

Great Plains Fish & Wildlife Conservation Office News

July 2020

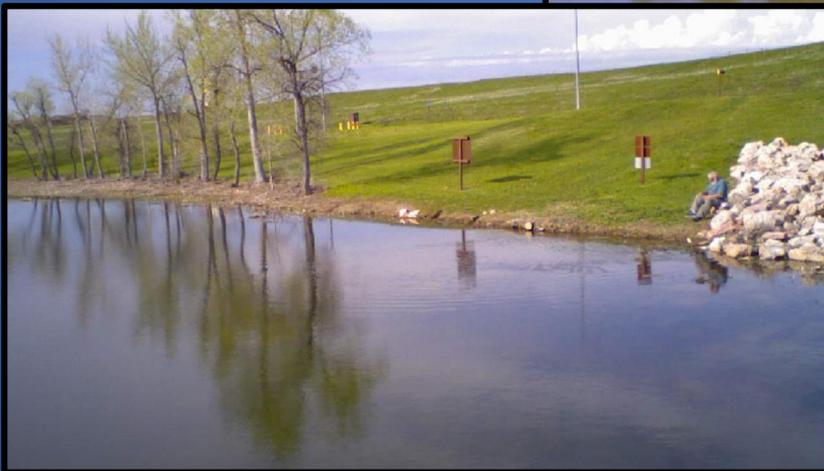


Image: A single *Didymosphenia geminata* (a.k.a., didymo, rock snot) diatom. Did you know the Great Plains FWCO provides a service to identify this ANS species? [photo by Dan James]

Sikes Act

Continued remote creel survey project

- Landon fully trained 2 helpers, and will be training 3 more to assist us with processing data from images.
- Thanks to the Montana FWCO, Colorado FWCO, and Missouri River FWCO for offering assistance – so far 6,020 images have been processed.
- This is a great example of how FAC stations can be efficient and mutually benefit.
 - We get part-time labor to complete our mission.
 - Other stations get labor funding that we provide, which saves their budget for their mission. Bonus: helpers get new, different experience.



Example images from the remote cameras

Sikes Act

After much collaboration with partners, a final conceptual design was completed to help manage a zebra mussel infested lake at Offutt Air Force Base.

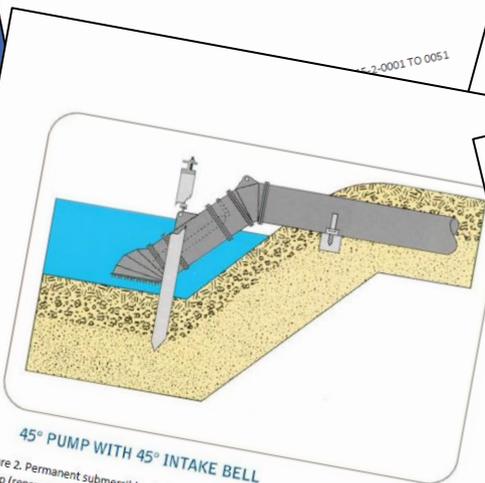
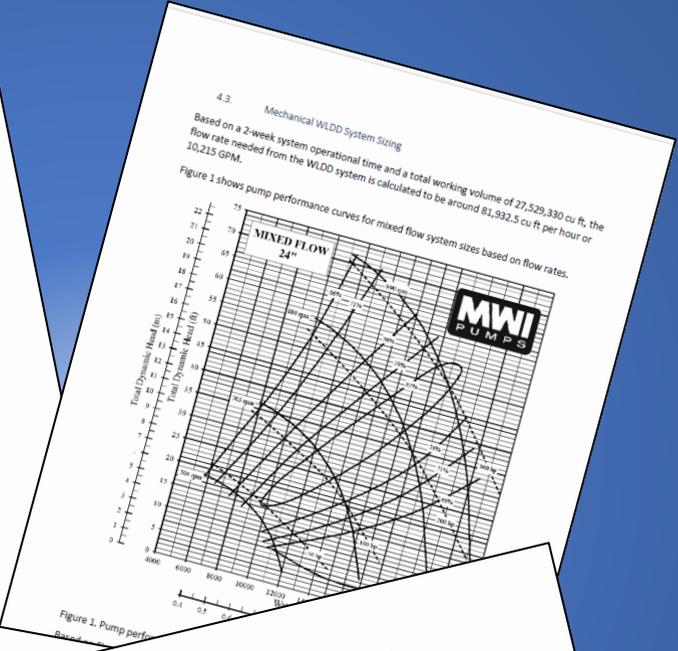


Figure 2. Permanent submersible electric pump system - inlet configuration. The submersible pump (represented by dotted outline) would be installed inside the 45° intake bell.

The required materials for the permanent pump system include 290 LF of pipe, 3 X 45° elbows, flap gate, pump support piling (steel), restraint harness for pipes and anti-fouling coating. The permanent pump system would require connectivity to a 3-phase electrical line to power the system. The permanent system would be more difficult to dismantle for cleaning for operation and maintenance purposes.



Figure 3. Mobile submersible electric pump trailer equipped with generator and light tower.

Source: MWI Pumps

Table 4 provides a comparative analysis of resources needed between permanent and mobile pump systems using a 1-3 rating system. 1 represents the least cost intensive and more favorable rating whereas 3 represents the most cost intensive and least favorable rating. The alternative with a lower score is considered to be more favorable.

