

EEP 7-Year Impact Assessments

Project Development and
Environmental Analysis Branch



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Version 1.0

[Contents]

[Purpose](#)

[Responsibility](#)

[Scheduling and Time Constraints](#)

[Procedures](#)

[Background](#)

[Policy, Regulatory, and Legal Requirements](#)

[Warnings and Precautions](#)

[Resources and Tools](#)

[Contacts](#)

[User Access](#)

[Flowchart](#)

[Glossary](#)

Purpose

The purpose of this procedure is to offer guidance on the process for estimating stream and wetland impacts in accordance with the Memorandum of Agreement (MOA) between NCDOT, USACOE, and NCDENR.

Responsibility

The current phase of the project will dictate who is responsible for verifying or updating estimated impacts. The consultant tasked with compiling the data and producing the report is responsible for initiating the yearly process.

Scheduling and Time Constraints

NCDOT is required to submit a report of all anticipated impacts for 7 years in the future by February 1 of each year.

Procedures

Procedure 1: Incorporate Most Recent TIP Information into Impacts Database

The consultant will follow the steps below to incorporate the most recent version of the Transportation Improvement Program (TIP) into the existing impacts database. Refer to [Figure 1](#) for a flowchart of the procedure.

- Step 1.** Obtain most recent version of the TIP from the NCDOT TIP Unit.
- Step 2.** Import TIP information into the most recent version of the impacts database (Microsoft Access format).
- Step 3.** Note changes to TIP from previous year and make corresponding changes to the existing impacts information (e.g., TIP projects that have split into segments or merged into fewer segments will have their impacts split or merged).

Procedure 2: TIP Project Inclusion

The consultant will follow the steps below to determine which projects will be included in the report. Refer to [Figure 1](#) for a flowchart of the procedure.

Step 1. Flag all projects in the database that meet the following criteria:

- EEP has already accepted mitigation
- NCDOT has let the project
- USACOE has issued a permit

These projects are excluded from the impacts analysis.

Step 2. Flag all projects in the database that are:

- Are unlikely to need mitigation via EEP based on their NCDOT activity or funding code. This includes projects with:
 - Acquisition (A), Study (F), or Mitigation (M) codes
 - Municipal Bridge Replacement Program (NFAM)
 - Congestion Mitigation (CMAQ)
 - Federal Lands Program (FLP)
 - Rail-Highway Safety (RR)
 - Personalized Automobile License Plate Funds (PLF)
 - Safety Grant (SG)
 - Ferries (SF)
 - National Recreation Trails (NRT)

These projects are excluded from the impacts analysis.

Step 3. Exclude all projects that are entirely post-year (i.e., do not have at least one segment funded for construction on the TIP).

Step 4. Review the descriptions of the remaining projects and flag projects that are unlikely to require mitigation. These projects are excluded from the impacts analysis. Add a brief comment on why they were excluded.

Step 5. The remaining projects constituent the master list for estimating impacts and potential mitigation needs.

Procedure 3: GIS Data Creation

The consultant will follow the steps below to create the initial estimate of potential impacts for a project. Refer to [Figure 2](#) for a flowchart of the procedure.

Step 1. Create footprint polygons from GIS line data for the TIP projects identified in Procedure 2 that do not have existing GIS impact estimates. To create the footprint, do the following:

- Review the description of each project
- Look up the corresponding cross-section width in [Table 1](#)
- Buffer the GIS project line by the cross-section width
- Determine whether the project or project segment is on new location or on existing alignment and note in the impacts database

- Step 2.** Collect natural resources GIS data and overlay this information with the project footprint. For in-depth information on sources and method of interpretation, refer to [Natural Resource GIS Data](#).
- Step 3.** Estimate the potential impacts to resources within the entire project footprint. The amount of impact reported is based on the following criteria:
- Existing alignments – one-half (1/2) the total amount of estimated impacts
 - New location – all of the estimated impacts
 - Bridge replacement projects – treated as “Existing Alignment”
- Step 4.** For project updates, only use GIS level data for analysis in cases where no previous estimate data exist or where existing estimates are determined to be inappropriate. An example would be NRTR impact estimates based on large corridors rather than a project footprint.

