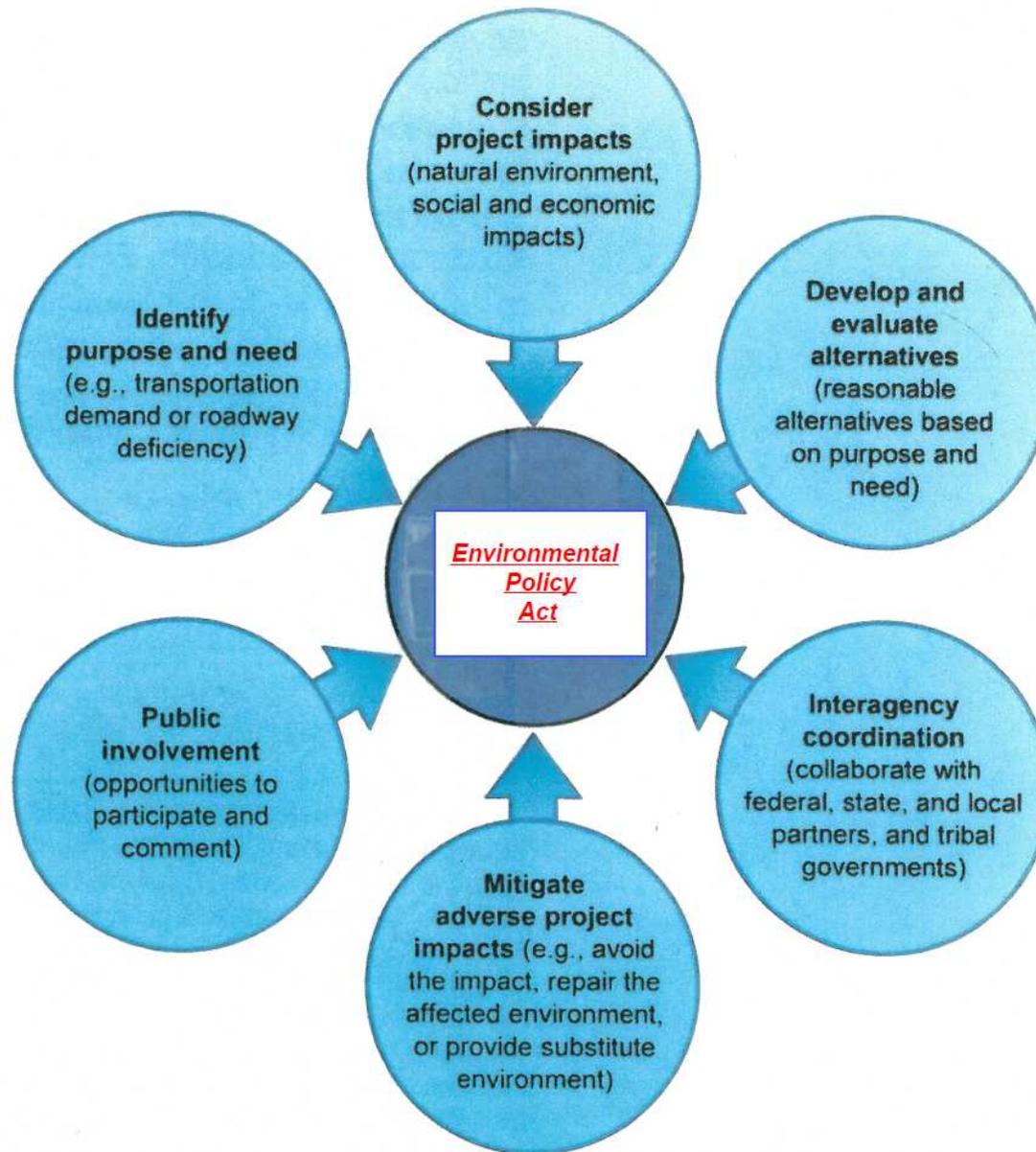




Environmental Analysis for Division Projects

Colin Mellor



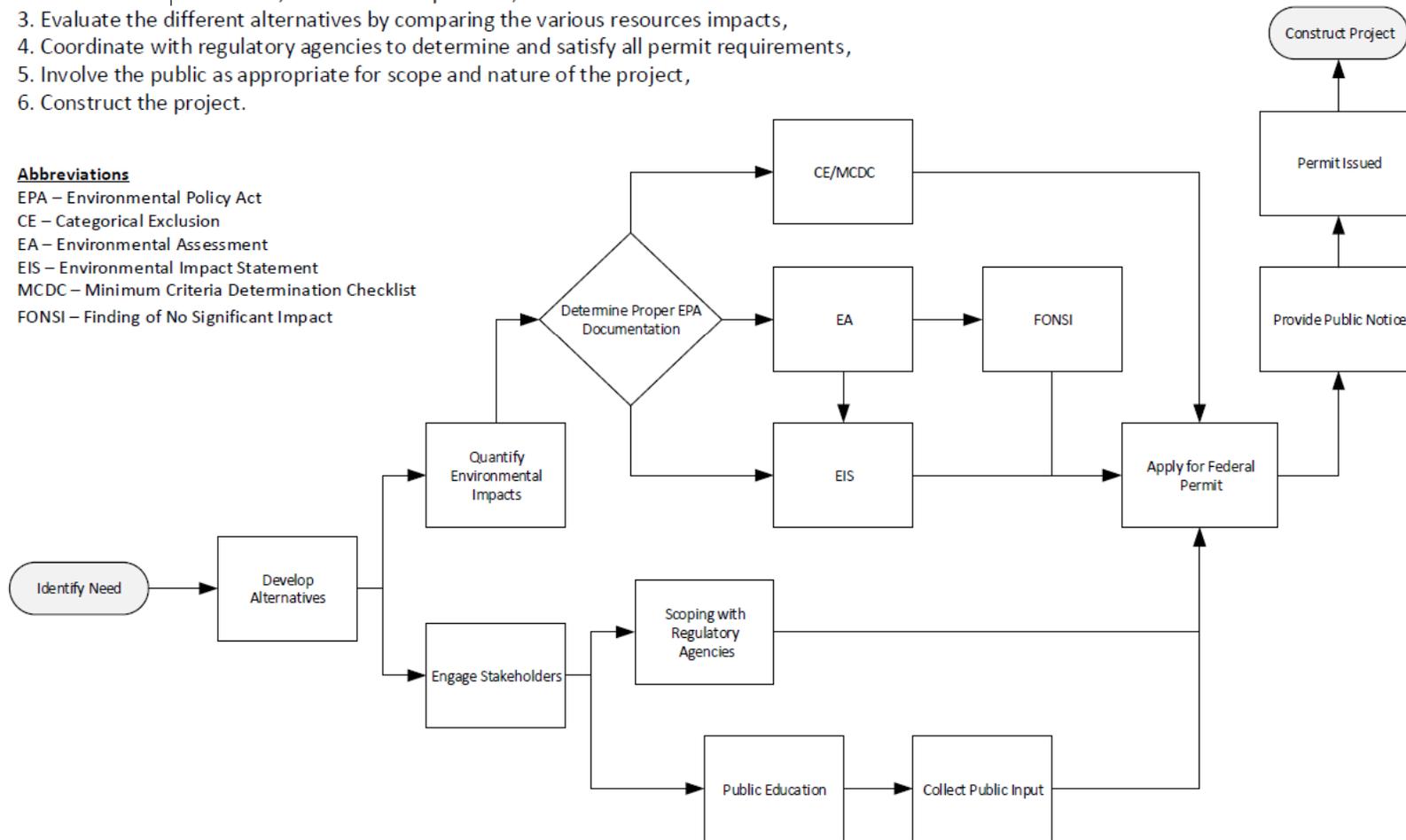


Environmental Policy Act Sequence

1. Identify the purpose and need for your project,
2. Collaborate with national, state and local partners,
3. Evaluate the different alternatives by comparing the various resources impacts,
4. Coordinate with regulatory agencies to determine and satisfy all permit requirements,
5. Involve the public as appropriate for scope and nature of the project,
6. Construct the project.

