

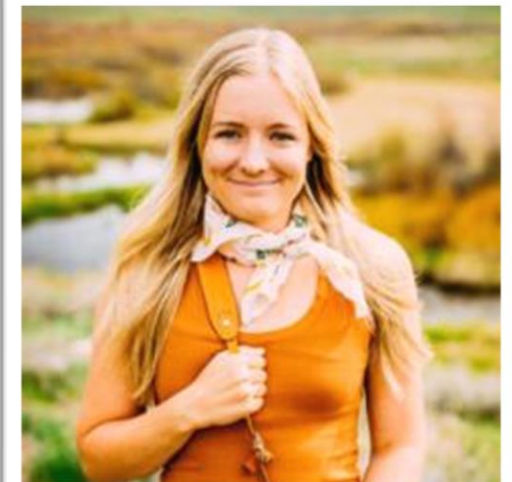
# ***Wet and Wild Learning in Nebraska: shaping a statewide wetlands outreach and education project wired for a 21st century audience***



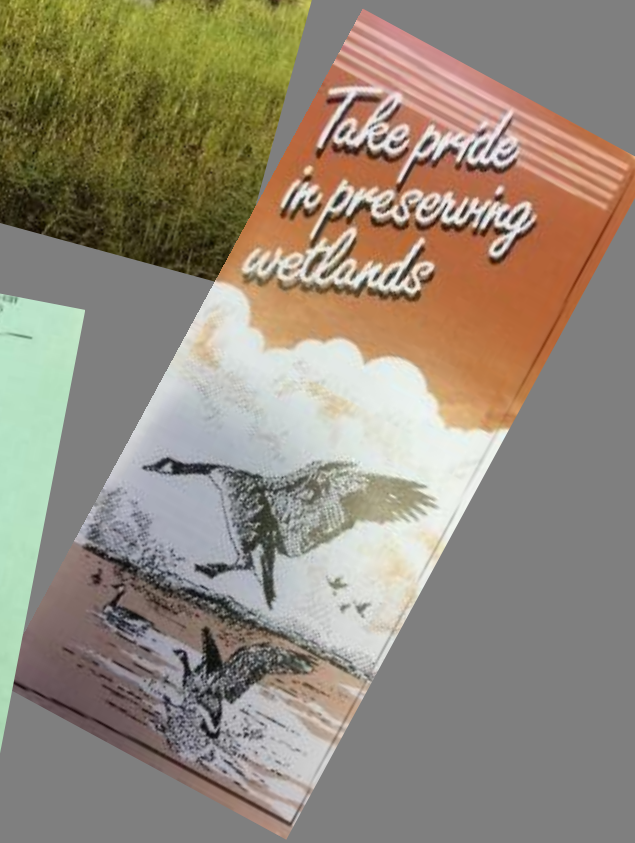
