|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  | | | **Planning Number** |  | **Jurisdiction** |  |
| **Applicant** |  | | | **Watershed** |  | **New or Expansion (N/E)?** |  |
| **Project Acreage** |  | **Existing Impervious SF** |  | **Proposed Impervious SF** |  | **Disturbed Acreage** |  |

|  |  |
| --- | --- |
| **Residential** | **Nonresidential** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Review Status:**  **4/9/2018** | | | | |  | Pre-Submittal Plan Comments  All checked items must be addressed upon submittal of construction plans. | | |
| **Submittal Package Requirements**  Items marked with an “X” were noted as either insufficient or not provided. Engineer comments are in **RED** and provide the necessary requirements for either pre-construction or construction plan approval. | | | | | | | | |
|  | **1.** | | Cover letter stating the purpose of the submission | | | | | |
|  | **2.** | | One copy of the Municipal Stormwater Tool (Site Data Sheet, Drainage Area Sheets, Site Summary Sheet, BMP Sheets, and BMP Summary sheet). The design tool is located at: <http://www.wakegov.com/water/stormwater/management/program/Pages/default.aspx> | | | | | |
|  | **3.** | | Drainage Area Maps with stormwater discharge points (existing/post construction/post BMP) | | | | | |
|  | **4.** | | Copy of the USGS Quad Map with delineated project limits | | | | | |
|  | **5.** | | Copy of the Wake County Soil Survey map with delineated project limits | | | | | |
|  | **6.** | | Proposed Site Plan: | | | | | |
|  |  | | **a.** | North arrow, graphic scale, drafting version date, and legend | | | | |
|  |  | | **b.** | Show all Neuse Riparian Buffers : [15A NCAC 02B.0233 & 0242] | | | | |
|  |  | | **c.** | Delineation of all existing and proposed impervious surfaces: roads, well lots, recreation sites, single family residences, etc. (consistent with Municipal SW Tool inputs) | | | | |
|  |  | | **d.** | Delineation of current FEMA boundaries (floodway, flood fringe & future/0.2%) | | | | |
|  |  | | **e.** | Proposed drainage easements and widths *(in Feet)* | | | | |
|  |  | | **f.** | Location and type of all proposed stormwater management structures *(grass swale, wet/dry detention basin, filtering/infiltration basin, bioretention, etc.)* | | | | |
|  |  | | **g.** | Proposed easement access lanes and sediment disposal areas for future maintenance of stormwater management facilities. | | | | |
|  |  | | **h.** | A note should be added to the recorded plat distinguishing areas of disconnected impervious (refer to town websites and ordinances for final plat requirements) | | | | |
| **Standards and Requirements** Items marked with an “X” note relevant standards to be applied to the proposed development. Notes in RED provide review comments and/or any required elements to comply with standard. References are shown in brackets for the municipalities.  **ROLESVILLE**: *Town of Rolesville Unified Development Ordinance (UDO) Section 7.5: Stormwater Management Standards* **WENDELL**: *Town of Wendell Unified Development Ordinance (UDO)* *Chapter 6: Environmental Protection*, adopted 7/26/10. **ZEBULON**: *Town of Zebulon, NC Code of Ordinances: Chapter 151 and Chapter 152.249.* | | | | | | | | |
| **Stormwater Management Requirements** | | | | | | | | |
|  | **7.** | **Stormwater Review Required -** All residential subdivision development must submit a plan to comply with the applicable municipalities’ stormwater ordinance. Office, institutional, commercial or industrial development that disturbs greater than 20,000 square feet is required to comply with the stormwater management regulations. Development and redevelopment that disturb less than 20,000 square feet are not exempt if such activities are part of a larger common plan of development or sale, even though multiple, separate or distinct activities take place at different times on different schedules.  **Rolesville** [7.5.1(E)], **Wendell** [Chapter 6.5(F)], **Zebulon** [Chapter 151.05] | | | | | | |
|  | **8.** | **Stormwater Permit** – is required for all development and redevelopment unless exempt pursuant to the Code of Ordinances. A permit may only be issued subsequent to a properly submitted, reviewed and approved stormwater management plan and permit application.  **Rolesville** 7.5.1(E)(3)], **Wendell** [Chapter 6.5(F)(3)], **Zebulon** [Chapter 151.21(A)]  Note: A permit may not be required if there are no post-construction requirements (i.e. SCMs). | | | | | | |
|  | **9.** | **SCMs** - For projects requiring stormwater treatment for quality and/or quantity control, the applicant must:  1) comply with the NC BMP Manual **Rolesville** [7.5.1(G)], **Wendell** [6.5(H)], **Zebulon** [151.07]  2) as well as *Completion of Improvements and Maintenance,* prior to issuance of a certificate of compliance or occupancy. **Rolesville** [7.5.5], **Wendell** [Chapter 6.5(O)], **Zebulon** [Chapter 151.50 – 151.56] | | | | | | |