Abbreviations

EPA – Environmental Policy Act
 CE – Categorical Exclusion
 EA – Environmental Assessment
 EIS – Environmental Impact Statement
 MCDC – Minimum Criteria Determination Checklist
 FONSI – Finding of No Significant Impact

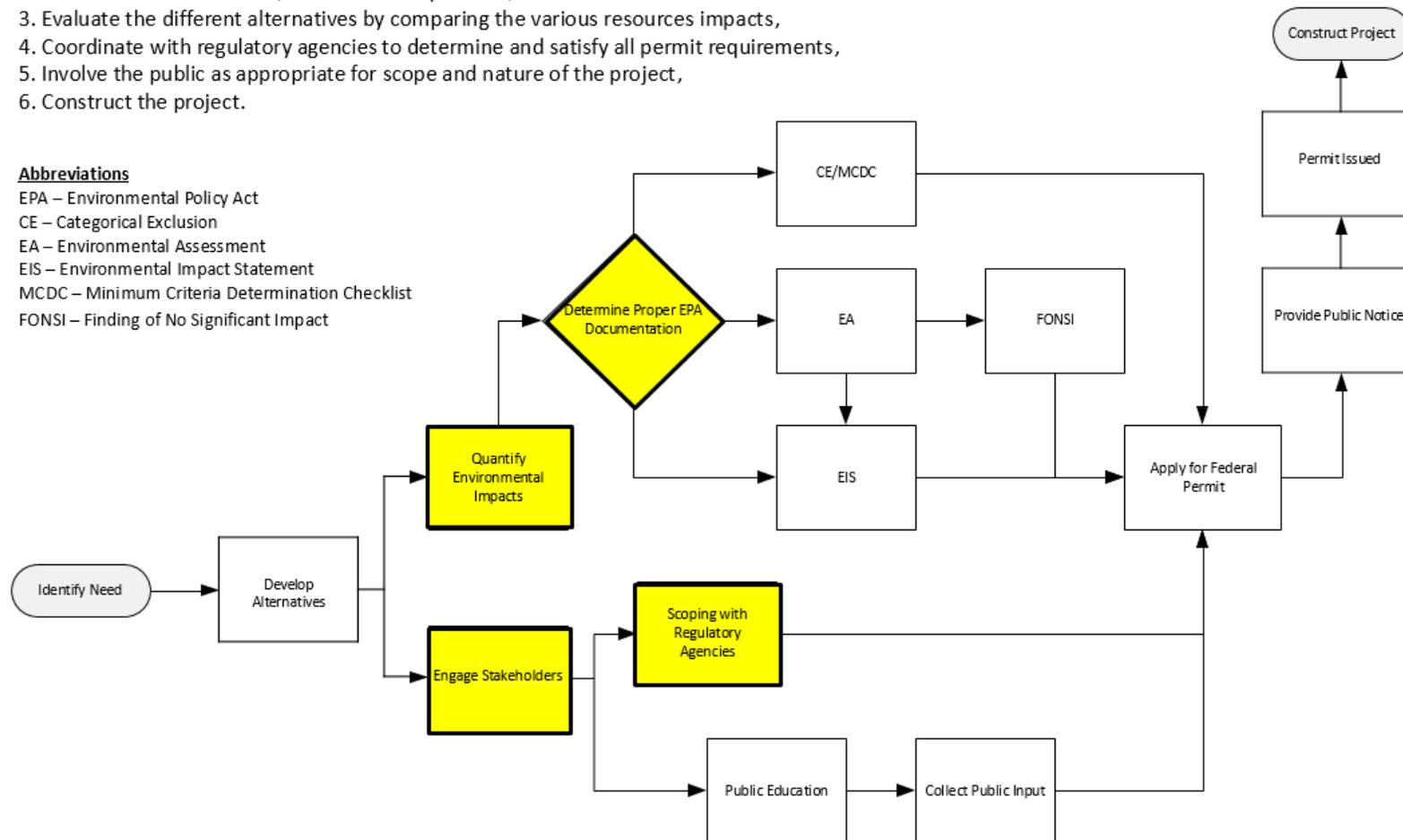


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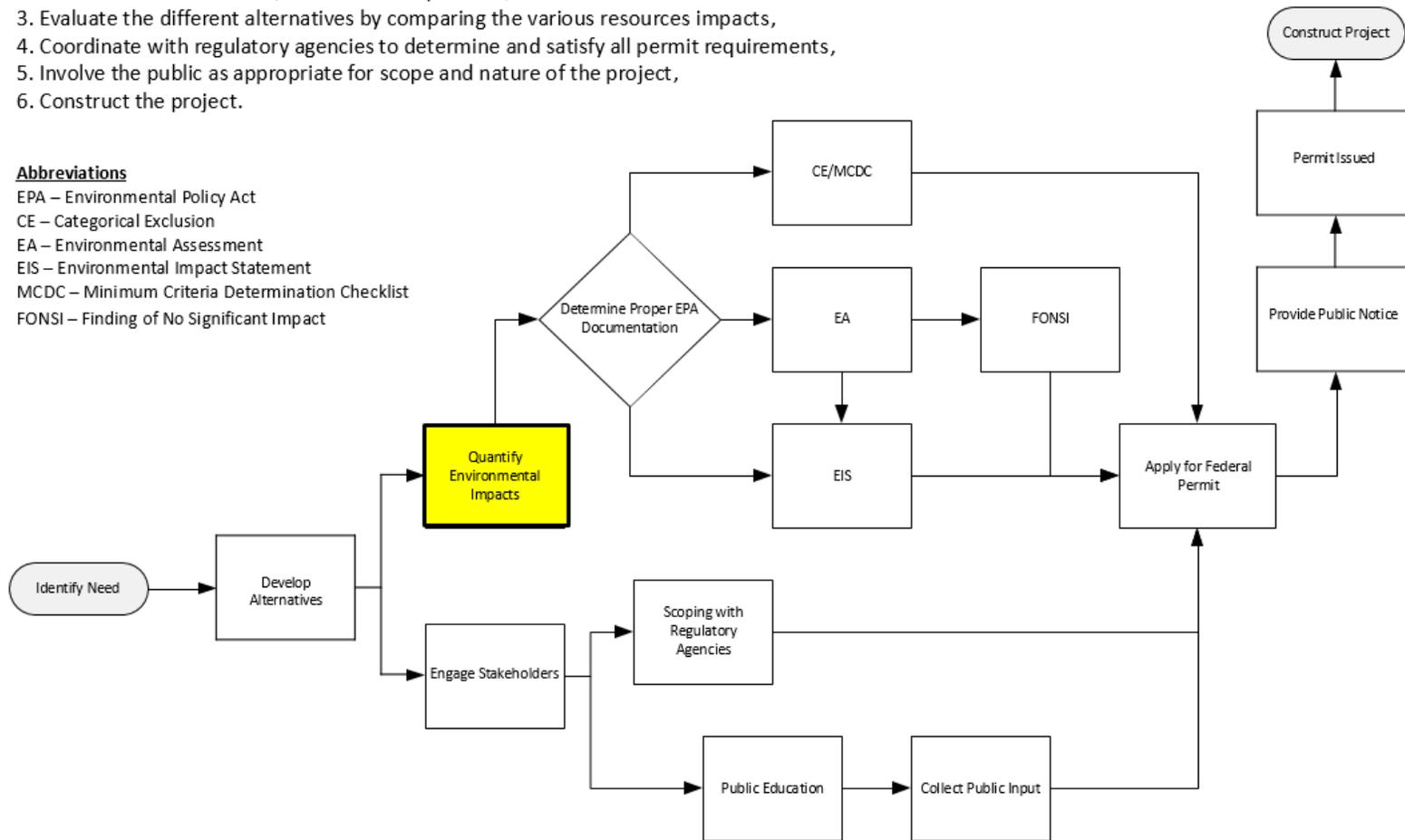


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Environmental Analysis Work Scheduling

- Project Initiation - determine the scope, study area, and scheduling for the project
- Scope out the environmental resource work – use guidelines prepared in the PCN scoping template
- Cost estimate for the work – include what is required for PCN



PCN Scoping Template

NCDOT Division Project

Project Number: _____

Scope of Work for Natural Resource, Human Environment, Impact Calculations,

ABC Firm will prepare a PCN to assist in project screening for (description-include size or length of road and county) in Division ____ of the NCDOT. Unless otherwise specified in this scope, the Firm will follow the PCN guidance presented on this link:

<http://www.saw.usace.army.mil/Portals/59/docs/regulatory/regdocs/Permits/PCN-help-complete-2013-03.pdf>

