

NDDOT Wetland Mitigation Monitoring



**PROJECT DEVELOPMENT CONFERENCE
DECEMBER 10TH, 2014
PAUL J MOCH**

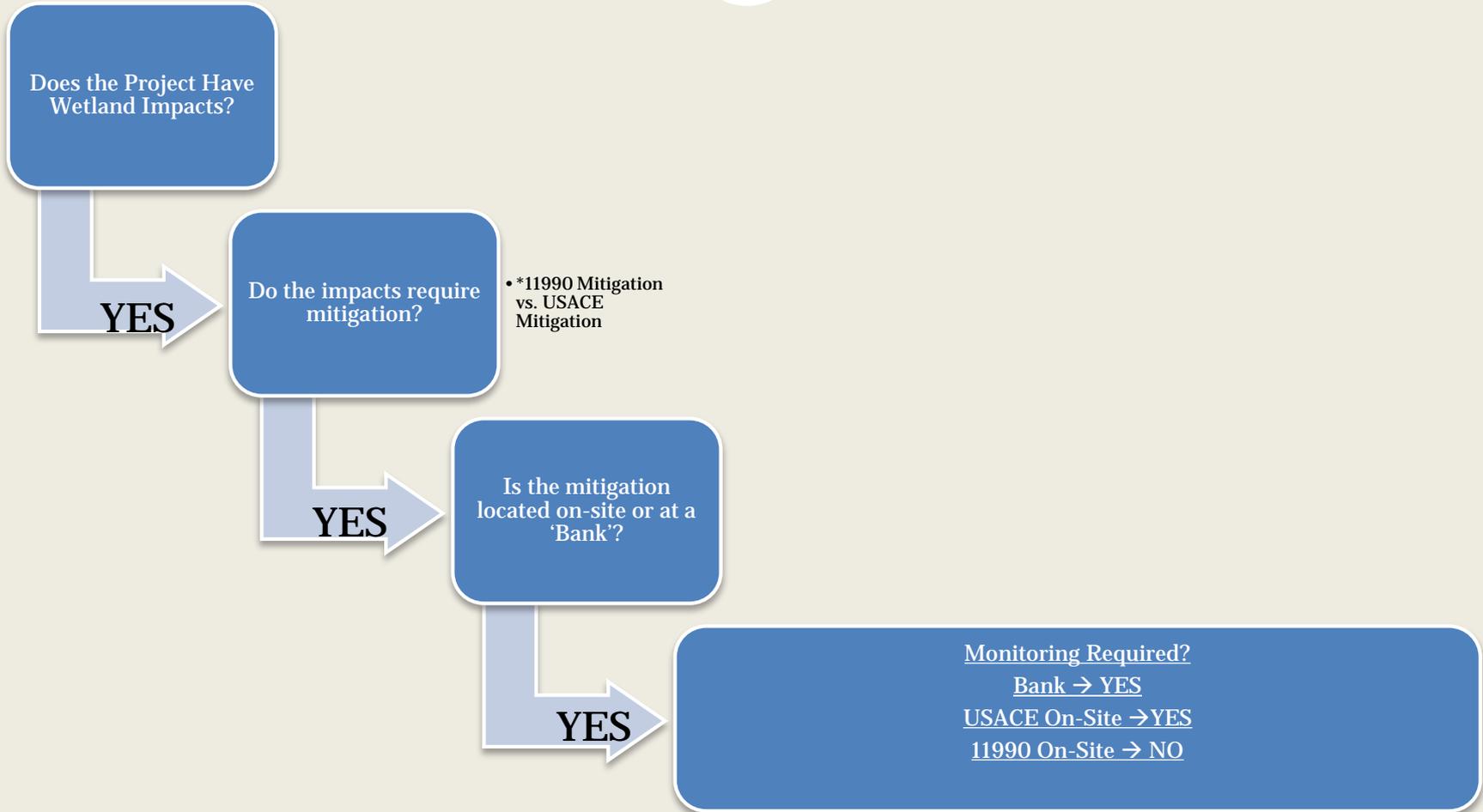


Time Frame

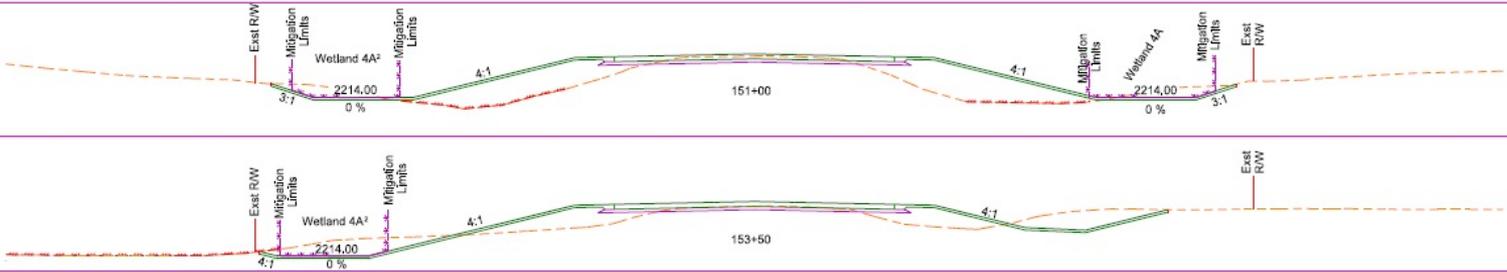
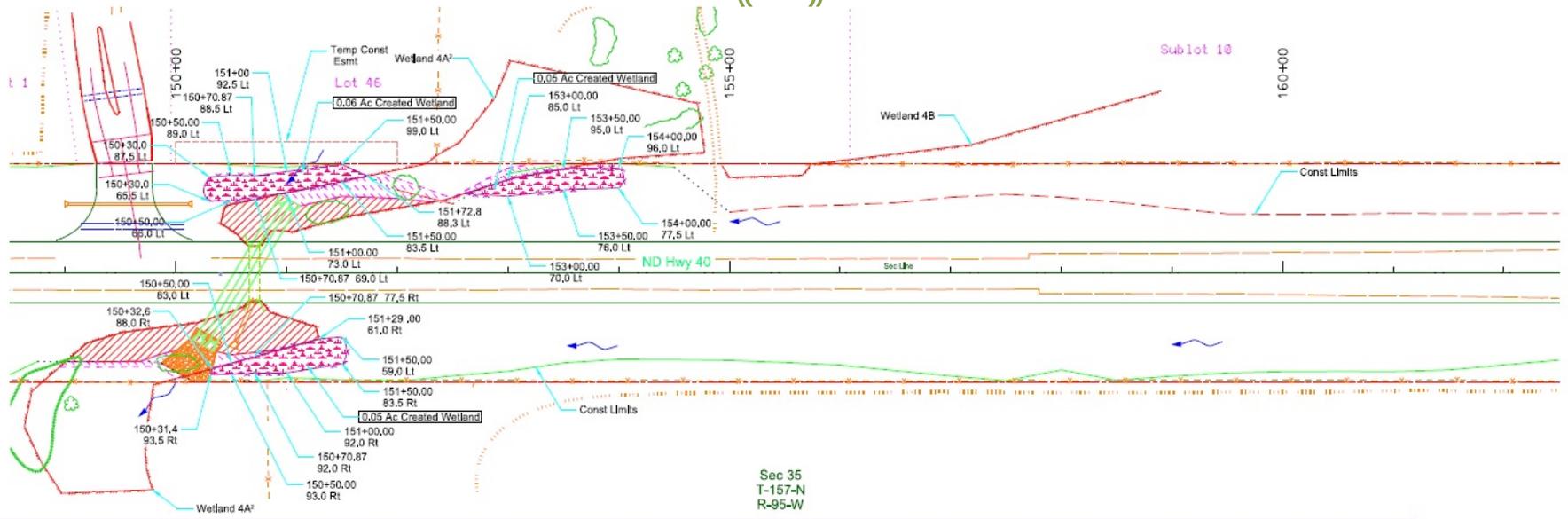


