

Building Highways and Restoring Wetlands: NDOT's Wetland Mitigation Program

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NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

NDOT's Strategic Goals

- Safety
- Fiscal Responsibility
- Environmental Stewardship
- Project Delivery
- Asset Management
- Mobility
- Communication, Coordination, Collaboration, & Cooperation
- Workforce Development



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Clean Water Act quick overview

- Clean Water Act(CWA) – 1972 – Regulates the discharge of pollutants into the waters of the united states and regulating quality standards for surface waters.
- Administered by the Environmental Protection Agency
 - Established the basic structure for regulating pollutant discharges into the waters of the United States.
 - Maintained existing requirements to set water quality standards for all contaminants in surface waters.
 - **Made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions.**
 - Recognized the need for planning to address the critical problems posed by nonpoint source pollution.

Source- EPA.gov Laws-Regulations



Picture of Cuyahoga River going into Lake Erie circa 1967- impetus for CWA (source- Cleveland.com)



CWA Section 404

- Made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions.
- Section 404- established to regulate the discharge of dredged or fill material into WOTUS.
- Section 404 includes wetlands, not just lakes and rivers.
- It regulates fill –
 - development,
 - water resource projects such as dams and levees,
 - infrastructure development such as highways and airports
 - Mining projects



CWA Section 404 continued

- Permit is needed before the dredged or fill material maybe discharged into WOTUS
- Permits are administered by the US Army Corps of Engineers
 - This is due to amount of water resource projects the USACE administers and understanding the impacts to water by filling or dredging will have on those projects
- EPA still plays role but is not day to day



Avoid, Minimize, Mitigate

- 404 permitting follows this flow
 1. Avoid impacts if possible
 2. Minimize impacts if impacts are unavoidable
 3. Mitigate for impacts for remaining unavoidable impacts



Permitting

- General 404 Permits
 - Nationwide permits- used across the nation
 - Region General permits- used across a region
 - General State permits- used across a single state
- Individual 404 Permits – applied for projects that do not fit Nationwide or General Permits
- Title 117 Letter of Opinion- If impacts are considered non-jurisdictional to Waters of the US- we get a Letter of Opinion from Nebraska Department of Water Environment and Energy on what measures to take with impacts to non-jurisdictional wetlands



Mitigation-

1. Always a result of permanent impacts by project
2. Will have a 404 permit and/or a Title 117 Letter of Opinion
3. Over a certain threshold- often 0.1 acres
4. Leads to different types of mitigation
 - Wetland Mitigation Banks
 - In Lieu Fee Mitigation
 - Approved Permittee Responsible Mitigation



Forested Wetland Mitigation along N-79 near Alvo, NE (source- me)

NDOT Mitigation- The early days

- NDOT has been doing mitigation since the mid 1990s, with the first mitigation sites appearing around 1994-1995 in design and mitigation banks hitting the ground in 1997-1999
- NDOT's first wetland bank was willow island built in 1997 near Cozad, NE
- NDOT built a huge bulk of their mitigation site during the late 90s
- This was due to using the 1995 mitigation rule & difference in size of service areas
- NDOT continued to build mitigation sites into the early 2000s



Willow Island 2003- Source NDOT



NDOT Mitigation Mid 2000s- 2020 – A shift in practice

NDOT slowed on building banks for 2 reasons

1. USACE changed service areas to HUC 8s
2. 2008 Mitigation Rule came into play that different USACE's interpreted differently- Omaha with HUC 8s

NDOT turned then to utilizing more Approved Permittee Responsible Mitigation Sites (APRM) around 2009-2010

This continued to as a general practice into early 2020's



APRM Site near North Bend, NE that offset US-30 4 lane expansion in its first year of monitoring



NDOT Mitigation 2020's

USACE changed from using HUC 8s to HUC 6s in 2024

This led from there being roughly over 30+ watersheds to there being 14 watersheds in the state that a mitigation bank could cover

NDOT then pushed 2 banks- Ashland Bank and Orleans Bank- to be approved by USACE and Internal Review Team (agencies such as EPA, USFWS, NGPC, and DWEE are part of team)

NDOT also in this time continued to do APRMs for large projects that had been development prior to 2024



Saltwort on NDOT Mitigation Site established in last 5 years

Current and Future Mitigation Efforts

NDOT is currently sitting with over 260 wetland mitigation sites ranging from small less than acre postage stamps to large banks that measure over 300+ acres. We have roughly 2600 acres in mitigation.

NDOT is working on a Wetland Bank near Benedict NE that will help offset the impacts for the proposed US-81 4 lane expansion from York to Columbus

NDOT is working on expanding its private mitigation partners- both through for profit mitigation and In-Lieu Fee mitigation with non-profits

NDOT is also looking to grow into stream mitigation as that has been a growing need due to changes in 404 regulations

NDOT will have a new mitigation needs study come RFQ come out in 2026



Mitigation Sites day to day- Monitoring

To ensure that proposed mitigation sites develop into the correct wetland types USACE requires that the mitigation site holder does annual monitoring that show the sites hit specific requirements

Requirements typically include

- Wetland acres
- Vegetation community
- Increases from previous year in wetlands or native hydrophytic plants

Annual Monitoring typically is required for 5-10 years pending the type of wetland we have at the mitigation site

Monitoring concludes once final year requirements are met and the USACE sends written confirmation that the site has met all requirements



Monitoring Picture from an APRM near Scribner, NE this last year (source- NDOT)



(S-28) Emergent wetland along Transect 5. Orientation west.