Data Collection and Documentation

Data collection will follow the PCN Guidelines on the website referred to above. Reference will be made to:

- Jurisdictional Survey Protocols: See attached Consultant GPS CADD guideline
This will also satisfy the PLS survey requirement
- T&E Survey Protocols:
<https://connect.ncdot.gov/resources/Environmental/PDEA%20Procedures%20Manual%20Documents/Protecte%20Species%20Survey%20Protocol.pdf>

Tasks 1 - 8 includes the information gathered for Natural Resource Investigations

1. Land Owner Letter Delivery

The land owner letter and list of property owners will be provided by NCDOT. Letters will be mailed to land-owners one week prior to the field visit.

2. Natural Resources Field Work

Field work will include data collection for streams, wetlands, and county appropriate T&E species surveys

3. Travel

This account for the travel time required to perform all field work, agency site visits (if needed), and project related meetings (if needed).

4. Creation of WEX and WET files

Delineated stream and wetland data will be integrated into a WEX file following the *Consultant GPS-CADD* guidelines as attached. Any changes from the site visit with NCDOT and the agencies will be incorporated into the WET file.

5. Preparation of Preliminary Jurisdictional Package (PJD)

DRAFT and FINAL PJD packages will be prepared in accordance with a separate guideline (see attached).

6. Agency site visit – if anticipated

7. Natural Resources Memo

A natural resource memo along with the minimum criteria determination checklist will be prepared to cover the streams, wetlands, and endangered species surveys.

8. Review of Natural Resource Material and Project Management

QA/QC of the information gathered for the Natural Resource Memo. This task will also include management of the project coordination, safety compliance, and coordination with the Division DEO.



Task 9 - 11 includes the information gathered for Human Environment Investigations

9. Screen for known Historic Resources

Check National Register of Historic Places in North Carolina for structures within study area (ROW +25'). ROW limits should be checked for potentially eligible structures

10. Screen for potential Archeological Resources

Identify any areas of undisturbed ground in uplands, within the study area, immediately adjacent to WOTUS.

11. Screen Indirect and Cumulative Effects

Determine if the project will result in additional development which could impact downstream water quality.

Task 12 includes the information gathered for Hydraulic Review Investigation

12. Determine if the project occurs in a FEMA-designated 100-year floodplain

Deliverables

- PCN cover letter explaining impacts and natural and human resource information summarized*
- Completed PCN*
- Jurisdictional Determination package – this may vary per project.
- Figures showing vicinity of project, topographical area and study area of project
- Project pictures
- Natural Resource Memo
- Map with PLS certification in pdf format
- QA/QC form with signatures

Schedule to be determined by Division



NORTH CAROLINA BOARD OF EXAMINERS
FOR ENGINEERS AND SURVEYORS

POLICY

Title: Wetlands Mapping Policy

Policy Number: BP-1005-4 Rev. 2

Status: Draft Date Originated: 9/08/09 By: Surveying Committee
For Approval Rev. No.: 2
Final Referred to _____ Date _____

Date for Board Approval: 5/13/10 Date Approved: 5/13/10
Date for Board Approval: Rev 1 - 7/15/10 Date Approved: 7/15/10
Date for Board Approval: Rev 2 - 2/11/15 Date Approved: 2/11/15
Date to be Reviewed: 2018 Date Reviewed: 2014

Category(s): Surveying Practice

Keywords: Wetlands, Surveying, ~~Conservation Easements~~, Buffers

.....

Wetlands Survey: A survey showing the boundaries of an area delineated as "jurisdictional waters of the US." Wetland Boundaries shall be tied by course and distance to either 1) property corners that are properly monumented and verified, or 2) project boundaries that have been properly monumented, or 3) NC State Plane Coordinates System. This shall be done in a manner that permits future surveyors to readily retrace the wetland boundary. The calculated ratio of precision before adjustments or statement of positional accuracy of such ties must be consistent with the land use classification of the parcel being surveyed as described in Board Rule 21-56.1603. Data collection and platting of these types of wetland boundaries must be performed by or under the direct supervision of a ~~surveyor~~ PLS. A PLS or PE may only accept wetlands survey data from a PLS for the purpose of showing the information on survey plats, engineering drawings (other than Preliminary Planning drawings), permits or reports. Any location data generated by delineators is only for the use of the PLS in performing a survey of the wetland boundary and should be noted with a disclaimer to that effect. The preliminary wetland map with a disclaimer by the delineators, that the location data is not to be relied upon for accuracy and is only for appropriate use by a PLS or PE, may be used by a PE for Preliminary Planning Purposes. If equipment other than survey grade accuracy equipment is used on the survey, a statement indicating the equipment, procedure, and position tolerances (21-56.1608) used for the work must be clearly stated on the plat or work product. Only surveyed wetlands may be placed on a property plat.

