

**Stormwater Operation and Maintenance Agreement Documents**

The Town of Landis will provide a base document for the development of the Stormwater Operation and Maintenance Agreement. To develop the document, the following information is required.

**Information Is to Be Provided for the Operation and Maintenance**

**Agreement.**

**Owner:** Include all the names that will appear on the legal document. If a corporation or partnership owns the property, provide the names of the officer or managing partner that will be signing the document.

**Property Identification:** Provide a legal description of property that the stormwater BMPs and easements will be located on. If multiple tracts are used, provide a description for each tract.

**Deed Book and Page Number:** Provide the deed information describing the transfer of the property into the landowner's name or the document that provides the right of usage of for property owned by others.

**Property Association Declarations**: If multiple property owners are to use the stormwater BMPs, provide a copy of proposed Property Association Declarations.

**Documents Are to Be Provided to Supplement the Operation and Maintenance Agreement.**

**Exhibit A:** A description of the property on which the BMP is located and all easements from the site to the facility. This information is shown on a plat to be filed with the Register of Deeds**. The plat should not be filed until the document has been approved by the Attorney for the Town of Landis.** The plat should show:

* The name and location of each BMP. Each BMP shall have a unique name that is also used to identify the structure in the operation and maintenance plan and the design documents.
* The location of the access and maintenance easements. The minimum width for an access easement is 20 feet and the boundary dedicated for the maintenance of the stormwater BMP should include an area 20' beyond the stormwater BMP structure or the cut and fill slopes for the stormwater BMP to allow equipment room to place stockpiles of excavated material and provide equipment access.
* The location of impervious areas.
* A statement that within permanently protected undisturbed open space areas, no land-disturbing activity, placement of impervious surface, removal of vegetation, encroachment, construction, or erection of any structure shall occur, except in accordance with a revised stormwater permit first being issued by the Town of Landis.
* If multiple lots are being served by the BMP, identify the lots that are using the stormwater BMP for treatment of runoff.
* Security in the form of a bond, letter of credit, sinking fund or cash deposit may be required.
* The following statement: "Each Lot or Tract served by the Stormwater BMP is jointly or severally responsible for repairs and maintenance of the Stormwater BMP and any unpaid ad valorem taxes, public assessments for improvements and unsafe building and public nuisance abatement liens charged against the facility, including all interest charges together with attorney's fees, cost and expenses of collection. The failure to maintain Stormwater BMP is a violation of the UDO subjecting each lot owner subject to significant daily civil penalties and other enforcement actions as more specifically set forth in the Landis Code of Ordinances."

**Exhibit B:** An operation and maintenance plan or manual, together with a budget. This exhibit shall include:

* The operation and maintenance plan or manual indicating what operation and maintenance actions are needed, and what specific quantitative criteria will be used to determine when those actions are to be undertaken. The plan or manual must indicate the steps that will be taken to restore a stormwater system to design specifications if a failure occurs. The recommended schedule of maintenance and corrective actions listed in the Stormwater Best Management Practices Manual published by North Carolina Division of Water Quality may be used for a base document if the information is customized to include BMP structure names and adjusted to match site conditions. This information can be found on the NCDENR website at <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/stormwater/stormwater-program/stormwater-rules-and-regulations>
* An estimated cost of construction for each BMP. This value should be based on the actual site conditions and include values for the various cost associated with the BMP construction such as the basin excavation, sediment removal, riser structure, barrel, underdrains, baffles, sand, turf reinforcement, sod, vegetation, outlet protection, etc.
* A budget for annual costs including:

► Routine maintenance, periodic sediment removal and replenishment of riprap. Values published by the EPA may be used for the calculation of maintenance costs associated with BMP maintenance. The information with the documentation and formulas annual maintenance costs for BMP's can be found at:

http://www.epa.gov/guide/stormwater/files/usw\_d.pdf. This publication equates the maintenance costs of a BMP as a percentage of the construction costs. Please note that the publication has formulas to generate the calculated construction costs for a BMP. fu order to use these formulas for maintenance values, the calculated construction costs rather than a construction bid cost must be used as the basis for the annual maintenance costs. The other option is to develop construction and maintenance values for review by the Town. If this option is used, please state the assumptions and source of construction and maintenance costs.

► Insurance premiums. This value shall be based on premiums for liability insurance in an amount of not less than one million dollars ($1,000,000.00) covering all occurrences commonly insured against for death, bodily injury and property damage arising out of or in connection with the use, ownership, or maintenance of common areas, including the BMP and the premiums of hazard insurance on the common area(s) insuring against all risk of loss commonly insured against, including fire and extended coverage of peril.

► Taxes

► Mowing and reseeding.

► Required inspections. This should include an annual inspection performed by a qualified registered North Carolina professional engineer, surveyor, or landscape architect and a fee for an inspection service to perform the periodic inspections listed in the operations manual if the landowner is not using his own employees to monitor BMPs.

► etc.

• A sinking fund budget for structural; biological; or vegetative replacement of the BMP, major repair and replacement repair of the BMP and other cost of the stormwater control facilities. Assume 25 years for a life span.

**Special Requirements for Homeowners' and Other Associations**

If the stormwater agreement includes a stormwater BMP structure to be maintained by an association, Exhibit A and Exhibit B shall also be attached to the property association declaration as an exhibit.

For all structural BMPs required pursuant to this ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, ("Association") the required operation and maintenance agreement shall include establishment of an escrow account, which can be spent solely for sediment removal, structural, biological, or vegetative replacement, major repair, or reconstruction of the structural BMPs.

Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to fifteen (15) per cent of the initial construction cost of the structural BMPs. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow account within the first five (5) years and the full amount shall be deposited within ten (10) years following initial construction of the structural BMPs. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.

Additional statements required by Article 9; section 9.4.2.B of the Town of Landis Unified Development Ordinance will be included in the draft agreement provided by the Town.

**Performance Security for Installation and Maintenance**

The Town of Landis may, at its discretion, require the submittal of a maintenance performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit to ensure that the structural BMPs are:  
(1) installed by the permit holder as required by the approved stormwater management plan, and/or

(2) maintained by the owner as required by the operation and maintenance agreement.

The items listed above are the typical documents and type of information that will be required to develop a stormwater agreement for most projects. Additional items may be requested to address conditions noted during the review of the site plan or legal documents.