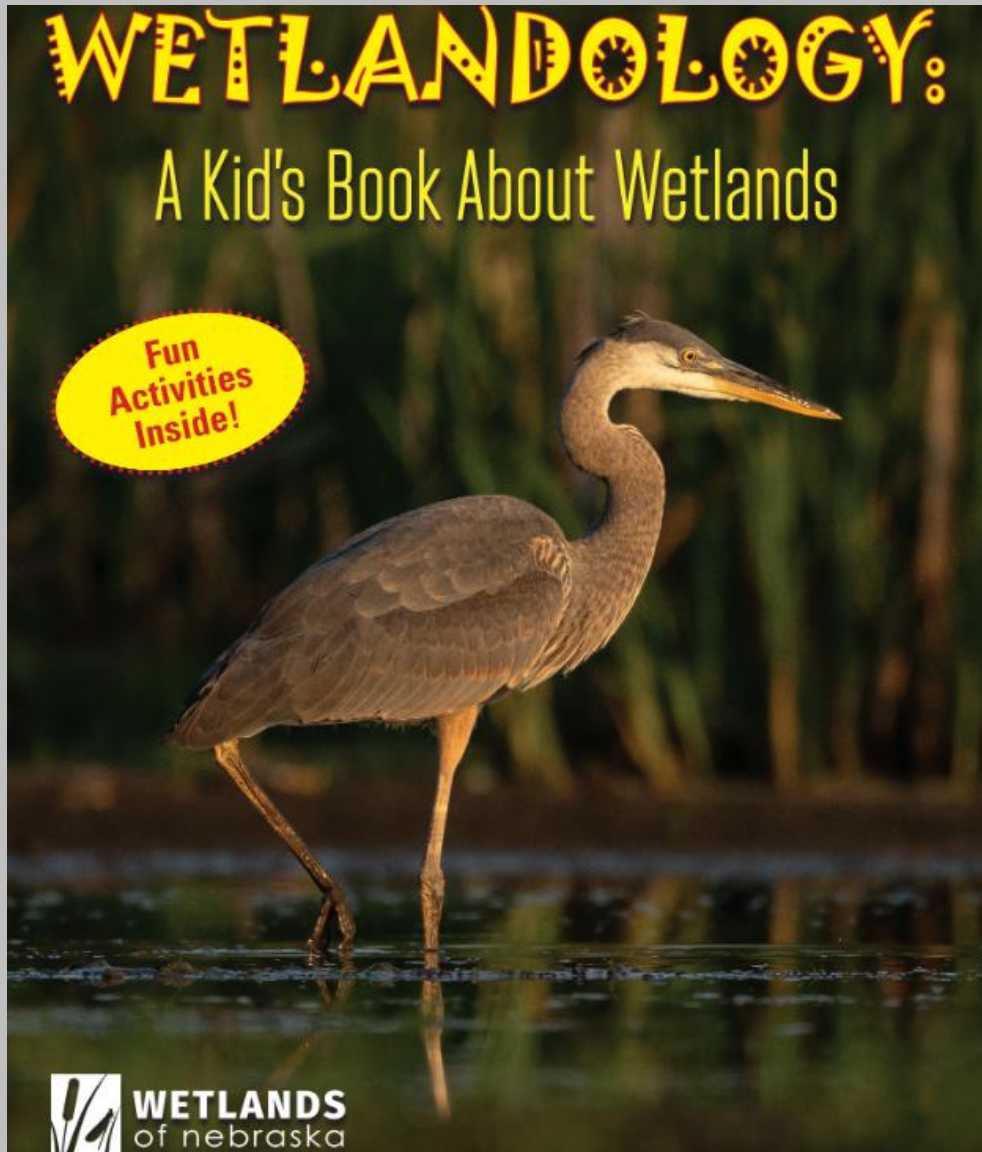
Five feature films about Nebraska's wetlands and the wildlife and people that depend on them--- **Sandhills, Playas, Saline, Riverine, and Urban**

- A shorter **overview film**
- Two **educational videos---** **Plant Adaptations and Animal Engineers**
- An **educator guide** to the products and paired lesson plans
- **Five ESRI StoryMaps---** Sandhills, Playas, Saline, Riverine, and Urban
- An updated ***Guide to Nebraska's Wetlands and their Conservation Needs*** publication.
- A new booklet for kids entitled ***Wetlandology***

Guide to Nebraska's Wetlands



- Defines and describes Nebraska wetlands and discusses wetland functions, dynamics, classification, inventory and conservation efforts. Fourteen wetland complexes are covered in depth.
 - A listing of wetland plants and animals is provided as well as literature references.
- 4,000 distributed.