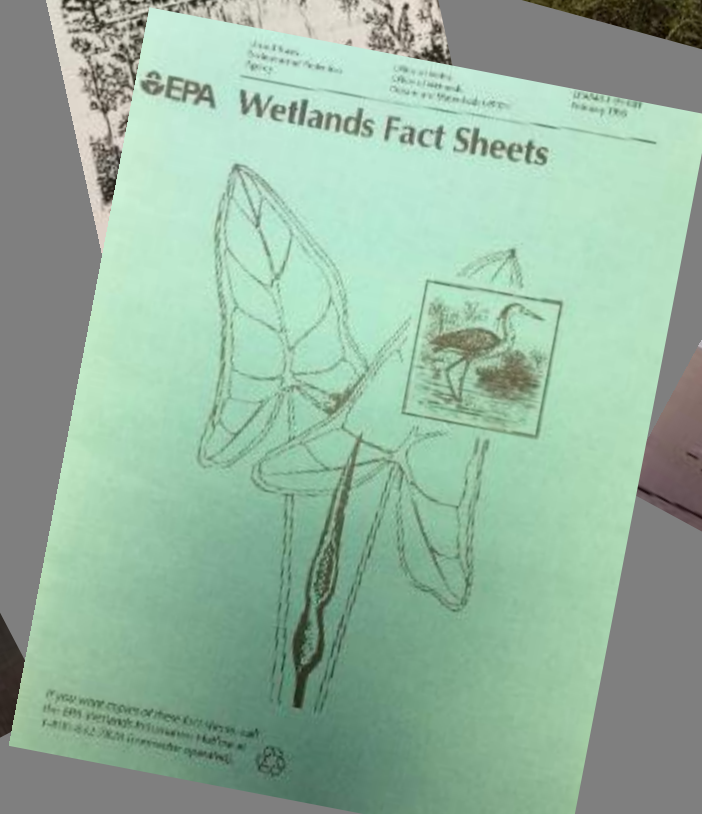
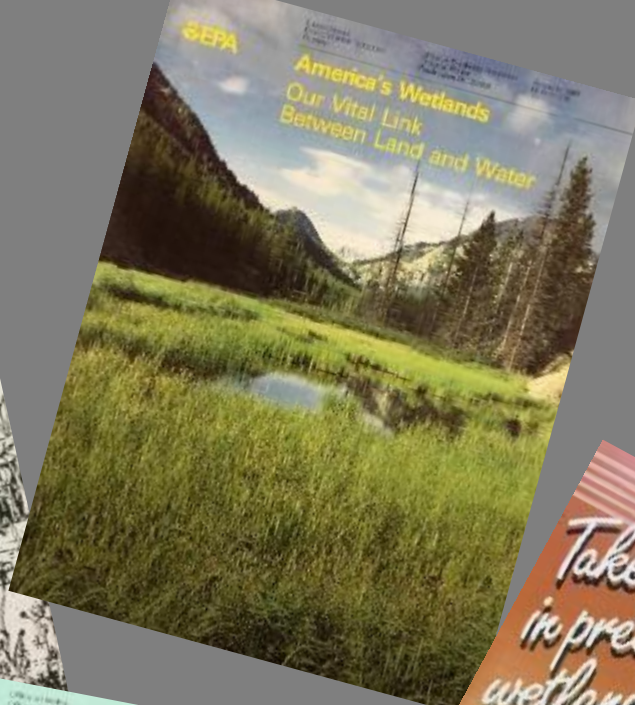
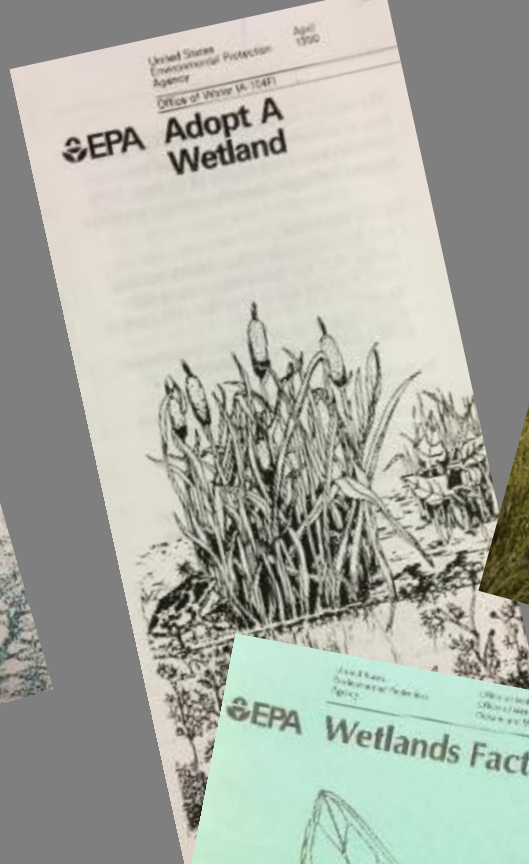
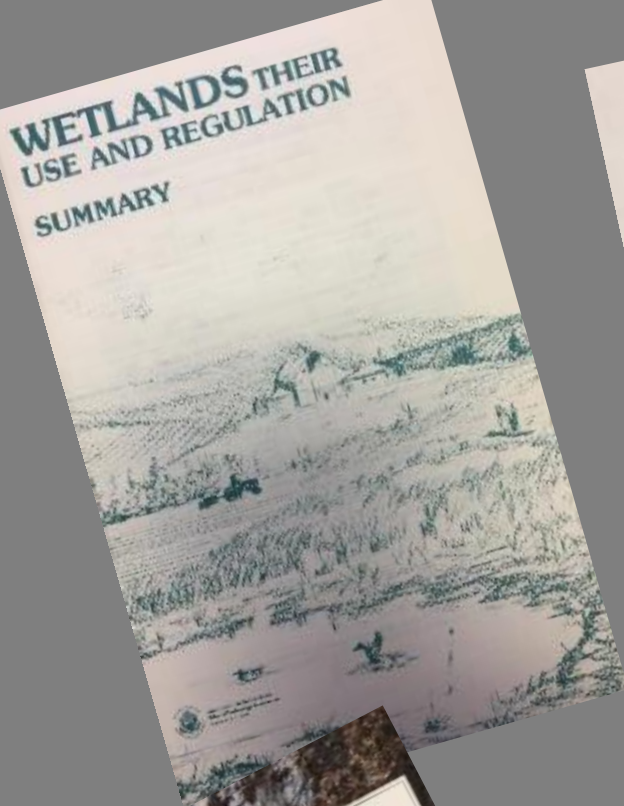
Grace Gaard –NGPC Aquatic Ecology Education Specialist

