

Water Protection in the Native world: A case study at Chief Plenty Coups State Park

By Madisan Chavez, Stephanie Ewing, Mari Eggers, John Doyle



Introduction

- Overview of work at Chief Plenty Coups Spring
- Introduce common themes across Indigenous tribes working on water challenges
- Wrap up with themes and what I have learned while working at Chief Plenty Coups spring

Culturally significant spring on the Crow reservation



Timeline

1993

John Doyle
heard about
contamination
at the spring

2005

CEHSC
was formed
including
tribal
members,
scholars
and
students

2012

CEHSC dete
cted Ecoli.
and coliform
in springs

2012-2013

Meetings
with
Pryor Elders
group
about spring

2015-2017

Sampling
by CEHSC
and MSU
partners

2017

CEHSC and
MSU partners
fund pumping
of septic tank

2020

Meeting
with
governor's
office, DEQ,
FWP,
CEHSC and
MSU
partners

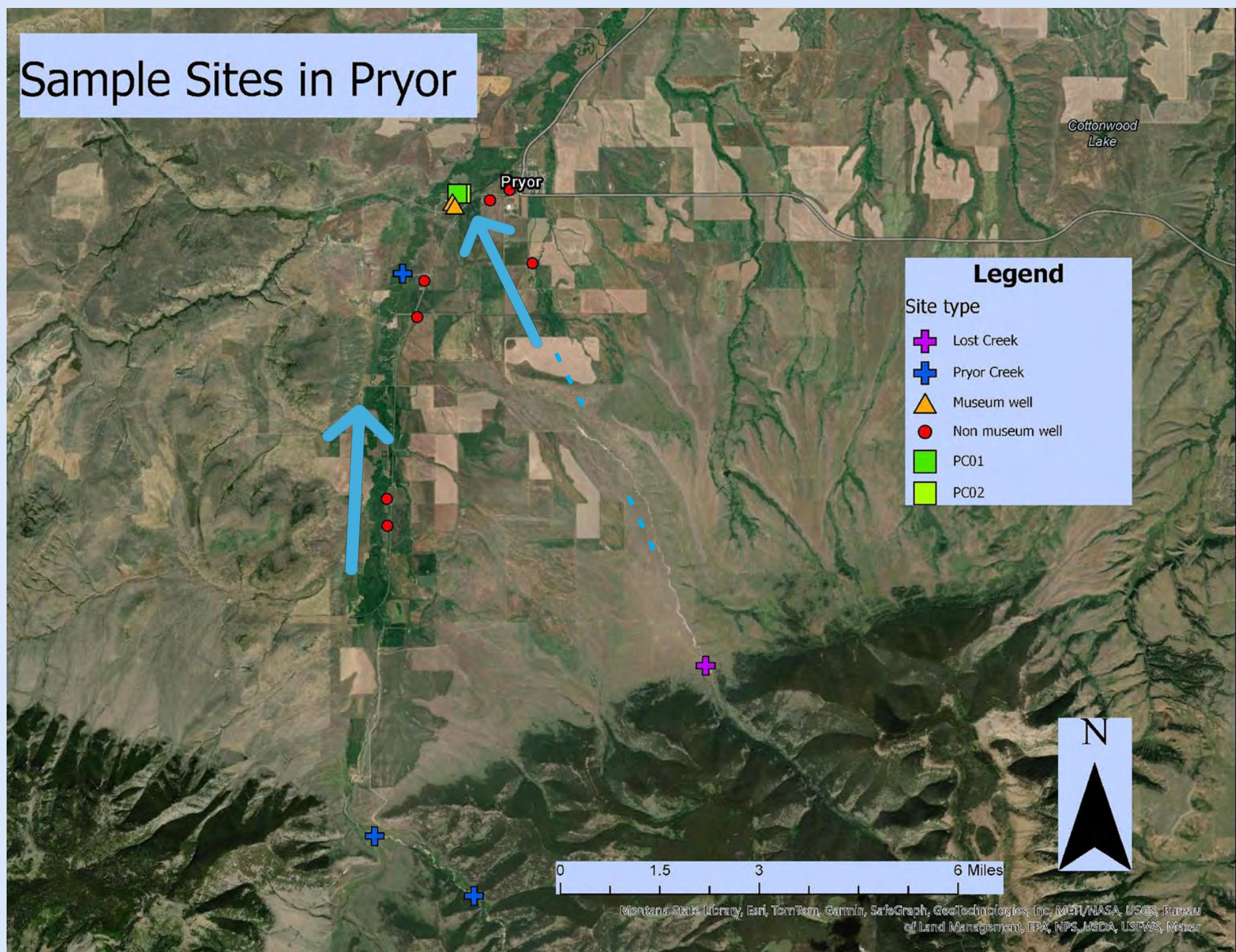
2024

Drain
field
redone

2023-2025

Current
sampling
and
analysis

Sample Sites in Pryor



Legend

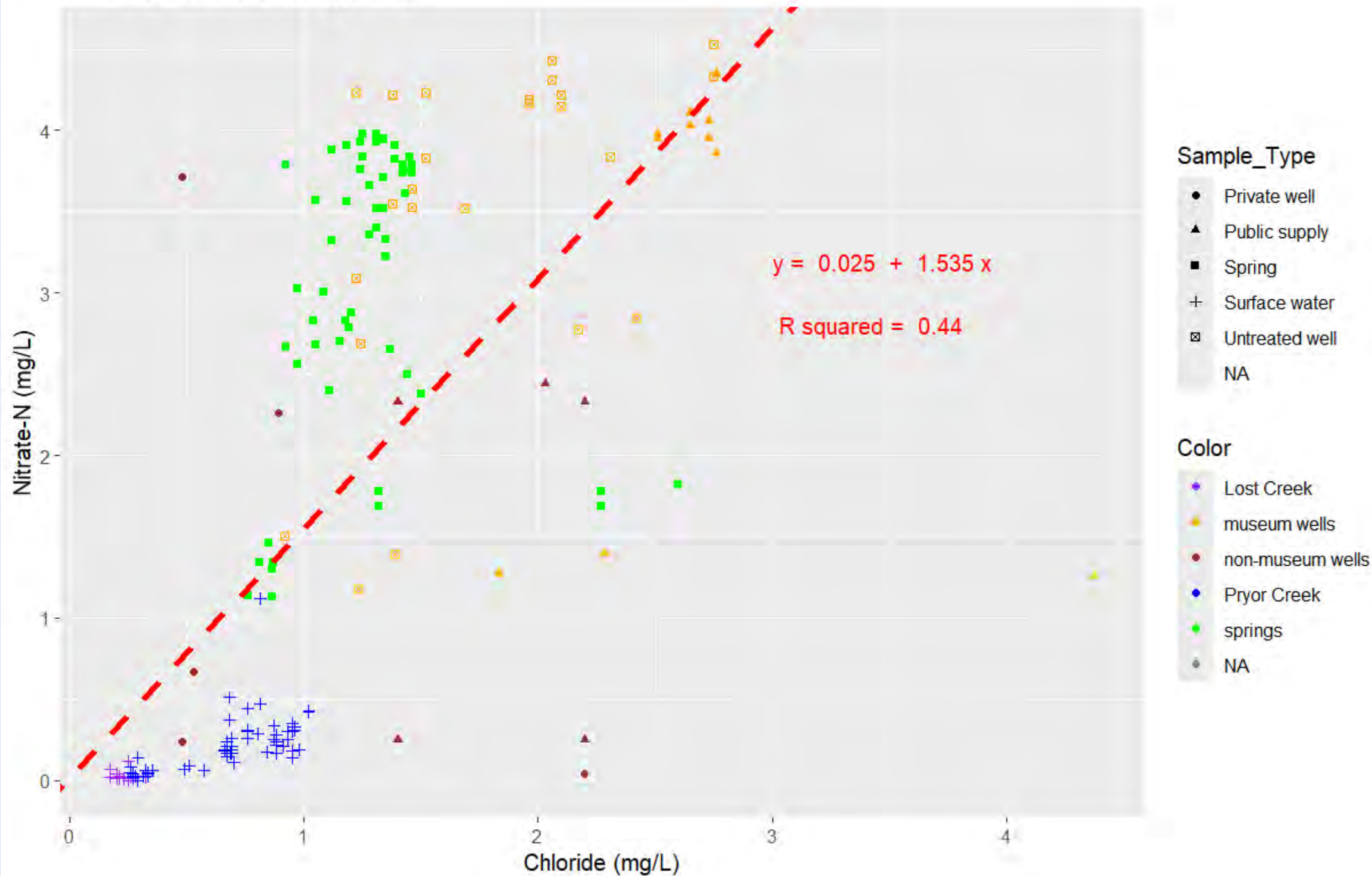
Site type

- ✚ Lost Creek
- ✚ Pryor Creek
- ▲ Museum well
- Non museum well
- PC01
- PC02

0 1.5 3 6 Miles



Chloride vs Nitrate Regression



Themes of Indigenous scholarship on Water Protection

- Indigenous people as water protectors
- Perspective and positionality matter in indigenous communities
- Connection to place strengthen ties
- Environmental health literacy helps indigenous communities
- It is important to know jurisdictional complexity and history of indigenous communities
- When fighting for environmental justice it is important for the community to be involved
- Data has power when there are people pushing it

Native People as Water protectors

For Tribes, water is not simply a physical “resource;” it is culturally significant to Indigenous people across the world. Their traditional connection to place and respect for the Earth strengthens ties.

Fox et al. 2017



Perspective/positionality matter



Growing awareness about water issues has resulted in a community of Indigenous water scientists and “water protectors” who are working to steward their Tribal waters.

Chief et al. 2020