Wetlandology

- This magazine gives students a closer look at Nebraska's different wetland types, the creatures that live in them, and tips about how you can explore wetlands.
 - Designed for educators to use with students in the classroom, after school and beyond.
- 36,000 distributed.

Distribution of printed products

States (38)

Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Indiana, Iowa, Illinois, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

Countries (45)

Argentina, Australia, Bahrain, Bangladesh, Brazil, Bulgaria, Canada, Chile, China, Columbia, Ecuador, Ethiopia, Germany, Georgia, India, Indonesia, India, Iraq, Ireland, Italy, Japan, Kazakhstan, Kyrgyzstan, Mexico, Moldova, Morocco, Nepal, Pakistan, Philippines, Poland, Romania, Russia, Saudi Arabia, Serbia, Singapore, Spain, Thailand, Tunisia, Uganda, Ukraine, United Arab Emirates, United Kingdom, Viet Nam, Uzbekistan, and Zimbabwe.





WETLAND PLANT ADAPTATIONS

Wetlands are a challenging place to live! What specialized structures do wetland plants have that allow them to function and survive here?

LESSON AT A GLANCE

GRADE LEVEL

- 3rd - 5th grades

CORRELATING STANDARDS

- SC.3.7.2.C
- SC.4.6.3.B
- SC.5.8.2.B, 5.8.2.C

ACTIVITY TIME

- 10 min - Warm Up:
 - Structure & Function Sheet
- 30 min - Main Activity:
 - Design a Plant Challenge

MATERIALS

- Structure & Function Worksheet
 - Writing utensil
- Challenge Cards - 1 per student
 - Challenges in 1 Set:
 - Drought, Flooding, High Wind, Lack of Oxygen, Water Pollution, Standing Water, Insect Attack, Minimal Sunlight, Spreading Seeds
- Design a Plant Challenge Sheet
 - Writing and coloring utensils

INTRODUCTIONS

Wetlands are unique aquatic ecosystems in Nebraska. The plants that live there have amazing adaptations that allow them to thrive! Using their special structures like roots, stems, and flowers they are able to function and reproduce, continuing the cycle of life in wetland habitats.

OBJECTIVES

This lesson was designed to be used in partnership with the video "Wetland Plant Adaptations". The video and lesson will allow students to better understand that many plants can be found in Nebraska wetlands. Students will see that some Nebraska plant species can address the challenges of living in wetlands well by using special structures that meet their needs.

Watch the video:

As a result of this lesson:

- Students will understand the types of challenges that a plant may face while growing and living in a wetland.
- Students will understand that plants have specialized structures that function to allow them to survive in a wetland. Plants have adaptations too!