Ted LaGrange – NGPC Wetland Program Manager

Mariah Lundgren – Platte Basin Timelapse Producer/Project Manager



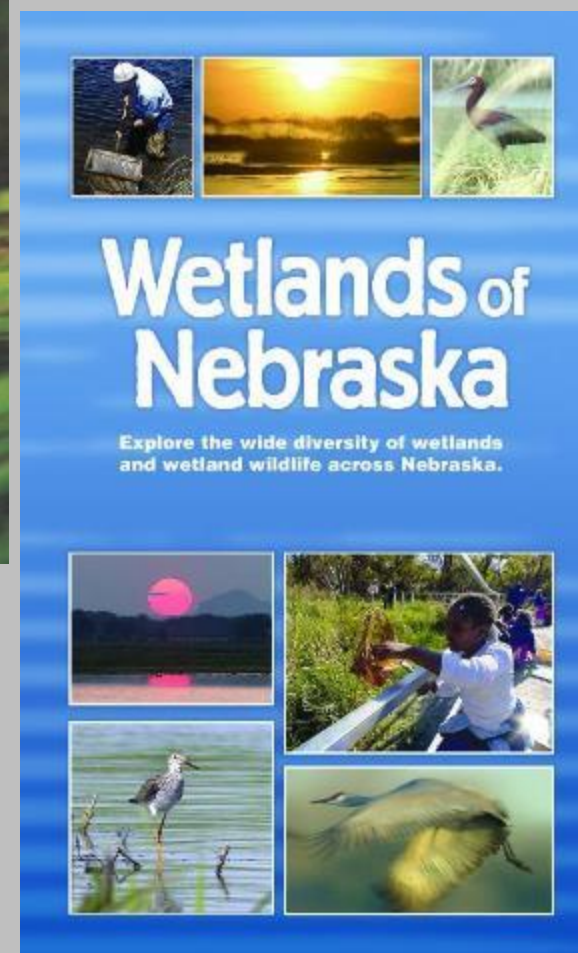
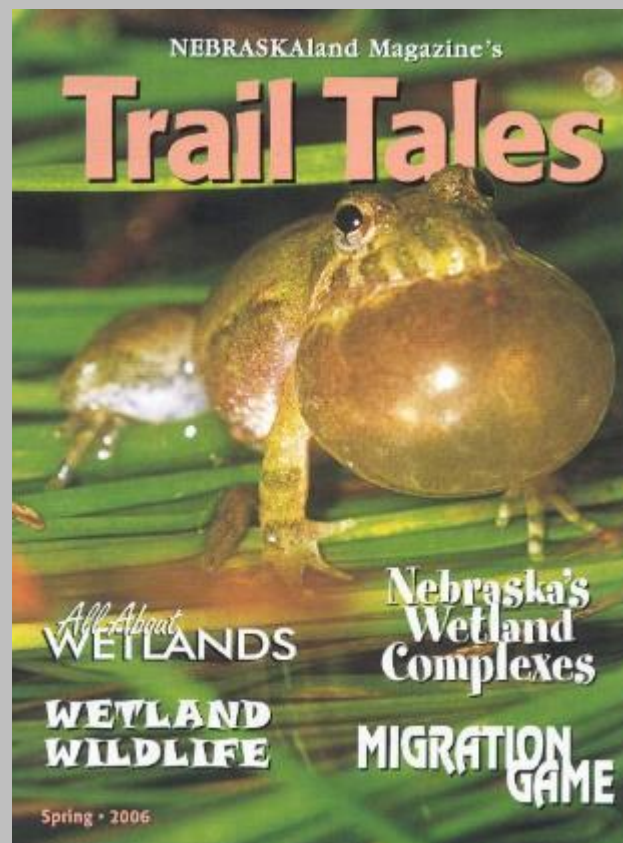
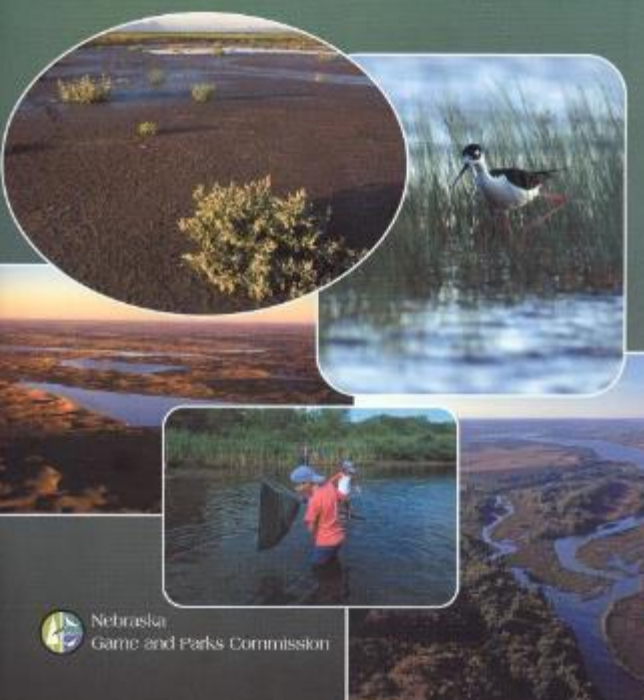
- **Background**
  - **Education Components**
  - **Multi-media Outputs**







