PDN Stage 3HY1 – Hydraulics QC Checklist

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| **SPOT ID/Project TIP #:** |  Click or tap to edit. |
| **County:** |  Click or tap to edit. |

3HY1: Complete Hydraulic Design

Deliverables: Stormwater Management Plan

Environmental Permit Drawings

Merger CP4C Meeting Package

| **Item #** | **Review Item** | **Yes** | **No** | **N/A** |
| --- | --- | --- | --- | --- |
| 1.
 | **General** |  |  |  |
|  | Record and revise, as necessary, all avoidance and minimization measures to date in the Avoidance and Minimization Tracker |[ ] [ ] [ ]
|  | **Stormwater Management Plan** |  |  |  |
|  | SMP completed in accordance with Chapter 13 of the [Guidelines for Drainage Studies and Hydraulic Design](https://connect.ncdot.gov/resources/hydro/Pages/Guidelines-Drainage-Studies.aspx) (Guidelines) |[ ] [ ] [ ]
|  | Latest version of the SMP template (Excel file) is used |[ ] [ ] [ ]
|  | BMPs are included and noted on the appropriate tabs. Dual and multi-purpose BMPs are listed on all applicable tabs.  |[ ] [ ] [ ]
|  | Ditches not required for treatment are not included on Swales tab of SMP. The tab only includes swales designed and noted as such on the plans.  |[ ] [ ] [ ]
|  | Notes are provided for all locations where highlighted cells are signifying min or max criteria have not been met for BMP. |[ ] [ ] [ ]
|  | General Project Narrative is related to water quality impacts and not to an overall project description |[ ] [ ] [ ]
|  | Project description is accurate and up to date. |[ ] [ ] [ ]
|  | If culvert has been used to replace a bridge, the “Bridge to Culvert Avoidance and Minimization” tab is fully and accurately filled out. |[ ] [ ] [ ]
|  | **Environmental Permit Drawing Package** |  |  |  |
|  | Permit drawings are consistent with the guidance in Chapter 14, including Permit Drawing Guidelines, of the Guidelines.  |[ ] [ ] [ ]
|  | Impact quantities for temporary and permanent bridge bents have been obtained from the Structures lead and noted on the summary sheets. |[ ] [ ] [ ]
|  | Temporary work pads, work bridges, causeways, etc. have been shown in plan and profile views, and resultant impacts have been obtained from the Structures lead and incorporated. |[ ] [ ] [ ]
|  | JS lines are shown in the L&S line style and not in the EAU (NES) line style |[ ] [ ] [ ]
|  | Wetland and Grass Symbology are shown at the appropriate scale. |[ ] [ ] [ ]
|  | Items listed to be omitted in Permit Drawing Guidelines are not shown on plans |[ ] [ ] [ ]
|  | Drawings include Wetland and Surface Waters Impacts Summary. Excel form also provided |[ ] [ ] [ ]
|  | If applicable, drawings include Riparian Buffer Impacts Summary. Excel form also provided.  |[ ] [ ] [ ]
| * 1.
 | Limits of mechanized and/or hand clearing are adequately shown beyond toe of fill in locations where erosion control devices are to be implemented. |[ ] [ ] [ ]
|  | At bridge sites hand clearing is shown to limits of ROW from approach slab to approach slab unless otherwise requested by Division staff. |[ ] [ ] [ ]
|  | Adequate Temporary Impacts in Surface Water (TS) are shown for any culvert construction or for temporary cofferdams, work pads, work bridges, etc. to be used for bridge construction |[ ] [ ] [ ]
|  | For CAMA counties, forms for CAMA Major Permit Application have been filled out and submitted. |[ ] [ ] [ ]
|  | Permit Drawing package follows correct file nomenclature. |[ ] [ ] [ ]
|  | CADD files provided with correct file nomenclature |[ ] [ ] [ ]
| 1.
 | **Merger CP4C Meeting Package** |  |  |  |
|  | Complete permit drawings have been prepared for the CP4C Merger Meeting per the Guidance for Concurrence Point 4C Meetings and Plans in Chapter 14 of the Guidelines. |[ ] [ ] [ ]

*For items marked* ***No*** *that require further explanation, provide comments or action items in the table below.*

| **Item #** | **Comments and Action Items** |
| --- | --- |
|  Click to edit. |  Click to edit. |

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| **This checklist may not be comprehensive to every project. All items may not be applicable for smaller projects. It is the responsibility of the reviewer to ensure that all necessary information has been provided and an adequate review performed.** |
| **QC Reviewer Name:** |  Click to edit. | **Date:** |  Click to edit. |
| **QC Reviewer (Signature):** |  |  |  |