|  | **10.** | **Standards Based on Project Density**- In accordance with the definitions, projects are identified as Ultra Low-Density (15%or less Built-Upon Area, referred to as BUA, and less than one dwelling unit per acre), Low-Density (more than 15% BUA and no more than 24% BUA), and High-Density (24% or more BUA).  **Rolesville** [7.5.4], **Wendell** [Chapter 6.5(M)], **Zebulon** [Chapter 151.35] | | | | | | |
|  |  | **a.** | | **Standards for Ultra-Low and Low-Density Projects:**   * Use of vegetated conveyances to maximum extent practicable * Location of development and redevelopment outside Riparian Buffer and Flood Protection Zones * Recorded deed restrictions or protective covenants to ensure future development maintains consistency with approved project plans * Permanent SCMs (Stormwater Control Measures) are to be designed in accordance with and as specified in the North Carolina Department of Environmental Quality’s Design Manual. * For Low-Density only, no net increase in peak flow leaving the site from the pre- development conditions for the 1 yr-24hr storm. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours. * Residential runoff after development must not exceed the Target Curve Numbers listed in the chart “Maximum Composite Curve Number, by Soil Group”. * Ultra-Low and Low-Density projects may be eligible for target curve number credits.   **Wendell Only**: Nitrogen export limited to 3.6 pounds per acre per year unless project achieves classification as an LID Project.  **Rolesville** [7.5.4(A)(1-3)], **Wendell** [6.5(M)(1-3)], **Zebulon** [151.35(A-C)] | | | | |
|  |  | **b.** | | **Standards for High-Density Projects:**   * Measures shall control and treat runoff from the first inch of rain. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours. * Structural measures shall be designed to have a minimum of 85 % average annual removal for Total Suspended Solids (TSS) * Permanent SCMs (Stormwater Control Measures) are to be designed in accordance with and as specified in the North Carolina Department of Environmental Quality’s Design Manual. * No net increase in peak flow leaving the site from the pre -development conditions for the 1 yr-24hr storm. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours. * Location of development and redevelopment outside Riparian Buffer and Flood Protection Zones   **Wendell Only:** Nitrogen export limited to 3.6 pounds per acre per year unless project achieves classification as an LID Project.  **Rolesville** [7.5.4(A)(4)], **Wendell** [6.5(M)(4)], **Zebulon** [151.35(D)] | | | | |
|  |  | **c.** | | **General Standards:**   * Downstream Impact Analysis – DIA must be performed in accordance with the “10% rule”, and a copy provided with the application.   **Rolesville** [7.5.4(B)(1)], **Wendell** [6.5(N)(1)], **Zebulon** [151.36(A)] | | | | |
|  |  | **d.** | | **Low Impact Development (LID) Classification:**   * All development or redevelopment may be submitted for LID classification * Development must mimic the pre-developed hydrologic conditions of the site, as defined as “woods in good condition” for the 2-yr, 24 hr storm, within 10%. * Techniques required to achieve LID classification * Natural site design * Bio-retention systems or on-site infiltration (at least one must be used) * At least **two** other techniques from the list provided in **Rolesville** [7.5.4(B)(5)(e) and **Zebulon** [151.36(E)(5) * At least **one** other techniques from the list provided in **Wendell** [6.5(N)(5)(e) | | | | |
| **Town of Wendell UDO Chapter 6.3 - Erosion and Sedimentation Control Requirements** | | | | | | | | |
|  | **11.** | **Erosion Control:** This project will require a Land Disturbance Permit if it involves greater than one acre of disturbance. Adopting by reference the Wake County Soil Erosion and Sedimentation Control Ordinance. See [website](http://www.wakegov.com/water/stormwater/erosion/Pages/permitdesign.aspx) for details. | | | | | | |
| **Riparian Buffer Rules** | | | | | | | | |
|  | **12.** | | Due to the location of this project, it should be noted that a rule to protect and maintain existing buffers along watercourses in the Neuse River Basin became effective on July 22, 1997. The **Neuse River Riparian Area Protection and Maintenance Rule (15A NCAC 2B.0233)** applies to all perennial and intermittent streams, lakes, ponds and estuaries in the Neuse River Basin with forest vegetation on the adjacent land or “riparian area”. | | | | | |
| **Suggested Changes/Comments** | | | | | | | | |
|  | **13.** | |  | | | | | |
| **Environmental**  **Consultant:** | | | | | |  | **Contact Info:** |  |
| **Wake County PE:** | | | | | |  | | |