# GUIDE TO NEBRASKA'S WETLANDS and their conservation needs

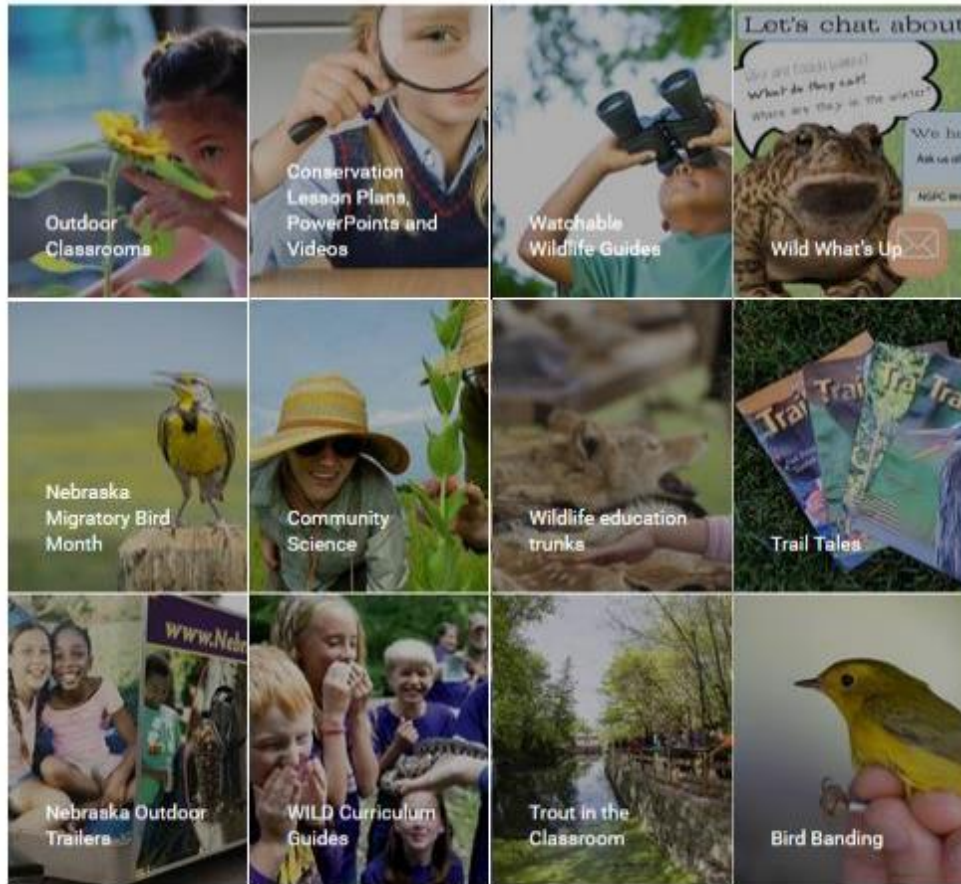


**2002-2005 education project  
Funded by a WPDG from EPA**



## WILDLIFE EDUCATION

The Nebraska Game and Parks Commission's Wildlife Education Program is a diverse set of programs designed to provide Nebraskans with science-based information, education and opportunities. The goal of the Wildlife Education Program is that our diverse constituents have an appreciation and understanding of our state's natural resources and participate in the conservation of these resources.