Procedure 4: Impact Estimate Updates

The consultant compiling the data and the person designated as responsible for updating the impact estimates will follow the steps below.

- Step 1.** The consultant will review all of the TIP projects in the database and determine those that have existing impact data. These sources could include natural resource technical reports (NRTRs), NEPA documents, permit drawings, and Merger meeting materials.
- Step 2.** The consultant will work with NCDOT to query the STaRS system to identify the most current project activity and associated responsible party (e.g., planning engineer, hydraulics engineer, environmental specialist, permit specialist).
- Step 3.** The consultant will use the impacts database to prepare reports of the impact estimates provided to EEP in the previous submission. The report for each project will include the name and location of the project; TIP number; PDEA project engineer; estimated impacts to streams and wetlands; and the source of the impacts estimates (e.g., GIS, NRTR, or NEPA document). The consultant will provide this report to the responsible individual for each included project. If no previous estimate was provided to EEP, the consultant will note this in the report.
- Note: If you feel you have received a form to update in error, contact the NEU EEP Coordinator to discuss.
- Step 4.** The designated individual will determine the most current data source for updating the impact estimates. If the previous impacts are based on the most current data, then verify that the impacts were calculated correctly. If there is more refined data available, the individual is to report the revised estimates.
- Step 5.** If previous impact estimates are not available, the individual is to provide any available impact numbers or note that impact estimates are not yet available and GIS estimates should be used.
- Step 6.** As noted in Procedure 3, GIS level data should only be used to update impact analysis in cases where no previous estimate data exist or where existing estimates are determined to be inappropriate. An example would be NRTR impact estimates based on large corridors rather than a project footprint.
- Step 7.** Impact estimates for projects under the jurisdiction of NCDOT Highway Divisions, Rail Division, Ferry Division, and Aviation Division are provided by these divisions

and also included in the master database. These impacts are summarized by Cataloging Unit and Division only.

- Step 8.** If you receive a form to update and have questions, contact the NEU EEP Coordinator.

Background

The United States Army Corps of Engineers (USACE), NCDOT and NCDENR Ecosystem Enhancement Program (EEP) have entered into a Memorandum of Agreement (MOA) that establishes procedures for providing compensatory mitigation through the EEP to offset impacts to waters and wetlands due to activities authorized by the Clean Water Act and the Rivers and Harbors Act. Compensatory mitigation is defined as the restoration, enhancement, creation, and/or preservation of wetlands or other waters of the United States due to activities authorized by Clean Water Act permits. NCDOT and EEP have entered into a second MOA which further details how the first MOA will be carried out. To accomplish the goal of having approved mitigation sites prior to receiving the permits, NCDOT and EEP must plan at least seven years in advance, hence what is loosely termed "7 year impacts." According to the MOA, NCDOT provides to the EEP a report of all anticipated NCDOT impacts by year, for seven years into the future no later than February 1 of each year.

Policy, Regulatory, and Legal Requirements

- [MOA – NCDOT, NCDENR, USACOE](#)
- [MOA – NCDOT & NCDENR – EEP Operations](#)
- Baker Engineering Documentation – Dated October 2007

Warnings and Precautions

Care should be taken to make impact estimates as realistic as possible based on the best available information. Consistently overestimating the amount of impacts leads to NCDOT paying for mitigation that may never be used.

Resources and Tools

- [Table 1 – Assumed Footprint based on Typical Section](#)
- [Natural Resource GIS Data](#)
- [Example Report Form and Instructions](#)

Contacts

- For suggestions to change this procedure contact: Karen Capps (919) 431-2003
- For questions about performing this procedure contact: Linda Fitzpatrick (919) 431-6571

User Access

- Restricted NCDOT, FHWA, MPO, RPO, Consultants, etc.

Flowchart

- [Figure 1 – TIP Project Inclusion](#)
- [Figure 2 – Project Footprint](#)