Lesson plans for teachers

- Plant Adaptations
- Animal Engineers
- Grades
 - K-2
 - 3-5
 - 6-8
 - 9-12

Sandhills



Ethan Freese / Platte Basin Timelapse

Playas

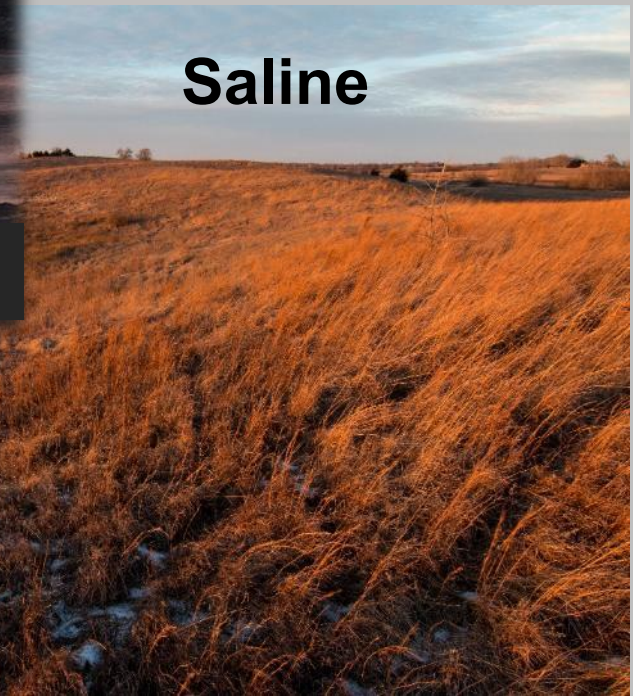


Ethan Freese / Platte Basin Timelapse



Ethan Freese / Platte Basin Timelapse

Saline



Urban

Ethan Freese / Platte Basin Timelapse

Riverine



Ethan Freese / Platte Basin Timelapse

We are photographers and filmmakers, writers and designers, developers and technicians, scientists and researchers, educators and students.

We are storytellers.

Michael Forsberg
Co-Founder +



Michael Farrell
Co-Founder +



Mariah Lundgren
Producer III & Project Manager +



Ethan Freese
Producer II +



Grant Reiner
Producer II +



Dakota Altman
Producer I & Instructor +



Sidney Parks
Graphic Designer & Animator +



Brooke Talbott
Production Assistant +







Nebraska Wetlands

by Nebraska Game and Parks Commission

Playlist · 10 videos · 800 views

Nebraska contains more acres of wetlands than any surrounding state. These wetlands are very diverse. [...more](#)

[▶ Play all](#)

1



Wetlands of Nebraska - Documentary Trailer

Nebraska Game and Parks Commission · 587 views · 1 year ago

2



Wetlands of Nebraska - Trailer short

Nebraska Game and Parks Commission · 306 views · 1 year ago

3



Wetlands of Nebraska

Nebraska Game and Parks Commission · 671 views · 1 year ago

4



Sandhills Wetlands of Nebraska

Nebraska Game and Parks Commission · 5.4K views · 1 year ago

5



Saline Wetlands of Nebraska

Nebraska Game and Parks Commission · 1.2K views · 1 year ago

6



Playa Wetlands of Nebraska

Nebraska Game and Parks Commission · 921 views · 1 year ago

7



Riverine Wetlands of Nebraska

Nebraska Game and Parks Commission · 2K views · 1 year ago

8



Urban Wetlands of Nebraska

Nebraska Game and Parks Commission · 507 views · 1 year ago

9



Wetland Plant Adaptations

Nebraska Game and Parks Commission · 2.5K views · 1 year ago

10



Animal Engineers

Nebraska Game and Parks Commission · 473 views · 1 year ago

www.NebraskaWetlands.com

https://plattebasintimelapse.com/films/?_projects=wetlands-of-nebraska

TOPIC

ECOSYSTEM

PROJECTS

All Topics

All Ecosystems

Wetlands of Nebraska (7)

STATE

AUTHOR

SEARCH

All States

All Authors

Q Search



Wetlands of Nebraska

Mariah Lundgren

A short video about the wetlands of Nebraska.

STUNNING | EDUCATIONAL



The Perch

Mariah Lundgren

A year watching a tree snag aka "the perch" at a saline wetland in eastern Nebraska.

AMAZING | SURPRISING



Urban Wetlands

Dakota Altman

A film about Nebraska's urban wetlands.