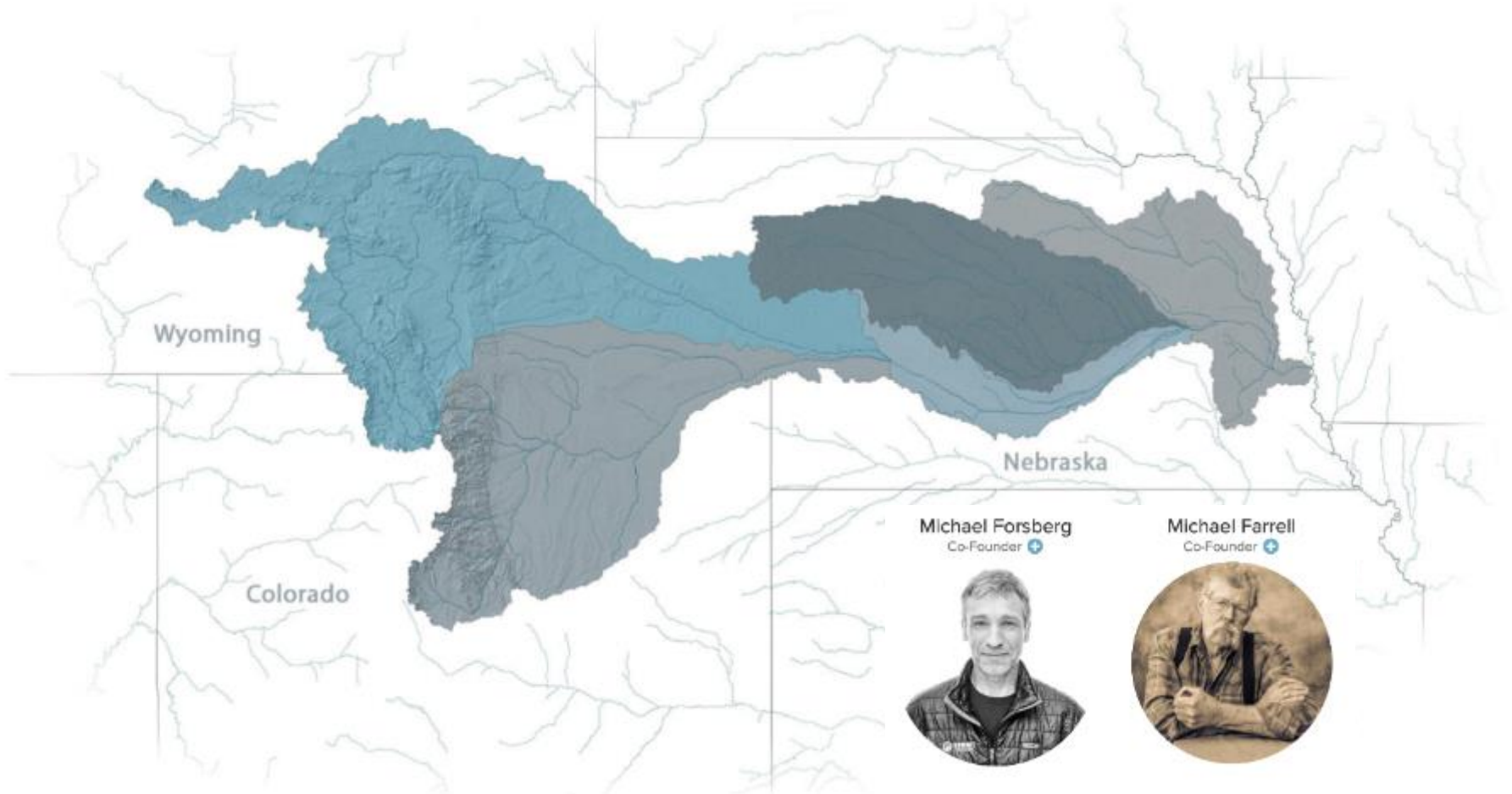


**2019**

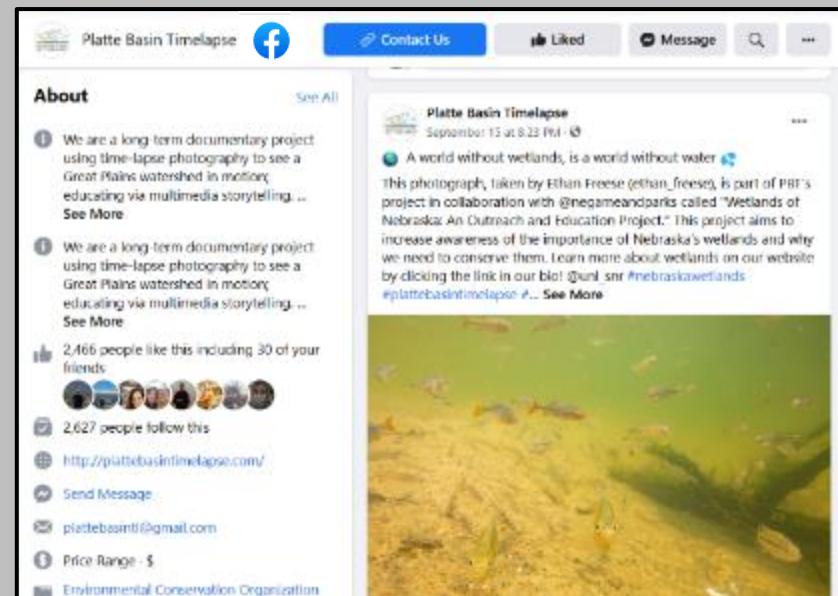
## Met with Lindsay Rogers Fish and Wildlife Education Division

# PLATTE BASIN TIMELAPSE

## a watershed in motion







<https://plattebasintimelapse.com/>

# ***Wetlands of Nebraska: An Outreach and Education Project***

**EPA WPD 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***
- ***Wetland-ology*: 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 that will host much of the information generated**





## Wetland Program Plan for Nebraska 2019-2023

By: Ted LaGrange, Wetland Program Manager  
Nebraska Game and Parks Commission  
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*February 15, 2019*

*Approved by EPA in March 2019*

### Introduction

The U.S. Environmental Protection Agency has encouraged states and tribes to develop Wetland Program Plans to address the four Core Elements identified in the EPA Core Elements Framework. Following is an update to the 2015-2017 Wetland Program Plan. This update was done in a shorter format than the 2015 Plan, but the more detailed plan is available at [http://outdoornebraska.gov/wp-content/uploads/2017/01/Wetland-Program-Plan\\_Nebraska\\_2015\\_Final.pdf](http://outdoornebraska.gov/wp-content/uploads/2017/01/Wetland-Program-Plan_Nebraska_2015_Final.pdf). The more detailed plan provides a lot more of the historical information and previous work that was used in developing the 2015-2017 plan and this updated plan.