Data provided by a Government Agency can be depicted as long as the source of the information used is disclosed and denoted as lines not surveyed within the plat or report.

The mapping of ~~conservation easements~~, buffers or other boundaries shall be done by, or under the responsible charge of, a PLS and conform to the same requirements as stated for wetland boundaries.



Environmental Analysis Work Scheduling

- Once the PCN information is determined, with the help of the Division Planning Engineer and the USACE, determine what level of project environmental review will be needed to permit the project. The review can undergo the following considerations:

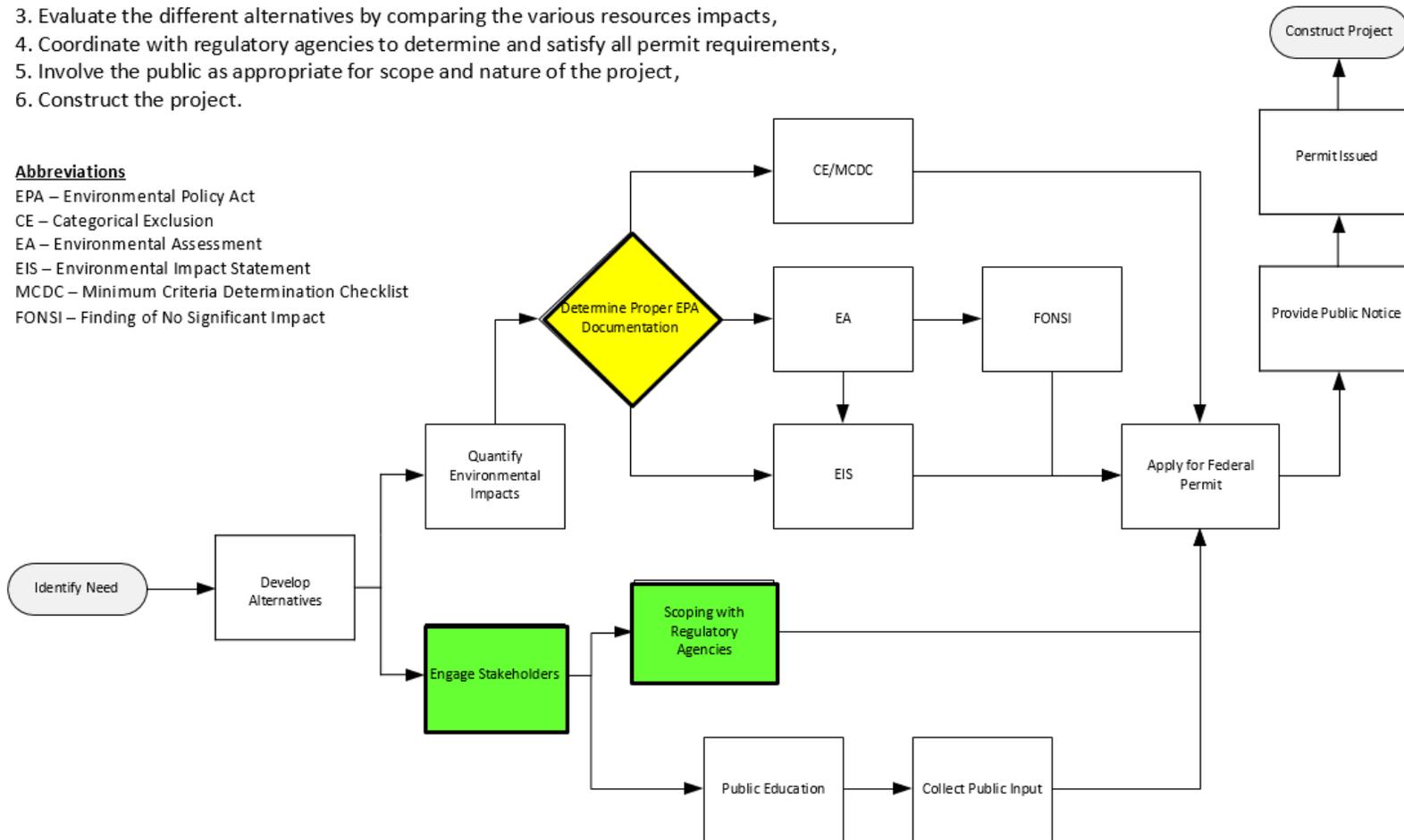


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Environmental Analysis Work Scheduling

- Is the project entirely state funded?
If so, then proceed with the minimum criteria determination checklist (MCDC) or SEPA Document.
- Does the project have any federal funds?
If so, then proceed with PCE, CE, or the appropriate NEPA document.
- Will the project be permitted under a NW, GP, or IP?
Regardless of state or federal funds, there will need to be, at a minimum, a review at the MCDC level.



Environmental Analysis Work Scheduling

- When project design is completed at the preliminary level, the agencies can visit the site for verification (if needed).
- Provide Natural and Human Resource information either through a Natural Resource memo, Arch/Historic Forms, SEPA Doc., NEPA Doc., or MCDC.





Pre-Construction Notification (PCN) Form Instructions



The PCN form is required for applicants seeking the following approvals: Corps 404 or Section 10 Permit, or DWQ 40

i. PURPOSE

The PCN – Pre-Co North Carolina better understand and evaluate the impacts of activities that you propose to do in or around streams, wetlands, or other waters that may affect water quality, the health of the aquatic ecosystem, or water access or flow, in the immediate or nearby drainage area.



Pre-Construction Notification (PCN) Form Instructions