EYE-OPENING | EDUCATIONAL



Riverine Wetlands



Playa Wetlands

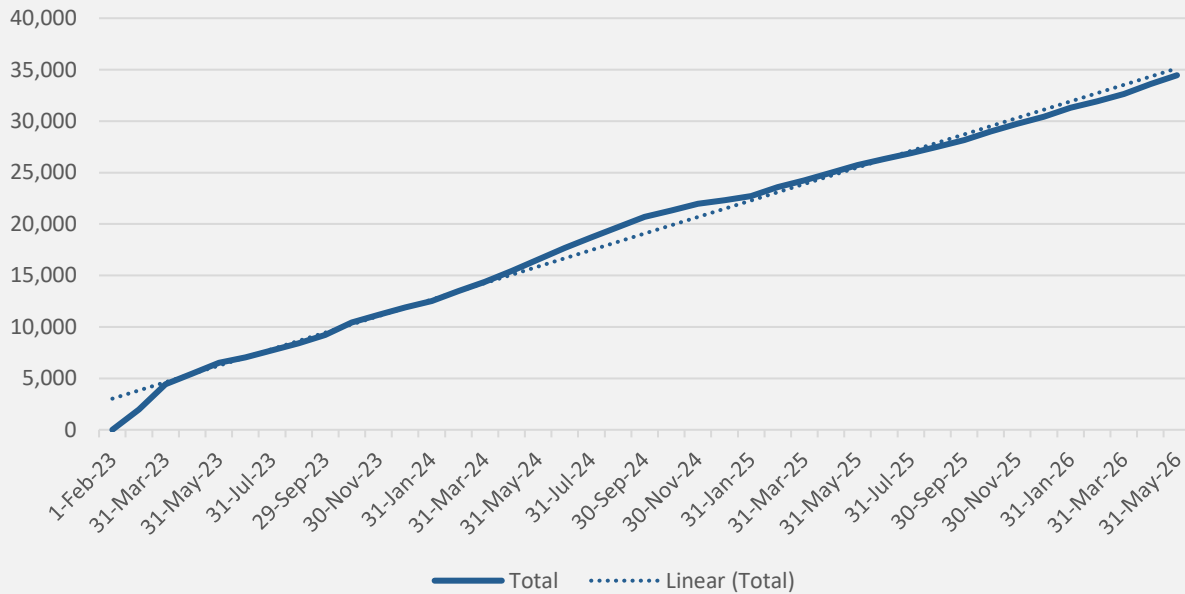


Saline Wetlands

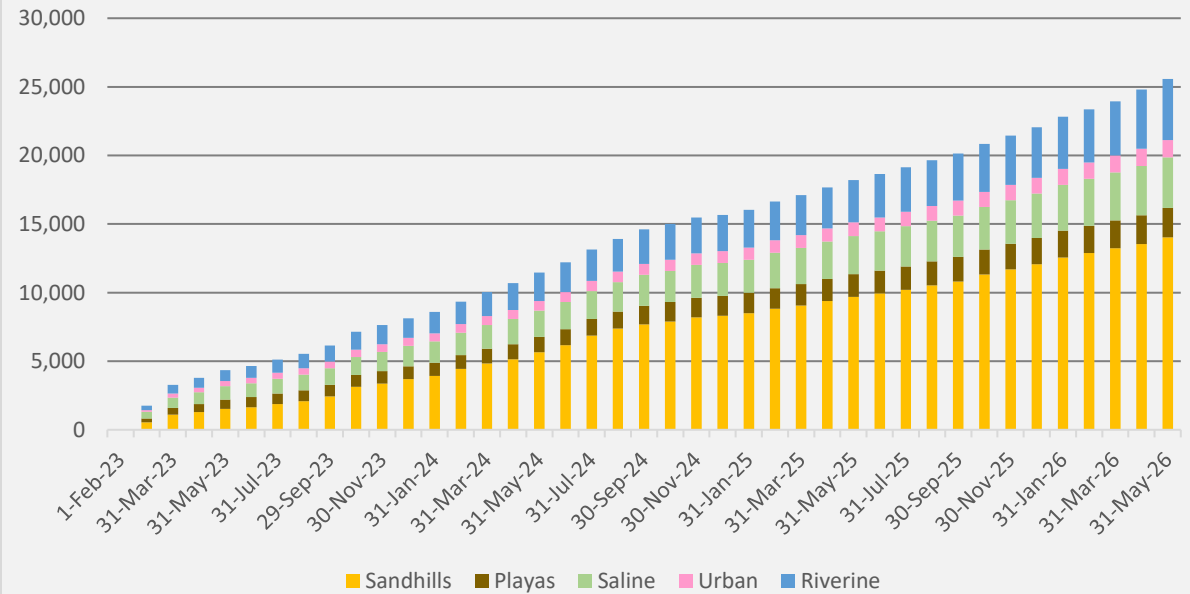
Total views of all products= 34,968

Total views of the five films= 26,014

Total Views of all of the Video Products



Total Views of the 5 Feature Films by type



ESRI StoryMap for each of the five wetland categories Urban, Playa, Sandhills, Saline, and Riverine