The State of Nebraska plans to continue to implement its wetland program over the next five calendar years (2019-2023) with a goal of continuing to protect, restore, and manage wetlands. The State will use information from the Nebraska Wetland Condition Intensification Study to assess the condition of its wetlands (done in 2011-2013, and again in 2016-2017) to improve our understanding of baseline wetland conditions, and to prioritize wetland restoration and protection activities. Nebraska will continue to work in partnership with landowners, agencies, and organizations to restore and protect wetlands. The priorities for the restoration and protection will be determined by the Nebraska Game and Parks Commission and the local partners. We will also continue the stewardship and management of wetlands in state ownership. To have effective and efficient wetland restoration, protection, and management, we also emphasize that there is an important and ongoing need for improved information and outreach. The State will achieve our goal through implementing the activities identified in this plan. Note that this will be dependent upon obtaining needed funding and the required legislative and/or administrative approvals.

Action Items/Activities related to the Core Elements Framework that were considered completed based on a review by EPA conducted in 2018 are presented in Appendix A. For the actions/activities identified in the 2019-2023 plan, if all of the years in the tables are marked the actions/activities are considered to be ongoing, and for those with only future year(s) marked, they are being planned for future implementation.

The 2015 Plan was sent out for review to 89 individuals, representing 21 different organizations and agencies. This update did not make many substantive changes, so it was just reviewed by the Nebraska Department of Environmental Quality.

1

### Outreach and Education Action Items

Objective: Ensure that materials are available to the public that provide information specific to Nebraska's wetlands to help raise the awareness of the importance of wetlands and to help change attitudes and behaviors to help support conservation.

## **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 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, Brooke Talbott, Ethan Freese, Grant Reiner, and Dakota Altman (UNL 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**
- **Hanna Pinneo, Nebraska Arboretum**
- **Jocelyn Harrison, Henry Doorly Zoo**
- **Eliodora Chamberlain, EPA**
- **Audrey Webb, Nebraska Department of Education**
- **John Denton, Ducks Unlimited**
- **Josh Wilhelm, Nebraska Department of Environment and Energy**
- **Melissa Panella, Nebraska Game and Parks Commission**
- **Judi gaiashkibos, Nebraska Commission on Indian Affairs**