- **Required Monitoring**
 - **Wetland Monitoring**
 - ✦ Mitigation Banks - NDIRT
 - ✦ Projects - USACE
 - **Section 404 Permit (USACE)**
 - ✦ Project Specific Permit → Issued Prior to Project Bid
 - ✦ Monitoring Required for On-site Mitigation of Jurisdictional Impacts
 - **Mitigation Monitoring Requirements**
 - ✦ Success Criteria
 - ✦ Annual Monitoring Reports
 - 5 Year Period – USACE Discretion
 - Every 5th Year After – Aerial Interpretation

Process



Design



This document was originally issued and sealed by Jason P. Gulicks Registration Number PE- 4792, on 09/08/14 and the original document is stored at the North Dakota Department of Transportation

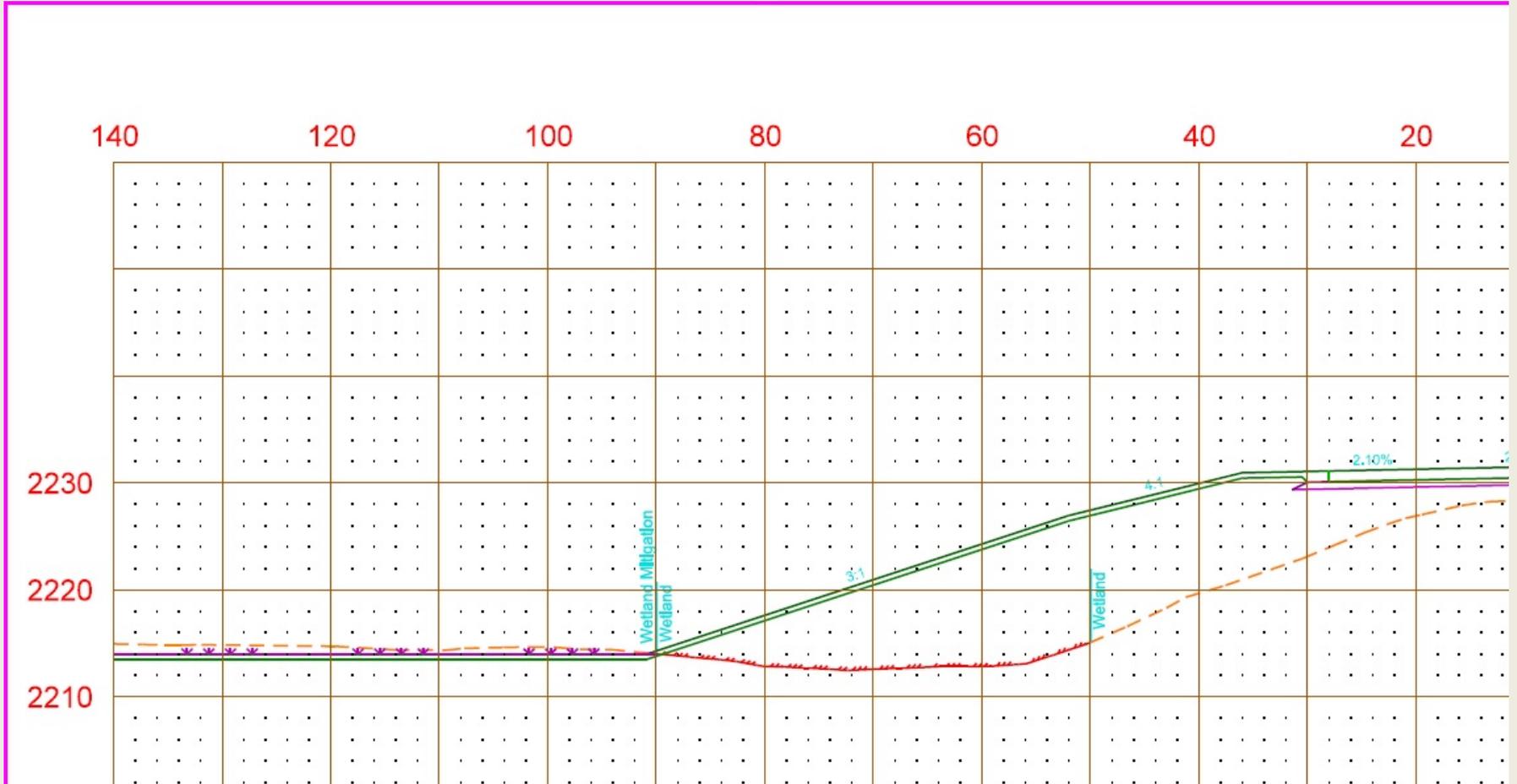
Wetland Impacts Sta. 149+00 to Sta. 153+00		
Wetland #	Permanent Wetland Impacts	Temporary Wetland Impacts
Wetland 4A²	0.25 Ac	0.09Ac