I ended up spending the next day and a half in the blind photographing and filming waterfowl, sneaking out at night to sleep in the back of my truck. My accommodations in the blind were less than comfortable. An old tarp laid across the bottom of the blind offered little insulation from the recently thawed ground and all I had for a bathroom was an empty Gatorade bottle. The birds I was photographing were part of the first wave of migrants in a procession that will go into June. Pintails, American Wigeons, and Mallards were abundant, along with Snow Geese and Greater White-fronted Geese. Later in the spring, Blue-Winged Teal and Northern Shovelers increase in numbers as the earlier species start to wane. In late April and May an abundance of shorebirds of all shapes and sizes move through Nebraska's wetlands, some traveling from as far away as Chile and Argentina.



Not all duck species quack. Click play to hear the calls of various duck species that can be heard in Nebraska during the spring migration.



2024

Association for
Conservation Information

AWARDS RESULTS

Annual Conference hosted by the
Virginia Department of Wildlife Resources

Arlington, VA
July 22-25, 2024

Compiled by Beth Quillian, Awards Co-Chairperson
(beth.s.quillian@odfw.oregon.gov) and Chris Martin, Awards
Co-Chairperson (christopher.martin1@wyo.gov)



First Place award for Video Feature: Natural Resource Conservation, for Riverine Wetlands of Nebraska



First Place award for Video Feature: Outdoor Recreation, for Urban Wetlands of Nebraska



Third Place award for Video Feature: Natural Resource Conservation, for Saline Wetlands of Nebraska

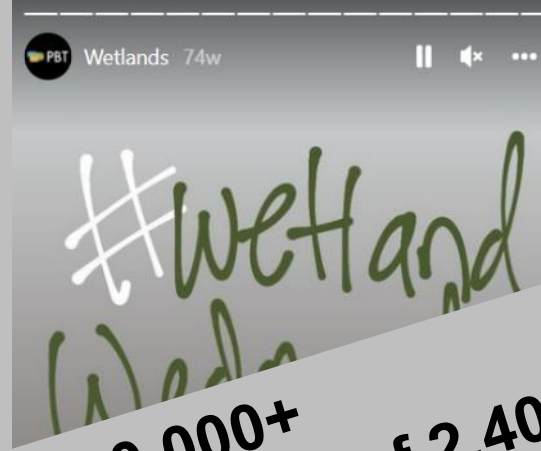


Third Place award for Best Social Media Campaign, for Wetlands of Nebraska

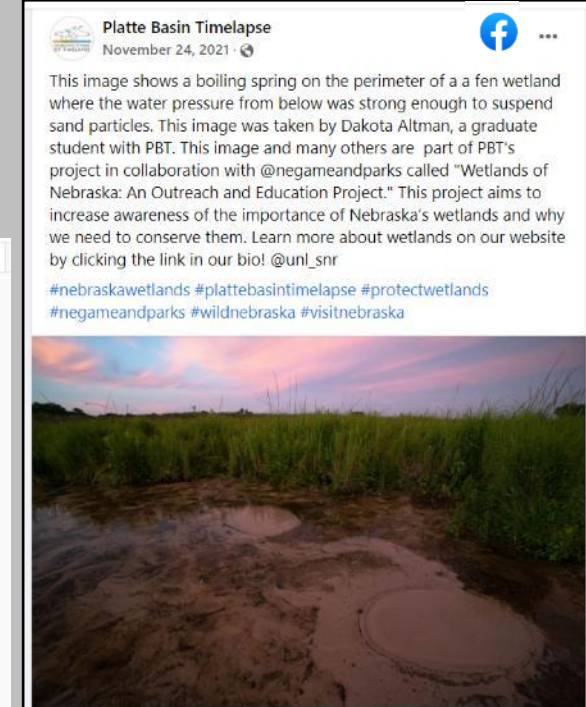
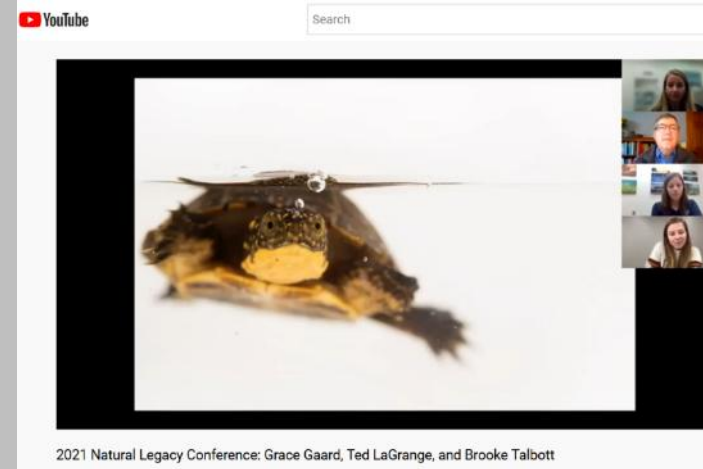
34,000 video views