# Sandhills



# Playas



# Saline

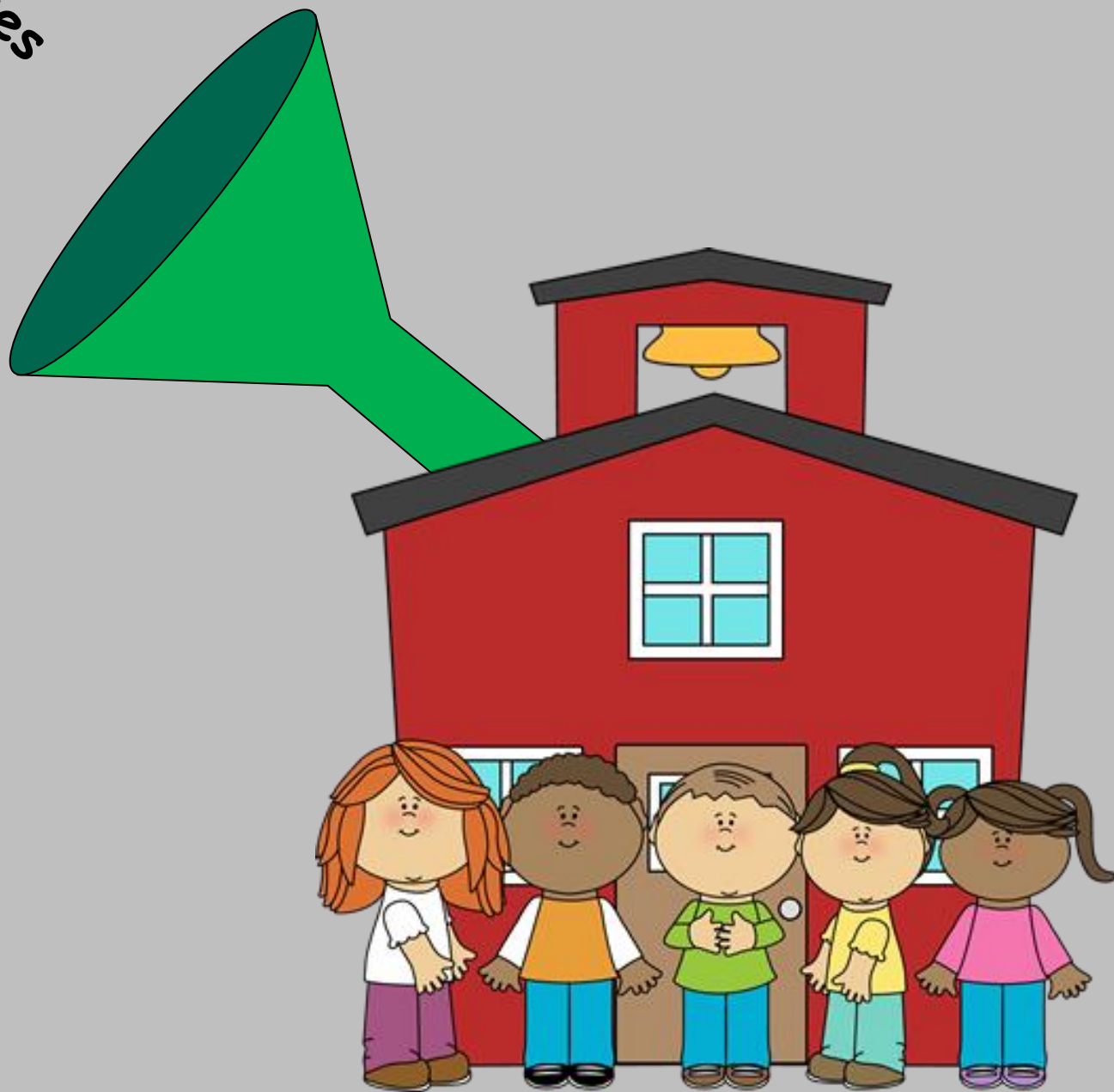


# Riverine





Stories  
Science  
Cool videos



# Education and Wetlands

## Goal:

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

**\*Finding Connections\***





A timelapse photograph of a wetland scene. In the foreground, several bright yellow wildflowers with dark brown centers are growing out of a shallow, rippling body of water. The water reflects the sky and the surrounding greenery. In the background, there are more green plants and trees under a blue sky with scattered white clouds. A white rectangular box with a thin black border is positioned on the right side of the image, containing text.

## Process of Understanding

- What is learning?
- How does it happen?
- Who is our audience?
- How do we address audience needs?
- What will make people care about conserving Nebraska's wetlands?

# Our Audience is Complicated

---

“Everyone”

Children to Adults

Classrooms

Nature Enthusiasts

Landowners

Urban

Rural

Ethan Freese | Platte Basin Timelapse





Ethan Freese | Platte Basin Timelapse

## For Example...

### Interdependent Relationships in Ecosystems

- Nebraska state science standards
  - Disciplinary core ideas
  - Crosscutting concepts
  - Science and Engineering Practices
- *SC.3.7.2.C - Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.*

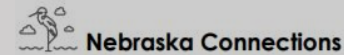






# Using Nebraska's Natural Resources as Teaching Tools

- Need for Nebraska content
  - Where are they finding it?



- *Wetlandology activity booklet for 5<sup>th</sup> graders*
- *Two Educational Videos*
  - Wetland Plant Adaptations
  - Wetland Animal Engineers

**Lots of opportunity for continued refinement and creation of aligned products**

# How are we doing it?

- Collaboration

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

- Shifting Values





# Why does this approach matter?

- Why do **you** care about Nebraska's wetlands?
- Behavior change is HARD
  - Engage in the rational and emotional, setting a clear path
- Usable products and a plan for sharing them
- Conserving our Nebraska natural resources
- **"... the key to effective science communication isn't the science. It's communication."** – Maggie Ryan Sandford