Mitigation Sites Day to Day- Long Term Management

Management starts from the day the mitigation site it is constructed

During monitoring, maintenance is focused on issues that will lead to the site not hitting certain requirements

Mitigation Sites are put into Conservation Easements (CE's) as required by USACE

With the CE's USACE requires that sites remain in perpetuity wetlands, follow state and federal laws, and have enough money to do this long term management

Long term management focuses on the site retaining enough wetland acres and requirements while being in line with state and federal laws



Mitigation Sites Day to Day- Management Needs

NDOT Ecologists and NDOT Maintenance Staff do burden of work for items such as

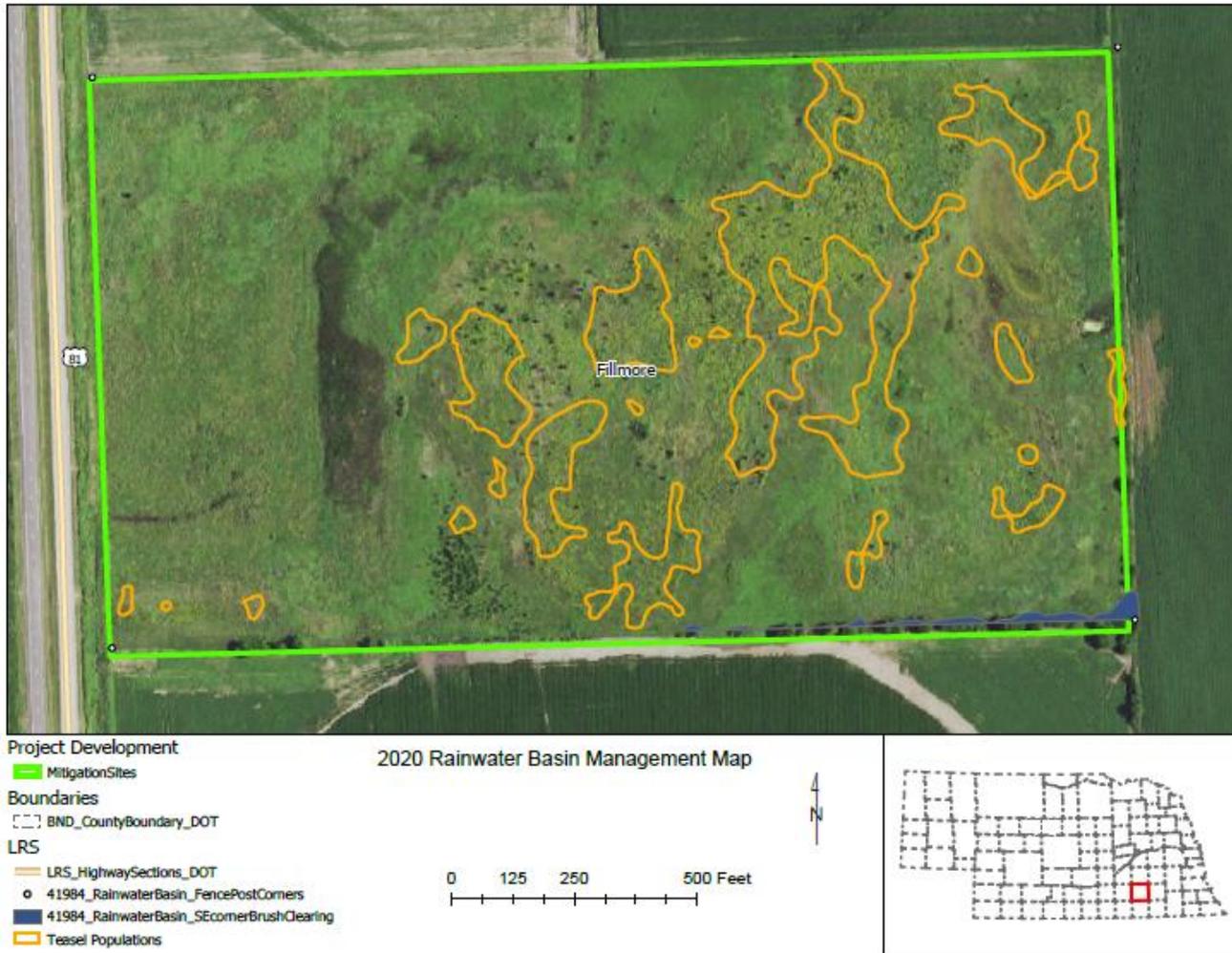
- Woody plant removal
- Chemical application to invasive or non-native plants
- Sediment removal
- Other unique circumstances
- Willow Staking

NDOT needs help in these areas as some sites need actions we can not do

- Prescribed burns – Insurance Requirements being double checked with legal
- Chemical Application via drones
- Operating heavy machinery for specific tasks
- Tree Plantings



Map of Management of Teasel on NDOT Rainwater Basin Mitigation Bank Near McCool Junction, NE



TRU Info & Q&A

Contact Infor

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We have 6 ecologists who work on both section 404 permitting and Section 7 consultation with Endangered Species Act & Nebraska Non-Game and Endangered Species Conservation Act

If you have more questions, please feel free to talk with one of us