The PCN is a combined effort by the US Army Corps of Engineers (USACE- known as the "Corps") and the NC Division of Water Quality (DWQ) to coordinate regulatory requirements for work in (or affecting) wetlands, streams, riparian buffers, and waters within North Carolina. By accurately completing the PCN form, we can determine if you meet requirements to proceed with your project as proposed. We can evaluate the measures you propose to take to avoid or mitigate for any damage to the environment. Our

The PCN form is required for applicants seeking the following approvals: Corps 404 or Section 10 Permit, or DWQ 401 Certification, Buffer Authorization, Isolated/non-404 Wetlands Permit.

i. PURPOSE FOR THE PCN:

The PCN – Pre-Construction Notification form helps regulators from the state and federal agencies in North Carolina better understand and evaluate the impacts of activities that you propose to do in or around streams, wetlands, or other waters that may affect water quality, the health of the aquatic ecosystem, or water access or flow, in the immediate or nearby drainage area.

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How do I know if I need a PCN?
Many nationwide permits (NWP) require a PCN and all conditions of the NWP must be met. For more information on PCNs and all conditions of the NWP, visit <http://www.saw.us>

Note: Do not use the PCN form for Water Quality Certification (WQC) permits with PCN requirements.

Which nationwide permits require a PCN?

(Asterisk *and bold is a more commonly used NWP in the Wilmington District; gray is a NWP presently not used in District)

- NWP 1 – Aids to navigation: rarely (see regional conditions)
- * NWP 3 – **Maintenance**: usually
- NWP 4 – Fish & wildlife devices: rarely (see regional conditions)



Links

- PCN guidance <http://www.saw.usace.army.mil/Portals/59/docs/regulatory/regdocs/Permits/PCN-help-complete-2013-03.pdf>
- T&E Survey Protocols:
<https://connect.ncdot.gov/resources/Environmental/PDEA%20Procedures%20Manual%20Documents/Protected%20Species%20Survey%20Protocol.pdf>
- Link to GPS-CADD Standards:
https://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/ConsultantGPSCADD_07192012.zip





Questions?

Colin Mellor cmellor@ncdot.gov (919) 707-6139

Carla Dagnino cdagnino@ncdot.gov (919) 707-6110

Chris Rivenbark crivenbark@ncdot.gov (919) 707-6152