4,000 copies of *Guide to Nebraska's Wetlands* distributed to 38 states and 45 countries

36,000 copies of *Wetlandology* distributed



Social media reach 200,000+
50+ presentations with a total audience of 2,400+



Promotion

- Social media
 - Facebook, Instagram, X, LinkedIn, Blog posts
- e-mails to 650+ people representing 150+ entities
- News release
- Radio spots
- TV spot
- Newsletters (16+)
- Shared original content with partners
 - Hosted products on their web pages
- *NEBRASKA*land magazine articles
- *Society of Wetland Scientists* newsletter
- *Ducks Unlimited* magazine articles
- Continued presentations



www.NebraskaWetlands.com



[PARKS](#)

[HUNT](#)

[FISH](#)

[GUIDES & MAPS](#)

[PERMITS](#)

[CONSERVATION](#)

[LEARN](#)

[ABOUT](#)



[Home](#) > [Learn](#) > [Nebraska Habitat](#) > [Wetlands](#)

Wetlands of Nebraska

Take a deep dive into our newest wetlands resources, including expanded website content, documentaries featuring Nebraska's five main wetland types, classroom resources and more!



Link to film trailer- [Wetlands of Nebraska - Documentary Trailer](#)

Or

<https://www.youtube.com/watch?v=mwcwnSNwqBM&list=PLmmaDbVjyMkaFEUBIjDu5HQ1kL8XWSepi&index=1&t=5s>

Connecting Nebraskans to Wetland Resources and Experiences

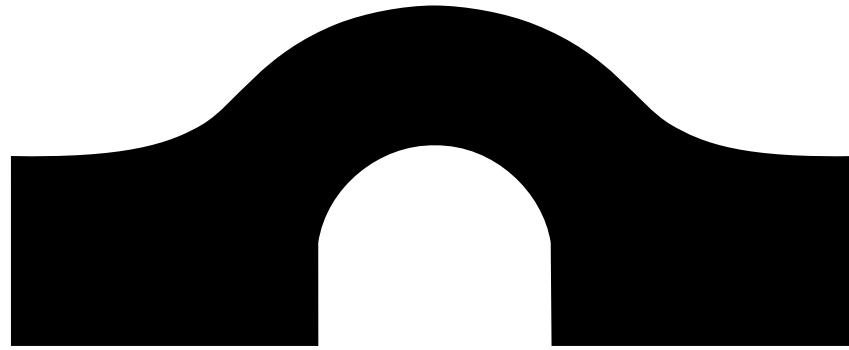
-EPA grant awarded in 2024-

- **Grace Gaard is the coordinator on this project.**
- **Resources produced by the project will include three educational videos designed for middle and high school students matched with lessons that align with Nebraska's science standards.**
- **Workshops, followed by the chance to bring their students to a nearby wetland for learning experiences centered on student learning.**
- **Hired a Wetland Education Coordinator (Ly Graff) for a period of three years.**
- **PBT has collected new video and is in the editing mode.**
- **Held our 2nd Wetland Educator Field School.**

Connection

Awareness

Understanding



**Connecting Nebraskans to Wetland
Resources and Experiences**

Project Team

Fish and Wildlife Education Division

Nebraska Game and Parks Commission

4 Team Members



Wildlife Division

Nebraska Game and Parks Commission

2 Team Members



DAKOTA ALTMAN
PRODUCER & INSTRUCTOR | HE/HIM



CARLEE MOATES
PRODUCER & INSTRUCTOR | SHE/HER

 **PLATTE BASIN
TIMELAPSE**



Project Summary

Outcomes Include:

