

# Wetland Mitigation Guidance for NDDOT Projects

November 2017

When considering mitigation needs for permanent wetland impacts please use the guidance below. This is general guidance. Each project is different and may have variations to this guidance. The intent is to find onsite mitigation outside of existing NDDOT Right of Way (ROW) when feasible for larger impacts (greater than 1 acre), utilize banks when a permanent easement is not available, and use onsite mitigation within NDDOT ROW as a last resort.

See [Design Manual Chapter II Section 4](#) for more information.

## I. General Mitigation Guidance

For Major Rehabilitation projects, with impacts of more than 1 acre requiring mitigation, more emphasis should be placed on finding mitigation locations outside of the existing NDDOT ROW, typically as a permanent wetland easement, in the same Regional Service Area (RSA) as the impacts. It may be possible to mitigate outside of the same RSA as the impact with justification approved by the US Army Corps of Engineers (USACE). Possible mitigation locations should be included in the process when obtaining ROW or Temporary Construction Easements. If outside of the right of way is not an option, then mitigation within the ditch is acceptable (upland buffer credit is not available within a typical ditch section).

[Appendix B6](#) shows the current mitigation bank locations, mitigation use (USACE/11990/USFWS) for each bank, and the Regional Service Areas. Contact ETS or Tech Support to determine which bank to use.

*The guidance below is intended for NDDOT designers and consultants developing plans and permit information for a "typical" NDDOT highway project and should be applied to most projects. The USACE District Engineer will determine if the proposed mitigation is appropriate and practicable on a case-by-case basis. If the resource impacted is determined to be a high quality wetland, such as a forested wetland, the USACE can require mitigation at a higher ratio and may require mitigation for impacts less than 0.10 acre, even if mitigation is at a bank. The NDDOT environmental section will work with the USACE to determine final ratios for these "non-typical" cases.*

For Natural wetland impacts, mitigation created/reestablished at the same wetland impacted receives a 1:1 ratio. Mitigation not created/reestablished at the same wetland impacted receives 2:1. If restoring a wetland the ratio is 1:1 regardless of location.

Mitigation at an approved bank is a 1:1 ratio.

### 1. Natural/Non-Jurisdictional

#### (a) EO 11990

- Mitigation is required regardless of permanent impact acreage and can be done onsite or at an 11990 bank in any RSA.

#### b) USACE

- No Mitigation Required

### 2. Natural/Jurisdictional

#### (a) 11990

- Mitigation is required regardless of permanent impact acreage and can be done onsite or at an 11990 bank if USACE mitigation is not required.

#### (b) USACE

# Wetland Mitigation Guidance for NDDOT Projects

November 2017

- Mitigation is required for cumulative impacts (1a, 1b, 1c..etc) to a wetland that is greater than 0.10 acre. Typically, the cumulative impact greater than 0.10 acre is only for the natural portion of the resource. Mitigation can be done at a USACE approved bank or onsite if no USACE bank is available. USACE can, on a case-by-case basis, require mitigation of all impacts on site.

### 3. Artificial/Non-Jurisdictional

#### (a) 11990

- No mitigation required.

#### (b) USACE

- No mitigation required.

### 4. Artificial/Jurisdictional

#### (a) 11990

- No mitigation required

#### (b) USACE

- Mitigation would not be proposed for most artificial ditches and would not be included in the cumulative impact calculation. NDDOT would request that the mitigation requirement be waived for impact to the artificial portion of a wetland impact greater than 0.10 acre. Replacing the ditch “in kind” results in a “no net loss” of the function of an artificial ditch wetland.

## II. Minimization:

### Wildlife Passages

- Wildlife Passages in box culverts or under bridges may be utilized as wetland mitigation. Coordination with the USACE will need to be done as soon as possible to determine if a wildlife passage is an appropriate form of mitigation and to determine the amount of credit.

### Lowering Box Culverts and Riprap in Other Water resources:

- Lowering a box culvert and riprap 1 foot below the channel elevation may be considered minimization (a form of mitigation) since this practice allows for fish and invertebrates to pass in low flow situations and allows for sedimentation to occur within the box and on the riprap to better mimic stream substrate characteristics and regain some functionality. Therefore, compensatory mitigation may not be required for the box and riprap footprint if lowered 1 foot. The box culvert and riprap impact area are always shown as permanent impacts in the plans but are not included in the compensatory mitigation needed at a bank or onsite. This may not include box culvert extensions.

### Lowering Riprap Under Bridges in Other Water resources:

- Lowering riprap under bridges 1 foot below the channel elevation may be considered minimization (a form of mitigation) since this practice allows for fish and invertebrates to pass in low flow situations and allows for sedimentation to occur within the box and on the riprap to better mimic stream substrate characteristics and regain some functionality.