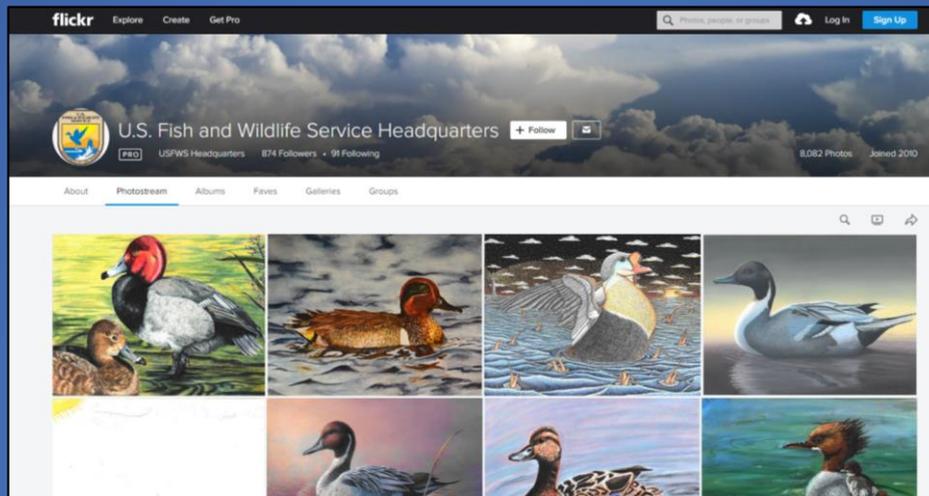
Table 4. Pump system comparative analysis.

| Pump System Type | Permanent Installation | Mobile System |
|--|------------------------------------|--|
| Pump Size (bhp) | 50 | 50 |
| Pump Type | Fixed, Electrical Submersible Pump | Mobile, Generator Powered Submersible Pump |
| Powered by | Electricity - 44 Kwh | Fuel - 4.2 GPH |
| Supporting Structure Requirement | 3 | 1 |
| Operation & Maintenance | 3 | 2 |
| Labor | 3 | 1 |
| Equipment | 3 | 2 |
| Ease of Implementation | 1 | 3 |
| Energy Cost | 1 | 3 |
| Initial Capital Cost | 3 | 1 |
| Total Points (Lower score is the better alternative) | 19 | 15 |

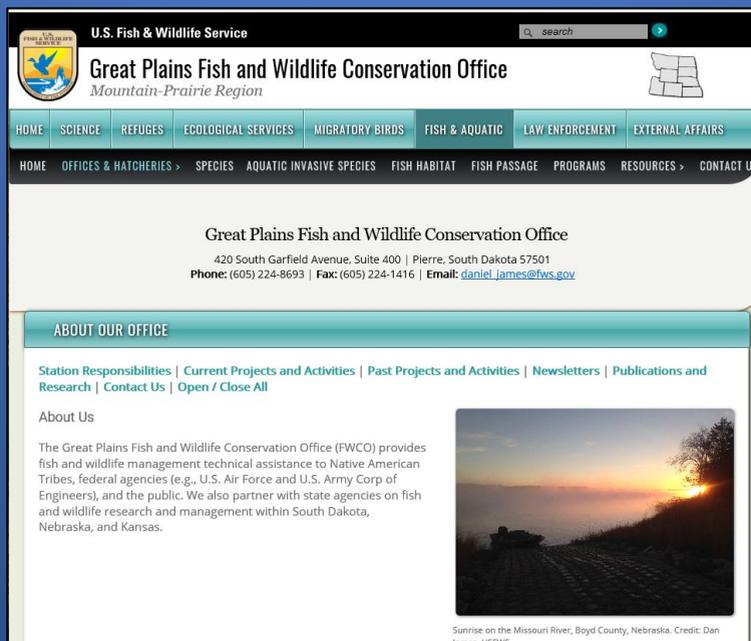
DFP Project Participation

Landon worked with DFP Dana Arnold on her project to update the FAC image library.

- Landon screened hundreds of potential images and provided 109 images, associated data, and captions for Dana's project.



We worked with DFP Dana Arnold and Christina Stone to update our station's website. We opted to do a complete revamp because much of the information was outdated.



National Fish Hatchery Prioritization Project

Dan continued his work on the hatchery report for American shad.

- Worked through associated plans with the species. Total pages of these plans was >4,000.
- Updated the references section. Thus far, ~130 references have been used.
- A complete first draft is expected to be done in August.



Pallid Sturgeon Recovery

Pallid Sturgeon Technical Team

- Landon continued to represent FWS as a technical expert for the Missouri River Recovery Program

Recovery coordination

- Landon participated in weekly calls with the Pallid Sturgeon Recovery Coordinator and the FAC Pallid Sturgeon Recovery Lead to discuss issues related to pallid sturgeon recovery
- Middle Basin Pallid Sturgeon Workgroup meeting

Asian Carp Team

eDNA sampling in the lower Missouri River basin postponed due to COVID

Began preparations for sampling next year

- Submitted sampling budget to Joanne Grady for monitoring in 2021
- Worked with the Columbia FWCO on design to modify one of our boats to build a “dozer trawl”
- Worked with Gavins Point NFH staff to purchase nets and procure an electrofishing system

Training

Dan and Landon viewed “Merely Bystanders: The Psychology of Courage and Inaction”

Paddlefish Restoration

Retrieved passive acoustic telemetry receiver data from the Missouri River

- Downloaded data from acoustically tagged age-0 paddlefish that were released into Lake Sharpe, Missouri River last fall.
- Detected >300 “pings” from the paddlefish.



Upcoming Activities

Sikes Act

Ellsworth AFB remote creel survey report

Continue work on the National Fish Hatchery Prioritization Project

Upper Basin Pallid Sturgeon Workgroup Governing Board meeting

Great Plains FWCO



Project Leader:
Vacant (3 years, 2 months)



Acting Project Leader (3 years, 2 months), Fish & Wildlife Biologist:
Dan James



Fish & Wildlife Biologist:
Landon Pierce



Terms/seasonal:
none