- Increasing connection to and awareness of Nebraska's wetlands
- Greater knowledge of available wetland resources and education opportunities
- Quality information related to wetlands, their functions, and why they matter

• **Teacher Needs expressed in Survey**

- In-person wetland experiences for students
 - Videos
 - Visits from a resource professional (in-person or virtual)
-
- This project will provide teachers support through workshops and funding, aligning products to state standards, and guiding interactions with wetlands and wetland conservation from start to finish

Cultural Connections

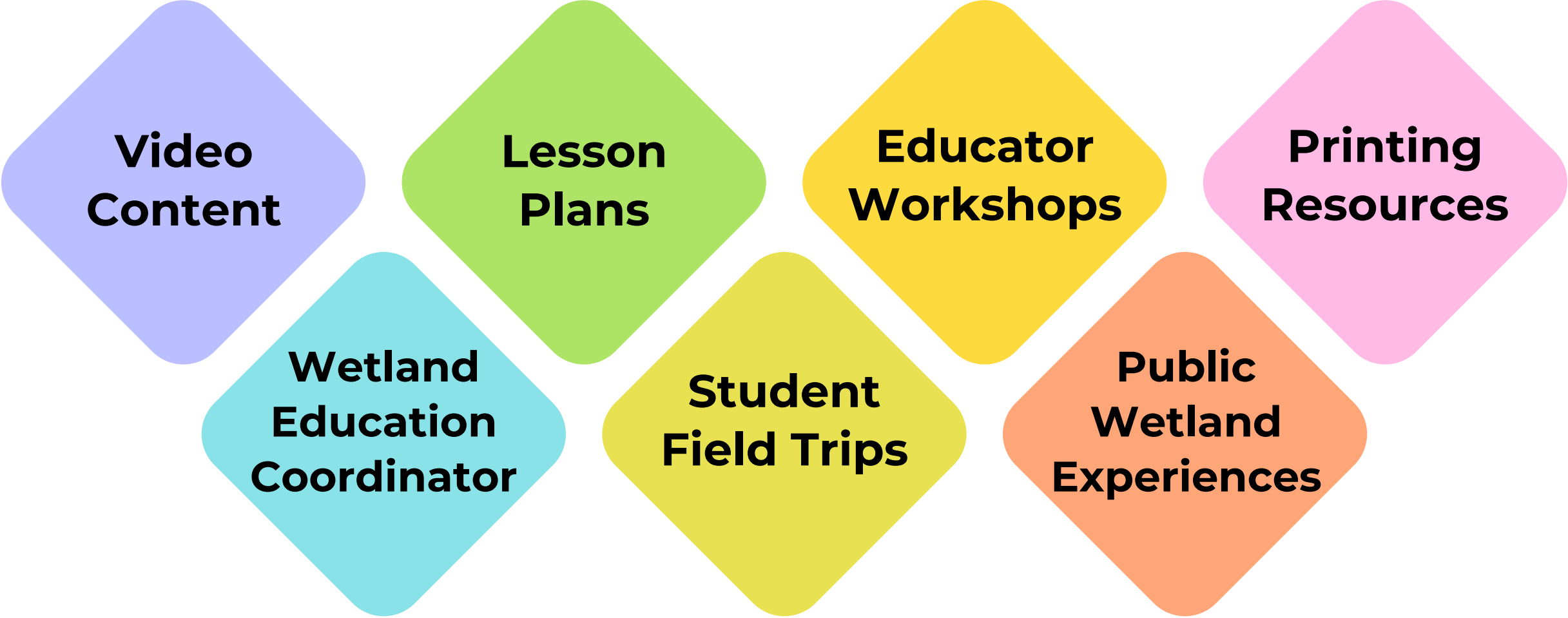


Water Quality



Research





**Video
Content**

**Lesson
Plans**

**Educator
Workshops**