Created Wetland	Total
4A²	0.16 Ac

- Legend**
- Existing Delineated Wetland
 - Permanent Wetland Impacts
 - Temporary Wetland Impacts
 - Created Wetlands for Mitigation

Wetlands, Mitigation and Environmental
Wetland 4A & 4B
ND Hwy 40

Design



Reports



- NDDOT Report Template

MITIGATION MONITORING REPORT

Background Information

Mitigation Site: _____ Legal Description: _____
County: _____ Wetland number(s): _____ Permit No.: _____
Monitoring Date: ___/___/___ Date Mitigation Complete: ___/___/___
Inspected By: _____

Mitigation Site Condition

1. Is the wetland meeting all three criteria (soils, vegetation, hydric soils)? Yes __ No __
(Attach Wetland Delineation Data Form – Great Plains Version 2.0)

If no, indicate which criteria are not being met and reason why:

2. Indicate if wetland showing any observable sign(s) of revegetation, organic debris, erosion, silting-in, flooding, expansion, human use, or other observable change(s) that you may have identified or no observable change(s) from the as-built plans? (Circle all applicable) Explain:

3. (if required by permit) Is the buffer meeting design plans and permit conditions? Yes __ No __

Indicate any concerns that impact the integrity of the wetland buffer:

4. (if required by permit) Is the adjacent upland meeting design criteria? Yes __ No __

Indicate any concerns that impact the integrity of the adjacent upland:

5. Are there any recommendations for additional corrective or remedial actions? Yes __ No __

Indicate any recommendations for additional corrective or remedial actions:

Report



Mitigation Site: _____ Legal Description: _____

County: _____ Wetland number(s): _____ Permit No.: _____

Monitoring Date: ___/___/___ Date Mitigation Complete: ___/___/___

Inspected By: _____

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Report



2. Indicate if wetland showing any observable sign(s) of revegetation, organic debris, erosion, silting-in, flooding, expansion, human use, or other observable change(s) that you may have identified or no observable change(s) from the as-built plans? (Circle all applicable) Explain:

Report



5. Are there any recommendations for additional corrective or remedial actions? Yes ___ No ___
Indicate any recommendations for additional corrective or remedial actions:

Sites Meeting Criteria



Site Moving Toward Criteria



Sites Moving Toward Criteria



Sites Requiring Remedial Action



Sites Requiring Remedial Action



Sites Requiring Remedial Action



Sites Requiring Remedial Action



Remedial Actions



- **Create Specific Project**
 - Contact ETS Division to initiate Remedial Action Project
 - Revisit 12 Components of Mitigation (suggested)
 - Expensive Option

- **Tie Into Existing Project**
 - Save Mobilization Cost
 - Must have remedial action prior to project bid
 - Cost Effective Option

Take Aways



- **Proper Design, Adequate Concept and Construction**
- **Timely Monitoring**
- **Thorough Reporting**
- **Follow Through for any Remedial Action**

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