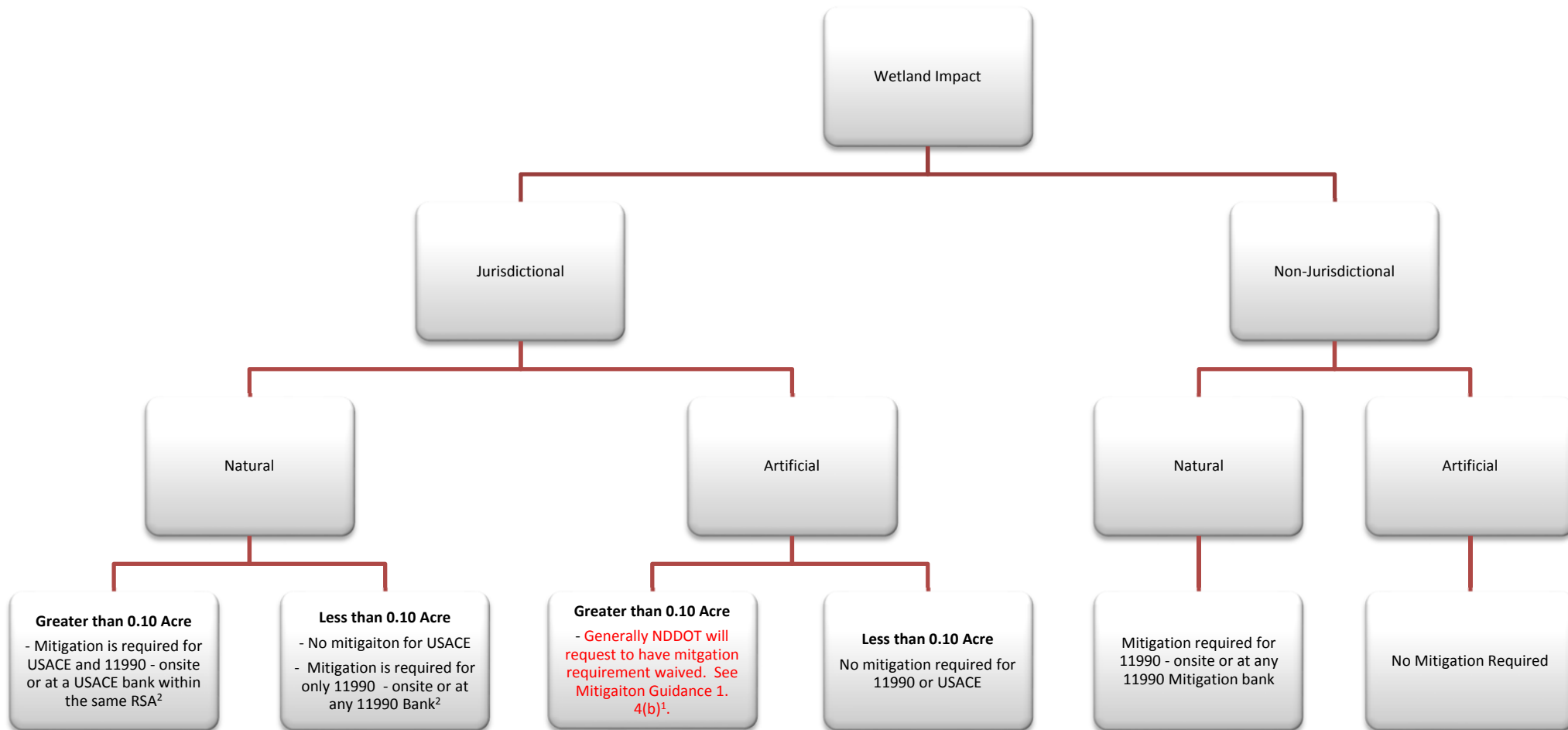
# Wetland Mitigation Guidance for NDDOT Projects

November 2017

## III. Roadway Footprint

- Wetlands that have developed on the roadway inslopes do not require compensatory mitigation. When determining permanent wetland impacts, wetlands which have been delineated on the roadway inslopes should be “clipped” at the originally designed toe of slope and removed from the wetland reference. The final plan cross sections should not show impacts to wetlands on the existing toe of slope. See [Appendix B5, B7](#), and the example toe of slope (TOS) determination below.
- Wetlands in the median of a roadway are considered artificial and do not require mitigation if they are at a higher elevation than the undisturbed wetland elevation outside of the existing ROW based on cross section of a plan set. This is considered previously filled and part of the roadbed footprint.

# Wetland Mitigation Flow Chart



<sup>1</sup> [Appendix B7](#) General Mitigation Guidance

<sup>2</sup> [Appendix B6](#) Active mitigation Bank Location and Regional Service Area (RSA) Map