**Printing
Resources**

**Wetland
Education
Coordinator**

**Student
Field Trips**

**Public
Wetland
Experiences**

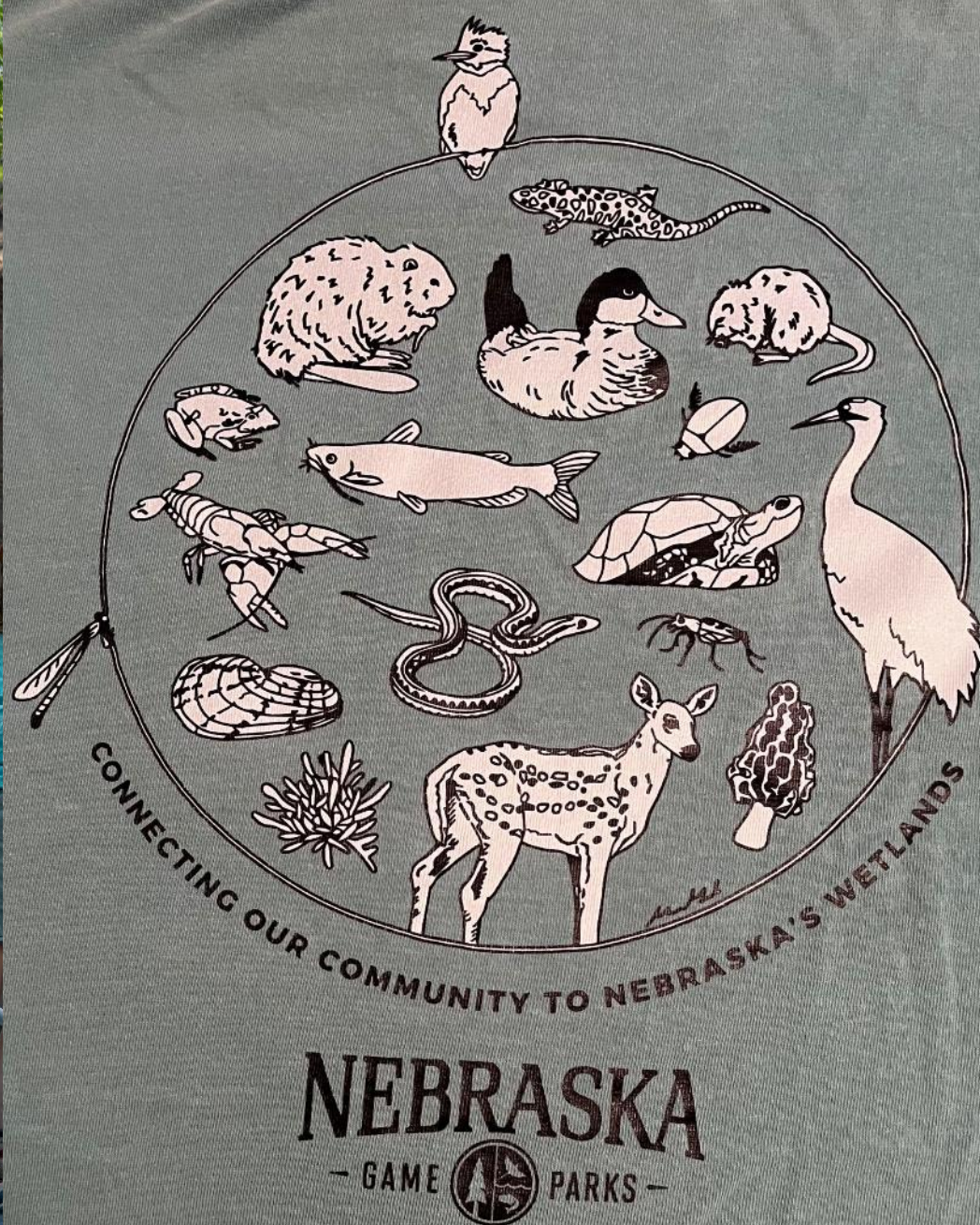
Project Outcomes



Welcome to Educator Field School

NEBRASKA
GAME & PARKS





Take home messages

- Clearly define the outputs and outcomes
- Important to share positive stories
 - Engage with non-traditional entities
 - e.g., educators, farmers, ranchers
- Need a creative team with diverse skill sets
 - Biologists, communicators, educators, videographers
- Involve others and they will help share the message
- Message throughout the project
- Have a plan to continue to message about the products



Thank You!

For more information visit:

NebraskaWetlands.com