Connection to place –strengthen ties

- Many indigenous communities link cultural and language revitalization with environmental restoration.
- "The river is us the river is in our veins"- redefining river restoration



Environmental health literacy

Environmental health literacy programs can inform and motivate Tribal community members about local water issues

Simonds et al. 2019



Knowing history/jurisdictional complexity



- Tribes are in government-to-government relationships with federal, state and County governments, and also have their own Tribal political organizations, laws and courts
- Land ownership may be a patchwork of Trust, fee, state and federal lands
- Eminent domain issues can be potentially challenging because tribes lack eminent domain authority

Environmental justice



- Northern Canada in the boreal forest zone government announced a 12 million Canadian dollar indigenous led study to investigate the impacts of tar sands development for the communities of Athabasca Chipewyan and Mikisew Cree First nations.
- Nothing ever moves unless community is involved

Power of data/observation



Coupled with the motivation of Indigenous identity and world view, western science approaches provide data that are powerful in guiding decisions and shaping policy and practices.

Winter et al. 2020

Tribally driven research

- CEHSC Crow Environmental Health Steering Committee (grass roots organization) established before issues were found at research site
- Knowing this group exist is good for non-tribal researchers

Cummins et al. 2011



Concluding

- Indigenous communities face similar water issues and share both cultural perspectives and unique administrative challenges with water management
- It takes partnership among tribal entities, state, and university systems to make progress on addressing these water challenges
- Indigenous communities must take the lead to successfully address these water challenges
- Indigenous graduate students can play an important role in connecting university research to tribal community priorities. Our communities need us take on this responsibility

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